THE UNION & MSF
The Union and MSF will promote and use operational research to improve health outcomes and prevent premature death of people living in low- and middle-income countries.

The Union and MSF will conduct, publish and use operational research in low- and middle-income countries to promote changes in policy and practice, and to improve the prevention, diagnosis, treatment and monitoring of communicable and non-communicable diseases.

Operational Research

Operational research is defined by The Union and MSF as research into strategies, interventions, tools or knowledge which can improve health care and delivery of programmes and services. Operational research

a) creates new knowledge which programmes can use to improve outcomes in health care, prevention and control,

b) assesses the feasibility of new strategies or interventions, 

c) determines how to implement interventions in new settings or for particular groups 

d) advocates for changes in policy and practice.

Operational research is “learning by doing” and can be broadly described as the “science of doing better”.

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Operational research is “learning by doing” and can be broadly described as the “science of doing better”.

There are different ways of conducting operational research. The way most favoured by The Union and MSF is for researchers to use available health system or disease programme data to work out how policy and practice should be improved. Such data, if collected and used effectively, identifies programme constraints that prevent set objectives from being achieved. Asking research questions around the identified constraints and finding practical solutions enables programmes to meet their objectives.

Operational research is thus an important component of health service delivery, linked to the monitoring and health information system of a country.

Many low- and middle-income countries have weak health information systems and are consequently unable to track cases or assess quality of care, treatment outcomes, or the impact of prevention and treatment. Strengthening operational research improves the utilization and robustness of existing health information systems, which in turn improves the quality of operational research.

<table>
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<th>VISION</th>
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The Union and MSF will promote and use operational research to improve health outcomes and prevent premature death of people living in low- and middle-income countries.

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<th>GOAL</th>
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| STRATEGY |
The Union and MSF will achieve their vision and goal through four main strategies:

- Building research capacity based on the successful model of product-orientated training developed in 2009
- Maintaining and expanding operational research fellowships
- Establishing and sustaining a network of research alumni
- Implementing relevant operational research in low and middle income countries.

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Why The Union and MSF?

The Union and MSF are global leaders in operational research and share a similar philosophy in terms of how to conduct research that is beneficial to health systems and communities on the ground.

**FIRST**
They have worked together to develop a unique model of capacity building using a modular course with strict criteria. These criteria include:
- a) being engaged in medical programme work,
- b) programme supervisors endorsement that time and opportunity will be given to the candidate for research work
- c) identification of a programme related research question.

There are milestones to be achieved along the way and strong mentorship is offered to participants during the whole period of the course.

Over the course of the first three years (August 2009 to July 2012), the two organizations have run 10 courses for nearly 120 participants from Africa, Asia, Europe, Latin America and Oceania. Five courses have been completed with 53 participants passing all milestones and submitting research papers to scientific journals. Of the first three courses which were completed in July 2011, 29 of the 35 submitted research papers were published by June 2012 in peer-reviewed international or national journals.

**SECOND**
They have developed the role of operational research fellows: enthusiastic individuals who receive specific support to drive the operational research agenda at programme level in various countries.

Over a three year period from April 2009 to June 2012, ten operational research fellows supported directly by The Union or through its partners developed 68 research projects: 58 of these were completed and submitted to journals for peer review, of which 42 were published or are in press.

Over a one year period from July 2011 to June 2012, four operational research fellows supported by MSF have instituted 44 research projects and have published 14 scientific papers.

**THIRD**
Both institutions have a high output of research despite modest numbers of personnel. Over a three year period from January 2009 to June 2012, The Centre for Operational Research at The Union published 170 research or viewpoint papers including chapters in books and international policy / guideline documents. MSF during the same time period published 181 papers and similarly contributed to various policy / guideline documents. Both institutions regard publication of papers as an important yardstick to measure output, with the reasons behind this philosophy outlined in the Box 1.

**FOURTH**
The Union and MSF believe strongly in research that influences policy and practice. Many examples are from Africa and Asia where national and international health policy has been changed and where practice has improved. Both organizations also have compiled evidence of how these changes have improved treatment outcomes of ill patients and saved lives.

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**Box 1: Reasons why The Union-MSF need to publish scientific papers**

<table>
<thead>
<tr>
<th>Quality control standard</th>
<th>Only high quality research that is well structured and presented will get published in peer-review journals. A published paper is also an indicator of a successfully completed research study.</th>
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<tr>
<td>International Health Guidelines evidence-based</td>
<td>In the last 5–10 years international guidelines, especially from the World Health Organization, use published papers as evidence to guide recommendations and policy. Thus, to influence these guidelines, the research must be published.</td>
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<tr>
<td>Critical means of disseminating knowledge</td>
<td>The Union and MSF favour “open access” journals (in which researchers pay for the privilege of publishing their papers, but readers can access these papers free of charge) so that any health care worker or member of the general public can access and read the published research.</td>
</tr>
<tr>
<td>Authors are forced to become “experts” in their subject</td>
<td>To publish a scientific paper, it is necessary to place the research in the context of what has already been published and to know the gaps – this scientific discipline makes the authors “experts” in their subjects.</td>
</tr>
<tr>
<td>Credibility</td>
<td>Publishing papers brings scientific and professional credibility to the individual and the organization for which the individual works.</td>
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### OUTPUT 1

**To build capacity in operational research by product-orientated training**

The Union and MSF will continue to run their nine-month, three-module courses where candidates are carefully selected according to strict criteria and successful participants are taken through protocol development, the importance of ethics in operational research, the collection and analysis of data, and finally paper writing.

**Target**

at least 30 newly trained operational research personnel each year

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The aim is to have each participant submit a paper to a scientific journal by the end of the course. However, there are milestones to be reached in each module and failure to reach a milestone means exclusion from the course (Box 2 for milestones). We aim to have at least 90% of participants completing the course.

The Union and MSF will run one course each year in Europe, Africa and Asia, each with 12 participants (thus 36 new participants will be enrolled each year). We will use these courses to identify enthusiastic and talented individuals and facilitate the development of their skills so that they can become leaders and advocates for operational research in their own programmes and countries and at the global level. We will advocate for and promote this type of output-oriented training globally, and have already demonstrated success in this endeavour in India and the South Pacific.

### OUTPUT 2

**To maintain and increase the number of operational research fellows**

The Union and MSF have respectively eight and four operational research fellows, all of whom are on 12-month performance-related contracts. Failure to deliver two submitted papers each year will result in termination of the fellowship.

We aim to increase the number of fellows by one each year within The Union and MSF. We will nurture highly promising individuals, and link them into PhD programmes (with European and other universities with whom we have already established collaborations) so that they in turn become inspiring implementers, leaders and teachers in operational research.

**Target**

at least 12 operational research fellows active each year

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Such a pioneering initiative is also geared to fostering retention by providing a career incentive to stay within disease control programmes and in the NGO sector despite modest salaries.
To establish a global network of research alumni

The Union and MSF are setting up a joint web-based platform to allow research alumni to connect and interact with each other, with senior researchers and with the general public. Resources will be shared online, thus generating dynamic knowledge exchange and a comprehensive library of operational research resources (publications, presentations, tools, methodologies, lessons learned, discussion blogs). This will be further developed and evaluated.

Target
to report on activities of research alumni each year

For alumni who completed their course training in 2010, we have already assessed their one-year post training outputs and their continued linkages with operational research and aim to make this an annual evaluation. We envisage that research alumni will connect regularly with each other, develop and/or facilitate operational research courses, undertake projects, review papers for journals and abstracts for conferences and become respected ambassadors for operational research in their countries and regions.

To undertake, write up, submit and publish research and viewpoint papers

Target
to produce 45 - 50 published papers / documents per year

The Union and MSF will ensure that at least 45-50 research projects are implemented and papers are published each year, through the programme of capacity building, operational research fellowships and partnerships with other organizations and institutions. The two organizations will also ensure that these projects and viewpoints are completed and written up in a timely fashion, and submitted to journals, both international and national, and that the results are disseminated at national and international conferences and meetings.

More information:
www.theunion.org or.msf.lu fieldresearch.msf.org
Box 3: Research to Policy and Practice

Through this initiative, we will also maintain our well-established links with national programmes and ministries of health as well as international organizations such as the World Health Organization (WHO), the World Diabetes Foundation, the International AIDS Society, the Non-Communicable Disease Alliance and academic institutions. We will strengthen these links and develop new links in the future.

**OUTPUT 5**

**To demonstrate how research can impact on policy and practice, improve outcomes and reduce morbidity and mortality**

**Target**

annual report on how research has influenced policy and practice

Much of the operational research undertaken by The Union and MSF has led to policy and practice changes (see Box 3). The Union and MSF are also already formally evaluating how their research outputs in 2009 made a difference to policy and practice and how these in turn led to improved management and care of patients. This will become a regular exercise that will be reported on in a systematic way.

**OUTPUT 6**

**To develop and maintain the administration unit of the Centre for Operational Research at The Union and MSF**

The Union must ensure that 100% salary support is obtained for key individuals and for operational research fellows, and that as activities are expanded, there is an available budget to take on and maintain appointed staff. The Union Centre for Operational Research will continue to maintain regular contact with its internal staff (internal Skype conference calls with agenda and minutes) and with partners (external Skype conference calls with agenda and minutes) every four weeks. Departmental meetings will be planned to coincide with international gatherings such as the World Lung Conference. Annual work plans and quarterly reports will continue to be produced as in previous years.

**Target**

regular quarterly reports

The administrative units of both The Union and MSF will maintain an updated database of fellows, participants trained in courses, scientific papers published, changes in policy and practice, and so on. This will enable potential donors to regularly review the outputs of both institutions.

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**Collaborative activities to reduce the joint burden of tuberculosis and diabetes mellitus**

Six published papers on this subject over the last 2 years paved the way for a WHO/Union Collaborative Framework for care and control of diabetes and tuberculosis. This “policy document”, which was launched in August 2011, serves as a template for activities on the ground – the first of which is the bi-directional screening of tuberculosis and Diabetes in health facilities in India and China. Screening started in 11 facilities in China in September 2011 and the results were assessed and written up in May 2012 showing positive results. China will expand this strategy country wide. India has also adopted the bi-directional strategy as policy, and pilot implementation started in the first quarter of 2012 with results expected at end of the year.

**Burden and management of non-communicable diseases such as diabetes and hypertension**

A nationwide STEPS survey of chronic non-communicable diseases in Malawi provided a situational analysis about the extent of non communicable diseases, and led to more interest at senior policy level about chronic non-communicable diseases in the country. This led to the idea of “chronic care clinics” for managing a range of different non-communicable diseases, and the first such clinic at the primary health care level is to be pilot tested in 2012 – funding has just been granted from the World Diabetes Foundation.

**“Test and Treat” for managing HIV in pregnant women in Malawi**

A viewpoint paper led to a national policy and strategy of implementing “test and treat” in pregnant women in Malawi: from October to December 2011, 167,000 pregnant women attended antenatal clinics of whom 135,000 (81%) were HIV-tested. Of the 11,350 women found HIV-positive, 8675 (77%) were started on ART: this will prevent new HIV infections and save lives.

**Advocating for free care in Kenya**

In Kenya patients had to pay about 20 USD for a one month supply of antiretroviral drugs for treating HIV/AIDS. Operational research showed that this payment was associated with a 58% higher risk of patients being lost from treatment and that patients were diluting their treatment to make their monthly supply last for longer periods. Related advocacy led to rapid policy change, and antiretroviral treatment began to be offered free to patients in the country.

**Simplifying cohort reporting for antiretroviral therapy (ART) in low-income countries**

One of the OR Fellows conducted operational research on whether pharmacy stocks can provide accurate estimates of patients retained on ART in Malawi, with an affirmative answer. This research has been confirmed in South Africa and again in Malawi, and is paving the way for WHO and the GFATM to consider recommending this as an approach to cohort monitoring in this area.
Budget

Current Financial Support

The Centre for Operational Research in The Union is currently supported by Bloomberg Philanthropies: this support continues until June 2013. DFID (UK) currently supports the running of two operational research courses, three operational research fellows and open access publication, and this will continue until mid-2014.

For financial support the components are as follows:

<table>
<thead>
<tr>
<th>Operational Research Activity</th>
<th>Estimated cost US $</th>
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<tbody>
<tr>
<td>Administration and functions of the COR</td>
<td>200,000</td>
</tr>
<tr>
<td>One full operational research course</td>
<td>150,000</td>
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<tr>
<td>Salary support for 6 operational research fellows</td>
<td>250,000</td>
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<tr>
<td>Support for the Union Ethics Advisory Group</td>
<td>75,000</td>
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<tr>
<td>Support for field-related operational research</td>
<td>225,000</td>
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<tr>
<td>Open Access publication</td>
<td>50,000</td>
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<tr>
<td>Monitoring and Evaluation</td>
<td>50,000</td>
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</tbody>
</table>

COR = Centre for Operational Research, The Union

Financial Support

An annual budget of US $1,000,000 is required.

References for further reading

This course has been invaluable as it successfully demystified the process involved in carrying out operational research. As a result, it has given me the confidence that I needed to be able to conduct future research in health programmes.

Rishma Maini
Department for International Development, Democratic Republic of the Congo

We consider operational research within NGOs and other implementing agencies as a necessity. The course is designed to give such individuals the skills for conducting and publishing research that can lead to improving policy and practice on the ground.

Dr. Rony Zachariah
Médecins Sans Frontières Luxembourg, Operational Centre Brussels
Centre opérationnel Bruxelles

Unpublished research did not happen and therefore does not exist. A crucial milestone in any operational research endeavour is to ensure publication in a peer reviewed journal!

Prof. Anthony Harries
International Union Against Tuberculosis and Lung Disease, L’Union Internationale Contre la Tuberculose et les Maladies Respiratoires

This unique course has streamlined my thinking process to complete a study from its inception, through asking relevant and right research questions, to final submission in a peer-reviewed journal in a relatively short time frame. I had a fascinating experience with the international mentors and fellow trainees.

Dr Debashish Kundu
World Health Organization, India
Organisation mondiale de la Santé, Inde