Research has become an integral part of MSF activities, resulting in findings that have substantial impacts on global health policy and benefit the populations that MSF serves. LuxOR aims to assess the feasibility and effectiveness of new and existing models of care, encourage innovation and evidence-based decision making, and support advocacy activities with scientific findings.

In this year’s LuxOR Highlights, we offer a glimpse into some of our key research on care for victims of sexual and gender-based violence, treatment for patients with infectious diseases and outbreak management, as well as migration and its implications on the health of populations on the move.

More information on LuxOR’s work is available at or.msf.lu, and all MSF-supported studies published in peer-reviewed journals are available open-access at fieldresearch.msf.org.
RESEARCH FOR HUMANITARIAN ACTION

THE SCIENCE OF DOING BETTER

Operational research helps MSF to take an in-depth look at its programs and operations, evaluates what is working well, and shows what needs to be improved. Based in Luxembourg, the Operational Research Unit LuxOR undertakes research projects supporting humanitarian activities all over the world.

LuxOR shares findings with the international MSF movement and partner organizations, and advocates for evidence-based policy and practice changes with local and international stakeholders.

OPEN ACCESS TO INVALUABLE EVIDENCE

Operational research studies are published in peer-reviewed scientific journals, and the results remain openly available to researchers and the global humanitarian community. In 2018 alone, 95 MSF-supported studies were published covering 13 thematic areas, such as HIV and tuberculosis, infectious diseases, migration, or surgery and emergency care.

RESEARCH SUPPORT ON THE GROUND

To strengthen research capacities and medical data collection and analysis, team members regularly support missions and projects. In 2018, LuxOR’s field visits included Bangladesh, Belgium, Cambodia, the Central African Republic, the Democratic Republic of the Congo, Egypt, Guinea, Lebanon, Greece, Malawi, Mauritania, Mozambique, South Africa, and Zimbabwe. Partnering with the World Health Organization and The Union, LuxOR facilitated dedicated OR trainings in Greece, Kenya, Lebanon, South Africa, Sri Lanka, and Uganda.

TRANSLATING FINDINGS INTO ACTION

Study findings reveal valuable evidence to improve programs and close gaps in the access to care throughout MSF’s projects. With a dedicated policy and practice strategy, LuxOR is working to move its research back into action, sharing key findings with operations and partners, planning for uptake, and measuring impact. Dossiers with dedicated policy and practice support in 2018 include trainings on the correct use of labor-inducing drugs in Pakistan, rolling-out an innovative environmental health toolkit in Zimbabwe, or improving rehabilitation for trauma patients in humanitarian settings.
MSF provides care for both male and female victims of sexual violence in many of its projects around the world. Victims who come to MSF clinics are offered a comprehensive package of care, including treatment of injuries, infection prevention, legal support, and psychological and social support. Two operational research studies analyzed data from over 13,000 cases of sexual violence treated by MSF in Africa, highlighting key differences between male and female victims in terms of access to care, as well as characteristics of the assaults and their perpetrators.

**UNDERREPRESENTATION OF MALE VICTIMS**

Because the majority victims of sexual violence are females, most programs are aimed at women and girls. As an example, sexual violence clinics are sometimes integrated into Mother and Child Health Units.

But up to 7.5% of the victims in these operational research studies were men and boys, who may have fewer points of access to care. The social stigma surrounding sexual violence, including fear of feminization and cultural expectations of male invulnerability, contributes to the underrepresentation of male victims. Furthermore, the setup of clinics, which may require patients to immediately reveal that they have been victims of sexual violence, often poses barriers for male victims to come forward and seek assistance.

Long neglected as victims of sexual violence, males are gradually gaining much-needed attention and better-adapted care.

**INCREASING ACCESS TO CARE**

The two studies show that a gender-neutral entry point to sexual violence services is a crucial factor in encouraging more males to seek care. Clinics need to ensure an access route which does not require patients to immediately disclose that they have been victims of sexual violence. Thanks to campaigns of de-stigmatization and increased awareness of the availability of sexual violence care, parents and guardians of younger victims likely play a key role in helping children receive appropriate care.

Based on their findings, the studies recommend appropriately trained medical staff, increased psychosocial support in clinics, and health promotion activities in communities to ensure both male and female victims are identified and referred as early as possible for adapted and specialized care. For MSF operations and partner projects, the study findings are used to ensure comprehensive care for victims of sexual violence and to improve services.
MSF provides a comprehensive package of care for survivors of sexual violence.

© Ghislain Massotte/MSF
Our research shows that we need to be very aware of how we set up our sexual violence care services – the way they are set up can determine which patients find their way to care, and which patients are left behind. If we want to provide care for male victims, we have to think of them when we set up the service.

Rafael Van den Bergh
LuxOR Researcher

Sexual and Reproductive Health focuses on physical, mental, and social well-being in matters relating to the reproductive system, and includes a wide array of topics, ranging from sexual and gender-based violence to access to contraception, awareness of sexually transmitted diseases, or the provision of adequate mother and child care. In many of the countries where MSF is present, for example, the rates of maternal mortality are among the highest in the world, highlighting the need for increased coverage of essential care, specialized care, a better understanding on why this is happening, and how MSF can fill the existing gap.

Exploring the scientific aspects of sexual and reproductive health from medical and social perspectives, LuxOR is planning a dedicated SORT IT course that will start in September 2019 and produce scientific results in mid-2020.

FOCUS ON: Research for Sexual and Reproductive Health
UNDERSTANDING LASSA FEVER AND IMPROVING PATIENT CARE

A CHALLENGING INFECTIOUS DISEASE

Lassa fever is a hemorrhagic fever occurring in West Africa, particularly Nigeria, Sierra Leone, Guinea, Liberia, and neighboring countries. The disease is caused by a virus carried by multimammate rats, and people become infected after being exposed to the urine or feces of infected rats, or through direct contact with the blood or body fluids of an infected person. Approximately 80% of patients have mild symptoms, which are often not diagnosed correctly. Patients often experience fever, muscle and chest pain, vomiting, diarrhea, seizures, and hearing loss, while deafness occurs in one-third of patients and can be permanent.

MSF joined the response to the outbreak in March 2018, and continues to support the Federal Teaching Hospital, Abakaliki (FETHA) in Ebonyi state, which was the third most affected region during the outbreak.

PREVENTING INFECTION, BETTER UNDERSTANDING LASSA

To support Ebonyi state be better prepared for future outbreaks, MSF helped to upgrade protective equipment for medical and laboratory staff, provide tools and guidelines for case identification and management, improve infection and prevention control standards such as promoting hand hygiene, build an incinerator at the Abakaliki hospital to safely dispose of infectious waste, and inform communities about the risk of Lassa fever.

At the Abakaliki hospital, LuxOR is helping assess and improve the systematic and timely collection of crucial patient data. As there are no standard forms or databases available to collect patient information to date, a comprehensive collection and analysis of data is missing. The different efforts to document Lassa disease are expected to contribute to closing this knowledge gap on how Lassa fever is transmitted between rats and humans, obtaining more accurate estimates of confirmed Lassa cases, as well as supporting the development of a vaccine.

In 2018, Nigeria experienced one of the largest outbreaks of Lassa fever in its history. Almost 3,500 suspected cases were reported, and 27% of patients infected with Lassa died.
Healthcare workers and relatives need to wear personal protective equipment when in contact with patients infected with Lassa fever.
In partnership with other Nigerian hospitals, national, and international partners, the first step of MSF’s Lassa research agenda in Ebonyi state is to initiate a study to determine which clinical symptoms and laboratory results are related to the survival of infected patients. This research is expected to provide valuable insights to guide the design of future clinical trials.

Julita Gil Cuesta
LuxOR Researcher

In an infectious disease outbreak, correctly diagnosing patients is key to treat affected populations and stop the disease from spreading. During the 2014-16 West Africa Ebola epidemic, several MSF treatment centers at first had to rely on off-site laboratories to diagnose patients. This caused severe delays in reliably identifying and treating patients.

To streamline the process, MSF developed a laboratory consisting of a metal shipping container. Allowing on-site diagnosis of Ebola and offering biochemical and hematological monitoring tests for improved patient management, these container laboratories can be used in other high-lethality, high-infectivity disease outbreaks requiring patient isolation.

Building on the experience from West Africa and supported by an operational research study documenting the approach, a similar mobile laboratory prototype using a tent instead of a container was deployed by MSF during the 2018 Ebola outbreak in Equateur Province, DRC.

**FOCUS ON:**
Diagnosing Infectious Diseases with Mobile Laboratories
ADDRESSING THE MENTAL HEALTH NEEDS OF MIGRANTS

OVERCROWDED CAMPS AND MISSING SERVICES AT EUROPE’S BORDERS

In Greece, a study conducted on Lesvos Island found that refugees living in crowded camps suffer continuous traumatic stress and institutional abuse, including the destruction of self-esteem, the lack of safe living conditions, humiliation, and the deprivation of information needed to make decisions. Furthermore, refugees and migrants lack crucial access to adequate mental health services. The severe overcrowding in camps and continuous institutional abuse needs to be eliminated in order to improve the mental health of migrants transiting through Greece.

Many migrants and refugees reaching Europe have faced violence, torture, and persecution in their countries of origin and during their journeys. Providing torture survivors with medical and psychological care, as well as legal and social support, is therefore essential to prevent severe chronic mental and physical conditions. In Italy, LuxOR supported a qualitative research study to explore how staff in reception centers identified and managed survivors of torture. The study results show a lack of training and knowledge on procedures for correct identification of torture survivors, and call for more dedicated resources and multidisciplinary services.

CHALLENGES IN THE ASYLUM SYSTEMS OF DESTINATION COUNTRIES

In Sweden, MSF provided counseling, psychological first aid, and other psychosocial services in asylum centers and housing projects. Here, a study found that symptoms of depression and unresolved trauma are common in newly arrived asylum seekers, as well as those who have undergoing the asylum process for long periods of time. In Belgium, a similar study documents how post-migratory reception conditions risk undermining personal autonomy, limit well-being, and hinder integration into the broader community.

The results and recommendations of all studies are continuously used to strengthen MSF projects at European borders and in destination countries, and to advocate for improved reception and asylum procedures.
A reception center in Pozzallo, Italy, where MSF responds to the medical and humanitarian needs of migrants, refugees, and asylum seekers.

© Alessandro Penso/MSF
MSF is conducting an increasing number of qualitative research studies with migrants, refugees, and asylum seekers in Europe to learn more about the populations we provide support to. One ongoing study in Athens is exploring perceptions and experiences of rehabilitation for survivors of torture from the DRC, including understanding the potential role of local communities in the rehabilitation process.

Emilie Venables
LuxOR Qualitative Research Focal Point

On the island of Nauru off the Australian coast, MSF began providing mental healthcare to refugees, asylum seekers, and nationals in 2017. After being forced by the Nauruan government to leave the island, MSF released a report on the extreme mental health suffering on the island in October 2018, where asylum-seekers and refugees are contained involuntarily due to the Australian policy of indefinite offshore processing. LuxOR supported the scientific analysis of the medical data, showing high rates of suicidal thoughts and attempted suicides, and continuously deteriorating mental health conditions among patients due to the situation and living conditions on Nauru.
## MSF Operational Research: Key Numbers and Events

### Thematic Research Areas

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<td>Migration &amp; Victims of Torture</td>
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95 studies, reviews, and viewpoints published in peer-reviewed journals.
Emilie Venables conducting an interview to investigate how people treat and prevent malaria in the DRC.
© Katie Whitehouse/MSF

Engy Ali (left) and Norman Sitali refine a research protocol during MSF’s SORT IT course on qualitative research.
© Samuel Sieber/MSF

12 OVER 65 LUXOR TEAM MEMBERS SUPPORTING ONGOING STUDIES WORLDWIDE

51 PARTICIPANTS IN LUXOR-SUPPORTED RESEARCH TRAININGS IN GREECE, KENYA, LEBANON, SOUTH AFRICA, SRI LANKA, AND UGANDA
COMMUNICATING OPERATIONAL RESEARCH TO PARTNERS AND THE PUBLIC

New operational research postcards explain the latest evidence on improved care for migrant torture survivors, delays in emergency care in humanitarian settings, and physiotherapy for trauma patients.

© Christophe Hebting/MSF

OPERATIONAL RESEARCH DAY

Panel at the annual OR Day in Brussels in June 2018 featuring presentations, debates, and live streaming to the world.

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PROGRESS ON POLICY & PRACTICE DOSSIERS

Selected research projects on improved Water, Sanitation, and Hygiene in Zimbabwe, mother and child health in Pakistan, or trauma care in Haiti and Burundi receive support to translate findings into tangible policy and practice change.

© Samuel Sieber/MSF
The Moria refugee camp on Lesvos Island is severely overcrowded, filled to triple its maximum capacity. The terrible living conditions and institutional abuse have dramatic impacts on refugees’ health and, in particular, their mental health. In response, MSF provides medical and mental health support for refugees on Lesvos. © Robin Hammond/Witness Change

A former Lassa fever patient with his family in Nigeria. © Brienne Prusak/MSF