

# Global Health Annual Report

**2022**



 **NTNU**

Norwegian University of  
Science and Technology



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# FOREWORD

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## *PROGRESS AMIDST CHALLENGES*

**Dear colleagues and partners,**

We are delighted to present our new annual report which highlights some of our key global health activities. The year 2022 was challenging due to the Covid-19 pandemic, with restrictions for on-campus activities and remote work. We were reminded that we are living in a time of multiple crises, including Russia's invasion of Ukraine in February with devastating consequences and no clear path to peace. The world is also experiencing the effects of climate change, such as floods and droughts on different continents.

Despite the challenges, we made significant progress in our work. The pandemic pushed us to adapt and work more online, leading to fruitful collaborations with colleagues in low- and middle-income countries. Through the use of Zoom links, we have been able to engage in existing and expand capacity building, education, and research activities.

After the Covid-19 travel restrictions were lifted, some of our students were able to participate again in exchange programs and research activities abroad, providing them with practical skills and opportunities to broaden their perspectives on global health challenges and solutions.

Our collaborations with long-term partner institutions in Nepal continue to flourish, with the renewal of our collaboration agreements during a visit by our Dean and some of her team members in November. We are proud of the progress we have made in our joint efforts to improve health outcomes in Nepal.

We also celebrate the achievements of our Master of Science students in global health who graduated this year and are poised to make valuable contributions to improving global health. We look forward to seeing how and where they will apply their skills and knowledge in their future careers.

We have accomplished much this year, thanks to the dedication and efforts of our staff, faculty, students, and partners. We hope this report provides some insights into the varied and meaningful work we are doing in global health and inspires continued efforts towards a common vision of health for a better world.

**Yours sincerely,**



**JENNIFER  
INFANTI**



**HÅKON ANGELL  
BOLKAN**



**ELIN YLI  
DVERGSDAL**



# A YEAR IN REVIEW

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**KEY ACHIEVEMENTS AND HIGHLIGHTS FROM OUR WORK IN 2022**

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**CORE MEMBERS OF NTNU'S  
INTER-FACULTY GLOBAL HEALTH  
RESEARCH NETWORK PUBLISHED**

# 112 PAPERS

**IN 2022**

**MOST COMMON TOPICS & KEYWORDS IN OUR PUBLICATIONS THIS YEAR:**

CARE - SURGICAL - SIERRA LEONE - VIOLENCE -  
CROSS-SECTIONAL - MATERNAL MEDICINE -  
OBSTETRIC - BARRIERS - LEARNING CURVES -  
POST-EBOLA - QUALITY IN HEALTH CARE - OUTBREAK -  
TASK-SHARING - GOVERNMENTAL - WORKFORCE  
PRODUCTIVITY

**KEEP UP-TO-DATE WITH GLOBAL HEALTH RESEARCH AND  
DEPARTMENT EVENTS!**

**NTNU**



Attend our NTNU Global Health monthly seminars



Global Health Trondheim

Click or scan the QR codes!



Students for Global Health



Global Health Activities  
Insida channel



**& BEYOND**



Participate digitally in the Nordic Network for Global Health monthly webinars



Norwegian Chapter of Women in Global Health

Global Health Norway



website



Facebook page

Norwegian Forum for Global Health Research



# PUBLICATION HIGHLIGHTS

Click the article  
titles to read



*The Equi-Trauma Collaborative,*

**MARIA LISA  
ODLAND,**

*Postdoctoral Fellow,*

*& Abdul-Malik Abdul-Latif, Agnieszka Ignatowicz, Barnabas Alayande, Bernard Appia, Evangelos Balanikas, Abebe Bekele, Antonio Belli, Kathryn Chu, Karen Ferreira, Anthony Howard, Pascal Nzasabimana, Eyitayo O Owolabi, Samukelisiwe Nyamathe, Sheba Mary Pognaa Kunfah, Stephen Tabiri, Mustapha Yakubu, John Whitaker, Jean Claude Byiringiro, and Justine I. Davies*

**Equitable access to quality trauma systems in low-income and middle-income countries: Assessing gaps and developing priorities in Ghana, Rwanda and South Africa**

**BMJ  
GLOBAL  
HEALTH**



**PUSHPANJALI  
SHAKYA,**

*PhD Candidate,*

*and Archana Shrestha, Biraj Man Karmacharya, Abha Shrestha, Bård Eirik Kulseng, Eva Skovlund, and Abhijit Sen*

**Prevalence of prediabetes and associated factors of prediabetic stages: a cross-sectional study among adults in Nepal**

**BMJ  
OPEN**



**KAM SRIPADA,**

*Manager of Centre for Digital Life Norway,*

*and Adrian Madsen Lager*

**Interventions to reduce cadmium exposure in low- and middle-income countries during pregnancy and childhood: A systematic review**

**JOURNAL  
OF  
GLOBAL  
HEALTH**

# EDITORS & CONTRIBUTORS

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**NORBERT  
SKOKAUSKAS**

*Professor*

Editor of World Child and  
Adolescent Psychiatry (World CAP)

2 issues in 2022



**TERJE ANDREAS  
EIKEMO**

*Professor*

Editor of the Scandinavian Journal  
of Public Health

8 issues in 2022



CHAIN and other NTNU global health researchers  
contributed to UNICEF Innocenti's Report Card 17:  
**Places and Spaces: Environments and children's well-  
being**

Authors: The Innocenti Report Card 17 was written by Eszter Timar, Anna Gromada, Gwyther Rees and Alessandro Carraro with contributions from Dominic Richardson, Gunilla Olsson, Celine Little, Dagna Rams, Gro Dehli Villanger, Nicole Quattrini, Tim Huijts, Mirza Balaj and Terje Andreas Eikemo.

# EDUCATION

## BACHELOR STUDENT EXCHANGE PROGRAMS



Despite pandemic-related restrictions, some international exchange programs were possible in 2022.

Six nursing students from NTNU's Gjøvik campus participated in an exchange to Namibia. They were hosted in Windhoek, the capital city, and visited hospitals like Katutura State Hospital, Windhoek Central Hospital and Psychiatry Hospital. They also visited a pre-primary school called Findano. The students returned home with many insights from low-resource settings.

## GLOBAL HEALTH PROJECTS FOR MEDICAL STUDENTS



Several medical students, including Andrea Raen and Silje Selseng, conducted global health projects during their research semesters. Andrea and Silje worked with Associate Professor Ingunn Harstad on a project that was published in the *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases* in 2022.

## MASTER OF SCIENCE GRADUATES IN GLOBAL HEALTH



Pictured are 24 of the 26 MSc students who successfully defended their global health master's theses in 2022.

Additionally, a new group of 20 students began the program in the same year.

## GLOBAL HEALTH PHD CANDIDATES IN 2022



During 2022 we had breakfast seminars each month with relevant discussion topics for PhD candidates in global health. This is a local network linked to the Norwegian Research School of Global Health which is coordinated by NTNU.

NTNU had 29 active PhD candidates in global health in 2022.



## PRAKASH KUMAR MAHTO

*PhD Candidate, Department of Neuromedicine  
and Movement Science (INB)*

*Main supervisor: Ann-Katrin Stensdotter (NTNU).  
Co-supervisors: Monica Unsgaard Tøndel (NTNU),  
Vaneshveri Naidoo (University of Witwatersrand), and  
Sunil Kumar Joshi (Kathmandu Medical College).*

"I am a registered PhD student at the Faculty of Medicine and Health Sciences at NTNU. My research interests lie in the area of low back pain - a prevalent non-communicable disease that is recognized as a major global health concern.

As a musculoskeletal physiotherapist working in Nepal, I've treated many patients with musculoskeletal conditions, especially with low back pain. I've also always had an interest in research and academia. I've conducted some research already on musculoskeletal disorders at my institute in Nepal, and published articles. This work sparked my desire to delve deeper into this area of study in my PhD.

I also currently lead a Bachelor's of Physiotherapy program in Nepal. There are few opportunities to obtain PhD degrees in Nepal, and a person leading a program like mine requires a senior-level faculty member with higher qualifications.

My hope is that my PhD research will provide a relevant tool for assessing low back pain and musculoskeletal disorders in general, in a local language. By shedding light on how people are coping with these conditions and how to approach them in both rural and urban areas in Nepal, I believe my research will make a valuable contribution to the field of global health."



# CAPACITY BUILDING

## UPDATES FROM TWO NTNU NORHED II PROJECTS FOR GLOBAL HEALTH

*Through the NORHED II program, the Norwegian Agency for Development Cooperation (NORAD) funds partnerships for capacity development in higher education and research.*

### **STRENGTHENING CAPACITY IN PHYSIOTHERAPY EDUCATION IN NEPAL**

LED BY ANN-KATRIN STENSDOTTER



#### PROJECT HIGHLIGHTS IN 2022:

- NTNU and Wits University collaborated to deliver an online course for Kathmandu University School of Medicine Sciences (KUSMS) and Kathmandu Medical College (KMC) physiotherapy faculty, with external expertise from OsloMet.
- Nepal's first master's program in physiotherapy was accredited, with 5 open seats for enrollment at KUSMS.
- KMC started a new bachelor's program in physiotherapy with 30 students.
- A 2-day workshop was hosted in Nepal on integrating gender and social inclusiveness in higher education.

### **TRAINING PROGRAM TO IMPROVE MATERNAL & NEONATAL HEALTH IN MALAWI**

LED BY HÅKON ANGELL BOLKAN



#### PROJECT HIGHLIGHTS IN 2022:

- Collaboration consolidated between NTNU and the Malawi University of Science and Technology (MUST), Kamuzu University of Health Sciences (KUHeS) and University of Zambia - School of Nursing (UNZASoN).
- Development of online and in-person master's and PhD programs.
- Supported midwife-led ultrasound scanning to date pregnancy in Malawi and Zambia as part of a national program to offer standardized ultrasounds in gestational week 18.
- Four *new* curricula developed in 2022: PhD in Maternal and Neonatal Health, MSc. in Diagnostic Ultrasound, MSc. Medical Microbiology, and MSc. in Infection and Immunity.
- Five *revised* curricula: two PhDs in Midwifery, two MSc. in Midwifery, one MSc. in Reproductive Health, and one BSc.

### **CAPACARE CELEBRATED 10 YEARS OF SURGICAL TRAINING IN WEST AFRICA**



- NTNU collaborating partner, the NGO [CapaCare](#), celebrated 10 years of training students in life-saving surgical and obstetric skills.
- Since 2012, more than 90 trainees have been enrolled into the Surgical Training Programme of which 70 have graduated.
- Trainees and graduates have performed or taken part in more than 70 000 surgical operations.
- 90 international trainers has made over 250 trips and delivered more than 350 courses.
- More than 40 peer-review papers in international journals makes Sierra Leone a country where the surgical system and challenges and opportunities of introducing surgical task-sharing is well documented.

# PARTNERS & COLLABORATORS



## PICTERUS AS

Neonatal jaundice is a leading cause of death and brain damage in low- and middle-income countries where accurate detection devices can be prohibitively expensive or unavailable. The Picterus smartphone app developed by NTNU & St. Olavs clinicians and researchers provides a low-cost solution for estimating newborn jaundice levels.

In 2022, Picterus was involved in several global health collaborations at NTNU, engaging master's, medical, and PhD students in the company's activities.



## SINTEF

NTNU and SINTEF have a long history of collaboration in the field of global health. In 2022, this collaboration was formalized. This new agreement solidifies a commitment to working together on global health activities and initiatives.

## KATHMANDU UNIVERSITY SCHOOL OF MEDICAL SCIENCES & KATHMANDU MEDICAL COLLEGE



In 2022, the Faculty of Medicine and Health Sciences at NTNU renewed key Memoranda of Understanding with Kathmandu University School of Medical Sciences (KUSMS) and Kathmandu Medical College (KMC).

Pictured here at the signing ceremony are (left to right): Dean of the Faculty of Medicine and Health Sciences at NTNU, Prof. Dr. Siri Forsmo, with the Principal of KMC, Prof. Dr. Ratindra Nath Shrestha, and Head of Department of Community Medicine at KMC, Prof. Dr. Sunil Kumar Joshi.

## MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES



In 2022, NTNU renewed its Memorandum of Understanding (MoU) with Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam, Tanzania. With the renewed MoU, medicine- and nursing students will do exchange, the coming years and research projects will be developed.

# ENGAGEMENT EVENTS

## ARENDAL SUKA



In August, Håkon Angell Bolkan, surgeon, associate professor of global health, and leader of CapaCare International, participated in a debate at Arendalsuka 2022. The topic of the debate was "Skal tilfeldigheter styre hvordan vi bruker norske bistandsmidler?" which translates to English as "Should chance dictate how we use Norwegian aid funds?"

## GLOBAL HEALTH DAY 2022: A WORLD IN CHANGE



Global Health Day has been organized annually since 2010. In 2022, the theme of the event was "A World in Change". The first session of the day discussed the impact of climate change on global health. The second session was centered around the creation and maintenance of sustainable partnerships between global health actors and programs.

## NTNU STUDENT DELEGATION AT GLOBAL HEALTH CASE CHALLENGE AT UNIVERSITY OF COPENHAGEN



In the summer of 2022, four master's students in NTNU's global health program attended the University of Copenhagen's summer course, Global Health Case Challenges. During the course, the students presented solutions related to the theme of "Improving maternity care education at resource-constrained educational institutions".



# FACULTY TRANSITIONS

## OUTGOING



**ELISABETH  
DARJ**

PROFESSOR  
EMERITA

*NTNU's first Professor of Global Health, Elisabeth Darj, was hired in 2013 and became Professor Emerita this year. She is leaving her position with pride after developing and successfully launching the MSc degree program in global health, which continues to attract over 500 student applications per year for its 25 available seats. In addition, Elisabeth obtained a 6-year grant from the Research Council of Norway for PhD education which established the Norwegian Research School in Global Health (NRS GH). More than 200 PhD candidates from around the world have benefited from the NRS GH's seminars, courses, and networking opportunities. ISM-NTNU is the host for the school.*



**JON ØYVIND  
ODLAND**

PROFESSOR  
EMERITUS

*Jon Øyvind Odland was hired as NTNU's second Professor of Global Health in 2018, and took over leadership of the MSc program in Global Health during a challenging period of the COVID-19 pandemic. Despite the obstacles, Jon had the pleasure of supervising and working with highly skilled and motivated students who made excellent contributions to the field. Moreover, his professorship concluded with more than 50 peer-reviewed articles with many students as first authors, and five PhD candidates completing their studies despite the pandemic's challenges.*

## INCOMING



**JENNIFER J.  
INFANTI**

ASSOCIATE  
PROFESSOR

*Jennifer started in 2022 as Associate Professor in Global Health. She will continue to lead the MSc in Global Health program and supervise research projects, master students and PhD candidates students working on topics related to gender-based violence, reproductive health, migration, and health care quality, primarily in South Asian contexts.*



**HÅKON ANGELL  
BOLKAN**

ASSOCIATE  
PROFESSOR

*Håkon started in 2022 as an Associate Professor in Global Health. He will continue his work in West-Africa, building capacity in surgery and performing research on the surgical health care system at large. Håkon will also lead the NORHED II project to improve maternal and newborn health in Malawi.*

# CELEBRATIONS

## TWO GLOBAL HEALTH PHD CANDIDATES SUCCESSFULLY DEFENDED THEIR THESES IN 2022



**ELODIE  
BESNIER**

EQUITY AND CHILD HEALTH:  
ADDRESSING HEALTH INEQUALITIES  
AND IMPROVING CHILD HEALTH  
THROUGH A PUBLIC HEALTH  
APPROACH

*Elodie now works as a lecturer in global health at the Department of Public Health and Nursing and postdoctoral fellow at the Department of Health Sciences Ålesund.*



**KAROLINE  
AKER**

PERINATAL ASPHYXIA IN A  
GLOBAL PERSPECTIVE: HOW CAN  
WE IMPROVE OUTCOMES?

*Karoline received a scholarship from Helse Midt Norge-Samarbeidsorganet and now works as a Postdoctoral Fellow in the Department of Clinical and Molecular Medicine.*

## BERIT SCHEI KNIGHTED FOR HER WORK IN WOMEN'S HEALTH



**BERIT  
SCHEI**

KNIGHT OF THE FIRST CLASS OF THE  
ROYAL NORWEGIAN ORDER OF ST. OLAV

*Berit has been tirelessly championing women's health and rights for more than four decades, in Norway and abroad. This appointment recognizes the impact and quality of her clinical work, teaching, and research to promote women's health throughout her formidable career.*

## RISA LONNEE-HOFFMAN AND SUNILA SHAKYA AWARDED RESEARCH COUNCIL OF NORWAY FUNDING



**RISA  
LONNEE-  
HOFFMAN**



**SUNILA  
SHAKYA**



*Risa Lonnee-Hoffman from NTNU-St. Olavs and Sunila Shakya from KUSMS-Dhulikhel Hospital, along with other partners, were awarded competitive grant funding for an upcoming study from the Research Council of Norway. The study, which begins in 2023, involves a randomized controlled trial that will evaluate the effectiveness of point-of-care tests (POCTs) in reducing the overtreatment of abnormal vaginal discharge with antibiotics in Nepal.*

# ACKNOWLEDGEMENTS

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Sincere gratitude is extended to Mahshad Nazarihaghighipashaki and Schyler Bennett for their dedicated efforts in compiling this annual report and bringing it to fruition.

Thank you for your continued support  
in promoting  
health for a better world

