



LUXOR OPERATIONAL RESEARCH HIGHLIGHTS

2020 / 2021



MEDECINS
SANS FRONTIERES

LuxOR
Luxembourg Operational Research

A MOMENT IN OR- TIME

We don't need to emphasize how difficult the last year has been! Facing exceptionally tough circumstances, we were deeply marked as humans and health professionals. MSF had to quickly adapt operational strategies to respond to the epidemic hitting several projects at the same time. This meant not only offering COVID-19 assistance, but to assure continuity of care where access to health services was even more compromised due to the knock-on effects of the pandemic.

More than ever, operational research provides important evidence on how to improve medical activities and to inform policy and practice.

This year's LuxOR Highlights offer a glimpse into some of our key research with special attention to the importance of qualitative methods. A first highlight is the study conducted in Belgian nursing homes, that aimed to better understand the mental health issues and psychosocial support needs of residents. Results were discussed in the Belgian parliament, making it a priority to find a balance between infection control measures and assuring mental wellbeing of the residents. A second study looked at the essential role of cultural mediators in facilitating the provision of mental health services for migrants and refugees in Italy. At last you can find an interesting case series discussing 11 cases of hippopotamus bites in Burundi. Enjoy your reading!



*Veerle Hermans,
Programme Officer*

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 MSF 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.

RESEARCH SUPPORT ON THE GROUND

To strengthen research capacities, quality medical data collection, and analysis, team members regularly support missions and projects. In 2020, LuxOR team members conducted international visits to Belgium, Brazil, Burundi, Greece and the Republic of Guinea.

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 2020 alone, 78 MSF-supported studies were published covering 17 thematic areas, such as HIV and tuberculosis, infectious diseases, migration and sexual and reproductive health.

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.



A mobile team from MSF briefs the staff of the retirement home "Résidence Christalain", in Jette, Brussels
© Olivier Papegnies

COVID-19 EFFECTS ON PSYCHOSOCIAL WELLBEING IN BELGIAN NURSING HOMES:

A QUALITATIVE STUDY

Psychosocial support to residents of nursing homes is challenging at the best of times. During Covid-19, different problems were compounded: mental health distress among residents was exacerbated due to loneliness and uncertainty, lack of external support, and staff being scared and traumatized. Very limited literature existed on this combination of circumstances, resulting in low capacity to design holistic approaches addressing both psychological and physical health needs.

Managing the COVID-19 pandemic has posed major challenges to nursing homes in several European countries. In Belgium, more than 11,000 residents of nursing homes had reportedly died by the end of 2020, due to missing protocols for infection prevention and control (IPC), lack of training and support, and insufficient personal protective and medical equipment for staff and residents.

In a survey conducted by Médecins Sans Frontières (MSF) in 983 nursing homes in Belgium in late May 2020, nine out of ten nursing homes reported exacerbated or new psychological symptoms amongst residents. To better understand mental health issues and psychosocial support needs of residents, LuxOR with the support of local health authorities, additionally conducted a qualitative study, pertaining to the period from March to June 2020. Focus group discussions with staff and 56 in-depth interviews with residents were held in eight different nursing homes in Brussels..

Implemented lockdown measures strongly affected residents' life and well-being. Loss of freedom and autonomy, lack of social life, low morale and

deterioration of cognitive and physical capacity were widely reported. Most residents had a resilient attitude at the beginning of the lockdown but became increasingly angry and stressed as the measures continued. The impossibility to predict when reuniting with families and friends would be possible again entailed deep existential uncertainty, resulting for some in suicidal thoughts. Strikingly patients were not scared of being infected with Covid-19 but of further isolation and of dying alone. Meanwhile, nursing homes staff were abruptly confronted with professional and ethical dilemmas. They felt powerless in delivering quality care, due to continuous organizational challenges, and guilty for potentially introducing the virus in the nursing home. The ethical dilemma of choosing infection prevention versus allowing social contact for residents became a constant driver of moral stress..

Study findings emphasize the urgent need to balance IPC measures and social and mental wellbeing in nursing homes using a holistic approach. Good practices such transparent communication, inclusion in planning and planned social interactions are appreciative of residents' psychosocial needs and can reinforce their coping strategies in lockdowns.



*A mental health consultation outside Moria camp on Lesbos island, Greece
© Anna Pantelia/MSF*

MIGRATION AND MENTAL HEALTH:

A QUALITATIVE STUDY ON THE ROLES AND CHALLENGES OF CULTURAL MEDIATORS

Timely access to mental health services for migrants and refugees is a fundamental component of essential medical provision. Cultural mediators are key to this but the pressures they are subject to in their role are many. To fully develop their professional potential and protect them from the mental health risks they face, employers need to provide them with skills development plans and well-integrated psychological support and supervision.

Together with MSF Italy, LuxOR conducted a qualitative study to understand the role of cultural mediators in facilitating the provision of mental health services, the challenges they face and eventual need for support. 25 in-depth interviews were conducted with cultural mediators, MSF staff and key informants from academic institutions and expert organizations.

Cultural mediators play a pivotal role in MSF's activities with migrants and refugees in Italy. Through communication and translation, they help them accessing a variety of services, including medical and para-medical consultations, psychological support and legal advice.

Cultural mediators are often the first point of contact that migrants have with mental health services. They allow a prompter and better understanding of migrants' needs, preventing missed opportunities for timely access to care. This is especially relevant for migrants suffering from acute psychological distress and facing immediate need for support.

In their role, cultural mediators are likely to be subject to substantial challenges. Often refugees themselves, many of them have been through similar, often traumatic, experiences as the people they are trying to support, entailing high risk of developing vicarious trauma and burnout. At the very least, they are confronted with the ethical dilemma whether to disclose their own deceiving experiences to patients or to avoid doing so to preserve the professional relationship. Such complexity undermines their capacity to establish proper and objective distance.

Cultural mediators therefore need to receive specific support. While they may have already developed personal coping strategies, well-integrated psychological support and supervision are necessary to fully protect them against the exposure to extremely sensitive issues around mental health, violence or torture. Regular meetings between cultural mediators and their counterpart colleagues – such as psychologists, physiotherapists or clinicians – need to take place before and after interactions with patients. Finally, a greater focus on training and skills development would facilitate their understanding and uptake of the role.

FOCUS ON: QUALITATIVE RESEARCH

8

Qualitative research involves collecting and analyzing non-numerical data in different formats (e.g., text, video, or audio) to understand concepts, opinions, or experiences. Unlike quantitative methods, which provide measurable answers to questions, qualitative research answers the questions of why and how, providing necessary insights on crucial program aspects such as health seeking behaviors, patient satisfaction and unmet needs. Qualitative research creates the space for meaningful conversations with communities, helps avoiding false assumptions and fosters better program design. While its non-statistical approach may trigger some skepticism, qualitative data can in fact be generalizable in a specific group since they reveal socio-cultural and symbolical patterns that shape behaviors and thoughts, and that most of the time remain unconscious.

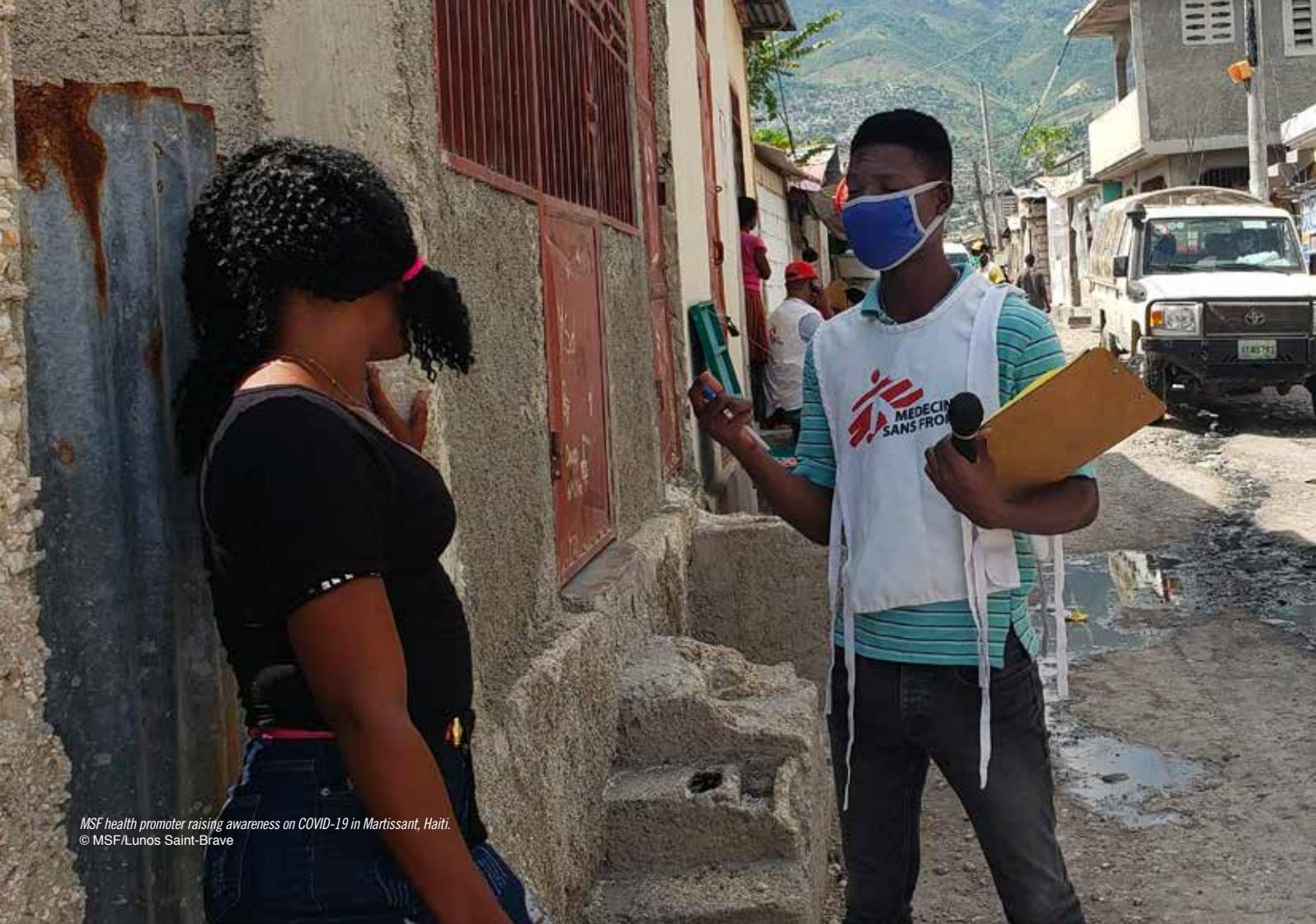
Quantitative analysis could benefit from complementary qualitative methods, their combination resulting in more comprehensive and conclusive results. LuxOR seeks to promote qualitative research and mixed-method studies and to build capacity in MSF missions through on-the-ground support to field researchers. The team currently supports over 20 qualitative and mixed-method studies, mostly in the field of migration, mental health and sexual and reproductive health.

“



What qualitative research offers is a critical and differentiated perspective into the political, socio-economic, and personal dynamics that shape individual and collective behavior. In other words, it is a method that allows to go in-depth into what people think and do.

Umberto Pellecchia
Senior Qualitative Research Advisor



*MSF health promoter raising awareness on COVID-19 in Martissant, Haiti.
© MSF/Lunos Saint-Brave*

HIPPOTAMUSES BITE MORBIDITY: A REPORT OF 11 CASES FROM BURUNDI

The human death toll from hippopotamus attacks is unknown, falling within a broad range between 500 and 3000 victims per year. Evidence of injury patterns and surgical outcomes is even more limited. A case series by Médecins sans Frontières suggests that hippopotamus-inflicted injuries should fall in a special group of life-threatening animal attacks and be triaged as major trauma, rather than just ‘mammalian bites’.

Hippopotamuses are one of the most loved animals in Africa, yet they may become aggressive and pose a danger to humans. The adult hippopotamus is massive and extraordinarily strong: 3.5 m long, 1.5 m tall, and weighing approximately 3,200 kg, its bite is stronger than the one of a lion. In fact, a hippopotamus can easily bisect a human body in a single bite.

The risk of serious injuries for humans living close to its natural habitat has long been acknowledged, yet its magnitude remains uncertain. Medical literature is very scarce when it comes to documenting hippopotamus bite injuries and their consequences. A case series supported by LuxOR in Burundi, reports a high incidence of wound infections (36%), amputations (36%) and permanent disability (55%) of 11 patients who presented to the emergency department of the Arche Hospital in Bujumbura with hippopotamus bite injuries between 1 January 2017 and 31 December 2018.

Although all patients were discharged from hospital and no deaths occurred, the severity of the complications reported by the study is worrying and has not previously

been documented in the literature. Findings allow to better understand the typology of hippopotamus bite injuries and to draw recommendations on their treatment. Reported incidence of deep wound infection is quite high, compared to typical animal bite wounds. This suggests that, at surgical wound debridement, hippopotamus bite injuries should rather be considered and cured as crushing trauma. Crushing trauma can in fact devitalize tissues far beyond clinical identification, which is why it is essential to correctly identify it in the beginning. Moreover, the study indicates that hippopotamus injuries to the limbs carry a high risk of amputation. A meticulous assessment of peripheral circulation on arrival and close observation for several hours afterwards should be also part of the treatment strategy.

Future studies are needed to identify organisms at the origin of wound infections. In particular, hippopotamus mouth flora has not yet been studied. In view of the high mortality from hippopotamus bites and other dangerous mammals, it is also important to increase surveillance of this public health risk, combined with sensitization of local populations to danger zones and situations.

This study is the winner of the 2020 CASE REPORT OF THE YEAR by Oxford Medical Case Reports



Two surgeons operating a severely injured patient at Rutshuru Hospital in DRC.
© Andre Quillien/MSF

MSF OPERATIONAL RESEARCH:

KEY NUMBERS AND EVENTS

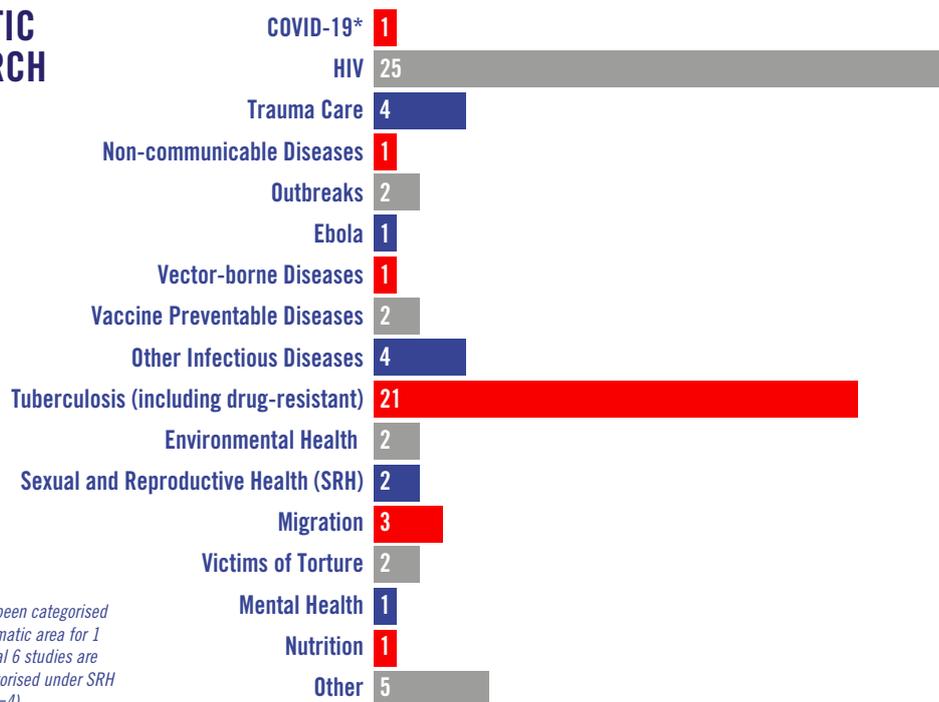
MSF
OPERATIONAL
CENTRE
BRUSSELS
SUPPORTED

12

78

studies, reviews,
and viewpoints
published in
peer-reviewed
journals.

THEMATIC RESEARCH AREAS



**COVID-19 has been categorised as the main thematic area for 1 study, but in total 6 studies are conducted categorised under SRH (n=1) and TB (n=4).*

NEW CLIMATE, ENVIRONMENT AND HEALTH (CEH) RESEARCH AGENDA



Climate change and environmental degradation of the ecosystems are increasingly determinant factors of the health status of communities and individuals. In 2020, LuxOR developed a framework for field-based, and operationally-sound, research projects in this domain.

© MSF

VIRTUAL OPERATIONAL RESEARCH TRAINING



In February 2021, LuxOR hosted a one-week online course to support MSF programme staff to prepare studies for publication. Five selected participants received mentoring and hands-on training to translate results of a research study into an article to be submitted for publication.

© MSF/Jakub Ešín

NEW EPIDEMIOLOGY COMMUNITY OF PRACTICE



In March 2021 LuxOR, together with different units of the MSF Operational Center Brussels Medical Department, launched a Community of Practice for field epidemiologists and data managers. The community is a space for collaboration between different fields and hosts a library of fundamental resources.

© Mohamad Cheblak/MSF

or.msf.lu
fieldresearch.msf.org

Médecins Sans Frontières

Luxembourg asbl

68, rue de Gasperich

L-1617 Luxembourg

R.C.S. Luxembourg F4090

Tél.: +352 33 25 15

Fax: +352 33 51 33

Email: or@luxembourg.msf.org

 twitter.com/msfluxor



LuxOR
Luxembourg Operational Research

Front Cover Photo:

MSF Medical Doctor Amira Jaouadi taking care of a young patient in the measles ward of Bossongo Hospital, Central African Republic.

© James Oatway

