



The Swedish
Society of Medicine

[www.sls.se/
globalhealth2018](http://www.sls.se/globalhealth2018)



Berzelius Symposium 98

The Swedish Global Health Research Conference

How can Sweden contribute to the Sustainable Development Goals?

From research to action

18–19 April 2018 at Karolinska Institutet, Stockholm

The goal of the conference is to strengthen interdisciplinary research in global health across all universities in Sweden. Conceived by the Swedish Society of Medicine's Committee for Global Health, the conference is organized by representatives from all seven medical faculties in Sweden, and will be hosted by the Department of Public Health Sciences at Karolinska Institutet.

The conference is organized by the Swedish Society of Medicine in cooperation with



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Partners



Karolinska Institutet • Lund University • Linköping University • Umeå University • University of Gothenburg
Uppsala University • Örebro University • Swedish Ministry of Foreign Affairs • SIGHT • Familjen Einhorn's stiftelse
Vetenskapsrådet • Stockholms läns landsting • Forum för Afrikastudier

Collaborating organizations



Effective Altruism Sweden. Effective Altruism is a philosophy and social movement which uses reason and evidence to figure out how to improve the world as much as possible, given limited resources.

IFMSA-Sweden is a non-profit organization that promotes peace and health locally and globally and seeks to build a network between all healthcare students.

Mother and Child Health Association (MACHA) is a Swedish non-profit organization that works towards improving women's and children's health in a local and global perspective.

Studenterna i forskning (Students in Research) aims to interest and inspire students into medical research through workshops, seminars and lectures, and by facilitating possible research careers by supervisor connections. The organization is currently operating at the Karolinska Institutet in Stockholm and at the Sahlgrenska Academy in Gothenburg.

Swedish Network for International Health (SNIH) is a student-led organization for master students with active members from 5 top Swedish universities, that facilitates interaction between its members and provides tools for their professional and personal development.

Swedish Organization for Global Health (S.O.G.H.) is a Swedish nonprofit organisation comprising of students and professionals who share a passion to contribute to global health through evidence-based action.

The Swedish Society of Medicine's Student and Junior Doctors Section aims to improve healthcare by focusing on global health, health systems, research, education and e-health.

Welcome

Welcome to the Swedish Global Health Research Conference 2018: How Can Sweden Contribute to the Sustainable Development Goals? From Research to Action!

The United Nations' 2030 Agenda for Sustainable Development and the accompanying Sustainable Development Goals form a transformative, universal framework to address three interwoven dimensions of our global existence—people, planet, and prosperity. This holistic view marks a new era and can, if implemented, be of vital importance to improve the health of the world now and for future generations.

In order to attain the ambitious Sustainable Development Goals, we need more and better research, in which global health can and should play a pivotal role. Furthermore, high-quality global health research is crucial for Sweden's competitiveness in a globalized world, as well as our ability to contribute to the United Nations' 2030 Agenda. However, Sweden is a small country with limited resources. How can we better cooperate to strengthen our capacity and ability locally, as well as optimize our impact to deliver world-class research in global health? We hope that this conference can be a platform for developing answers to these questions.

We hope that the conference will provide opportunities for participants to connect, and that the presentations, discussions and meetings will catalyze and facilitate cooperation in research in global health, so that we all can be part of the solutions that are needed. During the conference, there will be a mix of presentations and discussions in plenum, as well as workshops in smaller formats. It is our hope that this will give all of us an opportunity to make our voices heard and allow us to share our ideas. The poster session will provide further examples of ongoing research in global health in Sweden, and also includes actors from civil society.

Finally, we want to highlight the student-led Global Health Night that will follow immediately after the conference. We hope to see you there.

Again, a warm welcome to Stockholm and the *Swedish Global Health Research Conference 2018: How Can Sweden Contribute to the Sustainable Development Goals? From Research to Action!*

On behalf of the Swedish Society of Medicine and the Organizing Committee

Tobias Alfvén

Chair, the Swedish Society of Medicine's Committee for Global Health



Welcome to Karolinska Institutet and to the Swedish Global Health Research Conference 2018!

Whether you are a student, educator, health professional or researcher, I believe that we share a deeply engrained responsibility to support the health and well-being of people around the world, to protect our shared planet, and to ensure prosperity and peace for all, together with our fellow global citizens.

As members of the global health community, the 17 goals articulated in the United Nations' 2030 Agenda for Sustainable Development are our shared goals, and it will take our collective courage, vision and action to achieve them. If we are to make a significant contribution to the improvement of human health through research, education and outreach, we must also make a significant commitment to addressing the determinants of health, including political, social and economic factors, physical environments, education, health services and gender, among others.

Karolinska Institutet's commitment to global health research and education goes well beyond our campus walls, and I am pleased to welcome you here today to discuss how we can work together in support of Agenda 2030.

Ole Petter Ottersen

Vice-Chancellor, Karolinska Institutet



Organizing committee

Tobias Alfvén

Chair of the Swedish Society of Medicine's
Committee for Global Health and Associate
Professor, Department of Public Health Sciences,
Global Health, Karolinska Institutet

Anette Agardh

Professor in Global Health, Social Medicine and
Global Health, Faculty of Medicine, Lund University

Anna-Karin Hurtig

Professor Unit of Epidemiology and Global Health,
Umeå university

Anna-Mia Ekström

MD, MPH, PhD, Professor, Department of Public
Health Sciences, Global Health, Karolinska Institutet

Anna-Theresia Ekman

Student Representative, Swedish Society of Medicine's
Committee for Global Health

Asli Kulane

Associate Professor, Equity & Health
Policy Research Group, Department of Public Health
Sciences, Global Health, Karolinska Institutet

Benedict Oppong Asamoah

Associate Professor, Social Medicine and Global
Health, Department of Clinical Sciences, Malmö,
Lund University

Birgitta Essén

Professor of International Maternal & Reproductive
Health, Uppsala University
Dept. of Women's & Children's Health/IMCH

Cecilia Stålsby Lundborg

Professor, Department of Public Health Sciences,
Global Health, Karolinska Institutet

Dorcus Kiwanuka Henriksson

PhD, Department of Women's and Children's health/
IMCH, Uppsala University

Hampus Holmer, MD, PhD candidate, Lund University
and Junior Doctor, Karolinska University Hospital

Helena Frielingsdorf Lundqvist

Psychiatry Resident/Research Fellow (MD, PhD)
Center for Social and Affective Neuroscience
Dept. of Clinical and Experimental Medicine,
Linköping University

Helena Nordenstedt

MD, PhD, Public Lecturer and Assistant Professor,
Department of Public Health Sciences, Global Health,
Karolinska Institutet and Gapminder and KI

Jaran Eriksen

MD PhD, Department of Public Health Sciences/
Department of Laboratory Medicine,
Karolinska Institutet

Johan von Schreeb

Associate Professor, Department of Public Health
Sciences, Global Health, Karolinska Institutet

Karin Båge

Course and project coordinator, Department of Public
Health Sciences, Global Health, Karolinska Institutet

Karin M Franzen

MD, PhD, Department of Obstetrics and Gynecology,
Örebro University Hospital

Max Petzold

Professor, Swedish National Data Service and
Health Metrics Unit, University of Gothenburg

Raman Preet

Dr, Epidemiology and Global Health, Umeå University

Åsa Leufvén

MD, Specialist in Family Medicine
SLSO/Karolinska Institutet

The 2030 AGENDA: Global Health in the Era of the Sustainable Development Goals

On September 25th, 2015, all countries of the world adopted a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For these goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people like you.

The 2030 Agenda for Sustainable Development consists of 17 goals, which bring together traditional aims for development, such as poverty reduction and fighting communicable diseases, with aims related to emerging challenges, such as the threat from climate change, a growing burden of chronic diseases that include ischemic heart disease and mental illness, and rising inequalities. Health is specifically mentioned in goal three: Ensure healthy lives and promote well-being for all at all ages. This goal highlights that even though great advancements have been made in health, we must intensify our efforts, especially in regions of the world with the highest burden of disease. This is closely related to the aim of global health research.

Global health is an emerging, interdisciplinary field that integrates methods from different fields, such as public health, epidemiology, medicine, health economics and behavioural science. It strives to improve health and achieve equity in health for all people throughout the world, most often specifically focusing on vulnerable populations such as women and children. To attain this lofty ambition, global health includes a range of different topics, for example, communicable diseases, non-communicable diseases, mental health, and underlying determinants of health and health systems. It emphasises collaboration, both between countries and between different research areas.

To succeed in achieving the 2030 Agenda for Sustainable Development Goals, all countries must act within their own countries and abroad. Recognising that we all can contribute to and improve upon the health of the world, the Global Health Research Conference welcomes everyone with an interest in global health, ranging from students, active researchers and researchers newly interested in conducting global health research, as well as policy-makers and government representatives. During the conference, we will together explore how Sweden can further contribute to the fulfilment of the Agenda.



General information



When & Where?

18–19 April 2018 at Aula Medica, Karolinska Institutet, Nobels väg 6, Solna, Stockholm. *Registration opens at 10.00 18th April, the conference starts at 13.00.* For specific times, please see the programme.

Lunches and coffee are included in the participation fee and will be served at Aula Medica.

Social programme



Buffet-dinner on Wednesday 18th April at 19.00

During the first evening of the conference on Wednesday 18 April, we invite you to the house of Swedish Society of Medicine in Stockholm. This will provide an opportunity to meet in a casual setting. Entertainment will be arranged during the evening. Pre-reservation is necessary and is made at registration.

Global Health Night on Thursday 19th April at 18.00.

From words to action

Global Health Night is a dynamic and interactive event, dedicated to global health. The event brings together students, researchers and global health professionals who all share a passion for improving health and achieving health equity for people worldwide.

Now in the third year since the launch of the new Sustainable Development Goals and the Agenda 2030, the global health community faces several challenges and opportunities when trying to realize the ambitious and holistic agenda. Global Health Night 2018 will highlight in what ways we can work together in order to go from beautiful words to practical action.

Global Health Night 2018 in Stockholm will consist of keynote talks by professionals from different fields and backgrounds related to the theme, an interactive panel discussion and a mingle with invited NGOs, speakers and researchers.

We are very proud to announce that Global Health Night events will also be arranged in Lund on 22 March, Uppsala on 17 April and Umeå.

Free of charge, pre-reservation is made through the web-page www.globalhealthnight.se



Programme

Wednesday 18th April 2018

10.30–12.00

Global Health 101 – an introduction for beginners

**Separate
registration**

Alice Claeson, Swedish Society of Medicine's Student and Junior Doctor Section

Mikaela Engwall, United Nations Association Sweden/FN-förbundet

Vera Wellander Lindén, Effective Altruism Stockholm School of Economics. ([More information on page 15](#))

10.00–13.00

Registration and Lunch

13.00–13.25

Opening

Ole Petter Ottersen, Vice-chancellor of Karolinska Institutet

Moderators: Anna-Theresia Ekman, Student representative for the Swedish Society of Medicine's Committee for Global Health and *Tobias Alfvén*, Chair of the Swedish Society of Medicine's Committee for Global Health

13.25–13.40

Factfulness: Ten Reasons We're Wrong About the World – and Why Things Are Better Than You Think

Ola Rosling, Gapminder Foundation

13.40–14.20

Setting the Stage – Perspectives on Global Health

Agnes Binagwaho, Former Minister of Health Rwanda, University of Global Health Equity

Ulrika Modéer, State Secretary to the Swedish Minister for International Development Cooperation Isabella Lövin

David Nabarro, Adviser on Sustainability and Director 4SD (Skills, Systems & Synergies for Sustainable Development)

Ernest Aryeetey, Secretary-General of the African Research Universities Alliance

Moderators: Anneli Ivarsson, Professor Umeå University, and *Benedict Opong Asamoah*, Associate Professor Lund University

14.25–15.20

Gaps and opportunities in Global Health

Helene Hellmark Knutsson, Swedish Minister for Higher Education and Research

Yolanda M Sánchez Castro, master student in global health, University of Gothenburg

Kristina Gemzell, Professor of Obstetrics and Gynaecology, Karolinska Institutet

Hampus Holmer, PhD candidate in Surgery and Global Health, Lund University

Kerstin Sahlin, Secretary General of Humanities and Social Sciences at the Swedish Research Council

Anders Nordström, Swedish ambassador for global health

Moderators: Dorcus Kiwanuka Henriksson, Research Officer Karolinska Institutet and Uppsala University, *Göran Tomson*, Co-founder and senior advisor Swedish Institute for Global Health Transformation



- 15.20–15.30 **Introduction to parallel workshops:**
Global Health – Global Agenda – Global Goals – Global Actions
Moderators: Helena Nordenstedt, Karolinska Institutet and
Gapminder and Raman Preet, Umeå University
- 15.30–16.10 **Health break and inspiration (poster session and fika break)**
Moderators: Karin M Franzén, MD, PhD, Örebro University and
Jaran Eriksen, MD, PhD, Karolinska Institutet
- 16.10–17.10 **Parallel workshops:**
Global Health – Global Agenda – Global Goals – Global Actions
How can your research and commitment contribute to the 2030 Agenda
and how can it be implemented? What are the challenges with aligning
with the 2030 Agenda?
- 17.10–17.50 **Short reports from workshops**
Moderators: Helena Nordenstedt, Karolinska Institutet and Gapminder,
Raman Preet, Doctor, Umeå University
- 17.50–18.00 **Wrap-up**
Stefan Lindgren, chair of the Swedish Society of Medicine
- 19.00 **Dinner and entertainment**
Venue: Svenska Läkaresällskapet, Address: Klara Östra Kyrkogata 10
(Pre-reservation is necessary)

Thursday 19th April 2018

- 09.00–09.15 **Welcome back**
Moderators: Cecilia Stålsby Lundborg, professor Karolinska Institutet,
Department of Public Health Sciences, Global Health, and
Mats Målqvist, associate professor, International Maternal and Child Health,
Department of Women's and Children's Health, Uppsala University
- 09.15–10.15 **From research to implementation – success stories**
Sharon Fonn, University of the Witwatersrand, Johannesburg
Kidanto Hussein, Aga Khan University, Dar es Saalam
Nana Poku, University of KwaZulu-Natal, Durban
Nobhojit Roy, National Health systems Resource centre,
Ministry of Health and Family Welfare, India and Karolinska Institutet
Maria-Teresa Bejarano, Swedish International Development Cooperation Agency
Moderators: Asli Kulane, Associate Professor, Karolinska Institutet and
Helena Frielingsdorf, Psychiatry Resident/Research fellow, Linköping University
- 10.15–10.25 **Introduction to parallel workshops: Joint challenges**
Moderators: Anna Mia Ekström and Karin Båge, Karolinska Institutet
- 10.25–11.10 **Health break and inspiration (poster session and fika break)**
Moderators: Karin M Franzén, Örebro University and Jaran Eriksen,
Karolinska Institutet
- 11.10–12.10 **Parallel workshops: Joint challenges**
Moderators: Anna Mia Ekström and Karin Båge, Karolinska Institutet

Topics:

- Financing Research
- Research in Fragile States
- How to use Gapminder
- Global Health Education Conference 2016 – what are our next steps?
- Research in global health – where to start?
- Do no harm – research abroad and ethical considerations
- Policy Implementation
- The role for research and researchers in the collective Swedish Plan for Global Health
- How to reach out with a message
- Interdisciplinary research
- Student workshop what to prioritize in global health
- Workshop for master students
- How an optimized and efficient administration can support researchers, research groups and departments

12.00–13.00

Short reports from workshops

Moderators: Anna-Mia Ekström, Professor Karolinska Institutet and Karin Båge, Course and Project Coordinator, Karolinska Institutet

13.00

Lunch

14.15–16.45

Parallel Workshops: Deeper Understanding and Closer Collaboration within Global Health Research

Topics:

- Child health in the era of the Sustainable Development Goals
- Global mental health workshop: Feeding research evidence into policy
- Open data workshop
- Screening as public health strategy for early detection of non-communicable and communicable diseases: challenges and implications
- The role of social medicine in a global context
- Improving quality of emergency obstetric care for women and newborns in low-resource contexts
- Urbanization and environmental health challenges in a global context
- How could digital health platforms improve health in low resource settings?
- Health system resilience to disasters
- Addressing Cross-cultural Issues in Global Health Research
- Global Health Humanities Workshop
- Medical abortion – a neglected global health issue
- Youth as global health advocates
- Antibiotic resistance and Sustainable Development Goal's – relevance and implications
- Health financing and the move towards Universal Health Coverage in low – and lower-middle income countries

16.45–17.00

Closing

Anders Gustafsson, Dean of Research, Karolinska Institutet, *Marie Hasselberg*, Head of Department, Public Health Sciences, Karolinska Institutet and *Representative* from the Swedish Society of Medicine

18.00

Global Health Night

Stand-alone event organised by students from Karolinska Institutet

More information: www.globalhealthnight.se



INTERNATIONAL SCIENCE PROGRAMME ISP



PhD Student Networking & SDG Meeting

Joint ISP/KI seminar for ISP and Sida PhD students and Postdocs

17 April 2017, 9.30-16.00 at Karolinska Institutet ([Tomtebodavägen 18 A](#)), Stockholm

09.30 Registration and coffee

10.00 Welcome address and participant introduction round (ISP/KI, PhD students/Postdocs)

10.30 Research presentations (PhD students/Postdocs)

11.30 Poster session (PhD students/Postdocs)

12.00 Lunch

13.30 How and why can your research contribute to the Sustainable Development Goals?
(Maria-Teresa Bejarano, Sida)

14.15 Fika

14.30 Workshop - How is my research linked to the SDGs? (Moderators KI/Sida)

15.30 Wrap-up discussion

16.00 Finish

Register before 29 March 2018: <http://doit.medfarm.uu.se/kurt11595>

Welcome!

SDG conference

18-19 April at KI

Take the chance to participate and present a poster at the KI SDG conference at KI 18-19 April - "Swedish Global Health Research Conference: How can Sweden contribute to the Sustainable Development Goals? From Research to Action". The conference is relevant to all fields of science.
[Register before 23 of Mars](#)



Speakers, moderators etc *in alphabetical order*



Anette Agardh



*Gustav
Alexandrie*



Tobias Alfvén



*Ernest
Aryeetey*



*Helle Mölstedt
Alvesson*



Hana Awil



*Maria Teresa
Bejarano*



Tom Bellander



*Agnes
Binagwaho*



*Caroline
Bjurnemark*



*Anna-Karin
Edstedt
Bonamy*



Karin Båge



*Nikita Charles
Hamilton*



Alice Claeson



*Johan
Dahlstrand*



*Meena
Daivadanam*



*Samantha
Diamond*



Vinod Diwan



*Anna-Theresia
Ekman*



*Anna Mia
Ekström*



*Erik
Engelhardt*



*Mikaela
Engwall*



Anneli Eriksson



Jaran Eriksson



Birgitta Essén



Sharon Fonn



*Karin M
Franzén*



*Helena
Frielingsdorf*



*Giulia
Gaudenzi*



*Kristina
Gemzell-
Danielsson*



*Olof
Gränström*



*Dorcus
Kiwanuka
Henriksson*



Kobus Herbst



*Anna-Clara
Hollander*



*Hampus
Holmer*



*Raphael
Hurley*



*Anna- Karin
Hurtig*



*Kidanto
Hussein*



Rachel Irwin



Anneli Ivarsson



*Annabell
Kantner*



*Helene
Hellmark
Knutsson*



Asli Kulane



Laura Köcher



Åsa Leufven



*Adelina
Mazhiqi*



*Cheikh
Mbacké Faye*



Ulrika Modéer



*Maria
Mossberg*



Ines Moued



Mats Målvist



David Nabarro



*Naomi Limaro
Nathan*



*Vera
Wellander
Lindén*



*Cecilia
Stålsby
Lundborg*



*Gustav
Nilsson*



*Helena
Nordenstedt*



*Anders
Nordström*



*Benedict
Oppong
Asamoah*



*Ole Petter
Ottersen*



Max Petzold



Nana Poku



Raman Preet



Ola Rosling



Nobhojit Roy



Kerstin Sahlin



*Yolanda Sánchez
-Castro M.*



*Caroline
Schagerholm*



Aylin Shawkat



*Johan
von Schreeb*



Karin Stenberg



*Jesper
Sundewall*



*Anna Runebjer
Tison*



Göran Tomson



*Sibylle Herzig
van Wees*



Maria Öhman

WORKSHOP

Global Health 101 – An Introduction for Beginners

This workshop will give a short but comprehensive introduction to global health, the 2030 Agenda and its Sustainable Development Goals, and global health research. It will introduce the participants to main concepts, various approaches and upcoming challenges in the global health field. The aim is to give the participants a foundation that will make it easier for them to take part in the conference program. The workshop is mainly aimed at students and younger colleagues.

The workshop is being organized by United Nations Association Sweden Effective Altruism, and the Swedish Society for Medicine's Student and Junior Doctor Session.

Moderators: Alice Claeson, SSM Student and Junior Doctor Session, Ethics Secretary, Mikaela Engwall, UNA Ambassador, 2030 Agenda/ Svenska FN-förbundets ambassadör Agenda 2030, Master's Student in Human Rights (global health as a focus area), Uppsala Universitet and Vera Lindén, Former President, Effective Altruism Sweden, Stockholm School of Economics.

Please note that separate registration is necessary!



Factfulness: Ten Reasons We're Wrong About the World – and Why Things Are Better Than You Think

Ola Rosling, President and Co-Founder of Gapminder Foundation

We have tested the public on the most basic global development trends (see gapminder.org/ignorance), and people seem to be completely mis-informed about what the world looks like.

(See gapminder.org/tools and gapminder.org/dollar-street)

Panels

Wednesday 18 April

13.40–14.20 Setting the Stage – Perspectives on Global Health

Description: In this panel discussion, some of today's leaders will share their perspectives on global health, addressing both its challenges and opportunities, taking the 2030 Agenda for Sustainable Development into account.

David Nabarro, Adviser on Sustainability and Director 4SD (Skills, Systems & Synergies for Sustainable Development)

Agnes Binagwaho, Former Minister of Health Rwanda, University of Global Health Equity

Ulrika Modéer, State Secretary to the Swedish Minister for International Development Cooperation
Isabella Lövin

Ernest Aryeetey, Secretary-General of the African Research Universities Alliance

Moderators: Anneli Ivarsson, Professor Umeå University and Benedict Oppong Asamoah, Associate Professor Lund University

14.25–15.20 Gaps and Opportunities in Global Health Research

Description: The 2030 Agenda with its Sustainable Development Goals provides a unique opportunity to improve health and achieve health equity globally. Members of this panel represent policy-making, education and research at different levels. They will briefly address global health research issues and share how they best can contribute to and support global health research in order for it to have a positive impact on the world.

Helene Hellmark Knutsson, Swedish Minister for Higher Education and Research

Yolanda M. Sánchez Castro, Master student in global health, Gothenburg University

Kristina Gemzell, Professor of Obstetrics and Gynaecology, Karolinska Institutet

Hampus Holmer, PhD candidate in Surgery and Global Health, Lund University

Anders Nordström, Swedish Ambassador for Global Health

Moderators: Dorcus Kiwanuka Henriksson, Research Officer Karolinska Institutet, and Göran Tomson, Co-founder and Senior Advisor Swedish Institute for Global Health Transformation

Thursday 19 April

09.15–10.15 From research to implementation – success stories

Description: Swedish universities have a long tradition of creating partnerships with research colleagues in low- and lower-middle-income countries. Many have been successful, and there is much to be learnt on how to move from research to implementation. How do we ensure that research results come to good use and are implemented in policy? Are there any obstacles, and what can Sweden do better? In this session, we will hear about the experiences of research colleagues from India, South Africa, and Tanzania, as well as the Swedish International Development Cooperation Agency (Sida)

Sharon Fonn, University of the Witwatersrand, Johannesburg

Kidanto Hussein, Aga Khan University, Dar es Salaam

Nana Poku, University of KwaZulu-Natal, Durban

Nobhojit Roy, National Health systems Resource centre, Ministry of Health and Family Welfare, India and Karolinska Institutet, Stockholm

Maria-Teresa Bejarano, Swedish International Development Cooperation Agency and Karolinska Institutet

Moderators: Asli Kulane, Karolinska Institutet and Helena Frielingsdorf, Linköping University

Workshop descriptions

Discussions and interactive workshops are the cornerstones of the Swedish Global Health Research Conference. These sessions are an opportunity to exchange experiences with colleagues and to create new global health collaborations. You can read about the workshops below.

18 April

16.00–17.00 Parallel workshops:

Global Health – Global Agenda – Global Goals – Global Actions

Of the 17 ambitious Sustainable Development Goals (SDGs), only one focuses on health (SDG 3); however, development is human-centred, and healthy life is its essence. In the 2030 Agenda, health plays a prominent role, as it is embedded in many of the other goals. As we concern ourselves with health, we are all responsible for achieving the health-related outcomes of the global agenda, and research is an essential tool. During this session, we will explore how our ongoing efforts, whether research, practice or other engagements, are contributing to the 2030 Agenda, and how we can make our efforts more inclusive and collaborative towards fulfilment of the SDGs.

The session consists of moderated small-group discussions, followed by a summary in the plenary. The discussion groups will be finalized before the start of the conference.

Moderators for summary: Helena Nordenstedt, Public Lecturer and Assistant Professor, Gapminder and Karolinska Institutet, Raman Preet, Doctor, Epidemiology and Global Health, Umeå University

19 April

11.10– 12.10 Parallel workshops. Joint Challenges

Challenges are often similar, whether one is active in global health research or in closely related research, or engaged in other global health activities. This parallel workshop provides an opportunity for participants to meet and discuss dilemmas and possible solutions.

The session consists of moderated small-group discussions, followed by a summary in plenary. You will have the opportunity to choose your preference for which discussion you would like to take part in; however, we cannot guarantee that you will get your first choice. The discussion groups will be finalized before the start of the conference.

Moderators for short reports and conclusions from workshops: Karin Båge, Course and Project Coordinator, Department of Public Health Sciences at Karolinska Institutet, Anna-Mia Ekström, Professor Department of Public Health/Global Health, Karolinska Institutet

Workshop topics:

Financing Research

Moderator: Vinod K Diwan, Senior Professor, Department of Public Health Sciences / Global Health

Junior Facilitator: Carolina García, BSc, Swedish Network for International Health (SNIH)

Description: Research has changed its character in many ways: once an individualised undertaking, it has become a multidisciplinary collaboration. This change has also influenced the funding of research projects. Similarly, funding of global health-related research projects has also changed. At the national level, funding has become limited and competition for it is high. To be successful in research, one must be competitive in order to seek and receive funding. However, there are many factors that influence how funding is obtained. This seminar will highlight the formal and informal factors that influence who gets funding and who does not. This is particularly true for junior researchers.

Research in Fragile States

Moderator: Anneli Eriksson, Registered Nurse and Project Coordinator At Centre for Research on Health Care in Disasters, Karolinska Institutet

Junior Facilitator: Alice Claeson, Ethics Secretary at the Swedish Society of Medicine's Student and Junior Doctor Section

Description: Fragile states are defined by weak state institutions, ongoing violence, significant corruption and political instability, as well as poverty. These situations leave the population vulnerable and exposed to a range of traumas. The need for research in these areas is thus significant; however, unstable contexts profoundly challenge current research methods and their applications.

In this workshop, we will discuss and share experiences surrounding the challenges of these situations, such as security issues and a lack of access to reliable data. We will examine several situations in which advocacy efforts have exaggerated results. We will also present some research opportunities and provide examples of successful research, such as randomized control trial conducted during conflicts.

How to Use Gapminder

Moderators: Olof Gränström, Public Lecturer and MA, Gapminder

Helena Nordenstedt, Public Lecturer and Assistant Professor, Gapminder and KI

Junior Facilitator: Jagiasi Khusboo

Description: In this workshop, we will take a closer look at the use of Gapminder tools for health-related research and illustrate how you can upload your own data and make personal Gapminder presentations.

Global Health Education – How do we secure that all students are reached?

Moderator: Anneli Ivarsson, Professor at Umeå University

Junior Facilitator: Nora Nindi Arista, S.KM, Umeå University

Description: Many of today's professions need to have a global perspective to be able contribute successfully in their daily work, and this is more so for health professions than for many others. Therefore, global health should be part of all health professions' academic education. In this workshop we will continue a dialogue started during the Global Health Education Conference in Umeå 2016, to which the present conference is a follow-up. How far have we reached and what steps are needed to secure that all students are reached?

Research in Global Health – Where to start?

Moderator: Hampus Holmer, MD, Lund University

Junior Facilitator: Caroline Schagerholm, Medical Student Karolinska Institutet, Studenter i Forskning (Students in Research)

Description: Interested in global health research but don't know where to start? Or, already begun work but thinking about your next steps as a global health researcher? Then this is the workshop for you! We will discuss opportunities as well as challenges and provide hands-on advice for students, young professionals and junior researchers interested in global health research.

Do No Harm – Research abroad and ethical considerations

Moderator: Giulia Gaudenzi, Department of Neuroscience, Karolinska Institutet, MSc, PhD

Junior Facilitator: Fatima Bashir Abdalrahim Bashir, Master student of Public Health with specialization in health economics at Umeå University

Description: Do no harm is a guiding principle when engaging in research and exchange programmes, especially within the field of health. This session investigates how this principle can be of use and can help us make ethically sound decisions, whether conducting research as students or professionals.

Policy Implementation

Moderator: Sara Fewer, Co-Director, Evidence to Policy Initiative, Global Health Group
University of California, San Francisco

Junior Facilitator: Annabell Kantner, BSc in Nursing (MSc in Global Health ongoing)
Swedish Network for International Health (SNIH)

Description: Good research should be a foundation for informed decision-making, but even when reliable results exist, they do not always impact policy-making. How can we address the gap between research and policy implementation? This session will address this question and discuss possible solutions.

The Role for Research and Researchers in the Collective Swedish Plan for Global Health

Moderator: Anders Nordström, Ambassador for Global Health, Ministry for Foreign Affairs

Junior Facilitator: Ines Moued, Medical Student Uppsala University and Intern Swedish Ministry for Foreign Affairs

Description: This workshop aims to discuss the role of research and researchers in the implementation of the Swedish Plan for Global Health, which is being developed by the Swedish government in collaboration with SIGHT. Scientists, authorities and CSOs have been consulted in the development process in order to create a complete and extensive plan for Sweden's current work within Global Health with regards to Agenda 2030. We will present the draft plan and invite for discussion the topic of how we can work together to implement it.

Global Health Research in the Era of Fake News: Communication between research and journalism

Moderator: TBA

Junior Facilitator: Thet Lynn, Dr, Uppsala University, Sweden

Description: In a time of "alternative facts", it is more important than ever to communicate research results to the public. This workshop hopes to overcome the gap that sometimes exists between two different but equally important professions – journalism and research. We will try to define some of the obstacles against effective and trustworthy communication between researchers and journalists. Can we find concrete pointers to help us in our everyday work?

Interdisciplinary Research

Moderators: Rachel Irwing, Department of Arts and Cultural Sciences, Lund University

Sibylle Herzig van Wees, PhD (cc), MSc, BA, School of Oriental and African Studies, University of London

Junior Facilitator: Tamire Mulueta

Description: In order to fulfil the 2030 Agenda and its sustainable development goals we need to find new methods to utilise the knowledge and skills of our whole society. In this workshop we will together explore how we can work more interdisciplinary, with specific focus on global health.

Student Workshop What to Prioritize in Global Health

Moderators: Gustav Alexandrie, President Effective Altruism Stockholm University

Erik Engelhardt, President Effective Altruism Royal Institute of Technology (KTH)

Aylin Shawkat, President Effective Altruism Stockholm School of Economics (SASSE)

Vera Lindén, Former president Effective Altruism SASSE

Junior Facilitator: Greta Bütepage

Description: This workshop will introduce a number of tools for thinking about what to prioritize in global health. Based on interdisciplinary research, we will facilitate a discussion on the attainability of various targets of Sustainable Development Goals and what students can do to achieve them as effectively as possible. This workshop is primarily intended for students who wish to take responsibility for the Sustainable Development Goals and have a significant impact on global health.

How an Optimized and Efficient Administration Can Support Researchers, Research Groups, and Departments

Moderator: Per Hanvik, Head of Finance and Administration, Department of Public Health Sciences and Department of Learning, Informatics, Management and Ethics – LIME, Karolinska Institutet

Junior Facilitator: John Musonda, PhD Student Mälardalen University and The University of Zambia

Description: What is the role of administrative staff within global health research? What benefits are there for researchers to engage with administrations during early project stages, and what happens when

administrators start to see themselves as proactive advisors? This workshop aims to overcome the gap between research/education and administration, and prove once and for all that there are benefits to be had in having an efficient administration. We welcome administrative staff, researchers and students to this workshop.

19 April

14.15 – 16.45 Parallel workshops: Deeper Understanding and Closer Collaboration within Global Health Research

This session consists of moderated small-group discussions. You will have had the opportunity to state your preference for which discussion you would like to take part in; however, we cannot guarantee that you will get your first choice. The discussion groups will be finalized before the start of the conference.

Child Health in the Era of the Sustainable Development Goals.

Moderators: Mats Målqvist, Associate Professor, International Maternal and Child Health, Department of Women's and Children's Health, Uppsala University

Tobias Alfvén, Associate Professor Karolinska Institutet, Chair of the Swedish Society of Medicine's Committee for Global Health

Johan Dahlstrand, Operations Manager, Swedish Institute for Global Health Transformation (SIGHT)

Maria Mossberg MD, PhD, Paediatrician, Swedish Paediatric Society and Lund University

Junior facilitator: Anna Runebjør Tison, Intern Physician Södersjukhuset

Description: In embracing the 2030 Agenda and its Sustainable Development Goals, the global community is faced with a number of challenges – and opportunities – with regard to maintaining momentum towards improving the lives and livelihoods of children around the world. Improving the health of children locally and globally is a key priority in Sweden's development agenda. Fulfilling this aim will require contributions that are multidisciplinary in scope, transformative, and grounded in evidence. In this workshop, we will discuss how we can best contribute to improving the health of children, with a focus on children in low-income settings.

Global Mental Health Workshop: Feeding research evidence into policy

Moderators: Anna-Clara Hollander, PhD, Postdoc and Lic. Psychologist, Dep. of Public Health, Karolinska Institutet

Helena Frielingsdorf Lundqvist, Psychiatry Resident/Research Fellow (MD, PhD), Center for Social and Affective Neuroscience, Dept. of Clinical and Experimental Medicine, Linköping University

Description: The aim of this workshop is to showcase research on global mental health and provide a platform for networking as well as for future collaborations. We will discuss different strategies of translating our research findings into policy changes and summarize the outcome of the discussions into an action plan. We welcome all participants, whether you are already involved in research on global mental health or if you are interested in knowing more about global mental health research!

If you are already involved in research on global mental health, please let us know if you are willing to give a 5- to 10-minute mini-presentation about your research. Your participation is greatly appreciated! If you are interested in knowing more about global mental health research, this is an opportunity to find out what is going on in the field, to network and to participate in interesting discussions!

Open Data Workshop

Moderators: Max Petzold (GU), Sharon Fonn (Wits/Carta), Kobus Herbst (INDEPTH), Cheikh Mbacké Faye, Senior Research Officer, African Population and Health Research Center (APHRC) and Gustav Nilsson, MD, PhD, Karolinska Institutet and Stockholm University

Description: Access to well-documented, high-quality data is fundamental to research. Gathering, documenting and making already collected research data available to other researchers can substantially improve the total utility of the data. This workshop will identify and discuss possibilities for increasing data sharing in global health research, given the priorities and ethics of the research. Of special

importance is arriving at an understanding of whether Open Data should be defined and handled differently in low- versus high-income settings. The applicability of the FAIR (Findable, Accessible, Interoperable, Reusable; see <https://www.force11.org/group/fairgroup/fairprinciples>) principles will be assessed.

Screening as Public Health Strategy for Early Detection of Non-communicable and Communicable Diseases: Challenges and implications

Moderators: Meena Daivadanam, Dept. of Food, Nutrition and Dietetics, Uppsala University, and Dept. of Public Health Sciences, Karolinska Institutet, Helle Mölsted Alvesson, Dept. of Public Health Sciences, Karolinska Institutet

Description: This workshop aims to present and discuss opportunities for early detection of chronic health conditions such as Type 2 diabetes, mental health disorders and TB through screening and community mobilisation. We will specifically look at screening, including different types of screening opportunities and their implications for the health system, challenges in mobilising stakeholders and resources, and setting up screening. We will also have an opportunity to discuss the advantages and disadvantages of screening, and its acceptability as a population strategy for early detection and prevention of chronic conditions.

The role of Social Medicine in a Global Context

Organisers: Swedish Association of Social Medicine

Description: The purpose of this workshop is to discuss current research and practice in social medicine, addressing important societal challenges related to increased globalisation in Sweden. Examples include work on health literacy, culturally competent health and social care, unaccompanied refugee minors, migrant health screening, and teamwork in socially disadvantaged areas. We welcome presentations from students at all levels, as well as researchers and clinicians. Abstracts can be submitted upon registration, until the 31st of March.

The Swedish Association of Social Medicine (Svensk socialmedicinsk förening) has organised its spring conference (Vårkonferens) this year as a parallel workshop session during the Swedish Global Health Research Conference. The association welcomes members of the organization as well as conference participants to the workshop.

Improving Quality of Emergency Obstetric Care for Women and Newborns in Low-resource Contexts

Moderator: Helena Litorp, International Maternal and Child Health, Department of Women's and Children's Health, Uppsala University, Henrik Sandell, International Maternal and Child Health, Department of Women's and Children's Health, Uppsala University, Johanna Belachew, International Maternal and Child Health, Department of Women's and Children's Health, Uppsala University

Description: The aim of this workshop is to analyse aspects of quality improvement in obstetric care using research from low-resource contexts. Based on experiences from different academic institutions, as well as NGOs, challenges and possible solutions to improve quality of care will be discussed. Special emphasis will be put on the mother-infant dyad during delivery and the importance of interdisciplinary collaboration for optimizing obstetric outcomes. The workshop also aims to provide a platform for networking and future collaboration.

Urbanization and Environmental Health Challenges in a Global Context

Moderators: Erik Melén (MD), Institute of Environmental Medicine, Karolinska Institutet
Petter Ljungman (MD), Institute of Environmental Medicine, Karolinska Institutet
Tom Bellander, Professor, Institute of Environmental Medicine, Karolinska Institutet

Description: With growing urbanization across the globe, we are faced with both challenges to and opportunities for improving public health. The urban environment is an important determinant of non-communicable and communicable diseases through air, noise, soil, and water pollution, accessibility to green space, accessibility to safe and nutritious foods, and provision of means for daily physical activity. Many of these aspects may be further affected by segregation and socio-economic factors.

This workshop aims to start the discussion on how we can contribute to developing city environments that improve public health.

How Could Digital Health Platforms Improve Health in Low Resource Settings?

Moderators: Jesper Gantelius, MD, MSc Eng, PhD; KTH/Nanobiotechnology and Karolinska Institutet/Department of Public Health Sciences, Global Health and Anna-Karin Edstedt Bonamy, MD, PhD, Specialist in paediatrics, Karolinska Institutet/Clinical Epidemiology Unit and Doctrin AB

Description: Could digitalizing the patient journey in low-resource settings improve health outcomes and use of resources? Learn more about possibilities and pitfalls, and share your experiences and suggestions for improvement. Networking with the other workshop participants and the initiation of e-health research collaborations are other expected outcomes of the workshop.

Health System Resilience to Disasters

Moderators: Johan von Schreeb, Director Centre for Research on Healthcare in Disasters, Department of Public Health Sciences, Karolinska Institutet and Dell Saulnier, MPH, Centre for Research on Healthcare in Disasters, Global Health – Health Systems and Policy, Department of Public Health Sciences, Karolinska Institutet

Description: Climate change, natural disasters, outbreaks and conflicts are imminent threats to improved health, the progress of SDGs, and the roll-out of UHC in many countries. Resilient health systems are key to ensuring service delivery following disasters. A resilient health system should be able to manage health threats caused by disaster but also maintain service delivery for normal conditions. However, little is known about what a resilient health system looks like in reality. What are the essential components of such a system and how is one established in resource-scarce settings?

The workshop builds on experiences from work done in Cambodia, Sierra Leone and other countries by the Centre for Research on Healthcare in Disasters, Health Systems and Policy, Department of Public Health at KI. This will be an interactive session where researchers and students interested in sharing experience and research will meet to outline collaborative work to support the evidence on how to build up the resilience of health system in disasters.

Addressing Cross-cultural Issues in Global Health Research

Moderators: Naomi Limaro Nathan, Dr. (M.D), and Nikita Charles Hamilton, University of Sheffield – School of Health and Related Research (SchARR)

Description: Various researchers have shown the need for addressing cultural issues in global health research. Not addressing these issues has led to difficulty in the generalisability and effectiveness of their work in the population of interest. Without appropriately addressing cross-cultural issues in global health research, good health and well-being, particularly in developing countries, are difficult to achieve. This workshop will explore ongoing barriers to cross-cultural issues as well as dimensions of acceptability, accessibility and affordability toward the goal of improving evidence-based research in global health.

Global Health Humanities Workshop

Moderator: Rachel Irwin, Department of Arts and Cultural Sciences, Lund University

Description: The aims of this workshop are to highlight research within the emerging field of Global Health Humanities and to develop a network of engaged researchers. The workshop will explore the role of humanities research in addressing key global health challenges, such as antimicrobial resistance and the harnessing of ‘big data.’ We will also look more broadly at the role of humanities research in contributing to the Sustainable Development Goals.

We invite researchers from a variety of disciplines, including, but not limited to, history of medicine, anthropology, ethnology, philosophy, literature, and ethics. We welcome both participants engaged in ongoing projects and also those with a keen interest in global health humanities research in order to connect and to explore the potential for future collaborations.

Medical Abortion – A Neglected Global Health Issue

Moderators: Kristina Gemzell Danielsson, Professor of Obstetrics and Gynaecology, Karolinska Institutet, Laura Köcher, Swedish Organization for Global Health and Caroline Bjurnemark, Swedish Organization for Global Health

Description: The workshop will provide an overview of induced abortion and an update on safe abortion care and emergency contraception globally. Recent developments in abortion care and their importance for women and societies will be discussed. Practical examples, including task sharing/shifting and the use of telemedicine, will be discussed, with a focus on access to contraceptives, safe abortion and post-abortion care in Uganda. What is unsafe abortion, and why is it such a serious public health issue in Uganda? Who is affected, and which factors in the social and legal environment contribute to the issue?

Youth as Global Health Advocates

Moderators: Maria Öhman, Medical Student at Uppsala University, Swedish Society of Medicine Student and Junior Doctor Section, Adelina Mazhiqi, MD candidate, Local President Skåne, Lund University, Swedish Society of Medicine's Student and Junior Doctor Section and Hana Awil, Junior Physician in Mora, IFMSA-Sweden

Description: Advocacy from civil society, including students and youth, played a critical role in the negotiations leading to the SDGs, as well as being vital to ensuring the fulfillment of the goals. This interactive session, presented in a debate forum, highlights ongoing youth engagement within global health-related topics, taking its stand from the 2030 Agenda and a rights-based perspective.

Antibiotic Resistance and Sustainable Development Goal's – relevance and implications

Moderator: Cecilia Stålsby Lundborg, Professor, Karolinska Institutet, Department of Public Health Sciences, Global Health

Description: In this interdisciplinary workshop, there will be short introductory presentations by representatives from various agencies and organizations, followed by a panel discussion among the presenters led by the workshop organizer, with a few prepared questions (that will be circulated later) and questions from the floor.

Short small-group discussions will focus on urgent research issues in relation to the theme of the workshop and reassembly in the larger group. A one-page summary will be prepared and circulated after the workshop.

The workshop will include the following presentations:

Kim Andersson: Environmental aspects focus on sanitation and wastewater systems

Ulrika Grönlund: Veterinary aspects, infection prevention and hygiene

Johan Struwe: Swedish policy antibiotic use and resistance

Åsa Sjöling: Environment focus on resistance aspects

Maria Prånting: ReAct, international policy antibiotic use and resistance, Swedish policy antibiotic use and resistance.

Health Financing and the Move towards Universal Health Coverage in Low- and Lower-middle Income Countries

Moderators: Jesper Sundewall, Regional Advisor Sida and Karolinska Institutet

Raphael Hurley, Director, Health Financing, Clinton Health Access Initiative

Samantha Diamond, Associate Director, Health Financing, Clinton Health Access Initiative

Karin Stenberg, Technical Officer, World Health Organization

Nana Poku, Professor, University of KwaZulu-Natal, Durban

Description: With the adoption of Agenda 2030 and the Sustainable Development Goals, there is a global commitment to achieve Universal Health Coverage (UHC), including financial risk protection. This commitment is evident in policy discussions around the globe.

Many low- and lower-middle-income countries are now adopting a “pathway towards UHC”. However, UHC must be unpacked and filled with content. UHC is a means to providing a package of clearly defined interventions to the entire population.

UHC also requires political will, as there are many health needs competing for a limited pot of resources. In this context, how does a policy-maker maximize health outcomes without alienating any of its larger constituencies or compromising management of other urgent health issues? Striking this balance will undoubtedly be difficult even for the boldest and most progressive health ministers.

This workshop aims to increase the understanding of the pathways towards UHC, with a focus on Africa, and identify research gaps going forward.

WHO Global Action Plan Strategic Objectives

Antibiotic resistance

‘Understanding how resistance develops and spreads, including how resistance circulates within and between humans and animals and through food, water and the environment, is important for the development of new tools, policies and regulations to counter antimicrobial resistance’ (WHO Global Action Plan 2015).

Antibiotics are lifesaving medicines and one of the most important groups of medicines for a functioning health system. They are, however, also often used unnecessarily or in incorrect manners, and all uses of antibiotics contribute to antibiotic resistance. Resistance to antibiotics is increasing globally, and the political awareness of this issue has recently placed ways of preventing the spread and development of antibiotic resistance as one of the very highest priorities for global health. Antibiotic resistance is also an obstacle for achieving many of the Sustainable Development Goals. In the 2016 United Nations (UN) General Assembly high-level meeting on antimicrobial resistance, it was strongly emphasized that resistance to antibiotics is now the greatest global health risk and requires urgent attention.

Estimates suggest that in the future up to 10 million people might die globally per year due to antibiotic resistance if we cannot find ways to curb the development. Many interlinked factors at both individual and system levels contribute to resistance development and spread, and it is increasingly recognized that resistance must be addressed using a One Health approach. This approach emphasizes that resistance must be tackled in the human, animal and environmental sectors together. In the 2015 WHO Global Action Plan, this is expressed as having five strategic objectives

- (i) *improve awareness and understanding of antimicrobial resistance through effective communication, education and training;*
- (ii) *strengthen the knowledge and evidence base through surveillance and research;*
- (iii) *reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures;*
- (iv) *optimize the use of antimicrobial medicines in human and animal health and*
- (v) *develop the economic case for sustainable investment that takes account of the needs of all countries and to increase investment in new medicines, diagnostic tools, vaccines and other interventions.*

Resistance can also not be handled by countries separately, as travel and trade quickly move resistance, but must be addressed in collaboration.

Interviews with speakers

Keynote speaker Sharon Fonn



What do you see as the biggest challenge to achieve the 2030 Agenda for Sustainable Development?

The biggest challenge to achieve the 2030 Agenda for Sustainable Development is a common understanding about what drives development.

Do you have an example of a good success story, when research results have been successfully implemented?

I have many, but the most recent is the use of evidence on the impact of salt and sugar on health outcomes in SA. This led to an agreement by industry to change the amount of salt in bread – a staple food for many. Our government has just imposed a sugar sweetened beverage tax to influence consumption of these unhealthy drinks. This work was done by colleagues in the School of Public Health, University of the Witwatersrand. They have been very influential. (See <http://www.priceless.ac.za/>)

How did you start your global health engagement?

My response is perhaps different from others as I come from what perhaps more conservative people traditionally call “the globe” – that is not Europe and North America. Coming from South Africa my first time to do work outside of my country was after Nelson Mandela was released. I started to work with WHO/TDR’s Gender and Health Task Force to test a health systems intervention to improve quality of care and increase gender sensitivity at the primary care level. We had developed an intervention in South Africa called Health Workers for Change and we tested it and measured its impact in Africa and one country in Latin America; today more than 25 years later it is still being used.

Do you have any advice for students and young professionals that are early in their careers?

It is fundamental to know that at the root of health status are the social determinants of health. Some, maybe all, of those social determinants are themselves determined by differential power relations. You can be doing work in your own country and it can have an international impact. Global health does not have to mean going elsewhere.

Keynote speaker Kidanto Hussein



What do you see as the biggest challenge to achieve the 2030 Agenda for Sustainable Development?

The biggest challenge is that we have extreme poverty in many countries. The donor funded projects have no impact in alleviation of poverty in recipient countries.

Do you have an example of a good success story, when research results have been successfully implemented?

At Muhimbili National Hospital we were able to improve care among eclampsia patients through criteria-based audits.

How did you start your global health engagement?

My engagement in global health dates back to year 2000 when I was a coordinator of global health programs for Swedish students coming from Karolinska Institutet, Gothenburg University and Uppsala University to study at Muhimbili University. Overall, I received more than 150 students during my tenure.

Do you have any advice for students and young professionals that are early in their careers?

I advise the students to be involved in global health, since disease patterns are different in different parts of the world. Global health helps students to learn and improve their future careers.

Keynote speaker Maria Teresa Bejarano



What do you see as the biggest challenge to achieve the 2030 Agenda for Sustainable Development?

Our global realities are increasingly being shaped by forces beyond the nation-state and the emerging of a new world order. Achieving the 2030 Agenda for Sustainable Development, presupposes addressing the governance challenges that are crucial for its implementation. This entails how governments, the private sector, NGOs/CSOs and researchers work together to address problems of global nature that do not respect borders and can only be solved through global collective action in a multisectorial way; how they all together forge accountable multi-stakeholder approaches to design and implement policies and programs. Success must be measured not only by the energy of the negotiation processes but by the robustness of implementation. In a growingly interconnected world no single country acting alone can manage the range of risks and threats we face today including climate change, antimicrobial resistance, increasing economic and social inequalities, conflicts, violent extremism, and enormous displacements.

This governance challenge is translated, among other things, in a lack of mechanisms, instruments and coherence to mobilize the levels of funding that the 2030 agenda entails. The ambition, scale and inter-related nature of SDGs requires a change in the international community's approach to development cooperation and financing sustainable development. Importantly, the many global resources and aspirations shared provide a unique opportunity for engagement and tackle these challenges.

In the context of this meeting is important to acknowledge that the 2030 framework "How to Get There" makes strong emphasis on three aspects of making its vision a reality: Means of Implementation, Technology, and Capacity Building.

Keynote speaker Nana Poku



What do you see as the biggest challenge to achieve the 2030 Agenda for Sustainable Development?

Under the SDG's health must compete for resources in an arena which features practically every important issue of human equity, social stability and planetary sustainability.

Do you have an example of a good success story, when research results have been successfully implemented?

The success in combatting neglected tropical diseases is largely unheralded, and it is all the more significant because it didn't come in the wake of a scientific breakthrough, but through a coalition of national governments, NGOs, pharmaceutical companies, the World Health Organization and donors to ensure that the simple medications to treat them were made affordable and accessible. These diseases affect one in six people; we have long had the means—and now, it seems, the determination to defeat them.

How did you start your global health engagement?

My initial intellectual training was in political economy and I was fortunate to have been asked to apply it to the first stages of the scaling-up of the international response to HIV and AIDS.

Do you have any advice for students and young professionals that are early in their careers?

Deepen and refine your expertise by extending it. No single discipline or profession can tell us everything we need to know about improving human health, in any of its particulars. To better enable you to make common cause with other health professionals, read everything and develop a calculated disrespect for intellectual, institutional and professional boundaries.

Poster sessions

Global Health is an interdisciplinary field, with many different actors. To mirror this, we sent out a call prior to the conference inviting everyone to submit poster abstracts showcasing global health research and projects in Sweden and abroad. At the poster session, you will find a variety of research research posters and also posters from global health organisations, encouraging you to get involved. Only a fraction of the variety of global health research that exists will be represented, but we hope you will find it inspiring. Here you can see the research posters that are accepted at the conference. The abstracts can be read at the end of the book. You will also have the opportunity to visit the exhibition 'Face of AIDS', and speak to Venture Cup and the United Nations Association Sweden.

Prevalence and Associated Risk Factors of Depression and Suicidality among Young Adults in Rwanda, 17 Years after the Genocide

Effects of Indoor Air Pollution on Respiratory Symptoms of Cooking Mothers in Ethiopia

Is the Efficacy of ASAQ Maintained After 14 Years as First Line Treatment for Uncomplicated Malaria in Zanzibar?

Failure to Implement Antibiotic Regulatory Policies and Its Influence on Antibiotic Misuse in Northern Vietnam

Double Burden of Childhood Malnutrition in India

Zika Preparedness Latin American Network (ZikaPLAN)

Myths Surrounding Albinism and Struggles of Persons with Albinism to Achieve Human Rights in Yaoundé, Cameroon

Growth Restriction from Foetal Life to Adolescence: Studies within the minimat cohort, Bangladesh

Interventional Pain Management might Improve Health-Related Quality of Life – but at what cost?

Socioeconomic Inequality in Hypertension among Adult Indonesian
Scaling up quality improvement intervention for perinatal care in Nepal (NePeriQIP)

Risk Communication and Ebola-Specific Knowledge and Behaviour during 2014–2015 Outbreak, Sierra Leone

WHO Effort to Contain Antimicrobial Resistance in the Food Chain

Age-friendly Gothenburg from the Elders' Perspective

Adolescent Sexual and Reproductive Health Education From The Perspective of Muslim People in South Asia and Middle East

High Rate of Antibiotic Resistance among Pneumococci Carried by Healthy Children in the Eastern Part of the Democratic Republic of Congo and Northern Tanzania

Accessibility of Basic Pediatric Emergency Care in Malawi: Analysis of a national facility census

BIOPIA: Biopharmaceutical Pharmacokinetic and Immunogenicity Assessment – a non-profit collaborative effort of European laboratories with expertise in immunogenicity

Cerebral Palsy in Uganda; Prevalence, function and participation in schooling – a population based Study

The Impact of Health Insurance on Catastrophic Health Expenditure and Impoverishment: A cross-sectional study in Indonesia

Occupational and Leisure Physical activity and Major Depression in Adults – a population based cohort study in Sweden

Improving Diagnostics of Paediatric CNS Infections in Low-income Settings

Life Events, Depression Severity and Response to Treatment in Primary Care: Results from the REGASSA trial



Relationship of Psychiatric Health Risk Scores with Depression and Genetics in Adolescents

"Fearing the Worst." Ebola preparedness in Guinea-Bissau

Exploring Perspectives on Regulation of the South African Traditional Health Sector

Challenging Criminalisation Globally: Un-Policing Identity, Morality, Sexuality and Bodily Autonomy

Using Fruit Illustration in Promotion Posters to Demonstrate Stages of Breast Cancer in Promoting Awareness of Breast Cancer and Instructing Self-examination for Women in Rural Vietnam

Documenting Respiratory Rate Fluctuations after Attachment of a New Pneumonia Diagnostic Device – implications for misdiagnosis of pneumonia in children under five

Antibiotic Resistance in Commensal *Escherichia coli*-isolates from Human Source in Community Settings in Low and Middle-income Countries – a systematic review

Traditional Health Practitioners Act in South Africa: Stakeholder perceptions of challenges and opportunities on collaboration

Prevalence and associated risk factors of depression and suicidality among young adults in Rwanda, 17 years after the genocide

Joseph Muwonge Junior, MSc Global Health at University of Gothenburg

Background: Depression is a key global health challenge (WHO, 2013) and is predicted to become the biggest contributor of disease burden in both low and high income countries by 2030 (WHO, 2011a). Prevention, early detection, and management of depression is crucial in preventing suicide among young people (Li et al., 2017).

Research aim: The research aim is to assess the prevalence and associated risk factors of major depressive episode (MDE) and suicide risk (suicidality) among young adults (women and men) in the southern province of Rwanda. This research study is a secondary analysis of existing data from a cross sectional study conducted in 2011/2012. Both current MDE (depressive mood in past 2 weeks preceding survey) and suicidality were measured using an adapted version of the Mini International Neuropsychiatric Interview (MINI) (Sheehan et al., 1998).

Preliminary results: Nearly equal numbers of men (440) and women (477) participated. The mean age among men and women was 27.26 95%CI (26.84, 27.69) and 27.97 (27.56, 28.38) respectively. Majority of women were married or cohabiting (72.3%) compared to 53.8% among their male counterparts. Only 11.5% of the men and 14.2% of the women had a secondary school or university level of education.

Majority, 75.9% of the men compared to 70.6% of the women had at least one of the household items (Electricity, a radio, television, telephone, refrigerator) used to assess living standards. On average, more women than men reported poor social support (presence of a close friend or family to support when ill, lend money, offer guidance etc.).

Prevalence and risk factors

The prevalence of current MDE was 12.1% (9.04%, 15.2%) among men and 26.5% (22.5%, 30.5%) in women. The prevalence of suicidality was 9.6% (6.9%, 12.3%) in men and 21.8% (18.1%, 25.5%) in women.

Marital status with those living with a partner as the reference category, *education level* (those with secondary and above education level as reference), *Number of children* (no children as reference), *household assets* (with at least one item as reference) and *social support* indicators (those who reported Always/often/sometimes as reference) yielded statistically significant results in the crude logistic regression model (binary). For example, men without any of the household items had 2.6 times odds (OR 2.637 (1.446,4.808)) and women had double odds (OR 2.021 (1.314,3.108)) of meeting the MDE criteria compared to their counterparts. While women without had 1.8 times odds (OR1.830 (1.159,2.889)) of meeting the suicidality criteria compared to those with at least one item.

Women who reported poor social support indicators had higher odds of meeting the MDE criteria compared to their counterparts i.e. Assistance when ill (OR2.032 (1.330,3.105)), share food (OR1.775 (1.173,2.686)), Offer support (OR1.925 (1.275,2.907)). This was similar with suicidality i.e. Assistance when ill (OR1.718(1.098,2.689), share food (OR1.749 (1.123,2.723)) and lend money (OR1.822 (1.127,2.945)).

Effects of indoor air pollution on respiratory symptoms of cooking mothers in Ethiopia

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Background: Around 3 billion people in low- and middle-income countries cook and heat their homes using solid fuels (i.e. wood, charcoal, coal, dung, crop wastes) on open fires or traditional stoves. Women, especially those responsible for cooking, and their young children, are most heavily exposed as they spend the most time near the domestic hearth. Household air pollution results in the emission of a range of health damaging pollutants such as fine particles and carbon monoxide, which leads to the death of 4.3 million people per year. Here we assessed the effect of indoor air pollution on the respiratory health of mothers and planned intervention to evaluate the use of improved cooking stoves.

Method: A descriptive, comparative, cross-sectional study was conducted in Addis Ababa, the capital city of Ethiopia and at rural areas of Butajira, in Gurage zone, from March to August 2016. Systematically selected 266 urban and 279 rural mothers were enrolled for face-to-face interviews using a structured questionnaire. Descriptive analysis was used to calculate the mean and standard deviation for continuous variables and frequency for categorical variables while binary logistic regression was used to determine the association between independent variables and the occurrence of any of the respiratory symptoms. Ethical approval was obtained from National Research Ethics Review Committee, Ministry of Science and Technology, Ethiopia.

Result: The mean age of the mothers was 30.3 years. More than half of the rural mothers did not attend school compared with 10% of the urban mothers. The majority of the mothers (70%) from the rural area cooked in the main living room compared with 37% of the urban mothers whereas around 20% of them, in both settings, used a separate kitchen. All mothers from the rural area used solid fuel for cooking compared with 43% of the urban group. More than half of the mothers from both settings reported having a window in the cooking area for ventilation. Symptoms of cough (25%), wheezing (8%), irritation of the nose (39%), irritation of the eye (48%) and any of the respiratory symptoms (51%) in the last 12 months were significantly more common among rural mothers compared with 17%, 2.3%, 13%, 21% and 32%, respectively among the urban groups. Among 116 mothers who had cough, rural mothers had significantly higher proportion (27%) with chronic coughs of three or more months compared with (8.9%) of the urban mothers. Mothers who were using solid fuel had two times higher risk of developing any of the respiratory symptoms. The presence of any respiratory symptom in the last 12 months was also significantly associated with the residence, cooking in a living room, not having a separate house/building for cooking.

Conclusion: Given the larger population settlement in the rural parts and the use of solid fuel as the only energy source, there is a higher risk of developing respiratory health problems for those mothers in Ethiopia in addition to their burden of fuel collection. We recommend interventions to reduce indoor air pollution with evaluations of the health effects.

Is the Efficacy of ASAQ Maintained After 14 Years as First Line Treatment for Uncomplicated Malaria in Zanzibar?

Rory Barnes, Karolinska Institutet

Zanzibar is one of the recent 'success stories' in the global fight against malaria. It has seen an impressive decline in the burden of malaria over the last fifteen years, and is now considered a 'pre-elimination' setting (1). Community parasite prevalence dropped from 22.1% to 1.8% between 2003 and 2015, a 92% reduction (Björkman et al, submitted). This progress can be attributed to sustained commitment from the government, and other actors, toward strong case management alongside aggressive vector control programmes. High coverage of Long-lasting Insecticide treated Nets (LLINs) and Indoor Residual Spraying (IRS) have been important factors associated with this decline. However the real backbone of this success has been the use of Artesunate + Amodiaquine (ASAQ) to treat cases of uncomplicated malaria in Zanzibar since 2003 (1). Artemisinin Combination Therapies (ACTs) such as ASAQ are today's gold standard in malaria treatment and work by combining a fast acting artemisinin derivative with a longer lasting partner drug to clear the residual parasites. Using the two drugs in combination greatly reduces the chance of the parasites developing resistance to the treatment (2). The efficacy of ASAQ was studied shortly after its introduction and was shown to be high, with an 88% PCR-adjusted parasitological cure rate (3). However this did fall just below the WHO recommended efficacy cut-off of 90% treatment success (4).

Despite new tactics such as ACTs and improved diagnostic tools to reduce the risk of resistance to antimalarials developing, it remains an ongoing concern and a global threat. A delayed parasite clearance response to ACT was first seen around the Thai-Cambodian border and has now spread to the rest of mainland Asia (5). Therefore continued surveillance is paramount to ensure that the drugs remain effective to keep malaria at bay in Zanzibar, but also to allow for a swift response to prevent novel resistance mutations from spreading to other settings.

For this study a one-arm prospective antimalarial drug efficacy trial was conducted based on WHO guidelines. n=146 febrile patients who present with microscopically confirmed uncomplicated *P.falciparum* infection were treated on site with ASAQ once daily for three days and subsequently followed up for 28 days. The follow-up consisted of a fixed schedule of check-up visits in which clinical data, blood smears for microscopy, and dried blood spots for molecular analysis were collected. Initial microscopy data suggests that only 1/146 (0.68%) of the patients had parasitemia at D3 of follow up and no parasitemias were detected subsequently, indicating a high drug efficacy. However microscopy has a Limit Of Detection (LOD) of 50-100 parasites/ μ l so can easily miss residual parasitemias or low level recrudescences. Therefore dried blood spot samples taken at D3 and D28 post-treatment will be screened by a qPCR assay targeting the *Plasmodium* 18S rRNA gene. Samples that are positive for the presence of *Plasmodium* parasites will subsequently be investigated further using stepwise PCR to determine the eventual parasitological outcome of the treatment. The D3 parasite count has been shown to be a good predictor of treatment outcome and patients with persistent parasitemia on D3 after treatment with ACT can be considered to have a 'delayed response' which could be indicative of increased resistance to the drugs (6,7). Any parasitemias detected after D3 will undergo further molecular investigation to determine whether this recurrence was due to recrudescence or reinfection as including any reinfections as treatment failures could lead to an underestimation of true drug efficacy. Those that are considered true treatment failures will be analysed by PCR to identify the presence of SNPs that are associated with resistance.

1. Morris U, Xu W, Msellem MI, Schwartz A, Abass A, Shakely D, et al. Characterising temporal trends in asymptomatic *Plasmodium* infections and transporter polymorphisms during transition from high to low transmission in Zanzibar, 2005-2013. *Infect Genet Evol.* 2015 Jul;33:110–7.
2. White N. Antimalarial drug resistance and combination chemotherapy. *Philos Trans R Soc Lond B Biol Sci.* 1999;354(1384):739–49.
3. Mårtensson A, Strömberg J, Sisowath C, Msellem MI, Gil JP, Montgomery SM, et al. Efficacy of artesunate plus amodiaquine versus that of artemether-lumefantrine for the treatment of uncomplicated childhood *Plasmodium falciparum* malaria in Zanzibar, Tanzania. *Clin Infect Dis.* 2005 Oct 15;41(8):1079–86.
4. WHO. Guidelines for the Treatment of Malaria. 3rd Editon. World Health Organisation; 2015 Apr.
5. Spread of Artemisinin Resistance in *Plasmodium falciparum* Malaria. *N Engl J Med.* 2014;371(8):786–786.
6. Stepniewska K, Ashley E, Lee SJ, Anstey N, Barnes KI, Binh TQ, et al. In vivo parasitological measures of artemisinin susceptibility. *J Infect Dis.* 2010 Feb 15;201(4):570–9.
7. Zwang J, Dorsey G, Mårtensson A, d'Alessandro U, Ndiaye J-L, Karema C, et al. *Plasmodium falciparum* clearance in clinical studies of artesunate-amodiaquine and comparator treatments in sub-Saharan Africa, 1999–2009. *Malar J.* 2014;13(1):114.

Failure to implement antibiotic regulatory policies and its influence on antibiotic misuse in Northern Vietnam

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Introduction/background: Even though policies to control the use of antibiotics are recognized by political and medical leadership in Vietnam, and there are many legislations and initiatives designed to control unnecessary antibiotic use, these policies have not been effective (Nguyen K.V., 2010). Several studies have reported over the counter sale of antibiotics for minor illnesses in Vietnam (Nga et al. 2014, Nguyen K.V., 2010, Hoa N. Q et al., 2011).

Research Objectives: The study aims at analyzing the gaps in the implementation of antibiotic regulatory policies and its impact on antibiotic misuse in Northern Vietnam. The study also presents a situation analysis of people's health-seeking behaviors and drug sellers' antibiotic prescription behaviors.

Methods: The study used qualitative methods, i.e., semi-structured interviews, and observatory methods. For semi-structured interviews, the investigator wanted to get a deeper understanding of people's health-seeking behaviors, and for the observatory method, the investigator wanted to analyze the behaviors of drug sellers when prescribing antibiotics. Field notes taken and later transcribed.

Results: Failure to implement antibiotic regulatory policies has contributed to an increase in the irrational use of antibiotics in both humans and animals by the community members and health-caregivers. Over the counter sale of antibiotics, poor prescription methods, selfmedication, and incomplete and wrong dosages of antibiotics are a common trend in Northern Vietnam.

Conclusions: Unless policymakers begin to implement antibiotic regulatory policies in Vietnam, the future state of antibiotic resistance as a result of misuse will be uncontrollably high hence causing more deaths that would have been prevented.

Implications: Failure to implement antibiotics regulatory policies has affected the use of antibiotics both by the public and by health-care providers which puts the future of antibiotics use in jeopardy.

Double Burden of Childhood Malnutrition in India

Antti Kukka, Uppsala University

Background: Double burden of malnutrition means co-existence of under- and overnutrition in a community, household or an individual. It is observed in low- and middle-income countries undergoing nutrition transition. Nutrition transition in India is well-established, but research on double burden among Indian children aged under five has been scarce despite recognition of rising prevalence of overweight and the persistence of undernutrition. As both under- and overnutrition during childhood have long term consequences to individual and public health, this study examines double burden of malnutrition in Indian children.

Methods: Cross-sectional population-based data from District Level Household and Facility Survey 4 conducted in 2012-2013 in 23 Indian States and Union Territories was used for the analysis. Existence of overweight, stunting and anaemia were examined as main outcome in age group children under five at community and individual levels coupled with information on adult overweight in households with children. Bivariate analysis of explanatory factors including asset based wealth quintiles was performed.

Results: In this sample, 40.1% of children were stunted, 74.2% anaemic and 8.2% overweight. Boys were generally more affected than girls. Undernutrition was more common in rural areas and in poorer households whereas overweight affected the urban and the rich, though wealth gradient was less steep. Regional differences were large. Simultaneous overweight and stunting as well as overweight and anaemia both affected about 5% of children. Being stunted increased the risk for overweight almost 4-fold whereas overweight children had nearly 90% increased risk for stunting. No increased risk was seen for co-occurrence of anaemia. At household level, 26.5% of households had an overweight adult and a stunted child. Such households were more common in rural areas and wealthier quintiles.

Discussion: Undernutrition is still far larger concern than overweight among Indian children aged under 5 years, but burden of overweight is increasing in all wealth quintiles – a finding that has not been observed in previous studies. Stunted children were at increased risk for overweight, which requires policy attention as nutrition transition progresses in the country. Overweight was not protective of anaemia potentially indicating high-energy but nutrient-poor diets. The results of the study should be considered as preliminary as they do not cover the whole nation and as not all potential explanatory factors could be considered in multivariate model.

Zika Preparedness Latin American Network (ZikaPLAN)

Raman Preet and the members of the ZikaPLAN consortium

The Zika virus (ZIKV) outbreak in Latin America, the Caribbean, and the Pacific Islands under-lined the need for a coordinated research network across the whole region that can respond rapidly to address the current knowledge gaps in Zika and enhance research preparedness beyond Zika. To respond to this need, the European Union (EU) under its Horizon 2020 Research and Innovation Programme awarded three research consortia of which, Zika Preparedness Latin American Network (ZikaPLAN) with grant agreement number 734584, is being coordinated by the unit of Epidemiology and Global Health of Umeå University, Sweden.

ZikaPLAN combines the strength of 25 partners in Latin America, North American, Africa, Asia and various centers in Europe. The description of action for this consortium is built upon 15 inter-operating work packages and the tasks described in these are to be completed in four years (2016-2020). The work includes conducting clinical studies to estimate the risk and further define the full spectrum and risk factors of congenital Zika virus syndrome, delineate neurological complications associated with ZIKV due to direct neuroinvasion and immune-mediated responses in older children and adults, strengthening surveillance for birth defects and Guillain-Barré Syndrome. Laboratory based research is underway to unravel neurotropism and in investigating the role of sexual transmission and determinants of severe disease. Burden of disease studies, data-driven vector control, vaccine modeling and risk assessments on geographic spread of ZIKV will form the foundation of evidence-informed policies.

Myths Surrounding Albinism and Struggles of Persons with Albinism to Achieve Human Rights in Yaoundé, Cameroon

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Persons with albinism (PWA) in Yaoundé, Cameroon are reported to experience stigma, discrimination and violation of their human rights based primarily on their lack of pigmentation in their skin, eyes and hair. This study explores the challenges faced by persons with albinism, with particular reference to their knowledge of albinism, social and health issues and support. This qualitative research study recruited persons with albinism through a non-probability sampling technique in the city of Yaoundé, capital city of Cameroon. Data were collected through three focus group discussions with 19 persons (13 women and 6 men, adults) with albinism and thematic content analysis was employed to analyze responses. Almost all participants revealed societal discrimination, stigmatization, human rights violations, and some reported frustration due to injustice, rejection and superstitions.

All the participants had visual problems and 12 had skin diseases. These conditions were inadequately managed due to lack of care, rejection by others, superstition and limited financial resources. The majority of participants had a good understanding of albinism. This study urges social work interventions such as support groups for persons with albinism and their families; educational awareness programs; and advocacy for the rights of persons with albinism to healthcare, education and employment opportunities, and to demystify all myths and cultural beliefs surrounding albinism.

Keywords: People with albinism, Discrimination, Minority group rights, Lack of care, Cameroon

Growth restriction from foetal life to adolescence; studies within the minimat cohort, Bangladesh

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Stunted growth affects one in four children under the age of five years and has serious short- and long-term consequences for the child and society. The reduction of stunted growth in children is one of the prioritized efforts under the umbrella of the Sustainable Development Goals and WHO has adopted a resolution to reach a 40% reduction of stunting by the year 2025.

This poster summarizes the results from a thesis with the aim to expand the knowledge on linear growth from fetal life to adolescence, and to study risk factors and consequences of stunted growth in a cohort of children in rural Bangladesh.

A birth cohort of children of women participating in the Maternal and Infant Nutrition Interventions in Matlab trial (MINIMat), a randomized prenatal food and multiple micronutrient (MMS) trial, were followed from birth up to adolescents. Data were collected on socioeconomic, and nutritional characteristics of the mother and father, and frequent anthropometry of the child at birth, infancy, childhood, and adolescence. At puberty age at menarche and pubertal stage according to Tanner were assessed.

At birth, the children were shorter than the WHO growth reference, and more than half of the children were born small for gestational age. Linear growth faltered dramatically up to two years, after which height-for-age Z-scores increased up to adolescence. Prevalence of stunting was highest at 2 years (50%) decreasing to 28% at adolescence. Prenatal factors such as birth size, maternal anthropometry, and parental education were the most influential factors for linear growth up to and stunting at two years. Conditions after birth, such as feeding practices and morbidity, were less critical. The highest probability to be stunted at ten years was if the child was born by a short mother (<147.5 cm) who not had attended school, but the probability was also increased if conceived in the pre-monsoon season. The median age at menarche was 13.0 years. Children that were stunted in infancy and childhood had later pubertal development and menarche as compared to non-stunted children. Children that recovered from stunting had a similar timing of puberty as their peers who never had been stunted.

The prevention and treatment of stunting should be a national and global public health priority considering the devastating consequences for individual and society. For the prevention of impaired child growth, the launch and evaluation of interventions targeting adolescents and women of reproductive age that focus on adequate health, education, and nutrition before and during pregnancy are needed.

Interventional Pain Management might Improve Health-Related Quality of Life – but at What Cost?

Johan Hambræus, MD, Kjerstin S Hambræus, RN, Lars Lindholm, MD, Professor

Chronic pain is a wide-spread problem affecting nearly 20% of the population in both developed and developing countries according to multiple epidemiological studies. Pain and psychological distress are the two major factors that affect the health-related quality of life. Thus chronic pain is a condition that affects both the magnitude and the multitude of the quality of life. This can be confirmed by self-assessment tools like the EQ-5D measurements applied on patients with chronic pain, revealing figures around 0.3 in EQ-5D-index. It is not seldom that patients with chronic pain have negative EQ-5D-index as a sign of a condition where death would be preferred.

Interventional pain management focused on zygapophyseal joint pain is an evidence based method to establish whether the pain that the patient feels comes from the zygapophyseal joints in the spine, and if so from which of these. The methodology is simple in theory, where precisely applied nerve-blocks are performed and the patient validates the effect during the time the local anesthetics act. In practice it relies on both specific anatomical knowledge, x-ray to confirm the needle position before the injection and a close cooperation between the physician performing the test and the patient that validates the effect. However, thus diagnosed which zygapophyseal joints give rise to the pain, it is possible to perform a radio-frequency denervation of these joints and achieving a nerve-block that will persist for a period of 10–12 months before the nerve has regenerated.

Interventional pain management focused on zygapophyseal joint pain have been shown to improve the health-related quality of life from the average of about 0.3 to slightly lower than the normal Swedish population, i.e. 0.6–0.7 regardless of the duration of pain before the treatment and regardless of what part of the spine the patient have pain in. The prevalence of zygapophyseal joint is about 30–50% according to several studies, which means that the improvement is seen among that part of the patients with chronic pain. The obvious question that arise is what the cost is for this.

This study was performed on all patients that came for interventional pain management during the years 2010–2016. Those that where diagnosed with zygapophyseal joint pain was selected and followed during the first year after the treatment. A cost efficiency analysis was performed according to the table.

	Costs	Benefits
Quality-adjusted Life Years gained		++
Treatment cost of all patients (Including diagnostic procedures for those that didn't have Z-joint pain)	–	
Sick-leave for 14 days after treatment	–	
Reduced sick-leave after treatment		++
Time-cost for all patients for diagnostic procedure and treatment	–	
Travel-cost for all patients for diagnostic procedure and treatment	–	

The resulting cost per QALY-gained is well below the Euro 50000 that is considered cost-efficient.

Socioeconomic Inequality in Hypertension among Adult Indonesian

Yusuf Ari Mashuri, Umeå University

Background: Hypertension is one of five major global risks for mortality and contributes to 212 million DALYs in 2015. As with other middle-income countries, Indonesia suffers the double burden of infectious diseases and noncommunicable diseases including hypertension. The existing health inequalities in the population is also reflected on the inequality in hypertension burden.

Objective: This study aims to investigate the epidemiology of hypertension burden in term of prevalence, awareness, treatment, and control, and to assess socioeconomic inequality of hypertension in Indonesia.

Methods: A total 32,034 individuals aged 15 and over from the Indonesian Family Life Survey 5 (IFLS-5) were analysed. Logistic regression was used to assess biological and socioeconomic factors associated with the hypertension. Socioeconomic inequality between residential areas and across the wealth index, created using Principal Component Analysis (PCA), was determined using Concentration Index (CI) and Concentration Curve (CC) analyses.

Results: The prevalence, awareness, treatment, and control of hypertension in Indonesia were 23.8%, 32.7%, 27.8%, and 15.0%, respectively. CI was negative for prevalence (urban: -0.047 & rural: -.0750), meaning that the prevalence was more concentrated in lower socioeconomic groups. The CIs were on the other hand positive for awareness (urban: 0.066 & rural: 0.059), treatment (urban: 0.096 & rural: 0.183), and control (urban: 0.080 & rural: 0.082), meaning that the awareness, treatment, and control were more concentrated in higher socioeconomic groups.

Conclusion: Prevalence of hypertension in Indonesia is still high while awareness, treatment, and control are remains low. The poor population is more likely to have hypertension, be less aware, poorly treated, and be less have controlled blood pressure. The socioeconomic inequality reduction should be a key goal to achieve better and equal health in Indonesia.

Keywords: Inequality, hypertension, wealth index, concentration index, concentration curve

Scaling up quality improvement intervention for perinatal care in Nepal (NePeriQIP)

Mats Målqvist, Uppsala University

Introduction : Nepal Perinatal Quality Improvement Project (NePeriQIP) intends to scale up a quality improvement (QI) intervention for perinatal care according to WHO/National guidelines in hospitals of Nepal using the existing health system structures. The intervention builds on previous research on the implementation of Helping Babies Breathe quality improvement cycle in a tertiary healthcare setting in Nepal. The objective of this study is to evaluate the effect of this scaled-up intervention on perinatal health outcomes.

Methods/design: Cluster-randomised controlled trial using a stepped wedged design with 3 months delay between wedges will be conducted in 12 public hospitals with a total annual delivery rate of 60 000. Each wedge will consist of 3 hospitals. Impact will be evaluated on intrapartum-related mortality (primary outcome), overall neonatal mortality and morbidity and health worker's performance on neonatal care (secondary outcomes). A process evaluation and a cost-effectiveness analysis will be performed to understand the functionality of the intervention and to further guide health system investments will also be performed.

Discussion: In contexts where resources are limited, there is a need to find scalable and sustainable implementation strategies for improved care delivery. The proposed study will add to the scarce evidence base on how to scale up interventions within existing health systems. If successful, the NePeriQIP model can provide a replicable solution in similar settings where support and investment from the health system is poor, and national governments have made a global pledge to reduce perinatal mortality.

Trial registration number ISRCTN30829654.

Risk communication and Ebola-Specific Knowledge and Behaviour during 2014-2015 Outbreak, Sierra Leone

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We assessed the effect of information sources on Ebola-specific knowledge and behaviour during the 2014-2015 Ebola virus disease outbreak in Sierra Leone. We pooled data from 4 population-based knowledge, attitude, and practice surveys (August, October and December 2014 and July 2015), with a total of 10,604 respondents. We created composite variables for exposures (information sources: electronic, print, new media, government, community) and outcomes (knowledge and misconceptions, protective and risk behaviour) and tested associations by using logistic regression within multilevel modelling. Exposure to information sources was associated with higher knowledge and protective behaviour. However, apart from print media, exposure to information sources was also linked to misconceptions and risk behaviour, but with weaker associations observed. Knowledge and protective behaviour were associated with the outbreak level, most strongly after the peak, whereas risk behaviour was seen at all levels of the outbreak. In future outbreaks, close attention should be paid to dissemination of information.

WHO effort to contain antimicrobial resistance in the food chain

Yuki Minato, Project Officer

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Antimicrobial resistance (AMR) is a major global health threat that requires action across all countries and sectors. It threatens the effectiveness of antimicrobial medicines to prevent and treat an ever-increasing number of infections caused by bacteria, viruses, parasites and fungi. The UK report published in 2014 indicates that unless effective action is taken today, by 2050 drug-resistant strains of bacterial infections could be claiming 10 million lives each year, and that this would come at an economic cost of 100 trillion USD wiped off global GDP over the next 35 years.

Two major factors that are driving AMR are the volumes of antimicrobial used and the spread of resistant-bacteria and genes encoding for resistance. In order to tackle the issue and take a serious and concerted actions across different sectors and disciplines, WHO adopted the global action plan on antimicrobial resistance at the World Health Assembly in 2015. The global action plan sets out strategic objectives not only for World Health Organization (WHO) but also for all relevant stakeholders who have a role in addressing the problem, emphasizing a need for an effective one health approach across sectors including human and veterinary medicine, agriculture, and environment.

Besides taking a leadership to work on the issue in human sector, WHO has also been addressing AMR particularly in the food chain since the late 90's. To preserve the effectiveness of the antimicrobial agents, WHO produced a regularly updated list and has ranked the medical importance of antimicrobials used in humans since 2005. Taking into account the list, WHO published in 2017 the formal WHO guidelines on use of medically important antimicrobials in food producing animals, providing recommendations to countries supported by the evidence collected through the latest systematic and literature reviews.

The need of established and multisectoral national surveillance program has also been highlighted in the global action plan on AMR. WHO encourages countries, through a provision of guidance document and capacity building projects, to have an integrated surveillance of AMR in foodborne bacteria. The integrated surveillance of AMR shall contain collection of resistance data from animals, food and humans, collection of consumption data on antimicrobial use both in human and animal sectors, and combined analysis and reporting. To understand the scale of the issue focused on a single indicator – frequency of ESBL-producing E.coli, WHO is also currently developing a global protocol to implement a simplified, integrated trans-sectoral surveillance system.

Addressing AMR is achievable when all stakeholders take responsibility to take actions – for a common global goal - ensuring effective medicine.

Age-friendly Gothenburg from the Elders' Perspective

Viveka Guzmán, University of Gothenburg and Senior Göteborg/Stads Göteborg, Sweden

Background: Considering the increase of older individuals in every country in the world, population ageing is one of the most significant social transformations of the twenty-first century. In 2015, Gothenburg joined the Age-Friendly Cities movement with the aim of improving the quality of life of all the elderly individuals living in the city. Since then, several organizations have come together to collaborate on various projects aiming to develop adequate and inclusive urban environments. The engagement of the elderly in these projects is essential to design optimal physical spaces, encourage social participation, fight discrimination and promote equity.

Objectives: The objectives of this project are: 1- Highlight the factors that are essential to develop an age-friendly city from the elders' perspective, 2-Assess the progress of the city of Gothenburg towards becoming a great place where to grow old, 3- Complement existing projects related to ageing, quality of life and urban sustainability in Gothenburg.

Methods: The project consists of in depth interviews with elder citizens of Gothenburg accompanied by a series of photographs of physical spaces and events that describe the perspective of senior citizens towards ageing, as well as the opportunities and barriers offered by the city to achieve an optimal life for all. The study uses a convenience sampling method of residents > 65 years of age. Direct interviews are conducted in either Spanish, English or French, interviews in Swedish are performed with the assistance of an interpreter. All data will be transcribed and coded for emerging themes. At the end of the project, all participants, stakeholders and members of the Gothenburg municipality will be invited to a presentation of the results.

Perspectives: This project represents an opportunity to raise awareness about the diversity of older people in Gothenburg and their different needs. The findings of the study seek to inform the policy implementation in Gothenburg and incentivize the elders' participation in the city.

Adolescent Sexual and Reproductive Health Education From The Perspective of Muslim People in South Asia and Middle East

Mohammad Ali, Uppsala University

Purpose: Evidence from the literature suggests that adolescents in Muslim countries have a low level of knowledge related to sexual and reproductive health (SRH). In addition, adolescents have limited access to both SRH services and sources of information & education. One of the main reasons for lack of progress on SRH education for young people is highly politicized due to cultural norms and religious values. Without understanding people perception it is unlikely any initiative to introduce adolescent sexual and reproductive health education (ASRHE) would be unsuccessful. Therefore this study was aimed to explore Muslim people's perceptions about ASRHE.

Methods: This is a review of PubMed articles on examining Muslim people view, perception, and attitude on ASRHE. The articles that originally published in English between the years 2004 to 2017 on the south Asia and Middle East countries were searched initially and finally 9 articles were analyzed. Socio-ecological framework was used for the data analysis.

Results: Main themes were stand out: *ASRHE Stimulate Premarital Sex among Adolescent, Shame and Embarrassment, ASRH Education Affect Islamic Norm and Modesty, ASRHE is a Western Concept, Friend is a Common Source of SRH Information for many Adolescent, and Inadequately Addressed SRH Informations in the School Curriculum.* The finding demonstrated that people perceptions on ASRHE were not very supportive mainly due to cultural and religious belief.

Conclusion: It is suggested that religion leaders should be involved with such program in the future because their opinions are needed to further understanding in this subject. Importantly, religion leaders opinion have potentially huge influence both on people of religion faith and public health level.

High rate of antibiotic resistance among pneumococci carried by healthy children in the eastern part of the Democratic Republic of Congo and northern Tanzania

Matilda Emgård, Archippe M. Birindwa, Balthazar Muhigirwa, Théophile Kashosi, Sia E. Msuya, Balthazar M. Nyombi, Rune Andersson, Susann Skovbjerg

Background: In Sub-Saharan Africa pneumonia is still the leading cause of death in children under 5 years of age. *Streptococcus pneumoniae*, or the pneumococcus, is the most common cause of bacterial pneumonia. To protect against pneumococcal disease a pneumococcal conjugate vaccine (PCV) has been developed and introduced in DR Congo and Tanzania in 2013. In this study, we aimed to determine risk factors related to pneumococcal carriage in healthy Congolese/Tanzanian children and antibiotic susceptibility among the pneumococcal isolates after vaccine introduction.

Methods: Children below 2 years of age were recruited at primary health centres in Kivu province, eastern D.R. Congo and Moshi, northern Tanzania between 2013-2015. The parent/guardian was asked to answer a questionnaire to obtain socio-economic and health information about the child. A nasopharyngeal sample was taken from each child and brought to the local lab for culture the same day, *S. pneumoniae* were isolated and tested for antibiotic susceptibility by disc-diffusion and E-tests. Isolates resistant or with intermediate resistance were all referred to as non-susceptible.

Results: In D.R. Congo 795 children were included, 21% were colonized with pneumococci. Detection rate was higher among children who had not been vaccinated with the PCV, lived in rural areas, had an enclosed kitchen, were malnourished or presented with fever (p-value <0.05). In Tanzania 775 children were included of which 31% were colonized with pneumococci. The majority (55%) had been treated with antibiotics in the past 3 months. Antibiotic non-susceptibility was higher in D.R. Congo where 80% of the pneumococcal isolates were non-susceptible to penicillin (MIC >0.06 mg/L). Non-susceptibility to amoxicillin/ampicillin and ceftriaxone were also high (42% and 37% respectively). In Tanzania, penicillin non-susceptible pneumococci increased significantly from 31% in 2013 to 53% in 2015. Non-susceptibility to amoxicillin/ampicillin and ceftriaxone were low (3 and 4%, respectively). Almost all isolates were non-susceptible to trimethoprim-sulfamethoxazol in both studies (94% in D.R. Congo and 97% in Tanzania).

Conclusions: Despite introduction of the PCV-13 in D.R Congo and Tanzania, penicillin non-susceptibility is high and/or increasing in colonizing pneumococci. Measures to ensure rational use of antibiotics and surveillance of antibiotic resistance are urgently needed for effective treatment of pneumococcal disease.

Accessibility of basic pediatric emergency care in Malawi: analysis of a national facility census

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Background: Emergency care has been identified as one of the weakest parts of the health system in low-income countries (1, 2) and half of all paediatric hospital deaths occur within 24 hours of admission (3). Quality care is many times impeded by adverse factors in case management, including inadequate assessment, inappropriate treatment and monitoring (4). Emergency treatment areas are often poorly organised (5) and may lack essential supplies (6). Lower level facilities have particularly limited possibilities to manage critically ill patients (6) and rely on abilities to refer patients to higher-level facilities. However, referrals may be challenging and time delays may add to the poor prognosis of already very sick patients (7). In this study we use a Malawi national health facility census to examine the extent and characteristics of Malawi facilities equipped to provide paediatric emergency care. We further estimate accessibility in terms of travel times to referral hospitals with emergency care from unequipped facilities as well as accessibility in terms of Malawi's population distribution living within 120 minutes travel time of emergency care.

Method: The Malawi Service Provision Assessment (SPA) is a cross-sectional national facility census conducted in Malawi in June 2013- February 2014 that includes 977 facility audits (all formal health facilities, both public and private). The SPA questionnaire tool was reviewed for the availability of staff or supplies needed to provide basic paediatric emergency care and an emergency care index was developed based on 18 variables including: staff available 24 hrs, ambulance, hb-test, glucose test, malaria test, blood typing, bag and mask, micronebulizer, infusion kits, cannula, oxygen, Salbutamol for inhalation, injectable malaria medicine, injectable Diazepam, injectable Epinephrine, injectable glucose, IV-fluids and blood transfusion. Geo-coded facility locations were linked to global accessibility maps to determine estimated travel time in minutes between facilities (8), and population distributions living within 120 minutes travel time of emergency care will be estimated using geo-linked population estimates from the Afripop dataset (9). In future analyses Pearson chi-square tests will be used to test for associations between emergency readiness and key facility characteristics.

Result: Preliminary results indicate that among the 977 audited health facilities, only 10 (1%) fulfilled the criteria for emergency care readiness. All 18 items required for emergency care were available in only 2 (50%) of the 4 central hospitals in the country while none of the rural hospitals, maternity/dispensary or health posts were equipped for emergency care. In 24 % of health facilities oxygen was available and in 64% bag and mask were available. Test equipment and medicine for malaria was available in 87% and 88%, respectively, of the health facilities.

Equipment for blood typing and blood transfusion was available in 6% and 7% respectively, of the health facilities. Travel time from a non-emergency ready facility to the nearest emergency ready health facility varied between 0-507 minutes with a median of 51 minutes nationally. Future analysis includes estimating travel times to referral facilities in different regions as well as map the population distribution living within 120 minutes travel time of emergency care.

Conclusion: Results indicate that few Malawi facilities had staffing and resources needed to handle basic paediatric emergency care. Few lower-level facilities were equipped for emergencies while only 50% of the central hospitals and 9% of the district hospitals were considered emergency ready in this study. Our results highlight unacceptable deficiencies in the access to basic emergency care and identify this area of specific need for increased attention.

References

1. Baker T. Pediatric emergency and critical care in low-income countries. *Paediatr Anaesth*. 2009;19(1):23-7.
2. Ralston ME, Day LT, Slusher TM, Musa NL, Doss HS. Global paediatric advanced life support: improving child survival in limited-resource settings. *Lancet*. 2013;381(9862):256-65.
3. Molyneux E. Paediatric emergency care in developing countries. *Lancet*. 2001;357(9250):86-7.
4. Molyneux E. Emergency care for children in resource-constrained countries. *Trans R Soc Trop Med Hyg*. 2009;103(1):11-5.
5. Baker T, Lugazia E, Eriksen J, Mwafongo V, Irestedt L, Konrad D. Emergency and critical care services in Tanzania: a survey of ten hospitals. *BMC Health Serv Res*. 2013;13:140.
6. Hsia RY, Mbembati NA, Macfarlane S, Kruk ME. Access to emergency and surgical care in sub-Saharan Africa: the infrastructure gap. *Health Policy Plan*. 2012;27(3):234-44.
7. Alvesson HM, Lindelow M, Khanthaphat B, Laflamme L. Shaping healthcare-seeking processes during fatal illness in resource-poor settings. A study in Lao PDR. *BMC Health Serv Res*. 2012;12:477.
8. Weiss DJ, Nelson A, Gibson HS, Temperley W, Peedell S, Lieber A, et al. A global map of travel time to cities to assess inequalities in accessibility in 2015. *Nature*. 2018;553(7688):333-6.
9. Malaria Atlas Project. AfriPOP data set. 2018. [Available from: http://web.archive.org/web/20120114195457/http://www.clas.ufl.edu/users/atatem/index_files/Methods.htm.

BIOPIA: Biopharmaceutical Pharmacokinetic and Immunogenicity Assessment – a non-profit collaborative effort of European laboratories with expertise in immunogenicity

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In the last decade, the introduction of biopharmaceuticals has revolutionised the treatment of many diseases, including multiple sclerosis, rheumatoid arthritis (RA), and irritable bowel syndrome. However, the problem of immunogenicity with these biologics has become apparent, through the activation of the immune system that leads to the production of anti-drug antibodies (ADAs) against the administered drug. ADAs in the body can lead to drug neutralisation, decreased drug efficacy, and increased drug clearance. This immunogenicity has clinical implications, with lowered drug efficacy leading to treatment failure and further disease progression. However, despite clear evidence of ADA production during treatment with biopharmaceuticals, and their impact on clinical outcome, there is still a lack of implementation of routine clinical analyses of ADA within the health care system. The objectives of this project were two-fold: firstly, to illustrate the amount of money that is being wasted on RA biologics each year within each European country due to a lack of ADA assessment in unresponsive patients, and secondly, to design and implement a website that gathers labs from around Europe, who specialise in biologic pharmacokinetics and immunogenicity, in one place. The purpose of this website is to have a central database that will facilitate the introduction of standardised routine assessment of ADA and drug levels into the clinic.

Methods and Materials: To calculate drug expenditure and money wasting in European countries, relevant information was gathered from a range of different sources, including scientific literature, biologic and statistics associated websites, and media reports. This information was compiled and used to calculate overall spending and wasting of; total biologics in Europe each year; Europe on the top biologics for RA; and of each European country on the top biologics for RA each year. In order to design the website database, labs from around Europe were contacted, who specialise in the evaluation of pharmacokinetics and immunogenicity of biopharmaceuticals, and those that were interested in being involved were given a questionnaire to fill out, in order to obtain information on their lab. The design, layout, content, visuals, and functionality of the website were decided, using other website sources as inspiration.

Results: The results for European drug expenditure and money wasting on RA biologics showed an average spending on over €25 billion spent per annum on the biologics in Europe. The top biologic drug used for RA were determined as adalimumab, infliximab, etanercept, and rituximab, which in total contributed to €6 billion of European spending per annum. In terms on money wasted due to a lack of immunogenicity assessment in clinics, on average 30% of the patients is estimated to develop ADA which correspond to 2 billion euros. The website was completed, containing several pages compiling information on lab locations around Europe, biopharmaceutical immunogenicity rates, drug and ADA kit order links, as well as a list of relevant publications.

Discussion: It is clear from the drug expenditure accounts that there is a necessity to implement immunogenicity assessment in routine clinics. Importantly, these tests will be invaluable for the health of the patients, as they will be prescribed effective treatment much faster and therefore ameliorate disease symptoms more rapidly. This central website database is the first of its kind to bring together European laboratories with expertise in immunogenicity, in a non-profit collaborative effort. The goal is to make clinicians aware of the possibilities we already have to test for drug level and ADA and thereby facilitate a process of implementation of ADA testing in clinics. By having all the data needed in one place we abrogate the previous lack of knowledge are able to reach the sustainable development goal of decreasing the health care burden that wrongly used biological treatment for chronic disease challenge.

Cerebral palsy in Uganda; prevalence, function and participation in schooling – a population based Study

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Title: Cerebral Palsy in Uganda; Functional mobility, positioning and assistive devices

Background: Few population-based studies of cerebral palsy have been done in low-income and middle-income countries. We aimed to examine cerebral palsy prevalence, functional impairments, presumed time of injury and participation in schooling in children in Uganda.

Methods: In this population-based study, we used a nested, three-stage, cross-sectional method (Iganga-Mayuge Health and Demographic Surveillance System [HDSS]) to screen for cerebral palsy in children aged 2–17 years in a rural eastern Uganda district. A specialist team confirmed the diagnosis and determined the function (according to the Gross Motor Function Classification System [GMFCS] and Communication Function Classification System [CFCFS]), and possible time of brain injury for each child. Triangulation and interviews with key village informants were used to identify additional cases of suspected cerebral palsy. We estimated crude and adjusted cerebral palsy prevalence. We did χ^2 analyses to examine differences between the group screened at stage 1 and the entire population and regression analyses to investigate associations between the number of cases and age, GMFCS level, subtype, and time of injury.

Findings: We used data from the March 1, 2015, to June 30, 2015, surveillance round of the Iganga-Mayuge HDSS. 31 756 children were screened for cerebral palsy, which was confirmed in 86 (19%) of 442 children who screened positive in the first screening stage. The crude cerebral palsy prevalence was 2.7 (95% CI 2.2–3.3) per 1000 children, and prevalence increased to 2.9 (2.4–3.6) per 1000 children after adjustment for attrition. The prevalence was lower in older (8–17 years) than in younger (<8 years) children. Triangulation added 11 children to the cohort. 14 (27%) of 51 children aged 2–7 years had severe cerebral palsy (GMFCS levels 4–5) compared with only five (12%) of 42 children aged 8–17 years. Few children (two [2%] of 97) diagnosed with cerebral palsy were born preterm. Post-neonatal events were the probable cause of cerebral palsy in 24 (25%) of 97 children. From our population 60 children were of school-going age (6–17 years) and 18 children (30%) were currently in school. For the children aged 6–17 years 23 (39%) had severe limitations in communication (CFCFS level 4–5), 6 (10%) severe limitations in gross motor function (GMFCS 4–5), 26 (43%) epilepsy and 25 (42%) an unconfirmed moderate/severe intellectual impairment. None of the children that had severe limitations in gross motor function and moderate/severe intellectual impairment were in school. Only 3 of the children that had epilepsy were in school. Some of the reasons that caregivers gave for their children not attending school were difficulties in the areas of speech, mobility, intellectual/learning, epilepsy, finance and lack of support in school.

Interpretation: Cerebral palsy prevalence was higher in rural Uganda than in high-income countries (HICs), where prevalence is about 1.8–2.3 cases per 1000 children. Children younger than 8 years were more likely to have severe cerebral palsy than older children. Fewer older children than younger children with cerebral palsy suggested a high mortality in severely affected children. The small number of preterm-born children probably resulted from low preterm survival. About five times more children with post-neonatal cerebral palsy in Uganda than in HICs suggested that cerebral malaria and seizures were prevalent risk factors in this population.

The Impact of Health Insurance on Catastrophic Health Expenditure and Impoverishment: A Cross-Sectional Study in Indonesia

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Objective: World Health Organization has call for implementing the universal health coverage in order to protect households from catastrophic health expenditure and impoverishment. However, this call has not implemented in all countries particularly in low-and-middle income countries. About 150 million people experience health catastrophe each year, which two-third of those people are pushed into poverty due to out-of-pocket payments. Health system in Indonesia is still financed mainly through out-of-pocket payments. Few studies focused on the benefits of health insurance in protecting catastrophic health expenditure and impoverishment. This study aims to examine whether health insurance protects the household from catastrophic health expenditure and impoverishment, and if so what characteristics in some extent.

Method: We used a cross-sectional data at household level from Indonesia Family Life Survey (IFLS) in wave 5 (2014-2015), which 14,080 households included in the analysis. The distribution of health payments and catastrophic expenditure methodology was used to measure catastrophic health expenditure and impoverishment. Multiple logistic regressions were done for examining the association between catastrophic health expenditure, impoverishment and health insurance, after adjusting for other socio-demographic factors (household size, area, health care utilization, chronic disease etc.). Sensitivity analysis was used to check the sensitivity of the main result.

Result: Household with up to one-third and more than two third of the family member have health insurance have a lower risk of catastrophic health spending. In contrast, we found a non-significant association of health insurance and impoverishment after adjustment ($p>0.05$). The characteristics of vulnerable group to get catastrophic health expenditure and impoverished were a household lives in rural area, have more than two third of its member have chronic diseases, have higher inpatient visit, have at least one member <5 years old or >55 years old, and lower level of education for household leader.

Conclusion: This study finds that health insurance has possibility to protect the households from catastrophic health expenditure, but not from the impoverishment. Our study presents important implications for health policymakers, which increasing the coverage of health insurance especially for vulnerable group/households in Indonesia setting is important to protect and reduce the burden of out-of-pocket health expenditures.

Improving diagnostics of paediatric CNS infections in low-income settings

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Background and Aims: Infectious diseases are main causes of global childhood mortality. Health systems of low-income settings often lack the resources for accurate aetiology diagnosis of infectious diseases and targeted treatment. This allows for continuous inaccurate prescription of antibiotics for the treatment of non-bacterial infections, adding to the spread of therapy resistance. Paediatric CNS infections, are due to their unspecific clinical characteristics, difficult to accurately diagnose. Clinical outcomes can be severe when CNS infections are not diagnosed and treated in time. Currently, a vast number of cases occur in low-income settings with little or no capacity for clinical microbiology diagnostics. Point-of-care tests (POCTs) have become increasingly available and used for disease monitoring and diagnosis. They have brought clinical capacities to low-income health systems, where they were previously limited. However, the full potential of POCT use is inhibited, due to dis-engagement between their developers in high-income countries and end-users in low-income countries. With a field-to-bench-to-field philosophy, our multidisciplinary project team works to develop new POCTs for paediatric CNS infections, with high usability in low-income settings.

By succeeding, we hope to strengthen the clinical microbiology capacities of low-income health systems and improve the outcome of paediatric CNS infections.

Methods: Our large multidisciplinary project team in Uganda and Sweden brings together clinicians and POCT developers. Field visits, interdisciplinary discussions and exchanges, and qualitative studies, have provided a framework for novel POCTs being developed in Sweden. This has resulted in a new multiplexed DNA based microarray with proven capability of rapid detection of three bacteria frequently causing paediatric CNS infections. The assay is now being further developed to include additional pathogens according to the epidemiology of paediatric CNS infections in Uganda and adapted to contextual point-of-care use.

Preparations are underway for clinical validation studies of the new POCT for aetiology diagnosis of paediatric CNS infections in a low-income setting. In 2018, a prospective observational study will be started in Mbarara, southwest Uganda. Clinical samples will be collected from new suspected cases of CNS infection, at the local paediatric clinics. The samples will in parallel to routine diagnostic reference methods, undergo analysis with the newly developed POCT. The POCT will be evaluated with regard to its diagnostic accuracy as well as its clinical usability. Study results will be presented and lay the groundwork for establishing the technology as user-friendly, affordable, accurate and fast point-of-care diagnosis of paediatric CNS infections.

Occupational and leisure physical activity and major depression in adults – a population based cohort study in Sweden

Thi-Thuy-Dung Nguyen; Andreas Lundin; Mats Hallgren

Depression is one of the two most common mental disorders in adults, together with anxiety¹. In 2015, 4.4% of world's population suffered from depression¹. In 2016, 5.49% of world's total years lived with disability (YLDs) and 1.84% of world's total disability-adjusted life year (DALYs) was attributable to depression³. Physical activity has been identified as protective factors for depression through many pathways⁴; and is recommended by WHO as a component of treatment for depression patients with inactive lifestyle but strength of recommendation is conditional depends on severity of depression and quality of evidence was assessed as very low⁵. This study aims to determine if occupational or leisure physical inactivity increases the rate of developing major depression disorder among adults.

Methods: This study is a prospective cohort based on the Swedish National March Cohort (SNMC) study which was set up in 1997. After excluding people who were younger than 18 years old; had a primary diagnosis of any mental disorder; had an indication of depression at the baseline; and loss to follow up, 37,504 participants were included in this analysis. Occupational physical activity was physically demanding of participants' daily work over the past 12 months, categorised as light or strenuous. Leisure physical activity was average time per week during the last 12 months spending on exercise; categorised as meet and not meet WHO's global recommended level of moderate- and vigorous-intensity physical activity (MVPA), e.g., at least 150 minutes of moderate-intensity; or 75 minutes of vigorous-intensity; or equivalent combination of the 2 levels of aerobic physical activity per week. The outcome, major depressive disorder (MDD), was cases that occurred during 13 years from October 1, 1997 to December 31, 2010 and was retrieved by linking with Swedish Patient Register that covers all hospitals in Sweden using personal identity number.

Result: Among 37,504 participants, 63.3% were female; mean age was 51.6 years; 27.9% had education level of university or higher; 47.6% had a full-time job; about 40% was overweight and/or obese; and 7.0% reported poor for daytime tiredness. About exposures, 23.1% of participants reported to have strenuous occupational physical activity; 29.6% of participants met the WHO's recommended level of MVPA.

During 13 years of follow-up, 549 case of MDD occurred that accounted for 1.5% of total sample. The incidence rate was 111 cases per 10,000 person-years. The occurrence rate of MDD was 1.4 times higher among men than women (127 and 87 cases per 10,000 person-years respectively) and 1.2 times higher among those with strenuous than those with light occupational physical activity (131 and 106 cases per 10,000 person-years respectively). The univariate analysis showed no significant increased risk of MDD among those who did not meet the recommendation for MVPA compared to those who did meet the recommendation (116 and 106 cases per 10,000 person-years respectively).

The proportional Cox hazard model was used to assess the associations between the 2 exposures and the outcome. In the crude model, occupational physical activity showed to increase the risk of MDD (HR = 1.23, CI 95% = 1.02-1.49) but after adjusting for sex, age, education, occupation, obesity, no association was found. Adding sleep disruption and daytime tiredness to the model did not differ the result. Being women was a risk factor for

MDD but there was no interaction between sex and occupational physical activity in predicting MDD. Leisure physical activity did not show any association with MDD in either crude or adjusted models. (Table 1 appendix 1)

Discussion and conclusion: This study did not find any association between occupational and leisure physical inactivity and risk of major depression disorder among adults. However, the authors acknowledge the limitations of the study were that information about physical activity was collected once the baseline and it could change during the long follow-up time. Also, we excluded people with baseline depression based on a single self-report question that could not be accurate. We recommend other studies to have at least 2 points of follow-up in a long follow-up time study and use clinicians' diagnosis to excluded participants with depression at baseline.

Appendix

Table 3: Proportional Cox hazard model for association between occupational and leisure PA and MDD

	Occupational PA (Strenuous)			Sex (Men)			Sex*occupational PA		
	HR	95% CI	p	HR	95% CI	p	HR	95% CI	p
Model 1- Crude	1.23	1.02-1.49	0.029	-	-	-	-	-	-
Model 2*	1.20	0.96-1.50	0.103	-	-	-	-	-	-
Model 3*	1.19	0.95-1.49	0.122	-	-	-	-	-	-
Model 4***	1.16	0.89-1.52	0.268	0.65	0.51-0.83	0.001	1.08	0.68-1.71	0.756

	Leisure physical activity (Meet recommendation)			Sex (Men)			Sex*leisure PA		
	HR	95% CI	p	HR	95% CI	p	HR	95% CI	p
Model 5- Crude	0.91	0.75-1.11	0.342	-	-	-	-	-	-
Model 6*	0.87	0.69-1.10	0.250	-	-	-	-	-	-
Model 7**	0.88	0.70-1.11	0.289	-	-	-	-	-	-
Model 8***	0.77	0.58-1.03	0.075	0.52	0.38-0.72	<0.001	1.51	0.93-2.46	0.096

* Adjusted for sex, age, education, occupation, obesity

**Model * plus daytime tiredness

***Model ** plus interaction between sex and leisure physical activity

References

1. WHO. *Depression and Other Common Mental Disorders: Global Health Estimates*. 8 (World Health Organization, 2017).
2. Goldney, R. D., Dal Grande, E., Fisher, L. J. & Wilson, D. Population attributable risk of major depression for suicidal ideation in a random and representative community sample. *J. Affect. Disord.* **74**, 267–272 (2003).
3. Global Burden of Disease (GBD). Global Burden of Disease Compare - YLYs, DALYs. *GBD Compare | Viz Hub* (2016). Available at: <https://vizhub.healthdata.org/gbd-compare/>. (Accessed: 13th January 2018)
4. Lopresti, A. L., Hood, S. D. & Drummond, P. D. A review of lifestyle factors that contribute to important pathways associated with major depression: diet, sleep and exercise. *J. Affect. Disord.* **148**, 12–27 (2013).
5. WHO. *Physical activity- Evidence profile*. (2012).

Life Events, Depression Severity and Response to Treatment in Primary Care: Results from the REGASSA Trial.

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Background: The importance of life events in health has been well established, adverse events during childhood, as well as more recent life events have shown to significantly increase the risk of depression, anxiety, drug abuse and other mental health conditions. However, the importance of life events on the response to treatment of depression is still not clear.

Aim: To determine the impact of life events in the severity of depressive symptoms and in the response to treatment in patients with mild to moderate depression treated in primary care.

Methods: This is a secondary analysis of the REGASSA study, a multi-center randomized controlled trial that tested the effectivity of physical activity and internet based cognitive-behavioral therapy against treatment as usual for patients with mild to moderate depression in primary care. A total of 945 participants were included in the study and 740 were followed-up after 3 months and one year. For the present analysis the participants were categorized according to their self-reported exposure to important life events during childhood (economical, emotional and parental separation), exposure to recent important life events (12 months before treatment) and important life events during the treatment period. The main outcome was changes in the severity of depressive symptoms, measured with the Montgomery-Åsberg Depression Rating Scale (MADRS). The association between important life events and response to treatment (defined as 50% reduction in MADRS) was analyzed using a logistic regression model.

Results: Information about significant life events during childhood and one year before the beginning of treatment was available for a total of 941 and 945 participants, respectively. Significant life events during the treatment period were measured during the first follow-up and information was available for 740 participants. The occurrence of significant events during childhood was associated with a higher initial severity of depression at baseline according to MADRS $p = 0.02$.

After three months, changes in MADRS were significantly associated with the presence of 2 or more recent events at baseline $p < 0.05$, but not with childhood events $p = 0.1$.

A total of 362 participants responded to treatment at 3-months. After adjusting for confounders, only positive events during treatment showed a significant association with response to treatment (OR=2.2 (95%CI 1.5 to 3.2). This effect was still present in the one year follow-up (OR=2, 95%CI 1.3 to 3.1).

Conclusions: The occurrence of significant life events during childhood is associated with the initial severity of depression; nevertheless the outcome of treatment was not influenced by these events in this analysis. Contrariwise, recent life events are not associated with the initial severity of depression, but affected the outcome in this analysis. The finding that positive events during treatment are positively correlated with response to treatment could be useful to identify people more likely to have a sustained positive effect of treatment in primary care.

Relationship of Psychiatric Health Risk Scores with Depression and Genetics in Adolescents

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Introduction: According to the World Health Organization (WHO) significant numbers of death and diseases has been reported in adolescents, where mental disorders are frequently occurring. 10–20 percent of children and adolescents suffer some form of mental disorder and most of the problems usually starts around 14 years old. Among one of the most severe mental disorders are depression which can lead to different co-morbidity and in worst case suicide. Moreover, this can lead to great stress on the society e.g. thru high medical costs. Genetic and environmental factor plays a role in occurring depression. Genetic contribution of expression of depression had been documented as 40%–50%.

Aim: The aim of this project is to identify genetic factors in adolescents associated with high risk of being diagnosed with depression.

Research Question: Is there any association of genetic markers Rs9296158, Rs9296158, Rs9470080, Rs10767664, Rs6265, Rs925946 with risk of a depression diagnosis in 14–17 year adolescents?

Material and Methods: 15 schools were enrolled for this project and approximately 900 participants (14–17 years) old were included from the schools of Uppsala, Sweden. Out of them, 420 participants are included in this data analysis. As rest of the sample are in on process for genotype the Single Nucleotide Polymorphism (SNPs). All healthy individuals were randomly chosen for this project. Adolescents who were already taking any kind of psychiatric medicine were excluded. Data such as height, BMI, weight and socio economic structures of the participants were collected. The blood samples were collected for genetic analysis. The participants also filled in an online-based questionnaire DAWBA (Development and Well-Being Assessment) which generates diagnosis according to the International Classification of Diseases (ICD-10) and Diagnostic and Statistical Manual of mental disorders, 4th edition (DSM-IV). All statistical analysis were performed with a significance value of 0.05.

Result: No significant result was found between the genetic factors and risk of depression in adolescents. The effect of family structure e.g. if the participant was living with both or separated parents did not prove to be significant. The analysis of SNPs didn't show any kind of significance.

Conclusion: The reason for this non-significant result may be our lower power of sample analysis. A big number of sample size is needed for reanalyze the data. This data is a small part of a longitudinal study and the study is still going on. Although the track to identify the genetic biomarkers for depression are still challenging, more research is needed to identify the dominant biomarker causing depression in humans.

”Fearing the Worst.” Ebola preparedness in Guinea-Bissau

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Introduction: Throughout the Ebola epidemic in West Africa in 2014-2016, its spread to Guinea-Bissau was a real threat through lively cross-border movement of people sharing the same culture, language, and ethnic identities. Despite temporary closure of the 400 km long borders with Guinea (Conakry), individuals found ways to trespass them as they share markets and families live on both sides. Further, the health system in Guinea-Bissau is fragile and faces similar constraints as those in neighbouring countries.

Aims: Describe and analyse knowledge, practice and attitudes of healthcare workers and community members in Guinea-Bissau vis-à-vis Ebola preparedness for an eventual outbreak in the country.

Methodology: Qualitative interviews were held in 2015 and 2016 with healthcare professionals and community members in the capital Bissau, Biombo Region and the Sector of Cacine in Tombali Region.

Results: Diverse preventive measures were implemented by the health authorities, including health communication and engagement with traditional and religious leaders to sensitize the general population. Further, the borders with Guinea (Conakry) were temporarily closed and border officials trained. Epidemiological surveillance was strengthened, including ‘hot-lines’ and innovative daily sms-messaging for reporting. Despite worries about lack of preparedness in Guinea-Bissau, no case of Ebola virus disease was diagnosed in the country. This outcome was partly explained by community engagement in preventive activities. Population as well as health workers believed that during the epidemic there was a real risk of spread of Ebola to Guinea-Bissau, and frequently referred to their experience from cholera epidemics. Similar preventive rituals were performed as for cholera, and traditional authorities prohibited certain burial rituals. Front-line health workers were equipped with Personal Protective Equipment (PPE) and disinfectants, but training in its use was minimal. Further, they felt it was difficult to work under the constant threat an Ebola epidemic, a threat that officially was never declared to be over.

Conclusion: In a country with a fragile health system, such as Guinea-Bissau, it is difficult to stick to high-level preparedness for an eventual outbreak for months. In the aftermath of the epidemic, Guinea-Bissau needs strong global support to improve its preparedness to address later potential epidemic outbreaks, in particular one that aims to strengthen the primary healthcare services and the front-line healthcare workers.

Challenging Criminalisation Globally: Un-Policing Identity, Morality, Sexuality and Bodily Autonomy

Bob Mwiinga Munyati, Tshepo Ricki Kgositau, Phillipa Tucker

Background: Across the globe and perhaps more disproportionately in the Global South, courts, parliaments and law enforcement agencies have become avid proponents of using the coercive power of the law to police, control and punish a variety of behaviours which they considered as contributing to ‘moral decay’. The activities that come under this rubric include consensual sexual relations between persons of the opposite sex, sodomy, abortion, sex work, adultery, possession or publication of materials considered obscene, pornography, drug use, among others. This criminalisation and moral policing must be challenged in order to ensure accountability to the most vulnerable and those most-at-risk of intersectional discriminations. Two global commitments compel a closer discourse on the overarching use of criminal laws to curtails personal liberties and diverse expressions of identity, morality, sexuality and bodily autonomy, and these are –

1. the global commitment to end AIDS as an epidemic by 2030; and
2. the achievement of the sustainable development goals [SDGs], particularly Goals 3 [good health and wellbeing], 5 [gender equality], 16 [peace, justice and strong institutions]

Description: The Challenging Criminalisation Globally is an innovative new initiative by AIDS Accountability International, described by one top expert “a remarkable moment in the history of the global anti-crim movement.”

The CCG work has three main objectives:

Objective 1: Mobilise a critical mass of stakeholders to advance a global discourse on the impact of penal provisions on the achievement of the end of the AIDS epidemic and the achievement of the SDGs.

Objective 2: Support communities and activists in Africa, Asia, Latin America and the Caribbean taking actions to challenge criminal provisions on identity, morality, sexuality and bodily autonomy.

Objective 3: Provide platforms for evidence-based engagement and dialogue between government representatives, policymakers and civil society organisations using regional inter-governmental mechanisms

Lessons learned: The project has discovered that the need for such a cross-issue movement working collectively on challenging criminalisation is a much needed tactic for pushing the achievement of the SDGs and 90-90-90 forward. Within six months of starting AIDS Accountability International has received a significant interest globally from activists and has already won the interest of some top experts. Innovative approaches to existing issues are needed and can be significant catalysts to boost work that others have been doing for years.

Conclusions/Next steps: AIDS Accountability is hosting a Re-think meeting in April 2018 where experts globally and “unusual suspects” such as business, tech geeks and social media platforms get to weigh in on how we can push Challenging Criminalisation Globally as a critical mass and change who works on this issue and how. In July 2018 we have the 2nd CCG Pre-Conference at the International AIDS Conference in Amsterdam.

Using fruit illustration in promotion posters to demonstrate stages of breast cancer in promoting awareness of breast cancer and instructing self-examination for women in rural Vietnam

Phuong Tran, Karolinska Institutet

Problem statement: In Vietnam, breast cancer is the most diagnosed cancer amongst women. Apart from reproductive, lifestyles and environmental changes, it was found that low awareness and participation in cancer screening programs is one of the main risk factors. In response to this emerging phenomenon, initiatives should be proposed to the government to promote the awareness of women on the risks of breast cancer, removing the barriers to seeking care and encouraging self-examination methods as initial screening.

Context: Vietnam is a conservative country, heavily influenced by the Confucian philosophy that has been passed down since the feudal period which partly explains why Vietnamese women tend to be shy, timid and embarrassed regarding the exposure of their sensitive body parts to others, even a physician. For the same reason, they are reluctant to mention it with anyone or seeking consultation even when abnormal signs are detected around their breast. Literatures also found that Vietnamese women often encounter difficulty when communicating their condition to the doctor, they often use very vague and indirect statements. Therefore, health promotion campaigns should be implemented to be suitable with the cultural values, perceptions and mindsets of different target groups in different settings.

Proposed interventions:

- Images of fruits could be used to subtly demonstrate the different signs of abnormalities around the breast that could be cancerous: lumps, bumps, spots, fluid, deform shapes, etc.
- Helpful messages could be conveyed through the poster targeting women with lack of access to knowledge and information, to stress upon the high risks and risk factors of breast cancer.
- Along with hanging these posters on the walls of commune health centers where local women come on a regular basis for primary health care treatment and consultation, as well as district, provincial and national health facilities; they will also be publicized on social media such as Facebook, Twitter, Instagram along with a hashtag to create virality and reaching a wider population.

Rationale: Based on existing research, it was found that on average 82 percent of visitors to the clinic paid attention to the promotion posters while in the waiting room and up to 95 percent reported actually having studied them carefully during the wait. Hence, it is potential that poster could be an effective form of communication to raise awareness of patients in health facilities. According to another research, health promotion posters that use symbolic images and identifiable objects from daily life tend to attract people more. In addition, the visual presentations of health posters are deemed more important than the text presentation as it could grasp the attention and trigger the audience's curiosity. According to the pilot study "An evidence-based approach to the evaluation and planning of Breast Cancer Services in Vietnam", a collaboration between Queen's University Belfast and Hanoi University of Public Health, amongst all the health facilities in Bac Giang city, there are health posters for cervical cancer but posters for breast cancer are nowhere to be found.

Documenting respiratory rate fluctuations after attachment of a new pneumonia diagnostic device – implications for misdiagnosis of pneumonia in children under five

Daniel Helldén, Kevin Baker, Tedila Habte, Karin Källander, Tobias Alfvén

Acute respiratory infections, primarily pneumonia, is the leading infectious cause of death in children under five years worldwide with over 60 percent of the mortality occurring in just 10 countries in sub-Saharan Africa and Asia. The diagnosis of pneumonia in children by community health workers and first-level health workers is based on counting the number of breaths in 60 seconds in children under five years of age with cough and/or difficulty breathing, to assess whether the respiratory rate is high enough for a particular age to prescribe antibiotics and treat suspected pneumonia, as defined by the World Health Organization (WHO) Integrated Management of Childhood Illness (IMCI) guidelines. However counting respiratory rate on children is challenging due to the fact that children breath fast and sometimes irregular, they may not be calm during the examination and it can be difficult to define what is and not is a breath. The rate of misclassification of the observed respiratory rate is therefore high, leading to incorrect diagnosis and inappropriate treatment.

In response to this, Philips has developed the Children's Respiratory Monitor (ChARM) device which uses an accelerometer based system to measure the respiratory rate in children under five and automatically classifies the respiratory rate according to the IMCI guidelines. Being very recently developed, the device has only been subjected to two pilot evaluations, which seem to confirm that the device can provide an accurate measurement of the respiratory rate in children under five years. However, none have evaluated to what extent the attachment of the ChARM device itself affects the respiratory rate which could lead to misclassification of the respiratory rate and subsequently wrong diagnosis and treatment. As the first study of its kind on the ChARM device, the aim of this study was to address this knowledge gap, specifically to understand how much misclassification that is created by the ChARM device attachment.

The study was a cross-sectional descriptive study conducted in a controlled health centre setting in the Southern Nations, Nationalities, and Peoples' Region (SNNPR) in Ethiopia. 129 eligible children (2-59 months) without signs of severe illness were enrolled. The baseline respiratory rate was measured before ChARM attachment and 1, 3 and 5 minutes after the attachment of the device. The classification of respiratory rate as normal or fast were compared at all time points through calculated proportions.

Results will be presented on poster

This study provides valuable insights into the respiratory rate fluctuations caused by medical devices in general and the ChARM device in particular, making it possible to adjust current guidelines for ChARM device implementation or calibration of the device in order to make sure that the device can assist health workers to accurately diagnose pneumonia in children.

Antibiotic resistance in commensal *Escherichia coli* isolates from human source in community settings in low and middle-income countries – a systematic review

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University of Pharmacy, 13-15 Le Thanh Tong, Hoan Kiem district, Hanoi, Vietnam. The development of resistance by bacteria to antibiotics is a growing problem that requires global action. A collective approach involving every country to fight antibiotics resistances is crucial to reduce the mortality, morbidity, associated health cost and the spread of resistant bacteria. In fact, the European Centre for Disease Prevention and Control (ECDC) reported that 25, 000 people died of diseases caused by antibiotic-resistant bacteria in 2007, which is over half the number caused by road traffic accidents in the same countries. The burden caused by antibiotic resistance is greater in Low-and middle-income countries (LMICs) whose health care systems is poor and lack tools to perform rapid diagnosis of the numerous infectious diseases. Few studies have been conducted in community settings, despite these studies showing a high prevalence of resistant bacteria.

Aim: The aim of the project is to investigate the prevalence of resistance to antibiotics in commensal *E. coli* isolated from human sources in community settings in LMICs and to investigate whether antibiotic use is associated with the carriage of resistant *E. coli*. A systematic approach will be used to synthesize studies that meet the inclusion criteria following PRISMA guidelines. The types of studies that will be included are those in which the main outcome is the prevalence of antibiotics resistance in commensal *E. coli*: cross-sectional, case-control and cohort studies. This study will include the general population from all age and sex in community settings in LMICs written in English language.

PubMed, EMBASE, MEDLINE, Web of Science, CINAHL and Cochrane Library databases were systematically searched with the following key words: *E. coli*, *Escherichia coli*, enterobacteriaceae, antibiotic resistance, antimicrobial resistance, drug resistance, prevalence, incidence, morbidity, odd ratio, risk ratio, confidence interval, P value and rate. The key words were identified using PICO (Population, Intervention, Comparison and Outcome) format.

A total of 8788 articles were obtained from the search. A total of 1828 duplicates were removed using EndNote X8. Currently, we are screening 7076 articles for inclusion criteria. A data extraction form for full-text review of the selected studies is being developed on an Excel spreadsheet. The Newcastle-Ottawa Scale (NOS) will be used for accessing their quality. A meta-analysis will be performed if applicable.

We expect to provide an appraisal of the evidence on the high prevalence of resistance to antibiotics by commensal *E. coli* in community settings in LMICs. Also, we expect the carriage of high antibiotic resistance to commensal *E. coli* to be associated with factors such as antibiotic use, socio-economic status, age and geographical location. These factors should prove useful to health policy makers when designing policies or strategies to combat resistance to antibiotics in community settings.

Traditional Health Practitioners Act in South Africa: Stakeholder perceptions of challenges and opportunities on collaboration

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Background: The World Health Organisation has propagated regulation and integration of Traditional Health Practitioners (THPs) into health systems with an established indigenous health sector. The WHO's 2014-23 Strategy for Traditional Medicine (TM) calls for the development of collaborative national policies to improve health outcomes and patient autonomy. South Africa has a large and culturally steeped Traditional Health Sector with an estimated 200,000 THPs in practice. South Africa aims for access to TM that is safe, cost effective and culturally respectful. As such, the THP Act (Act 22 of 2007) was passed in parliament, in line with the WHO's strategic orientations. The Act outlines regulation, registration, and training for THPs and students, as well as the establishment of a THP Council. However, over ten years later, implementation is relatively stagnant and the TM sector remains largely informal. Aim To explore key stakeholder perspectives on the implementation of the South African Traditional Health Practitioners Act (Act 22 of 2007) and the opportunities and challenges of collaboration.

Method: An exploratory qualitative study with in depth interviews was conducted. Ten stakeholder interviews have been completed with continued snowball sampling and further interviews to take place. Stakeholders were selected and invited to be interviewed based on an assessment of their position, interest and contextual expertise. Thematic content analysis was used to identify emergent themes. Themes were discussed, compared and reported on.

Results: Themes reflect a positive outlook on regulation in principle. Many perceptions of key barriers to the implementation of the Act, are common across stakeholders. A major barrier was the lack of clear policy supporting implementation of the Act. Opportunities included the development of evidence in traditional knowledge which will contribute to demonstrating concrete value and specifically defining THP roles within communities. Empowerment of THPs to develop indicators and mechanisms for accreditation within their own sphere emerged as a key task. Themes converge and suggest that respectful coexistence with dual-referral may be preferable to collaboration. Engagement between the THPs and the Interim Council could play a role in unification and mobilization of THPs for positive change.

Conclusion: The results provide insight into potential means for successful implementation of future policies and initiatives in TM within the South African Context. The prospect of public health benefit from the empowerment of THPs if their potential contributions to Universal Health Coverage are harnessed in a safe way is exciting. Strategies must be informed by broad evidence to ensure they are inclusive, patient centered and add value to health care services.

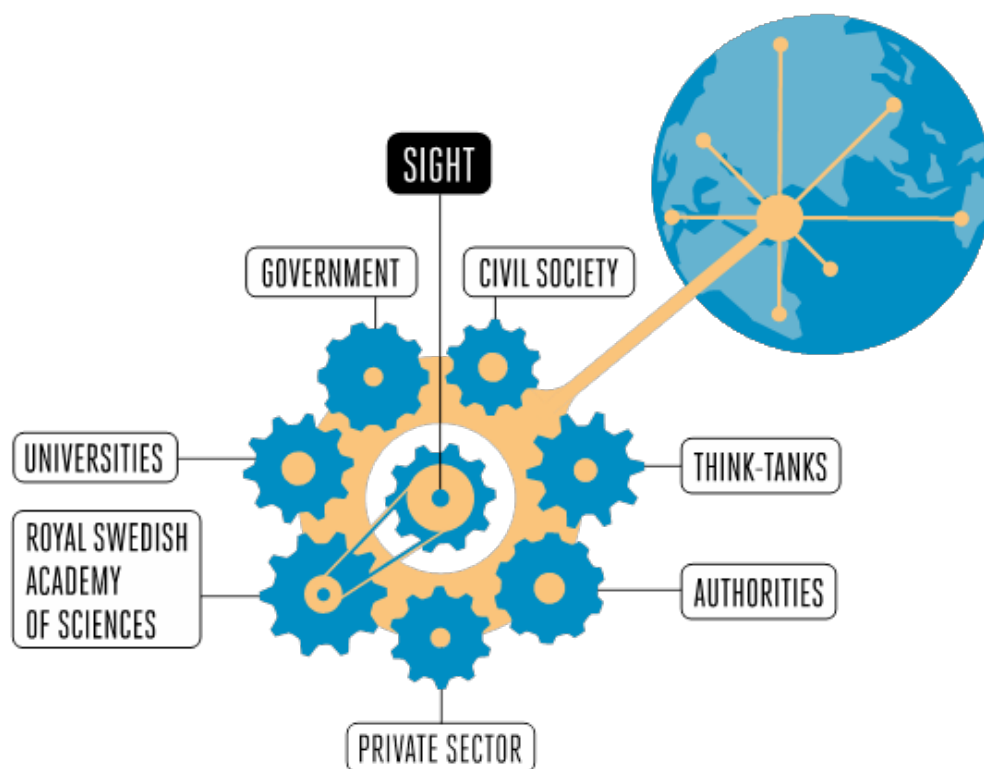
Partners

SIGHT is a proud partner of the Swedish Global Health Research Conference 2018, this year's event for global health change agents

We believe that all human lives have equal value. The right to health should be guaranteed to all everywhere. Health is an integral part, prerequisite and an outcome of development. Sustainability cannot be achieved without achieving health globally.

SIGHT's mission is to provide a scientific basis for national and transnational collaborative policy work, in the field of global health. We support the efforts of global health actors in Sweden that will generate improvements in global health globally, as well as foster an SDG generation of committed change agents. With the UN's 2030 Agenda as overarching framework, we will turn separate stakeholders into collaborating partners, enabling innovative joint solutions that has the potential to be turned into positive action to the benefit of health and well-being globally (see figure). As such SIGHT is a global public good.

The sustainable development goals and targets of the agenda are not only an agreed common language, but the goals also form a mesh of interlinkages that reflect well the complex global health challenges that are left to be disentangled and solved. SIGHT has a together with partners gone beyond the rhetoric of the 2030 Agenda and started developing new tools based on this approach.



The Einhorn Family Foundation

The Einhorn Family Foundation was established in 2007 and has as its main objective to support research projects aiming at decreasing childhood mortality in low-income countries. There is only one world and one humanity and health problems have a tendency of not caring too much about countries or borders, which is the reason for us choosing global health as our main focus.

The foundation donates approximately one million SEK every year and amongst other projects we support research on neonatal mortality in Nepal and Uganda as well as several projects aimed at obtaining the correct diagnosis before initiation of treatment for childhood infections in Uganda and Tanzania.

We are happy for the opportunity to support the Swedish Global Health Research Conference. If the 2030 Agenda for Sustainable Development is to be a success we need to work together and continuously exchange information for the good of humankind. For more information about the Einhorn Family Foundation, including how to apply, please write to ehornsstiftelse@gmail.com.

Contributing to a better life for those inhabiting the earth is an obligation, but at the same time a privilege.





Why has the Swedish Ministry of Foreign Affairs chosen to support the Swedish Global Health Research Conference:

How Can Sweden Contribute to the Sustainable Development Goals? From Research to Action?

The Swedish Global Health Research Conference provides an excellent opportunity to discuss how research and new knowledge can contribute to attaining the aims set forth in the 2030 Agenda for Sustainable Development. The goal of health – to ensure healthy lives and promote well-being for all at all ages – challenges us all to ensure that people not only survive but are able to live long and healthy lives.

The implication is that actions within the health sector are no longer enough. Instead, we need to work towards more healthy societies at large. To succeed at this, it is critical that we acknowledge the links between health, environment and climate change. Improved opportunities for physical activities, clean air and better food are good examples of what we are working toward.

Research has an important role to play in assisting political leaders, business leaders, civil society and governments on how to tackle the barriers related to the implementation of the 2030 Agenda. We possess the knowledge, and often the tools, but there is a gap when it comes to action. If we are going to be able to continue to contribute to a healthier world and planet, we need research – but perhaps a different kind of research than we are now doing – and a better understanding of why action is sometimes taken and sometimes is not.

A complex world and an ambitious agenda require multidisciplinary research and the contributions of partners across the world!

Anders Nordström, Swedish Ambassador for Global Health

University of Göteborg

Welcome to the Swedish Global Health Research Conference: How can Sweden contribute to the Sustainable Development Goals? From research to action!

The Swedish Global Health Research Conference is the first Swedish conference that brings together all medical universities in the country, to discuss global health issues and how research can be part of the solution. If we are to solve the world's main challenges and reach the sustainable development goals by 2030, we need to act jointly and urgently. It is my hope that this conference will prove to be an important step in achieving the 2030 Agenda for Sustainable Development.

Max Petzold, Professor, Swedish National Data Service and Health Metrics Unit, University of Gothenburg

Linköping University

Many threats to our health are complex and do not respect borders. Developments in technology and financial growth have ensured that health disparities between countries are diminishing, and migration contributes further to closer linkages between countries. At the same time, we acknowledge that the resources of the world are unevenly distributed, which leads to the death of millions of people from causes that could have been treated. Armed conflicts, climate change and natural disasters further increase the pressure of often already strained health systems. A global perspective is therefore necessary within medical research, education and development.

Sweden invests in both health and medical research, but it is important that these resources are put to use where they are needed the most and that we together assume our global responsibility. Global health needs a clearer place within Swedish medicine and must become an integrated part of all healthcare education programmes. Therefore, Linköping University is proud to be a partner of the first “Swedish Global Health Research Conference: How Can Sweden Contribute to the Sustainable Development Goals 2030? From Research to Action”.

Johan D Söderholm, Dean, Faculty of Medicine and Health Sciences, Linköping University

Lund University

As we have agreed on the Sustainable Development Goals, we are faced with both old and new challenges to improving global health. Tackling these challenges – from climate change to anti-microbial resistance; from social unrest to lack of basic hygiene – will require innovation, but also evidence, hard work, leadership and commitment. The input of academic institutions will be even more crucial for finding the solutions of today and tomorrow.

By fostering collaborative research, excellent education and innovation in a diverse range of areas that include human rights, engineering, humanities, medicine and public health, Lund University is committed to defining the path to Sustainable Development in collaboration with many other actors. Our work in Global Health dates back over 20 years, and includes both global and local approaches to issues like infectious diseases, sexual and reproductive health and rights, surgical care and health policy, to name a few.

We look forward to the 2018 Global Health Research Conference and to joining efforts with others in the coming years.

Erik Rehnström, Dean, Faculty of Medicine, Lund University

Uppsala University

International Maternal and Child Health (IMCH) is a leading research and education centre at Uppsala University that works for improved global health with special emphasis on women's and children's health and nutrition. The education and research programmes address the health challenges in low- and middle-income countries and in humanitarian crises. By developing and evaluating interventions and new strategies for tackling priority health problems, IMCH makes important contributions towards equitable global health.

Description of Subject Area: Global Health is the health, as well as the health problems and diseases, of populations in a global context and transcends the perspectives and concerns of individual nations, or has global, political and economic importance. It deals with the needs of global improvement of health, reduction of gaps in health conditions, and of protection against global threats against health, with special emphasis on vulnerable groups.

In conclusion, being the first University of Sweden, and having a long tradition of research and education in the field of international maternal and child health, makes it logical for us to also support and be active in this conference!

*Birgitta Essén, Professor of International Maternal & Reproductive Health
Dept. of Women's & Children's Health/IMCH, Uppsala University*

Umeå University

We need to join forces across societal sectors and professions within Sweden, as well as across the globe, to meet today's and tomorrow's challenges. Universities should contribute with knowledge that can guide priorities and decisions, and by educating the next generation of professionals.

In a globalized world our universities need to be in the fore-front of internationalization and a national strategy to move in this direction has recently been suggested (SOU 2018:3). Within our medical faculties increased internationalization should imply a global perspective on both research and education. Aspects of global health are relevant in most clinical specialties but are still often neglected. However, this can be improved if we work together.

We are still far from reaching "Health For All" as outlined in the Declaration of Alma-Ata in 1978, thus already 40 years ago. However, the United Nation's 2030 Agenda for Sustainable Development, involving all parts of societies and being truly interdisciplinary, will lead us in the right direction.

Umeå University is located far north, however, that has not limited our ambitions. We are proud to be able to contribute locally as well as globally. This is reflected in a statement by Richard Horton, Chief Editor of The Lancet (2013): "The University of Umeå has carved out an utterly distinctive position as an academic centre in global health". We continue along this path.

I hope these conference days will inspire you to learn even more and to contribute into the future!

Anneli Ivarsson, Professor & International Director at the Medical Faculty, Umeå University

Örebro University

As a representative of Örebro University, I am proud to be able to welcome you to the Swedish Global Health Research Conference: How Can Sweden Contribute to the Sustainable Development Goals? From Research to Action. The conference is only the second national global health conference in Sweden and the first to focus on research. As the world is becoming increasingly globalized, our health and the health of future generations depend on a greater understanding of global health issues. The 2030 Agenda and its Sustainable Development Goals is in this light an important framework, and it is important that we engage in the discussion on how global health research can contribute to its fulfilment.

Karin M. Franzen, MD, PhD, Örebro University



The Swedish Society of Medicine

The Swedish Society of Medicine (SSM) is the independent scientific and professional organisation of the Swedish medical profession.

Science, education and quality is the SSM motto and the foundation of SSM activities. We contribute with more than SEK 30 million to medical research every year. The SSM represents the medical profession in various inquiries and consultations, and we organise scientific meetings, seminars and debates to highlight medical research in important topical fields.

The Swedish Society of Medicine aims to

- provide a broad range of educational activities and opportunities for doctors, medical students, and allied healthcare professionals
- promote an exchange of information and ideas on the science, practice and organisation of medicine within the health professions for the benefit of patients.

We were founded in 1808 and is one of the oldest medical organisations in Europe.

*Stefan Lindgren, professor
Chair of the Swedish Society of Medicine*

History of the SSM building



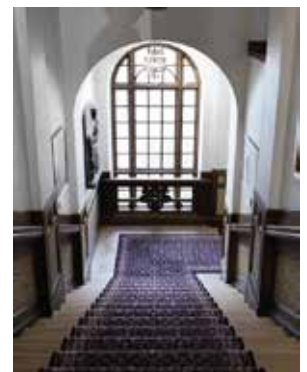
In 1879, the Swedish Society of Medicine moved from what was then the home of Karolinska Institutet at Norr Mälarstrand to its own premises in Jakobsgatan in Stockholm. It soon outgrew this location and a search for new premises was resumed. On Walpurgis night in 1889, six men were inside the Katarina lift at Slussen in Stockholm.

A fault developed in the machinery, causing the lift cage to fall. One of the passengers, Carl Westman, was injured, but a fellow passenger, Johan Rissler, a surgeon and member of the building committee of the Society of Medicine, immediately assisted him.

In 1904, the Society announced an architectural competition for a building on a site it had purchased in Klara Östra Kyrkogata. The winner was Carl Westman, and the building was finished two years later.

The Society's building which dates from 1906, was a breakthrough for the architect Carl Westman and the national romantic style architecture he favoured.

The building itself is work of art – from its facade of handmade brick and Christian Eriksson's granite reliefs in the entrance to its mosaic floors, carved balustrades, chandeliers, and ventilation grilles – all Westman signatures. The building today is a Swedish, turn of the century architectural treasure.



Who was Berzelius?



Jöns Jacob Berzelius, one of the most prominent natural scientists of the 19th century, was born in 1779 in Väversunda, in the county of Östergötland in southern Sweden, a region with rich cultural traditions.

Orphaned at an early age, he went to several foster-homes and received his schooling in nearby Linköping. After graduating in medicine at the University of Uppsala, he moved to Stockholm, where he became assistant master without pay at the so-called »Surgical School«, and worked as a doctor for poor people. At the age of 28 he became professor of medicine and pharmacy.

In 1808 Berzelius was one of the seven men who founded The Swedish Society of Medicine »For the perfection of science through mutual mediation of knowledge and collective experience, for the promotion of friendly confidence between doctors«.

Berzelius have enriched our knowledge of nature of life phenomena, established the atomic weights of most of the known elements, presented his electrochemical theory for the understanding of the nature of chemical compounds and laid the foundation for the sciences of the chemistry of rock types. He also found that elements combine with each other according to fixed numerical relationships. In addition to this, in his striving for order and method, with his talent for simplicity and clarity in expression, he created the chemical symbolic language in 1813, which since that time has been an essential instrument of chemistry.

With time he became a practised lecturer but preferred to express himself in writing and this he did superbly. Impressive are the great scientific works where he also demonstrated his interest and ability to spread knowledge about the latest advances of natural sciences.

Berzelius delight in research and debate was united

with a great humility before the great scientific questions. Both his attitude and artistry of formulation is illustrated by the following passage in his *Manual of Chemistry* (vol 3, 1818):

»All our theory is but a means of consistently conceptualizing the inward processes of phenomena, and it is presumable and adequate when all scientifically known facts can be deduced from it. This mode of conceptualization can equally well be false and, unfortunately, presumable is so frequently. Even though, at a certain period in the development of science, it may match the purpose just as well as a true theory. Experience is augmented, facts appear which do not agree with it, and one is forced to go in search of a new mode of conceptualization within which these facts can also be accommodated; and in this manner, no doubt, modes of conceptualization will be altered from age to age, as experience is broadened, and the complete truth may perhaps never be attained. But even if the goal can never be reached, let us never abandon our endeavor to get closer to it.«

Parts of this text is found in: Berzelius – Creator of the chemical language, by Carl Gustaf Bernhard, the Royal Swedish Academy of Sciences

The Swedish Society of Medicine
is the independent scientific organisation for Swedish doctors,
medical students, and allied healthcare professionals.

The Swedish Society of Medicine
is a nonprofit organisation and a forum for discussing and developing
health and health care by promoting
Medical Research, Ethics, Education and Quality.

The Swedish Society of Medicine
was founded in 1808.

www.sls.se



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