Quadriennal report 18 – 19 – 20 – 21

University of Geneva

Institute of Global Health (ISG)
Faculty of Medicine

With the support of a Louis-Jeantet Foundation Chair

FACULTY OF MEDICINE
INSTITUTE OF GLOBAL HEALTH

UNIVERSITÉ DE GENÈVE

– Content

I – A Message from the Director of the Institute of Global Health

The Institute of Global Health at the Faculty of Medicine of the University of Geneva has three major missions: Making training, delivering research and providing expert advise to the community. Geneva hosts - almost as monopoly - most of the prominent international organizations, NGOs and scientific societies dedicated to global health. Geneva is often qualified as the “Capital for Global Health”. Therefore, our Institute of Global Health is part of this unique ecosystem, and implements its main missions towards this international and brilliant audience.

It could almost appear opportunistic to say that the Institute of Global Health has mainly worked on preparing the global pandemic for four years since the COVID-19 pandemic has started in the early 2020, but this appears to be very true!

The Institute of Global Health (ISG) took the lead to apply at that time to the flagship call of SNSF (Swiss National Science Foundation), named National Center of Competence in Research (NCCR, on “precision epidemic forecasting” Although this highly competitive initiative eventually failed to be selected in May 2019, it allowed us to build a Swiss and international high-level interdisciplinary network of competencies for this research and training domain which proved to be very useful for helping finding solutions for decision makers during the pandemic times. In particular, we participated in delivering mathematical modelling and geohealth tools to better understand and forecast the pandemic at global level. We also contributed to setting up serosurveys and epidemiological studies at the cantonal and national levels.

The attractiveness of our master and PhD programs were boosted, probably due to the highlight on global health during those times, but also responding to the urgent need for capacity building in the fields that we are covering.

I – B
Combating the COVID-19 Pandemic: Agility and Innovation

ISG had to face two types of challenges during this pandemic:

The first one was purely an organizational one, i.e. to organize our courses online and our work at home office for all collaborators, while securing healthy work conditions to all, avoiding losing the relationships with any of our students and collaborators during the whole pandemic, particularly when lockdowns did not allow working at the Campus. Our previous culture of using digital training tools such as MOOCs in various domains did help a lot, although creating student community at the master level revealed to be quite challenging while done at distance.
The second one addressed our academic responsibility in contributing to help decision makers and also the public and the media to better understand and eventually tackle this pandemic. We were heavily solicited from the media, in the French speaking zones but also at international level and several of our collaborators did participate in the Swiss National COVID-19 Science Taskforce. Our master students contributed too in writing two important series of case studies, which were published (in 2020 and 2021) in special issues of two public health peer-reviewed open access journals.

We tried to never give up to stay all connected during the pandemic. We had to create new modes of communications between us, at the directorate level, by setting up monthly steering committee meetings and for all collaborators, with monthly General Assembly, both were conducted on Zoom. These meetings had previously defined agendas and each member was asked to comment on its recent achievements and any questions she or he wanted to raise. Minutes of steering committee were circulating after each meeting.

In terms of research, most of our research activities were deeply impacted. Those working on influenza redirected their work to COVID-19, those working on mental health redirected on its consequence related to the pandemic. Those working on HIV and other diseases in Africa took advantage of their built network to mobilize a work force to fight the COVID-19 pandemic and its broad indirect consequences on access to health. Finally, those working on international law, focused on International Health Regulations and on how human rights were affected by the pandemic, in particular Children's rights.

In terms of training, we had to suspend our onsite training programs. Hybrid trainings set up for a given period of time have been proved to be very difficult to organize, simply because it is difficult to offer distance learning education by just posting a live course delivered onsite. Full distance learning education appeared to be much more effective and gave much more satisfaction to students and teachers. Finally, PhD work was affected mainly because most of field research was impossible to perform in countries that have implemented travel restrictions.

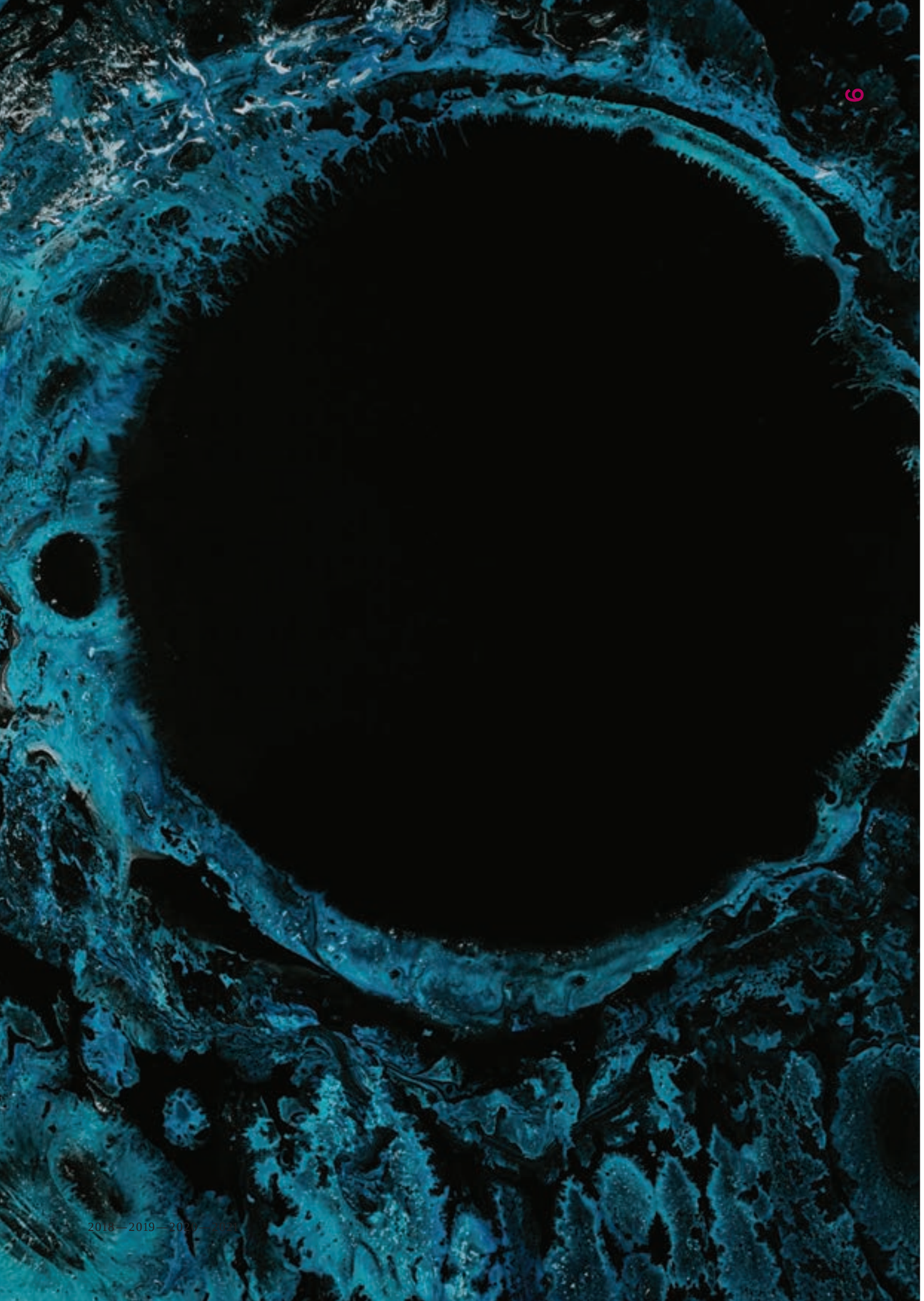
I – C
With the support of a Louis-Jeantet Foundation Chair

FONDATION LOUIS-JEANTET

Louis-Jeantet Foundation to help fighting against diseases threatening humanity

True to the spirit of its founder, the Louis-Jeantet Foundation is driven by a vision which is both humanist and political, namely to encourage European and local biomedical research in the fight against diseases threatening humanity, but also to support the role and standing of European and local research centres vs. international competition. The Louis-Jeantet Foundation encourages excellence, and only excellence. It undertakes to respect the academic freedom and independence of researchers and to finance innovative projects that offer hope to numerous patients.

www.jeantet.ch



II – The Institute – Key Figures

8
Research divisions

1
PhD program in Global Health and

6
post-graduate programmes

80+
Staff Members

2
Geneva Health Forum (GHF)

1
Master of Science in Global Health

8
MOOCs developed or in production

1
Master of Advanced studies (MAS) in Public Health

20
PhD students

III – A Infectious Diseases and Mathematical Modelling

The team:


Olivia Keiser


Janne Estill


Amobi Onovo


Aziza Merzouki


Liudmila Rozanova


David Chipanta


Benido Impouma


Alexander Temerev


Kene Nwosu

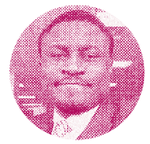

Amaury Thiabaud


Maroussia Roelens


Sara Botero


Plamenna Venkova


Wingston-Ng'ambi


Abiye Kalaiwo


Erol Orel


Rachel Esra


Andrew Azman


Atwood Raphael


Fatihiyya Wangara

– Projects and activities

The division takes an interdisciplinary approach and combines mathematical modelling (including cost-effectiveness analyses), analyses of cohort data, systematic reviews, text mining, and qualitative research techniques. The division focuses on HIV, Tuberculosis, Hepatitis C, Influenza and COVID-19, both in Switzerland and abroad; but it is also interested in expanding its work to other infectious diseases, and in studying the interaction between communicable and non-communicable diseases.

HIV in Malawi and development of mathematical simulation models

We have developed several mathematical simulation models for HIV-infected adults and children, as well as for tuberculosis, hepatitis C and COVID-19.
Within Malawi and many other countries in Sub-Saharan Africa, HIV prevalence varies widely between small areas. This variability may be related to the spatial distribution of socio-behavioural characteristics. Mathematical models can improve our understanding of the HIV (and other) epidemics but there is no established method for integrating detailed spatial social and behavioural data. Taking Malawi as a case study, we are working on an interdisciplinary modelling approach that integrates detailed social and behavioural data at the regional level. We aim then to test the effectiveness of targeted interventions in different areas.

Funder: Swiss National Science Foundation.
Duration: 3.2017-ongoing.

Partner: Ministry of health Malawi

HIV among key populations in Nigeria

Female sex workers (FSWs) play a key role in HIV transmission. In sub-Saharan Africa (SSA), FSWs experience stigma and discrimination and are often underserved by the health system. FSWs are at high risk of developing mental health conditions that lower the likelihood they will practice safer sex and can also undermine health-seeking behaviour. This combination of factors increases their morbidity and mortality, but it is not clear how these factors influence each other.
We are therefore conducting a study in Nigeria, which has a large and established FSW programme. The first part of our study will analyse routine data to identify barriers to care. In the second part we will administer validated questionnaires on substance abuse and mental health disorder at regular time intervals. We will analyse how mental health disorders influence care and treatment among HIV negative and positive FSW.

Funder: Swiss National Science Foundation
Duration: 1.7.2020-30.6.2022
Partners: University Hospital Geneva, Switzerland

Other HIV and Tuberculosis-related projects

We are leading and contributed to many analyses on HIV therapy outcomes in HIV-infected adults and children in sub-Saharan Africa via the IeDEA collaboration (www.iedea.org). Several PhD students are also working on HIV- and TB-related projects: One of our PhD students is, for example evaluating the benefit of social protection programs in Zambia. Another student uses machine-learning techniques to predict HIV treatment outcomes in a large HIV programme in South Africa. One student from Haiti is analyzing data from a large nation-wide database that captures data on all the tuberculosis patients in the country.

Within a large consortium of TB researchers and with support of WHO, we led an individual patient-level meta analysis on redefining drug resistant TB. We also collaborated with the WHO Western Pacific region on a project to model the future TB epidemic in four countries that contribute to >80% of the TB burden in Western Pacific region. We then evaluated the combination of the most effective and cost-effective interventions to decrease TB incidence.

COVID-19

In late December 2019, SARS-CoV-2 was identified, with first cases occurring in Wuhan City, China. On January 30 2020, the World Health Organization (WHO) declared it as a pandemic. To better understand the transmission of the virus and to integrate effective interventions, it is necessary to integrate different data sources such as international research findings from published literature, with surveillance data and mathematical models.

COVID-19 in Switzerland

The overall aim of this project is to analyze and integrate these different data sources as quickly as possible, thereby creating an interdisciplinary surveillance system for COVID-19 in Switzerland. The system will be flexible so that it can be adapted to future outbreaks.

Sub-projects are initially independent but will produce linked outputs that will aid in developing a detailed mathematical model of COVID-19 transmission in Switzerland. The first subproject involves the analysis of surveillance data of a surveillance system of 21 Swiss hospitals that our group has developed in collaboration with the Swiss Federal Office of Public Health (www.unige.ch/medecine/hospital-covid). The second sub-project is a semi-automated systematic review of the scientific literature (including preprint articles) on SARS-CoV-2/COVID-19. We perform repeated topic modelling (using e.g. Latent Dirichlet Allocation or UMAP algorithms) of all available articles. Each article will be attributed to one of several topics in an iterative process. The aim is to quickly identify articles of various topics of interest (e.g. clinical course of disease, mathematical models of spread of disease, economic consequences, biologic studies on vaccine development and immunologic response, etc.), without the need to define exact search terms a priori. Papers will be made accessible and searchable through a web user interface, as well as an API. Key parameters for the parameterization of the mathematical model, will be extracted from the identified full text articles. The third sub-project involves the development of a mathematical model for Switzerland including the progression and transmission of the disease that will be directly linked to current surveillance data. The model will be parameterized in real-time using the literature and surveillance data where possible, including individual behaviours in reaction to the epidemic.

Funder: Swiss National Science Foundation
Duration: 1.7.2020-30.6.2022
Partners: University Hospital Geneva, Switzerland

COVID-19 in Africa

The COVID-19 pandemic has highlighted important shortcomings in states' capacities to perform timely collection and analysis of outbreak data. These shortfalls have been particularly pronounced in low-income African countries, where weak information management infrastructures and a dearth of trained data analysts have often hindered information flow.

In June of 2020, Project EpiGraph was conceived by our group after being approached by the World Health Organization Regional Office for Africa (WHO Afro) to assist Sub-Saharan African countries in managing and analyzing their streams of COVID-19-related data. In response, we formed an international team of global health researchers, epidemiologists, and data analysts to respond to this call: The GRAPH Network (https://thegraphnetwork.org). Together, we produced detailed situation reports and built a prototype open-source web application, EpiGraphHub, for automating the creation of epidemiological reports. We also trained public health specialists, including those in the African countries we were asked to support, in R-based analysis of outbreak data.

In another project we are providing technical guidance on the COVID-19 surveillance and testing policies in Malawi, including assistance with the design of a phone-based syndromic and mortality surveillance system. The project is supported by US CDC, Malawi.

Funder: World Health Organization, African Region
Duration: 6.2020 - 11.2020

Partners: World Health Organization, African Region and its member states

Influenza in Switzerland

In collaboration with the Federal Office of Public Health, the virology and infection control departments at the University hospital of Geneva, and other hospitals in Switzerland we have implemented a surveillance system for hospitalised influenza cases in Switzerland. It is likely that influenza cases in hospitals differ from community-based cases regarding patient characteristics and potentially also patterns of circulating strains. With a hospital-based system, we will be able to study the evolution of the epidemic and better understand influenza in hospitalised patients who are most at risk.

COVID-19 and influenza in Switzerland: hospital surveillance
Funder: Swiss Federal Office of Public Health
Duration: 3.2020 - ongoing
Partners: 21 hospitals in Switzerland

Cholera

The Impact of Mass Oral Cholera Vaccination in Uvira, South Kivu, Democratic Republic of the Congo:

In this study we assess the impact of mass cholera vaccination in Uvira, DR Congo using a multifaceted approach aimed at estimating changes in clinical disease incidence, infection rates, and the type and frequency of occurrence of toxigenic Vibriocholeraein the environment. Successful completion of this project will provide critical insights into the impact that mass OCV campaigns can have on human health while at the same time providing a new understanding of the epidemiology of cholera in this hyper-endemic setting (PI: Andrew Azman).

Serosurveillance to improve estimates of burden and at risk populations of Cholera and COVID-19:

This project aims to conduct joint clinical and serosurveillance in a well-defined population in Bangladesh to describe changes in antibodies against Vibriocholerae over the course of a cholera season, refine cross-sectional incidence models and to estimate the ratio of infections to medically-attended disease. Additionally, this project aims to assess the infection burden of SARS-CoV-2 in the population.

Integrated e-Diagnostic Approach Project

In the frame of a collaboration with the Terre des Hommes foundation (www.tdh.ch), Patrick J. McGovern Foundation (www.mcgovern.org/), and the Health Informatics for Innovation, Integration,Implementation and Impact Laboratory(HI5lab), led by Prof. Antoine Geissbuhler and hosted at the Faculty of Medicine of the University of Geneva, we contribute to the IeDA (Integrated e-Diagnostic Approach) project (www.IeDA-project.org). The aim of IeDA is to support health care workers in primary health care facilities in West Africa, with mHealth tools and methodologies, for diagnosing and treating children under 5 years-old, based on the IMCI Integrated Management of Childhood Illness (IMCI) WHO protocol and according to national protocols. We are involved in the development and implementation of new data management and visualization tools, digital job-aids solutions, and epidemiological analyses, based on medical consultation data collected in the frame of IeDA in Burkina Faso, including machine learning approaches. Such technological resources should enable the Ministry of Health and other partners to increase the quality of care provided in the country, providing invaluable information for planning potential targeted interventions.

Funder: Cloudera Foundation
Duration: 5.2019-12.2021
Partners: Terre des Hommes, University Hospital Geneva, Ministry of Health Burkina Faso

– PhD Candidates and Theses

Completed

Cleophas Chimbetete
HIV Drug Resistance and Third Line Antiretroviral Therapy Treatment Outcomes in Zimbabwe.

Ongoing

Amobi Onovo
HIV seroprevalence and HIV treatment outcomes along the Cascade of care in Key Population in Nigeria.

Abiye Kalaiwo
Mental health disorders and substance abuse among female sex workers in Nigeria.

David Chipanta
Impact of Social Protection Programmes on access and use of HIV services in Zambia.

Atwood Raphael
The national Tuberculosis program in Haiti: challenges and treatment outcomes.

Rachel Esra
Use of machine learning to predict HIV treatment outcomes in South Africa.

Fatihyya Wangara
Use of real time health data at community level to improve retention in maternal and newborn continuum of care: a cluster randomized controlled trial.

Benido Impouma
The response to the Covid-19 pandemic in Sub-Saharan Africa.

Alexander Temerev
A spatial mathematical transmission model for Covid-19 in Switzerland.

– Major publications: 18 — 19 — 20 — 21

A full list of publications can be found here: https://tinyurl.com/4y65vunw

HIV

Onovo AA, Kalaiwo A, Katbi M, Ogorry O, Jaquet A, Keiser O.
Geographical disparities in HIV prevalence among Men Who Have Sex with Men and People Who Inject Drugs in Nigeria. In press J Med Internet Res. Preprint available at: https://www.medrxiv.org/content/10.1101/2020.01.09.20017103v1.

Thiabaud A, Triulzi I, Orel E, Tal K, Keiser O.
Social, behavioural, and cultural factors of HIV in Malawi: a semi-automated systematic review. J Med Internet Res 2020 22(8):e18747.

Merzouki A, Styles A, Estill J, Petrie K, Keiser O
Identifying groups of people with similar sociobehavioural characteristics in Malawi to inform HIV interventions: a Latent Class Analysis. J Int AIDS Soc 2020 23(9):e25615.

Tuberculosis

Roelens M, Battista Migliori G, Rozanova L, et al.
Evidence-based Definition for Extensively Drug-resistant Tuberculosis. Am J Respir Crit Care Med 2021; Available at: https://www.atsjournals.org/doi/10.1164/rccm.202009-3527OC. Accessed 1 July 2021.

Estill J, Islam T, Houben RMG, Ragonnet R, McBryde ES, Trauer JM, Orel E, Nguyen AT, Rahevar K, Morishita F, Oh KH, Raviglione M, Keiser O.
Tuberculosis in the Western Pacific Region: Estimating the Burden of Disease and Return on Investment 2020-2030. In press The Lancet Regional Health - Western Pacific. Preprint available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3731454.

COVID-19

Impouma B, Wolfe CM, Mboussou F, Farham B, Bukhari A, Flahault A, Lee TM, Mlanda T, Ndumbi P, Ngom R, Okot C, Moussana F, Williams GS, Moussongo A, Talisuna A, Kasolo F, Ahmed K, Keiser O.
Lancet Digital Health 2020 2(10):e500-e502. Use of electronic tools for evidence-based preparedness and response to the COVID-19 pandemic in the WHO African region.

Perez-Saez J, Lauer SA, Kaiser L, Regard S, Delaporte E, Guessous I, Stringhini S, Azman AS; Serocov-POP Study Group.
Lancet Infect Dis. 2021 21(4):e69-e70. Serology-informed estimates of SARS-CoV-2 infection fatality risk in Geneva, Switzerland..

Thiabaud A, Iten A, Balmelli C, Senn L, Troillet N, Widmer A, Flury D, Schreiber PW, Vázquez M, Damonti L, Buettcher M, Vuichard-Gysin D, Kuhm C, Cusini A, Riedel T, Nussbaumer-Ochsner Y, Gaudenz R, Heininger U, Berger C, Zucol F, Bernhard-Stirnemann S, Corti N, Zimmermann P, Uka A, Niederer-Loher A, Gardiol C, Roelens M, Keiser O.
Cohort profile: SARS-CoV-2/COVID-19 hospitalised patients in Switzerland. Swiss Med Wkly 2021 15;151:w20475.

Hepatitis C

Roelens M, Bertisch B, Moradpour D, et al.
All-Cause Mortality and Causes of Death in the Swiss Hepatitis C Cohort Study (SCCS). Open Forum Infect Dis 2020; 7. Available at: https://academic.oup.com/ofid/article/7/8/ofaa308/5876396. Accessed 22 September 2020.

Bertisch B, Brezzi M, Negro F, Müllhaupt B, Ottiger C, Künzler-Heule P, Schmid P, Giudici F, Clerc O, Moriggia A, Marinucci F, Zehnder C, Moradpour D, Keiser O.
Very low hepatitis C viral loads in treatment-naïve persons: do they compromise hepatitis C virus antigen testing? Clin Infect Dis 2020 70(4), 653-659.

Cholera

Azman AS, Lessler J, Luquero FJ, Bhuiyan TR, Khan AI, Chowdhury F, Kabir A, Gurwith M, Weil AA, Harris JB, Calderwood SB, Ryan ET, Qadri F, Leung DT.
Estimating cholera incidence with cross-sectional serology. Sci Transl Med. 2019 11(480):eaau6242.

Azman AS, Lauer SA, Bhuiyan TR, Luquero FJ, Leung DT, Hegde ST, Harris JB, Paul KK, Khaton F, Ferdous J, Lessler J, Salje H, Qadri F, Gurley ES.
Lancet Microbe. 2020 Dec;1(8):e336-e343. doi: 10.1016/S2666-5247(20)30141-5. Vibrio cholerae O1 transmission in Bangladesh: insights from a nationally representative serosurvey.

III – B
Human, Animal and Environmental Health

ISG - Report 2018-2021 Division « Human, Animal, and Environmental Health »

The teams:

GeoHealth group:


Prof. Nicolas Ray


Dr. Yaniss Guigoz


Frédéric Moser


Zeynabou Sy


Andrew Curtis


Carlos Ochoa


Fleur Hierink


Dr. Humberto Laudares


Prof. Joanna Schellenberg

Environmental Health Unit:


Dr. Julien Forbat


Dr. Nicola Cantoreggi


Dr. Jean Simos


Dr. Derek Christie

One Health Unit:


Dr. Isabelle Bolon


Dr. Rafael Ruiz De Castañeda


Dr. Sara Babo Martins

– Mission and activities

The Division « Human, Animal, and Environmental Health » performs highly inter-disciplinary research and teaching activities at the interfaces between public/global health, animal health, ecology, epidemiology, and environmental sciences. It collaborates extensively in research and teaching with the Institute for Environmental Sciences (ISE) of the University of Geneva.

The **GeoHealth group** is dedicated to research and development in Global Health using advanced geospatial modelling, Geographic Information Systems (GIS), Spatial Data Infrastructures, and spatial statistics. A strong focus of the group is on modelling physical accessibility to health services, targeting universal health coverage and resource allocation efficiency in low- and middle-income countries. The **One Health unit** promotes an integrated One Health approach and digital innovation to better understand and tackle global health challenges at the human-animal-ecosystem interface, with a current focus on the application of artificial intelligence (AI) tools. The **Environmental Health unit** develops and applies methodologies for health impact assessments, with a focus on urban environments and the promotion of healthy housing and healthy cities.

– Projects and activities

GeoHealth group

The group is co-directing the SNSF Snake-Byte project (2018-2022), specifically looking at understanding national snakebite epidemiology and optimizing access to antivenom in Nepal and Cameroon. With WHO and the Health GeoLab Collaborative, the group developed and maintains the software AccessMod, an open-source geospatial tool to model physical accessibility to health services. GeoHealth used this tool and other geospatial approaches in numerous African countries in support of Ministries of Health and the following partners: UNFPA (2016-2021), optimization of network of Emergency Obstetric and Neonatal Care facilities in Benin, Burundi, Burkina-Faso, Côte d'Ivoire, Democratic Rep. of Congo, Ghana, Guinea-Conakry, Madagascar, Rep. of Congo, Rwanda, Senegal, Sudan, Tchad and Togo), The Global Fund (2018-2021), strengthening efficient allocation of services linked to TB, HIV, malaria, as well as community health, services, in Burkina Faso, Burundi, Cote d'Ivoire, Chad, DRC, Guinea-Conakry, Mali, Niger, and Sierra Leone), and UNICEF (2018-2021), assessing impact of cyclones on access to health in Mozambique, and modeling accessibility to health services in Ethiopia and Madagascar). This body of work fuels research activities around developing methodologies to optimize health system strengthening and geospatial data management. The group is also involved in teaching various geospatial approaches linked to public/global heath and ecology in several courses, both at IGH and ISE. This is complemented internationally by a strong involvement in capacity building on AccessMod, GIS and mapping, targeting governmental bodies and other organizations in Africa.

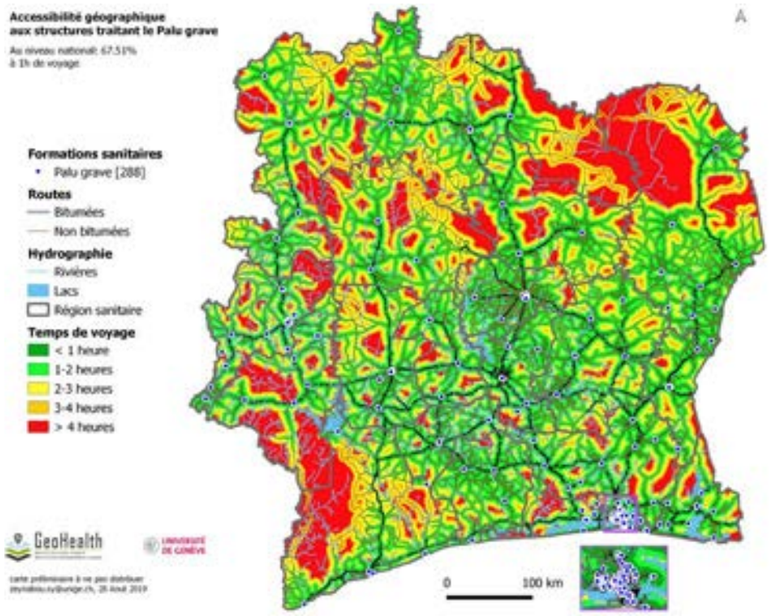
One Health unit

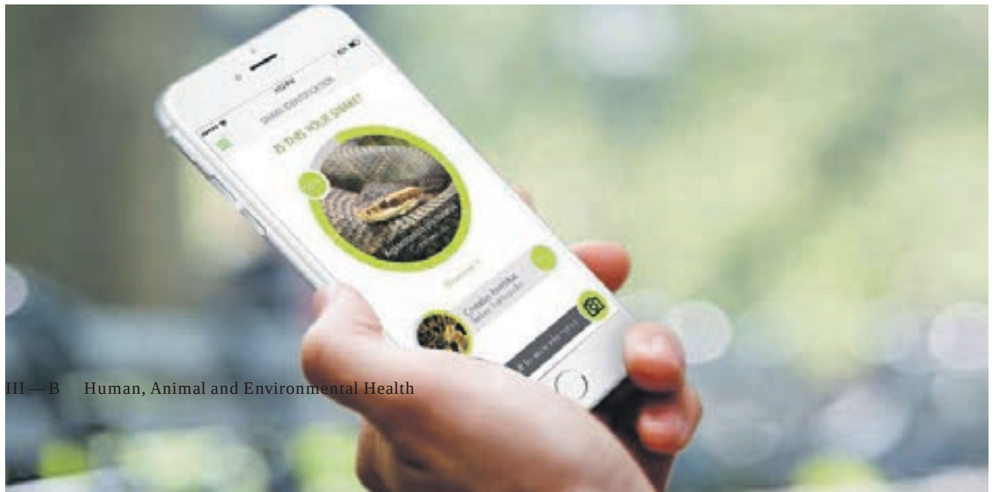
In the context of the SNSF Snake-Byte project (2018-2022), the unit developed and used a One Health framework to quantify the direct impact of snakebite on human health and the indirect impact through livestock animals and subsequent livelihoods in Nepal and Cameroon. This was the first One Health approach to snakebite, including the economic dimension. With a Swiss and international group of partners and the support of the Fondation privée des HUG, the unit is developing a medical decision-support tool for snake identification based on artificial intelligence and remote collaborative expertise. Snake identification is key to treat patients with specific antivenoms and to improve epidemiological data (Project timeline: 2018-2020). But snakes are diverse, and most healthcare providers lack the expertise to identify them. The unit created the world's largest snake photo dataset and developed the first AI model and an app to classify snakes and to support snakebite diagnosis. This project has sparked the interest of the AI community, and the unit won an international challenge organized by Facebook AI and was invited to present their research at the Computer Vision for Global Challenges Workshop (CV4GC) in the leading computer vision conference IEEE Computer Vision and Pattern Recognition (CVPR) (California, June 2019). This project currently serves as a use-case of the WHO-ITU Focus Group on "AI for Health" to benchmark the development of AI algorithms applied to healthcare. In collaboration with InZone, the

unit implemented an innovative blended-learning program on One Health in Kakuma refugee camp (Kenya) combining its interdisciplinary and multi-expert MOOC on "Global Health at the Human-Animal-Ecosystem interface" and context-specific project-based learning.

Environmental Health unit

The unit ran GREENH-City (GouveRnance pour l'Equité, l'EnviroNment et la Santé dans la Cité, 2017-2021), an intervention research aiming to analyse and compare, through green public urban spaces management study, local implementation of health in all policies in order to struggle against health inequities. The Domiscore project (Methodological contribution to Domiscore, a tool characterizing the impact of housing on health and well-being, 2018-2021) aims to promote healthy housing and to detect at risk situations. It is a multicriteria grid that assesses several characteristics that are known to impact health and well-being. It considers both the negative and the positive impacts a housing can have on health. It takes into account vulnerable populations (e.g. disabled or elderly people). The unit preformed an assessment of a strategic framework for health promotion in Lausanne (2018-2020) through a healthy-cities lens analysis of the 17 Sustainable development goals (SDGs) and their 169 targets. This produced a reading grid through which all potentially health promotion actions of the city of Lausanne were screened in order to be assessed and prioritised. The unit used a Health impact assessment (HIA) of the PADD-SCOT (Pays de Vesoul - Val de Saône, 2018-2020) to make a prospective analysis of the health effects induced by the territorial planning of a French rural territory in order to overall identify leverage action to promote health in public policies with spatial impact. Finally, in the context of the 3rd French National Environmental Health Action Plan (NEHAP-3, 2015-2019), the unit ran a HIA implementation in urban planning procedures (2016-2018), produced by the High Council of Public Health (HCPH), to analyse whether health was taken into consideration in urban planning procedures and to recommend improvement actions using the HIA tool in these procedures. The final report serves as a practical guide for national and local decision-makers in regard to urban and environmental policies.





– PhD Theses:

PhD theses in Global Health, directed by N. Ray:

Carlos Ochoa
(Columbia and Switzerland). *Determination, analysis and prediction of snakebite's risk and incidence for humans and animals in hotspots areas of Cameroon and Nepal.* 2018 - ongoing.

Fleur Hierink
(The Netherlands). *The winding road to health: Modelling geographical accessibility to health facilities to support health system optimization and epidemiological modelling in low-and middle-income countries.* 2019 - ongoing.

Humberto Laudares
(Brazil). Accessibility to *COVID-19 treating centers for the indigenous peoples of the Amazonas.* 2020 - ongoing.

Participation of J. Simos to thesis Committees:

Legendre Anne-Laure
Explorer ce qui fait bien-être dans son cadre de vie : une recherche ancrée dans le vécu des habitants de quartiers défavorisés en France, Université Paris-Saclay, 2020.

Ba Abou
L'agriculture urbaine, un facteur de santé dans le sud (Dakar): une approche holistique basée sur la démarche de l'évaluation d'impacts sur la santé. ISE, Université de Genève, 2020. (thesis co-directed by N. Cantoreggi)

Adithya Pradyumna
Applying health impact assessment to watershed development projects in semi-arid areas in India: identifying prospects for health-sensitive food systems. STPH, University of Basel, 2020.

Christie Derek
Frequent walkers: from healthy individual behaviours to sustainable mobility futures. Swiss Federal Institute of Technology (EPFL), 2018.

Pereira Barbosa Hiago
Analyse des inégalités de santé à l'échelle des territoires dans le contexte de changement climatique et d'urbanisation croissante. Ecole des hautes études en santé publique (EHESP), ongoing.

– Major publications: 18 — 19 — 20 — 21

Babo Martins S, Bolon I, Chappuis F, Ray N, Alcoba G, Ochoa C, Kumar Sharma S, Nkwescheu AS, Wanda F, Durso AM, Ruiz de Castañeda R. (2019) Snakebite and its impact in rural communities: The need for a One Health approach. PLoS Negl Trop Dis, 13(9): e0007608.

De Souza Hacon S, Santos Perisse AR, Cantoreggi N, Simos J, Winkler MS. (2018) Challenges and prospects for integrating the assessment of health impacts in the licensing process of large capital project in Brazil. International Journal of Health Policy and Management, 7(10): 885-888

Ebener S, Stenberg K, Brun M, Monet J-P, Ray N, Sobel H, Roos N, Gault P, Morrisey Conlon C, Bailey P, Moran AC, Ouedraogo L, Kitong J, Ko E, Sanon D, Jega FM, Azogu O, Ouedraogo B, Osakwe C, Chimwemwe Chanza H, Steffen M, Ben Hamadi I, Tib H, Haj Asaad A & T Tan Torres. (2019) Proposing standardised geographical indicators of physical access to Emergency Obstetric and Newborn Care in low- and middle-income countries. BMJ Global Health 4: e000778

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Oliphant NP, Ray N, Bensaid K, Ouedraogo A, Ghali AY, Habi O, Maazou I, Panciera R, Muñiz M, Manda S, Sy Z, Jackson D & T Doherty (2021) Optimising geographical accessibility to primary health care: a geospatial analysis of community health posts and community health workers in Niger. BMJ Global Health, 6: e005238

Porcherie M, Linn N, Le Gall AR, Thomas M-F, Faure E, Rican S, Simos J, Cantoreggi N, et al. (2021) Relationship between urban green spaces and cancer: a scoping review. International Journal of Environmental Research and Public Health, 18(4): 1751

Ruiz de Castañeda R, Durso AM, Ray N, Fernández JL, Williams DJ, Alcoba G, Chappuis F, Salathé M, Bolon I. (2019). Snakebite and snake identification: empowering neglected communities and health-care providers with AI. The Lancet Dig Health, 1(5): e202-3

Curtis A, Monet JP, Brun M, Bindaoudou K, Daoudou I, Schaaf M, Agbigbi Y & N Ray. (2021) National optimization of geographical accessibility to emergency obstetric and neonatal care in Togo. BMJ Open, 11: e045891

Full list of publications:
GeoHealth group:
https://www.unige.ch/medecine/isg/en/research/1000ray/publications
One Health unit:
https://www.unige.ch/medecine/isg/en/research/one-health
Environmental Health unit:
https://www.unige.ch/medecine/isg/en/staff/jean-simos
https://www.unige.ch/medecine/isg/en/staff/nicola-cantoreggi

III – C
NCDs PREVENTION

The team:


Jean-François Etter


Prof. Thomas Mattig


Vincent Beaujard


Manuela La Greca


Dr. Emilien Jeannot


Dr. Mathias Waelli


Aude Richard


Dr Jennifer Hasselgard-Rowe

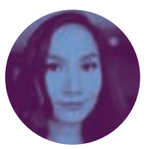

Dr.Beat Stoll


Dr.Olivier Duperrex


Nadia Elia


Sugitha Sureshkumar


Louis Blanc


Gianna Gayle Amul


Prof. Pablo Perel

This department aims to conduct research, teach and provide services to the City on the prevention of non-communicable ditseases. The activity of Prof. Etter focuses on tobacco dependence and smoking prevention, the activity of Prof. Mattig focuses on health promotion, and Prof. Perel's mission is to foster collaborations on the topic of global cardiovascular disease prevention with a focus on low & middle income countries and humanitarian settings.

– Projects and activities

Research

The team of Prof. Jean-François Etter conducts studies on tobacco dependence and e-cigarettes and performs assessments of prevention interventions. Research projects include a randomized trial in 5'200 smokers to test the efficacy of a smartphone-based application for smoking cessation (supported by the Swiss National Science Foundation), a longitudinal study of e-cigarette users with follow-up after 10 years, and studies of the addictiveness of e-cigarettes. Three studies on withdrawal symptoms were conducted in collaboration with Prof. John Hughes, University of Vermont, USA.

Prof. Mattig's research covers health policy, physical activity and nutrition in children and adolescents, falls in the elderly, and national health promotion programs.

Prof. Perel collaborates with Prof. Karl Blanchet (Geneva Centre for Humanitarian Studies) on a national assessment on Non Communicable Diseases in Afghanistan. His research proposal was shortlisted for full submission by the Medical Research Council (UK) with Dr. David Beran (Division of Tropical and Humanitarian Medicine, HUG) on implementation of innovative and scalable to prevent diabetic foot ulcers in Peru. He is working on a research proposal with Prof Ehret (Cardiology Division, HUG) for a National Institute of Health Research Global Group (UK) to improve the management of hypertension in Sub-Saharan Africa.

Services to the city

Prof. Mattig is the director of the Foundation « Promotion Santé Suisse », Prof. Perel is Senior Science Advisor for the World Heart Federation. Prof. Etter's team implements the web-based and **smartphone-based** prevention programmes **Stop-tabac**, **Stop-alcohol** and **Stop-cannabis**, that reach over 200'000 users each month and are used for both prevention and research purposes. Staff members are also members of several scientific committees and scientific journals editorial boards.

1 — Unsplash

– PhD candidates and MD Theses

Completed

Chin-Shui SHIH
Obtained his PhD in Global Health in 2019 under the supervision of Prof. Etter for a dissertation on e-cigarette use in Taiwan.

Sébastien QUELOZ
Obtained his MD in 2019 under the supervision of Prof. Etter for a dissertation on the users of heated tobacco products.

Ongoing

Sugitha SURESHKUMAR
Is a student in the PhD in Global Health under the supervision of Prof. Etter; her dissertation is about medical care for children during the COVID-19 pandemic in India and in Kenya.

Gianna Gayle AMUL
Is a student in the PhD in Global Health under the supervision of Prof. Etter; her dissertation is about alcohol and tobacco policies in Singapore and the Philippines.

Louis BLANC
Is a MD student under the supervision of Prof. Etter; his dissertation is about primary medical care for asylum seekers in Switzerland.

Prof, Perel
Is co-Supervisor of 2 PhD students: Maria Lazo Porras and of Benedetta Armocida.

– Major publications: 18 — 19 — 20 — 21

Etter JF.
Gateway effects and electronic cigarettes. Addiction. 2018 Oct;113(10):1776-1783. doi: 10.1111/add.13924. Epub 2017 Aug 7. PMID: 28786147

Etter JF, Khazaal Y.
The Stop-Tabac smartphone application for smoking cessation: study protocol for a randomized controlled trial in the general population. Trials. 2020 Jun 1;21(1):449. doi: 10.1186/s13063-020-04377-0.

Hughes JR, Peters EN, Callas PW, Peasley-Miklus C, Oga E, Etter JF, Morley N.
Withdrawal Symptoms From E-Cigarette Abstinence Among Former Smokers: A Pre-Post Clinical Trial. Nicotine Tob Res. 2020 Apr 21;22(5):734-739. doi: 10.1093/ntr/ntz129.

Mattig T.
Coordinating health promotion in a federal state over the course of 30 years: a case report from Switzerland. Health Promotion Perspectives 2019; 9(4): 323-330

Jaung MS, Willis R, Sharma P, Aebischer Perone S, Frederiksen S, Truppa C, Roberts B, Perel P, Blanchet K, Ansbro É.
Models of care for patients with hypertension and diabetes in humanitarian crises: a systematic review. Health Policy Plan. 2021 Mar 10: Epub ahead of print.

III – D
Health and Human Rights

Team:

Prof. Emmanuel Kabengele Mpinga
Noma Project Team
Project Coordinator

Dre. Ioana Cismas
Project Co-Cordinator
Centre for Applied Human Rights & York Law School

Dr. Mirko Winkler
Project co-cordinator
Swiss Tropical and Public Health Institute

Marie-Solène Adamou Moussa-Pham
Principal member
Institute of Global Health, University of Geneva

Dre. Margaret Leila Srour
Principal member
Health Frontiers, Vientiane, Laos & Health Volunteers Overseas

Dr. Peter Steinmann
Principal member
Swiss Tropical and Public Health Institute

Ms.Alice Trotter
Principal member
Centre for Applied Human Rights & York Law School

Gabriel Alcoba
Associated Member
Médecins Sans Frontières, Switzerland & Geneva University Hospitals

Mr. Curdin Brugger
Associated member
Swiss Tropical and Public Health Institute

Ms. Anaïs Galli
Associated member
Swiss Tropical and Public Health Institute

Dr. Moubassira Kagone
Associated member
Centre de Recherche en Santé de Nouna, Burkina Faso

Maïna Sani Malam Grema
Associated member
Université Abdou Moumouni de Niamey & Laboratoire d'Etudes et de Recherche sur les Dynamiques Sociales et le développement Local, Niger

Dr. Emilien Jeannot

Joshua Galjour

Krystel Ouaijan

Emmanuel Kabengele Mpinga

Ioana Cismas

Mirko Winkler

Marie-Solène Adamou Moussa-Pham

Dr. Denise Baratti-Mayer

Dr. Margaret Leila Srour

Dr. Peter Steinmann

Alice Trotter

Dr. Gabriel Alcoba

Curdin Brugger

Anaïs Galli

Dr. Moubassira Kagone

Maïna Sani Malam Grema

The Division of Health and Human Rights led by the Prof. Mpinga is articulated around 4 main research fields:

1 Identifying the violations to fundamental rights impacting on public health

2 Clarifying epistemological foundations between health and human rights

3 Getting reliable indicators of surveillance of human rights implementation in the field of health at a global level

4 Identifying adapted strategies of intervention and responses

This Division is part of an international network led by the University of Harvard. Research work focuses on the nature of the relations between health and human rights, indicators of implementation of right to health, as well as epistemological foundations of this discipline in a global perspective. In collaboration with the humanitarian medicine of the University Hospitals of Geneva (HUG) and diverse organisations working in the field of humanitarian action, research directs towards the economic and social costs of violation of human rights and the strategies of prevention of human rights violations in health systems.

The division takes part in the research of the Laboratory "Big Data in Global Health", especially through the works intended to better understand the protective potential of massive data in the implementation of right to health surveillance on one hand, and on risks of human rights violations in the process of collecting, stocking, exchanging and using data on the other hand.

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Noma, The Neglected Disease. An Interdisciplinary Exploration of Its Realities, Burden, and Framing

Noma (*cancrum oris*) is a gangrenous disease that predominantly affects young children living in conditions of extreme poverty in Africa, Asia and Latin America. Noma starts in the mouth, spreading rapidly and destroying skin, muscles and bones. While surgery is costly and complex, if diagnosed early, Noma's full onset is preventable and inexpensive to treat. Yet, the majority of children likely do not receive medical attention or receive it too late to save their faces and often their lives. Noma affects an estimated 140,000 children each year; Estimated at 90%, Noma has one of the highest mortality rates and the rest of the victims are disfigured for life.
Child and adult survivors suffer significant aesthetic and functional after-effects and are reported to go through intense social isolation, stigmatisation and discrimination.

A disease of extreme poverty, with multiple causes, Noma is perhaps the most visible symbol of failing health systems. On October 15, 2019, the Institute of Global Health (ISG) of the UNIGE Faculty of Medicine launched a project led by an international multidisciplinary consortium to better understand the causes of the disease and the means to control it. Funded by the Swiss Network for International Studies (SNIS), the project "Noma, The Neglected Disease, An Interdisciplinary Exploration of Its Realities, Burden and Framing" is directed by Prof. Emmanuel Kabengele Mpinga of the ISG and will last two years.

The project seeks to address a range of questions concerning this issue, among which the following:

- What is the epidemiological evidence and global burden of Noma?
- What are the key risk factors of Noma?
- Does the framing of Noma as a cause and effect of human rights violations contribute to greater awareness and action amongst stakeholders?

In other words, the project aims to answer questions about the burden of the disease at the global and household levels, its economic and social costs, the profile of survivors and the impact of the disease on the rights of affected persons, and the effects of the lack of respect for these rights on the epidemiology of Noma. It will also aim to have Noma included in the WHO list of neglected diseases.

The interdisciplinary international research team consists of world-renowned experts in the fields of Noma, epidemiology, global health, and human rights law, experienced field practitioners and a doctoral student. We will draw on a mixed-method cross-disciplinary approach to research, to establish Noma's epidemiology and global burden, to portray the experiences of child and adult Noma survivors, and to evaluate the implications of the framing of Noma as a human rights issue and neglected tropical disease (NTD). The case study contexts are Burkina Faso, Laos, Niger and, taken together, Europe and North America.
To generate academic and social impact at local, national and international levels through the inclusion of Noma in the WHO list of NTDs, the research team relies on strong partnerships and collaborations with non-, inter- and governmental key stakeholders.

Other experts members are strongly supporting the project: University Hospitals of Geneva (HUG), the Swiss Tropical and Public Health Institute in Basel, the University of York (UK), the Fondation Sentinelles de Lausanne, Doctors without Sans Borders Suisse, the Nouna Public Health Research Center (Burkina Faso), Health Frontiers (Laos), Agencies of the United Nations system (the High Commissioner for Human Rights, UNICEF Niger and WHO), NGOs (HilfsAktion Noma, Médecins Sans Frontières, Sentinelles Foundation, Health Frontiers, Songes, Winds of Hope & International No Noma Federation) as well as government bodies (Ministry of Health of Burkina-Faso and the National Program for the Fight against Oral Diseases and Noma of Niger).

Timeline: 2019-2021
Donators
Swiss Network for International Studies (SNIS)
Noma HilfsAktion ev, Germany
Winds of Hope
Noma Hilfe Schweiz
Republique et Canton de Genève

Partners
WHO, Geneva
Fondation Sentinelles
Swiss Tropical Institute
York University
International Noma Federation
Ministry of Health Burkina
Ministry of Health Niger
Centre de recherche en Santé publique de Nouna Burkina Faso
United Nations Human Rights Council Advisory Committee
United Nations Children's Fund
Geneva Health Forum, Geneva, Switzerland
SongES, Niamey, Niger
Médecins Sans Frontières, Geneva, Switzerland
Health Frontiers Laos, Vientiane, Laos
Centre Inter-facultaire en droits de l'enfant University of Geneva, Switzerland
Université Abdou Moumouni de Niamey, Niger
University of Geneva –ISG

Health and Human Rights: Economic and social costs of Torture and others forms of human rights violations

Different forms of Human Rights violations cause economic and social costs, for which estimation models and levels remain relatively unknown. Results of such studies are important for the prevention, compensation and fight strategies against such practices. Studies were about:
- Creation and testing of an estimation model applied to Switzerland in collaboration with Dr. Conrad Frey from the Psychiatric Clinic, Obwalden Cantonal Hospital, Sarnen
- Study on challenges and methodological

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opportunities of torture costing estimation in collaboration with Profs Kandala from Northumbria University (UK) and Bukonda from Wichita University (USA).
- Study on the rehabilitation care programmes on health of torture survivors in Europe in collaboration with Danish Institute against torture- Dignity. (Ongoing)

Timeline: 2017-2022
Donators :
Croix Rouge Suisse

Partners
Danish Institute against torture (Dignity- Denmark)
University of Wichita (USA)
Northumbria University (USA)
University of Geneva – ISG

Conception and Testing a estimation model on Noma Economic and social costs: A case study from Burkina Faso and Niger as a part of Noma Project (Ongoing)

Violence's against women: Female Genital Mutilations

Preparatory works for the creation of an academic chair on female genital mutilations and other harmful traditional practice.

A complex and ancient phenomenon, female genital mutilations (FGM) affecting about 130 millions of women worldwide. Although the first attempts for abolishing this practice date back to the XVIth century in Ethiopia, the fight against FGM is rather recent. Research that has been undertaken was directed more to its criminalization, as well as the medical consequences. We note a lack of precise data and methodological limitations of studies, social mechanisms that continue the tradition are not systematically explored. Psychological, sociological, economic and political effects of this tradition are rather neglected. Evaluation of fieldwork is insufficient or carried out in a non-systematic manner. Evaluation tools available for field workers are inexistent. Numerous stakeholders have not received suitable training. This context prevents actions of prevention and fight.

The projects aims at enabling the development of research activities and teaching for the creation of a chair in public health and human rights based on the FGM and other harmful traditional practice. It aims at:
1. Undertaking research in the field of FGM

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2. Develop and test pedagogical material on FGM and organize a methodological seminar
3. Conceive the research and teaching programme of the chair
4. Create a network of partners at a global scale

Timeline: 2017-2021
Donators:
Alliance Globale contre les Mutilations Génitales Féminines (Geneva)

Partners:
University of Wichita (USA)
Haute Ecole de Santé du Canton de Vaud
University of Geneva – ISG

Teaching

Undergraduate Training Programmes
- Community immersion 3rd year of Medical studies: Team coordinators Member
- Public Health course for Bachelor and Master in Dental Medicine
- Globalisation – Health and Human rights, Elective 2nd and 3rd year students in Human Medicine
- Artificial Intelligence, Health and Societies; Elective 2nd and 3rd years students in Human Medicine

Continuing Education Programmes
- Director CAS en Discrimination santé et Droits de l'homme: the CAS in Discrimination, Health and Human rights set up in collaboration with the Office, for the fight against discriminations of the Swiss Department of Interior and the University of Geneva, enables the deepening of knowledge and the acquiring of instruments necessary for the prevention of discriminating behaviours in the field of health. It also leads to the development, implementation and evaluation of projects of the fight against discriminations and assistance to the victims. This programme is intended for health professionals, political leaders, teachers and communication professionals active in the field of health.
- Director CAS Promotion de la santé et Santé communautaire: the programme is intended for everyone facing health issues in her/his professional activity. It leads to the conception, the implementation and the evaluation of a community health project at a local, national and/or international level. The formation gives the basis of a multidisciplinary and multi-professional approach of community health, along the academic year (October to June), at the pace of one day every two weeks, as well as thematic and methodological workshops on various subjects like planning, epidemiology and communication. The main objectives are to provide the basis of a multidisciplinary and multi-professional approach of health promotion and community health, as well as to define and illustrate the notions of public health, health promotion and community health in a global perspective. The participants are required to develop a common methodology for the running and the managing of health prevention and promotion, and to adopt participative process around community health. Finally the programme aims at promoting networking with actors of the community.
- Director MAS en Santé Publique – June 2020
- Director Summer School Health and Human Rights- June 2020

Master thesis supervisor
- Master in Human Medicine Studies
- Master in Public Health

– PhD Candidates Thesis:

Completed

Emilien Jeannot
2015-2020: Using Human Papilloma Virus Self-Sampling for Cervical Cancer Screening in Switzerland and Burkina Faso and monitoring the Earlier Impact of HPV-Vaccination Programme in Switzerland (FR).

On going

Joshua Galjour
2017. Chronic political instability and the implementation of the HIV/AIDS response in Guinea-Bissau from 200 to 2015: a case study of the intersections of politics and epidemiology (USA).

Krystel Ouaijan
2016. Prevalence of malnutrition in Lebanese hospitals and validation of a national screening tool (LBN).

– Major publications: 18 — 19 — 20 — 21

Galjour J, Schwarz T, Lomanzi M, Mpinga EK
(2021) From "learning from the field" to jointly driving change.
J Public Health Pol 42, 331–345 (2021). https://doi.org/10.1057/s41271-021-00280-3

Galjour J; Havik P; Aaby, P; Mpinga, E.K.
(2021) Chronic Political Instability and the HIV/AIDS Response in Guinea-Bissau from 2000 to 2015: A Systematic Review. *Trop. Med. Infect. Dis.* 2021, 6, 36. https://doi.org/10.3390/tropicalmed6010036

Mpinga EK
(2021) Promotion de la santé : critique d'un concept et conditions de sa mise en œuvre. Rivista per le Medical Humanities, Accepted

Srour ML, Baratti-Mayer D
(2020) Why is noma a neglected-neglected tropical disease? *PLoS Negl Trop Dis* 14(8): e0008435. https://doi.org/10.1371/journal.pntd.0008435

Barratti D, Baba Daou M, et al.
Sociodemographic Characteristics of Traditional Healers and Their Knowledge of Noma: A Descriptive Survey in Three Regions of Mali. *International Journal of Environmental Research and Public Health*, 2019, vol. 16, n° 22, p. 4587. doi: 10.3390/ijerph16224587

Farley E, Oyemakinde MJ, Schuurmans J, Baratti D et al.
(2019) The prevalence of noma in northwest Nigeria. *BMJ Global Health 2020*;5:e002141. doi:10.1136/bmjgh-2019-002141

Moussli N, Mpinga EK, Jeannot E.
(2019) Measles at Work: Status of Measles Vaccination at a Multinational Company. Vaccines 2019;7(8).

Jeannot E, Viviano M, Mpinga EK et al.
(2019) Human Papillomavirus Infection and Vaccination: Knowledge, Attitude and Perception among Undergraduate Men and Women Healthcare University Students in Switzerland. Vaccines 2019;7(4):130.

Chastonay P, Mpinga EK.
(2018) The Geneva University Global Health and Human Rights Summer School: A 5-Year Intercultural Collaborative Experience. Frontiers in Public Health 2018;6:1-9.

Mpinga EK.
(2018) Recherche en sciences de la santé dans les contextes de conflits armés: enjeux et défis en Afrique contemporaine. In: Sciences sociales et santé en Afrique. Douala: Cheikh Anta Diop; 2018 p. 41-75.

Jeannot E, Viviano M, de Pree C, Mpinga EK et al.
(2018) Prevalence of Vaccine Type Infections in Vaccinated and Non-Vaccinated Young Women: HPV-IMPACT, a Self-Sampling Study. International Journal of Environmental Research and Public Health 2018;15(7).

2018—2019—2020—2021

III – E
Global Health Law

The team:

Dr. iur.
Stéphanie Dagron

Kayling Marcus

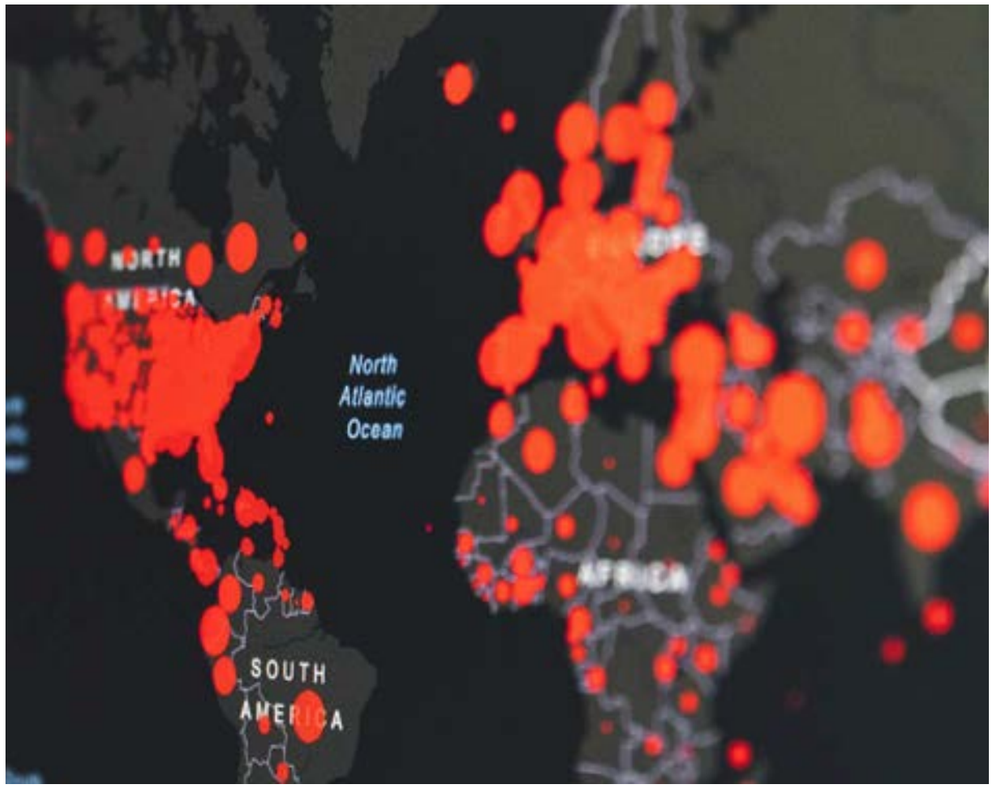
Mory Keita

Dr. Géraldine
Marks

Eleonore Gauthier

Angus Wallace

Dr. Jennifer
Hasselgard-Rowe



The creation of the division of global health law in 2019 reflects the importance of law as a fundamental instrument of international governance and more specifically as a central determinant of global health. Global health law is a field of international law with its own institutions, as well as its own group of norms composed of fundamental principles and values (e.g. human rights) and numerous ordinary norms concerning for example infectious diseases, non-communicable diseases or the uneven distribution of the health workforce around the world.

International law has been increasingly resorted to in global health as part of solutions to address global issues that can't be solved by states alone. The primary objectives of the "Global Health Law" division are as follows:

1. Clarify the role of the fundamental principles and values considered as foundations of global health law; more specifically, linkages between health and human rights, and between health and the principle of solidarity.
2. Improve the legal knowledge about global health law instruments (hard law as well as soft law instruments: International Health Regulations, WHO Framework Convention on tobacco control; WHO Global Code of Practice on the International recruitment of health personnel, etc.).
3. Contribute to the discussions required for the implementation of these instruments.
4. Contribute to the further development of new/ additional instruments to address old and new global health issues/challenges?

– Projects and activities

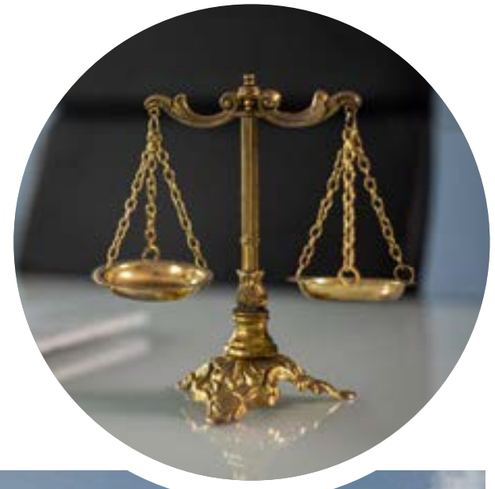
Prof. Dagron's work includes the development, the content and the implementation of all the norms that compose global health law, focusing on the way they are developed, interpreted and implemented, how they potentially interfere with each other, as well as their weaknesses and/or the possible improvements for the future. Her research also focuses on the strong linkages between health and human rights and the impacts of a human rights-based approach, while taking/applying a social justice approach to the development and implementation of legal instruments in the field of global health. Future research projects are therefore closely linked with these subjects including more precisely the following issues: the right to health of vulnerable populations, the conditions for acceptable limitations on human rights in the case of a public health crisis, the revision of the IHR and the development of new treaties in the field of global health. Upcoming projects also include an analysis of the applicable legal norms for safety and security at work, as well as a study of the linkages between Universal Health Coverage and Global Health Security.

Since 2019, Prof. Dagron has developed many activities designed to further education in the field of global health law (for instance development of two courses on global health law in French and English at the University of Geneva and participation in a Massive Open Online Course (MOOC) on the International Health Regulations (IHR)), research (for instance: participation in the creation of a global network of researchers on global health law – co-coordinator of an interest group on global health law within the European Society of International Law) and the practical use of academic expertise (cooperation with the World Health Organization (WHO) and other institutions).

Prof. Dagron has published numerous analyses concerning the content and implementation of legal instruments. More specifically, she has published on the IHR, the responses to public emergencies developed by states as well as on the linkages between global health law and the development strategy of the international community (anchored in the Agenda 2030). She has also participated in several conferences addressing the role of human rights for global health and has published multiple articles addressing the meaning and content of the right to health more generally, as well as the importance of all human rights for the protection and promotion of health. More specifically, Prof. Dagron has used this lens to tackle the issue of access to medicines for tuberculosis patients, access to unproven interventions during public health emergencies and access to health services for vulnerable persons (including migrants and children). She has also published on the impacts of the COVID-19 crisis on human rights and the meaning of a human rights-based approach for the preparation of states for future health crises, as well as, more specifically, on the impacts on human rights of the use of new technologies for public health surveillance in this context (see a list of selected publications below).

Since 2020, Prof. Dagron has also been involved in many activities connected with the COVID-19 pandemic as for instance:
She has been a member of the WHO MEURI Group: Group of independent scientific experts convened by the WHO in 2020 in order to update the WHO's ethical framework for emergency use of unproven clinical interventions outside research (MEURI ethical framework). The updated framework will be published in the second half of 2021.

She is the co-lead of the Group on Global Health Law, Human Rights and Ethics created as part of the UNIGE-UZH Shaping Resilient Societies Project: Expert Dialogue initiative launched by the Universities of Geneva and Zurich in order to address current and future shocks, discuss recovery paths and build more sustainable and better prepared societies for future crisis. For that project, Prof. Dagron has been awarded a grant (27 500 CHF) from the Rectorate of the University of Geneva. Timeline: February 2021- September 2022. She has participated actively in the UNIGE-UZH Side event at the United Nations Economic Commission for Europe (UNECE Regional Forum on sustainable development (March 17, 2021)



1—Pexels

1—Unsplash

– PhD Theses:

On going

Angus Wallace and Eleonore Gauthier
Are both students enrolled in a PhD under the supervision of Prof. Dagron at the Faculty of law of the University of Geneva. Mr Wallace works on human rights law and tuberculosis control in prisons in the Council of Europe. Mrs Gauthier's dissertation is about universal health coverage (UHC) and the reality of the coverage of vulnerable populations in different countries.

Kayling Marcus and Mory Keita
Are both students in the PhD in Global Health program under the supervision of Prof. Dagron. Kayling Marcus' dissertation is on the role of UHC for the prevention of infectious disease spread in China; while Mr. Keita's project focuses on innovative surveillance procedures used during the Ebola epidemic in Guinea and the Democratic Republic of Congo as a tool to control future outbreaks.

Post-doc

Dr. Jennifer Hasselgard-Rowe
Works on human rights and global health issues. Her work focuses on international drug policy and human rights violations of people who use drugs; as well as human rights and rule of law issues related to measures implemented to address public health crises.

– Major publications: 19 — 20 — 21

Dagron Stéphanie.
Going Beyond the Rhetoric: Taking Human Rights Seriously in the Post-COVID-19 New Paradigm, VerfBlog, 2021, March 27.

Dagron Stéphanie et al.
Access to experimental medicines for TB: ethical and human rights considerations. In: *International Journal of Tuberculosis and Lung Disease*, 2020, vol. 24, n° 5, p. 38-43.

Sekalala Sharifa, Dagron Stéphanie, Forman Lisa, Meier Benjamin.
Analyzing the Human Rights Impact of Increased Digital Public Health Surveillance during the COVID-19 Crisis. In: *Health and Human Rights Journal*, 2020, vol. 22, n° 2, p. 7-20.

Taylor Allyn L., Habibi Roojin, Burci Gian Luca, Dagron Stéphanie et al.
Solidarity in the wake of COVID-19: reimagining the International Health Regulations. In: *The Lancet*, 2020, Vol. 396, July 11, 2020

Habibi Roojin, Burci Gian Luca, de Campos Thana, Chirwa Danwood, Cina Margherita, Dagron Stéphanie et al.
Do not violate the International Health Regulations during the COVID-19 outbreak. In: *The Lancet*, 2020, vol. 395, n° 10225, p. 664-666.

Dagron Stéphanie.
COVID-19 in France: Health as a Constitutional Value and Limitations on Civil Liberties. In: *Bill of Health: Examining the intersection of health law, biotechnology and bioethics*, 2020, n° 28 May.

Dagron Stéphanie.
Health, migration and law: what challenges? In: *sui generis*, 2019, p. 174-190

Dagron Stéphanie.
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III – F
Director’s office

The team:

Director of ISG

Prof. Antoine Flahault

Global Mental Health

Prof. Luc Mallet

Prof. Emiliano Albanese

Director's Office

Sonia Mondo Brouze

Dr. Verena Carrara

Dr. Verena Carrara

PhD Team

Dr. Jennifer Hasselgard-Rowe

Dr. Nathalie Bot

Geneva Health Forum team

Eric Comte

Jelena Milenkovic

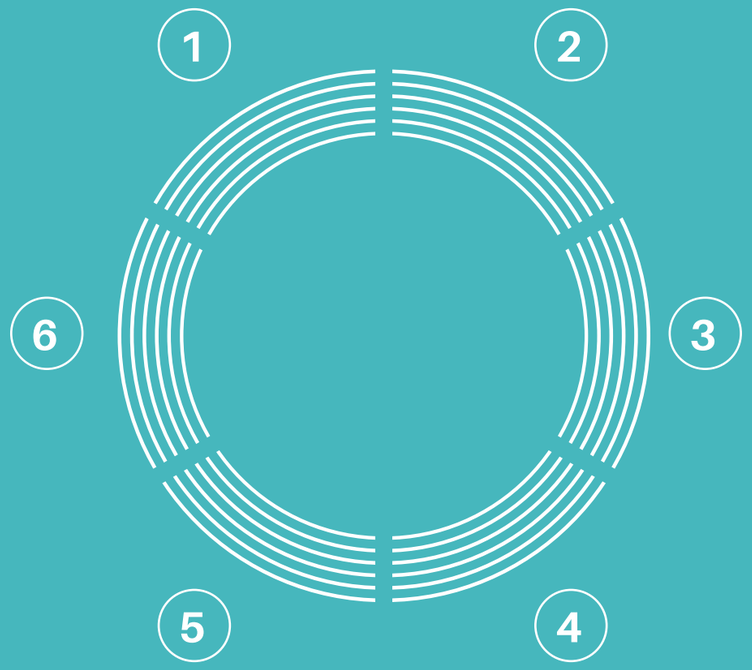
Master in Global Health

Dr. Beat Stoll

Bogomil Kohlbrenner

Lemlem Girmatsion

– Led by the Prof. Antoine Flahault, the main activities are the following



1. Governance

All administrative aspects of the Institute, including management of funds, budget and invoices, human resources in relation with the administrative sections of the Faculty of Medicine and the Rectorate of the University, minutes of the meetings of our steering committee, and booking of rooms.

2. Administrative

Organization of monthly meetings of the Steering Committee constituted by all professors (including adjunct professors) and private docent faculty members of the Institute. An assistant of the Directorate attends these meetings, and writes their minutes.

3. Geneva Health Forum (see p. 103)

4. MAS Global Health (see p. 85)

5. Doctoral Programme Global Health (see p. 89)

6. Global Mental Health (see p. 53)

Global Mental Health

Mental diseases hold a prominent position in the classification of the burden of diseases worldwide, especially as psychiatric and neurological conditions increase with age.

The main objective of the division is to gradually cover the whole field of Global Mental Health, from Human Rights (together with the division Health and Human Rights within the IGH), to psychiatric epidemiology – with inclusion of research on health services and health economy. It focuses on to ageing and dementia, fragility in elderly people, life expectancy in good health, and mental health in elderly adults.

The Departments of Mental Health and Psychiatry of the HUG, Department of Psychiatry of the University of Geneva Faculty of Medicine, and the IGH also created this division to cement the collaboration on teaching activities including post-graduate (the CAS run by Prof. Albanese, the Spring School of the IGH, the MAS in Global Health, and the Summer School in Global Health and Human Rights), and pre-graduate (AMC in social psychiatry; IMC; and the epidemiology modules) studies. Health.

Prof. Luc Mallet

Prof. Luc Mallet is a psychiatrist and researcher in neuroscience, Professor of Psychiatry at Paris Est Créteil University. He is Associate Professor at the Faculty of Medicine of the University of Geneva and Director of the Fondamental Suisse Foundation since 2015.

He has been also involved in numerous institutions aiming to promote the research in psychiatry: the FondaMental Foundation, and the steering committee of Labex Biopsy. He is member of the executive committee of the French Congress of Psychiatry (CFP) and has been its president in 2014.

IMAGE À FOURNIR

Covidout

Launched in 2020 by ISG in collaboration with other institutions*, the web application **CovidOut** has been created at the beginning of the COVID-19 crisis by health professionals and researchers in sociology, psychology and neurosciences. Those teams worked together in France (Paris) and Switzerland (Geneva) to provide an original tool to every person who mentally suffers due to the COVID-19 crisis. In France (Covidout.fr) and Switzerland (Covidout.ch). The major aim of CovidOut is to present information and advices, provided by experts in different areas, to help people to adapt themselves to the actual situation.

CovidOut proposed different videos, articles and series of programs (such as sports, meditation and art therapy). Every user has also the possibility to rate himself every day on different dimensions like the mood or sleep quality. He can also give his own opinion and reflections in a forum, recently created and linked to covidout.fr. We also sent every month a newsletter focusing on a topic adapted actuality and concerns of the moment.

More than 6000 persons are registered on Covidout.fr and about 1500 on Covidout.ch, with more than 50 000 visits for both since the launch.

For now, the web application has been cited in many medias: recently, in June, a French newspaper “Le Parisien”, a French magazine “Cerveau&Psycho”, a local swiss radio; and before that on the swiss television (RTS) as well.

* Département de Santé Mentale et Psychiatrie Université de Genève, Université Paris Est Créteil, Institut du Cerveau (ICM) ; Haute Ecole de Santé, Université de Montpellier, Laboratoire d’Informatique, de Robotique et de Microélectronique de Montpellier (LIRMM-UM-CNRS), Société Agoralogie

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1 — Unsplash

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By Prof. Luc Mallet

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III – G
Policies and Governance

The team:

Prof. Bettina Borisch

Dr. Marta Lomazzi

– Projects and activities

Officially established in 2021, the “Policies and Governance” division has several years of prior experience in implementation research in the global health setting. Led by Prof. Bettina Borisch, the division works towards the implementation of the “Global Charter for the Public’s Health” internationally to optimize public health actions through effective intersectoral coordinated activities. For decades, public health has been the silent guardian of the health and wellbeing of our communities, but the COVID-19 pandemic has increased the visibility and importance of public health to individuals worldwide. The division, in association with the World Federation of Public Health Associations and WHO, is advocating at national and international levels to strengthen health and social systems and support decision makers in making the best choice to prevent disease, protect communities and promote health and well-being.

Education and implementations Research — Achievements

In 2021 Dr Lomazzi was nominated Privat-Docent by the University of Geneva. Her thesis discussed the topic of implementation of the “Global Charter for the Public’s Health” framework in addressing the threat of antimicrobial resistance. Prof. Borisch has been elected a member of the EAG modeling group of the Global AMR R&D Hub, and serves as Senior Ambassador (together with Thomas Zeltner) for Switzerland at the Sciana- The Health Leaders Network. She is the representative of Switzerland in the EU Guidelines Initiative on Breast cancer (ECIB), in both the Guidelines development group GDG and the Quality Assurance Development Group (QUASDG).

Network

The network utilizes a large local and international network of NGOs and unilateral and multilateral organizations working in public health. This network plays a pivotal role in the division’s advocacy efforts and in setting up intersectoral projects.

Teaching

Prof. Borisch teaches basic biology of inflammation to 1st year medical students, and cancer and inflammation to 2nd year medical students. Both Prof. Borisch and Dr Lomazzi teaches at the immersion in community and optional classes. How to develop and run a preventive action to medical, pharmaceutical, dental and biomedical sciences students. Additionally, Prof. Borisch and Dr Lomazzi teach postgraduate studies including Master of Science in Global Health and MAS Santé Publique, and supervise PhD students, master thesis and interns. Prof. Borisch instructs occasionally at the Swiss School of PH (German section), and delivers courses on insurance medicine. In addition, she teaches broadly in advocacy courses in Milan and Augsburg. She teaches at the University of Milan, Master in Global Health Program.

Research & Advocacy

Several research projects have been run in the last years. Prof. Borisch has a keen interest in gender and health and health care systems and their evolution (including guidelines, AI, digital health). These research topics may be linked to implementation proposals.
Dr Lomazzi has focused her recent research activities on equitable access to COVID-19 vaccination, vaccination as a mean to facilitate UHC on the implementation of the Global Charter in different settings including the antimicrobial resistance context. Her collaboration with the WFPHA Oral Health Working Group has led to several articles on sugar sweetened beverage taxation and sugar content in baby formula. The intersectoral multidisciplinary approach has been the leitmotif of her publications. A majority of Dr Lomazzi’s articles have been subsequently implemented as policy papers or statements and presented to key gatherings such as the World Congress on Public Health and the World Health Assembly.

Knowledge transfer and dissemination.
In collaboration with WFPHA, the division has supported the development and implementation of several webinars on immunization and equity, with a special focus on COVID-19, effective vaccination and ways to strengthen vaccination confidence, oral health as human right and tobacco control. This collaboration aims to increase capacity of public health professionals worldwide and to equip them with the skills needed to perform effective advocacy.

– PhD Thesis:

Prof Borisch supervised the PhD thesis of:

Hye Lyn Choi
on access to medicine in neglected tropical diseases.

– Major publications: 18 — 19 — 20 — 21

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III – H
The Geneva Cancer Registry

From left to right: Anne-Sophie Bosc, Jessica Tchoulfayan, Isabelle Neyroud-Caspar, Hyma Schubert, Nathalie Hide-Giesenfeld, Claude Bron, Elisabetta Rapiti and Robin Schaffar.
This division (12 people) also includes the following team members missing in the picture: Evelyne Fournier, Simone Benhamou, Monika Baumann, Nathalie Robert and Raphaël Melon.

The team:

Elisabetta Rapiti
Director of the GCR

– Mission and objectives

The Geneva Cancer Registry (GCR), headed by Prof. Elisabetta Rapiti since 2019 was established in 1970. It collects information on all cancer cases diagnosed within the population of the canton of Geneva. Data collected by the GCR enable a wide range of research on cancer to be conducted including monitoring cancer burden, investigating risk and prognostic factors, evaluating prevention and screening programmes, assessing equity of access and quality of care, as well as effectiveness of treatments. The GCR responds to requests for epidemiologic investigations by the local health authorities and is involved in several multidisciplinary cancer networks, with health professionals and patients. It collaborates on national and international studies of differences in quality of care and survival. Teaching activities include undergraduate, postgraduate and continuing education courses, lecturing in workshops, and MOOCs, supervising students for their Master, MD thesis and PhD degree. The GCR plays an important role on cancer registration and epidemiology in Switzerland currently regulated by a new Federal Law on cancer registration (LEMO).

– Projects and activities

Monitoring the burden of the disease

The registry regularly reports the situation of cancer in Geneva based on the data collected. These reports describe case numbers, age and gender profile, stage and histology at diagnosis, incidence rates and trends, national and international differences in incidence, mortality and survival rates. The findings from these reports can be used to map changes in burden of disease over time, and also facilitate in the planning and management of services. All results can be found on GCR website.

Breast cancer and young women

BC in young women is more aggressive and with a worse prognosis compared with that diagnosed in older women. Its incidence has increased in Switzerland and other European countries. Among other well-established risk factors for BC, those related to the reproductive history of the woman seem to have important and sometimes divergent impact on tumors development according the woman life phase.
We developed two projects aiming to assess risk, prognosis and quality of care of BC in young women in Geneva and in Switzerland.

Tumour profile, treatment, outcome and effect of pregnancies: breast cancer among young women in Geneva.
The first study aims to identify predictors of long-term (up to 20 years) rates of loco-regional recurrence, metastasis and survival among 1'642 women diagnosed with BC before the age of 46.
Analysing the same women, we aim also to evaluate whether there is a difference, in terms of individual and tumour characteristics, treatment and prognosis, between women who have had a child before and after BC diagnosis and women who have not, and evaluate whether these differences can be modulated by the time elapsed between delivery and diagnosis or diagnosis and delivery.
The study obtained funding from the Swiss League against Cancer from 1.12016 -31.3.2020 with the collaboration of the Service of Oncology, Service of Medical Genetics & breast cancer unit / Geneva University Hospitals.

The management of young women with breast cancer in Switzerland: a snapshot
We sought to evaluate treatment and outcome differences, among BC young women, between the two-linguistic/geographic regions of Switzerland (Swiss Latin, including Swiss-Italian and Swiss-French, and Swiss-German). Young women with BC diagnosed between 2000 and 2014 were identified through 9 population-based cancer registries.
The study obtained funding from the Swiss League against Cancer from 1.7.2017 – 30.06.2020 with the collaboration of 9 Swiss Cancer Registry (Neuchatel, Jura, Vaud, Valais, Zurich, Tessin, Bâle and Fribourg), Istituto oncologico della Svizzera italiana Breast Unit, Ospedale Civico Lugano, Università Cattolica del Sacro Cuore Breast Unit in Roma Italy and Memorial Sloan Kettering Cancer Center in New-York, USA.

Importance of family history of cancer on colorectal cancer (CRC) occurrence and outcome: setting-up a population-based Familial Colorectal Cancer Registry in Geneva

The objective of this study was to set up a population-based cohort of CRC patients and their relatives (first- and second-degree) registered in Geneva. The objectives of the study are: 1) to assess the prevalence of FH of CRC among CRC patients; 2) Compare patient, tumor and tumor characteristics as well as management strategies according to FH and evaluate impact on patient outcome; 3) investigate the risk of CRC in the cohort of relatives; 4) evaluate the use and determinants of genetic counseling among CRC patients.

This project received funding from the FNS from 1.1.2016 – 31.12.2019, the Swiss league against cancer 1.1.2017 – 30.6.2019 and the Geneva League against cancer 1.2.2019 – 29.2.2020 with the collaboration of the Service of Oncology, Service of Medical Genetics & Division of Clinical Pathology / Geneva University Hospitals as well as the Translational Research Unit / Institute of Pathology Berne.

Machine learning and breast cancer prognosis

The main objective of this study is developing and evaluating the performance of machine learning (ML)-based breast cancer prognostic models. These models are designed to provide personalized estimates of breast cancer survival and cancer recurrence, in order to support personalized disease management. The specific aims are: 1) to develop breast cancer prognostic models using ML to analyse data available in the Geneva Cancer Registry; 2) to compare the calibration and predictive accuracy of ML-based prognostic models with other breast cancer prognostic models i.e., PREDICT, NPI, CancerMath; 3) to explore the clinically meaningful cut-offs for patient stratification obtained from ML based-prognostic models and compare the clinical utility of this stratification to guideline-based clinical decision making.

This project received funding from the Swiss League against cancer, with the collaboration of the Department of Clinical Research, Faculty of Medicine, University of Basel and the Service of Oncology, Service of Medical Genetics, Geneva University Hospitals from 2019 to 2021.

National and International collaborations

The Registry is part of a big network of registries, both at a national and international level. We participate in several studies, contributing to the design, protocol, analysis, editing, and also the provision of data. We participate regularly to studies involving NICER (National Institute for Cancer Epidemiology Research) database, which includes data from all Swiss cancer registries. Current collaborations include a Swiss multicentric research study "Residential and occupational exposure to UV radiation and haematological malignancies and disease mapping of lung and colorectal cancers", and the study "Examining Cancers and Labour Indicators to assess the Burden of occupational cancer in Switzerland.

At European level, we are collaborating to Eurocare 5, a high-resolution study on treatment and survival of four cancer types, namely: melanoma, lung, breast and colorectal cancer. We also participate in the Rare Cancer European study which focuses on cancers with an incidence <6/100 000 cases, and also the Concord studies, which assess the evolution of cancer survival worldwide.

– PhD and MD Thesis

Thèse de Médecine du Dr Kim Thi-Lan Manon Pinaud (2017-2021) Direction : Prof. Elisabetta Rapiti
« Importance de la détection précoce des cancers du sein triple-négatifs parmi les femmes jeunes : étude sur la population genevoise »

PhD en Santé Globale de M. Nicholas Sperisen (2020-2024). Direction Prof Elisabetta Rapiti; co-direction Prof. Pierre-Yves Dietrich
« Systématisation du suivi et de la prise en charge post-traitements aigus des Cancers Survivors avec des besoins complexes »

– Major publications: 18 — 19 — 20 — 21

Rapiti E, Tille J-C, Fournier E, Saiji E, Weintraub D, Bouzourene H, Viassolo V, Bouchardy C, Chappuis P. O., Benhamou S.
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III – I
Humanitarian Public Health and Health Systems Research

The team:

Karl Blanchet

Audrey Mahieu

The Geneva Centre of Humanitarian Studies conducts research in armed conflicts and amongst refugee and internally displaced populations. The Geneva Centre is working on implementation research of public health interventions (NCDs, SRH, adolescent health), development of priority packages of interventions, health system research using system thinking approaches and impact evaluation of attacks on health. The Geneva Centre is member of the Global Health Cluster and has built key research partnerships with the London School of Hygiene and Tropical Medicine, the Johns Hopkins School of Public Health and Aga Khan University as well as Médecins sans Frontières, the International Committee of the Red Cross, UNFPA, the WHO Alliance on Health Policy and Systems Research and the Partnership for Maternal, Newborn & Child Health.
The Geneva Centre is also an active member of the **BRANCH Consortium**, an academic research enterprise aimed at improving evidence and guidance for effective action on women's and children's health and nutrition in conflict settings. The Geneva Centre is also a member of the **Researching Impact on Attacks on Health (RIAH) Consortium**.

– Projects and activities

The Lancet Migration European Regional Hub:

The **Lancet Migration European Hub** was launched on June 22nd 2021 and is co-hosted by the Geneva Centre of Humanitarian Studies and co-chaired by Professor Karl Blanchet together with professor Bernadette Kumar. The European Hub aims to bring together local and regional researchers, civil society, non-governmental bodies, multilateral organisations, policy makers, and migrants themselves across the region, the Hub offers a platform for research, practice, and policy action for migration to and within the European Region.

Integrated Package of Essential Health Services:

Professor Karl Blanchet is working with the Ministry of Public Health on the development of a new national priority package. This work has involved the review of global evidence on cost-effectiveness of interventions using DCP3, analysis of national data on health needs, health system capacity and financing capacities and several rounds of discussions between national and international experts. The study was funded by the Bill and Melinda gates Foundation. PI: Prof. Karl Blanchet.

RIAH Study in Afghanistan:

The Impact of Attacks on Healthcare (RIAH) programme is led by the Humanitarian and Conflict Response Institute at the University of Manchester, in collaboration with the Geneva Centre of Humanitarian Studies, Johns Hopkins Bloomberg School of Public Health, University of California (Berkeley) and Insight Insecurity. Funded by the UK Foreign, Commonwealth & Development Office (FCDO), the programme aims to improve the understanding of the nature, frequency and scale of attacks on healthcare and their impact on the health services delivery in armed conflict.

There is global consensus that attacks on healthcare violate international humanitarian law and disrespects individuals' right to receive the healthcare they need. Evidence collated from attacks to date have been crucial in raising awareness of the issue, however this evidence is largely restricted to the reporting of incidents and their immediate impact. Further evidence is required on the longer-term and wider impacts of attacks on availability, quality and utilization of health services as well as impacts outside of the public health paradigm, such as the economic and societal costs, and the effects on medical ethics, international or national law.

This year the RIAH programme initiated four case studies to explore the impacts of attacks on healthcare in Colombia, Central African Republic, Afghanistan and Nepal. Audrey Mahieu and colleagues recently published a **working paper** on the conceptual issues and

methodological approaches to evaluating the wider and the longer-term impact of attacks on healthcare in conflict. The working paper aims to be dynamic and iterative, and will be updated to integrate the lessons learned from all the case studies. Our Centre will continue to play a key role in this project, leading the research focused on Afghanistan and the Central African Republic, as well as organizing events with key humanitarian actors in Geneva. The study is funded by UK Foreign, Commonwealth & Development Office (FCDO).
Project members: Prof. Karl Blanchet (coPI), Audrey Mahieu.

NCDs in Afghanistan:

There is an increasing momentum around NCD prevention and care in Afghanistan, with the pushes for the implementation of the integrated service package (IPEHS) from the highest governmental levels. This project was requested by and enjoys the full support of the Ministry of Public Health in Afghanistan. This project focuses on strengthening multiple health system components (training, guidelines, research, monitoring and information systems, and supply chain) simultaneously. It will support the ongoing implementation of the IPEHS and the key national NCD priorities for the period 2021-2025. The Aga Khan University and the University of Geneva are in a unique position to implement this project successfully. Both organizations have a long-standing partnership with the Ministry of Public Health and have conducted multiple successful projects, including the current delivery of health services in multiple provinces by the Aga Khan Health Services. The head of the Geneva Centre of Humanitarian Studies (Prof. Karl Blanchet) was involved in the development of the new IPEHS package. This project is funded by Novo Nordisk.
PI: Prof. Karl Blanchet

The division also contributes to the creation of a collaborating centre with the ICRC, especially to organise and teach the course HELP (Health Emergencies for Large Populations) in Geneva and in the world (currently there are 12 sites with academic collaborations for HELP). The collaborating centre also takes part to the pedagogic development of HELP and other assessments mandates from the ICRC, for instance in the project “health care in danger”.

– Major publications: 18 — 19 — 20 — 21

Michael S Jaung, Ruth Willis, Piyu Sharma, Sigiriya Aebischer Perone, Signe Frederiksen, Claudia Truppa, Bayard Roberts, Pablo Perel, Karl Blanchet, Éimhín Ansbro.
“Models of care for patients with hypertension and diabetes in humanitarian crises: a systematic review“, Health Policy and Planning, 2021;, czab007, https://doi.org/10.1093/heapol/czab007

Neha S Singh, Anushka Ataullahjan, Khadidiatou Ndiaye, Jai K Das, Paul H Wise, Chiara Altare, Zahra Ahmed, Samira Sami, Chaza Akik, Hannah Tappis, Shafiq Mirzazada, Isabel C Garcés-Palacio, Hala Ghattas, Ana Langer, Ronald J Waldman, Paul Spiegel, Zulfiqar A Bhutta, Karl Blanchet, Zulfiqar Bhutta, Robert Black, Karl Blanchet, Ties Boerma, Michelle Gaffey, Ana Langer, Paul Spiegel, Ronald Waldman, Paul Wise.
Delivering health interventions to women, children, and adolescents in conflict settings: what have we learned from ten country case studies?, The Lancet, 2021, https://doi.org/10.1016/S0140-6736(21)00132-X

Eran Bendavid, Ties Boerma, Nadia Akseer, Ana Langer, Espoir Bwenge Malembaka, Emelda A Okiro, Paul H Wise, Sam Heft-Neal, Robert E Black, Zulfiqar A Bhutta, Zulfiqar Bhutta, Robert Black, Karl Blanchet, Ties Boerma, Michelle Gaffey, Ana Langer, Paul Spiegel, Ronald Waldman, Paul Wise.
The effects of armed conflict on women and children, The Lancet, 2021, https://doi.org/10.1016/S0140-6736(21)00131-8

Paul H Wise, Annie Shiel, Nicole Southard, Eran Bendavid, Jennifer Welsh, Stephen Stedman, Tanisha Fazal, Vanda Felbab-Brown, David Polatty, Ronald J Waldman, Paul B Spiegel, Karl Blanchet, Rita Dayoub, Aliyu Zakayo, Michele Barry, Daniel Martinez Garcia, Heather Pagano, Robert Black, Michelle F Gaffey, Zulfiqar A Bhutta.
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Michelle F Gaffey, Ronald J Waldman, Karl Blanchet, Ribka Amsalu, Emanuele Capobianco, Lara S Ho, Tanya Khara, Daniel Martinez Garcia, Samira Aboubaker, Per Ashorn, Paul B Spiegel, Robert E Black, Zulfiqar A Bhutta, Zulfiqar Bhutta, Robert Black, Karl Blanchet, Ties Boerma, Michelle Gaffey, Ana Langer, Paul Spiegel, Ronald Waldman, Paul Wise.
Delivering health and nutrition interventions for women and children in different conflict contexts: a framework for decision making on what, when, and how., The Lancet, 2021, https://doi.org/10.1016/S0140-6736(21)00133-1

Sarrassat, S., Lewis, J.J., Some, A.S. Somda, S. Cousens, S, Blanchet, K.
An Integrated eDiagnosis Approach (IeDA) versus standard IMCI for assessing and managing childhood illness in Burkina Faso: a stepped-wedge cluster randomised trial. BMC Health Serv Res 21, 354 (2021). https://doi.org/10.1186/s12913-021-06317-3

Blanchet K, Alwan A, Antoine C, et al.
Protecting essential health services in low-income and middle-income countries and humanitarian settings while responding to the COVID-19 pandemic. BMJ Global Health 2020;5:e003675.

Bjertrup P.J., Ben Farhat J., Bouhenia M., Neuman M., Mayaud P., Blanchet K.
“Being Stuck’: Refugees’ Experiences of Enforced Waiting in Greece. In: Vindrola-Padros C., Vindrola-Padros B., Lee-Crossett K. (eds) Immobility and Medicine. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-4976-2_3

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Understanding the Resilience of Health Systems, Springer link, 2020, https://doi.org/10.1007/978-3-030-33812-1_6

IV – A
Bachelor and Master in Medicine

– Bachelor in Medicine (in French)

Global and public health are taught to medical students by staff members starting from the first year of the Bachelor in Medicine (BA1), when staff members teach in a module entitled "People, Health and Society" that introduces the bio-psycho-social dimensions of medicine. During the second and third years (BA2-BA3), community medicine and public health are taught through several courses given by staff members: health economics and health systems, primary health care, and optional courses on prevention and health promotion.

– Master in Medicine

At the master level, the Faculty of medicine offers a series of courses in global health and humanitarian medicine, which can be followed within the main medical curriculum. These course concentrations include a Master thesis on a global health or humanitarian medicine topic (MA1 and 2).
An optional one month, introductory course in tropical medicine and global health was introduced during the third and last year of the medical curriculum (MA3). The course was established with the Service of International and Humanitarian Medicine at HUG. The main objective is to prepare the future medical doctors for clinical work in the tropical context. We recruited teachers among faculty members, international organisations (WHO, ICRC), and partner academic institutions (SWISS TPH, EPFL) and NGO's (MSF, ASP, Terre des hommes, etc.). Within the second phase (MA3), the course also includes a two-month's internship in hospitals of our partner countries (Cameroon, Nepal, Senegal, Cuba, India, Bolivia, etc.).

The institute continues with its long-lasting international cooperation in the domain of health in developing countries (Burkina Faso, Cameroon, Mali) and as well in emerging countries in Europe (Albania) and Asia (Philippines). We coordinate a 40-year-old cooperation in Cameroon bringing together projects from the medical faculty and the HUG.

During the second year (MA2) the Institute is in charge of the course: « Public health, Global health and Occupational Medicine » (one semester).

IV – B
Master of Advanced Studies (MAS) in Public Health

Runs in French

The team:


Dr. Mathias Waelli


Aude Richard


Dr. Emilien Jeannot


Manuela La Greca


Dr Jennifer Hasselgard-Rowe


Dr.Beat Stoll


Dr.Olivier Duperrex


Nadia Elia


Evelyne Fournier

The NCD's prevention unit led by Prof Jean-François Etter is in charge of this continuous education programme. The 70 participants live in 10 different countries, including one third in Africa. They intend to reorient their career towards public health. The MAS aims to improve the knowledge and competencies of students in epidemiology, communication, health policy and management, international health, economic and social sciences, law, and ethics. The students start by identifying their personal educational objectives, and they establish an individual training plan. They are trained to create, implement and assess policies, programmes and projects within the frame of their professional area of activity (government, NGO, international organisation, hospital, pharmacy, etc.). Students attend 15 one-week courses in Geneva over three years (teaching in 2020-2021 was mostly online). In between, students work on their personal projects under the supervision of experts. This structure guarantees that learning remains active and that teaching is adapted to the needs of the students and of the populations they serve. The MAS also enables students to build a collaborative network of public health actors at local, national and international levels. The programme was favourably evaluated by the Association of Schools of Public Health in the European Region (ASPHER), and the program is approved by the FMH/ISFM, for medical doctors in Switzerland who want to specialize in public health.

IV – C
Master of Science in Global Health

Runs in English, at the Global Studies Institute
MSGH Class of 2021

2018—2019—2020—2021

The team:

Dr. Beat Stoll

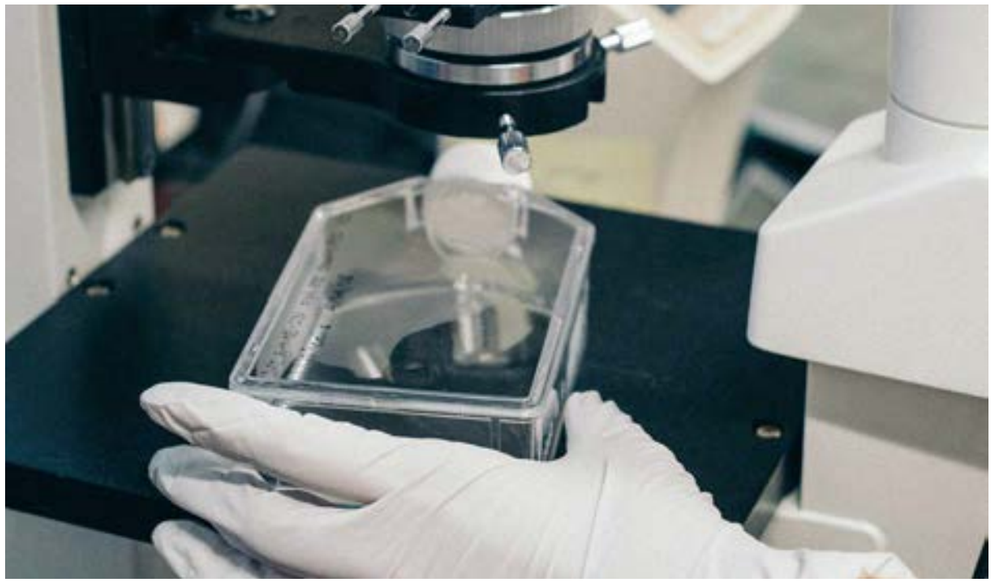
Bogomil Kohlbrenner

Lemlem Girmatsion

The University of Geneva's Master of Science in Global Health (MSGH) is a two-year full-time programme, which aims to study contemporary health issues from interdisciplinary and international perspectives. The MSGH mission is to provide students with the toolbox to understand and analyse health issues whose determinants are interlinked, and whose complexity transcends academic fields, borders and sectors of activity. Specifically, the student will be able to define and compare major systems approaches to health (e.g., implementation sciences, system dynamics, ecological thinking, One-Health approach) and to discuss the meaning of innovation in global health, the contribution of technologies in the field, for example the contribution of big data, as well as the issues associated with innovation and establish the ethical and normative framework of global health including human rights and related aspects such as health inequalities within and between countries and the concept of vulnerable populations.

The MSGH seeks to combine the most relevant approaches in global health drawing on the perspectives of all relevant academic disciplines and global health actors based in Geneva. The MSGH is specifically designed to take advantage of the rich international environment of Geneva. To this end, the programme is housed at the Global Studies Institute.

The programme provides an opportunity to study where many health issues are discussed at the global level, and to accomplish practical training in different setting such as NGOs and international organizations. The MSGH aims to prepare students to work in organizations such as international organizations (e.g. WHO, UNICEF, GAVI, GF, OIM, ICRC), civil society such as non-governmental organizations (e.g. FIND, IFPMA, CARE, Oxfam, MSF; ASP), public sector at national (e.g. Ministry of health or foreign affairs, development agency) or local level (e.g. public health authorities), public private partnerships, and the private sector (e.g. pharmaceutical industry, medical devices). The different organizations that hire our students as interns have a globally high level of satisfaction insuring, that doors open for the next cohorts of students and open for employment opportunities.



The program is currently in its 6th year, with each year between 200 and 350 candidates with an admission rate of 10% to 20% in order to insure the quality of learning and teaching. Students come from all world regions and professions or academic backgrounds; from public health and medicine, nursing, pharmacy, to biology, international relations, sociology, engineering, political science, economy, anthropology, philosophy, and many more. This diversity is a key element of the program's richness, as these different horizons not only allow students to learn from each other but also enrich the programs research collaborations in applied projects and thesis projects, that for the best of them are encouraged to be published in peer reviewed journals. Opening the door for research and applied research tracks for interested alumni.

2018—2019—2020—2021

IV – D
PhD in Global Health

The team

Prof. Antoine Flahault

Dr. Jennifer Hasselgard-Rowe

Dr. Nathalie Bot

Sonia Mondo Brouze

Introduction

The creation of the doctoral program in biomedical sciences, global health track, in late 2014 by the current director of the Institute of Global Health, responds to the needs of training in the methodology of interdisciplinary research in global health and the career development needs of its target audience. The objectives of the program are to develop the scientific skills of doctoral students, particularly in implementation science in the field of global health covering three dimensions: Health leadership, Global health and Research methodology.
Seven cohorts of students have been enrolled in the program since the program officially started in the Spring Semester of 2015, and 15 students have defended their theses on topics spanning across mental health, digital health, medical humanitarian action, international health regulation or healthcare associated infections. The 71 students currently undergoing their PhD training are mostly professionals working in international Health organizations and non-governmental organizations (WHO, UNAIDS, USAIDS, UNOPS, global fund, GAVI, ICRC, UNICEF, MSF), and are based in Switzerland or - for half of them - outside Europe. Indeed, the program is adapted to the needs of future researchers or lecturers as well as to the needs of mid-career professionals who are active in the field and wish to train in research while continuing to work.

Structure of the program

The structure of the program is original in that it provides for 1) an onsite training component, in the form of presential weeks in Switzerland (14 ECTS), and 2) a distance learning component (4 ECTS). The two components, totaling 18 ECTS, are completed during the first two years of the student's curriculum.
The modular presential training is based on the offer of a range of doctoral courses accredited by the "Swiss School of Public Health" (SSPH+), which is the umbrella foundation for 10 Swiss universities. This teaching platform has the particularity of hosting and offering doctoral courses in public health to PhD candidates registered in one of the 10 Swiss universities affiliated with SSPH+.
Within this context, the course weeks organized by our team at the Institute of Global Health: the "Spring School of Global Health" (2 ECTS) and the "One Week Medical School" (2 ECTS) are also open to all doctoral students from Swiss universities who are members of SSPH+, at a reduced rate. Conversely, the way our doctoral program is organised means that “our” UNIGE doctoral students also attend the presential weeks organized by the Universities of Bern (the "Winter School of Epidemiology") and Lugano-Basel (the "Summer School of Public Health policy, Economics and Management").

The "Spring School of Global Health", created in 2015 by the Institute of Global Health, is organized by the PhD coordination team and is held in Geneva every year for one week in late March or early April. The choice of courses, which all focus on global health issues, is updated each year and the teaching is provided by collaborators from the Institute of Global Health as well as other UNIGE or external experts (notably from international organizations). The courses are geared towards students registered at the SSPH+ but are also open to professionals from «International Geneva», giving students the opportunity to strengthen their professional networks. Each year around 50 certificates are delivered at the end of the week-long courses. Notably, since the beginning of the pandemic, the 2020 and 2021 courses have been successfully reformatted to be given online, thereby enabling more people to participate and more certificates to be awarded (70 to 80).

The "One Week Medical School" (OWMS), also created by the Institute of Global Health and the Interprofessional Simulation Center in 2017, is organized by the PhD coordination team. This particular training is designed to provide students without clinical training, with an original approach to biomedical thinking. Since it is organized over an intensive week for a maximum of 20 students (PhD students or other participants from health institutions or international organizations) with an important hand on component, the two last sessions had to be postponed, due to social distancing measures.
The distance learning component of the PhD is ensured by following 2 MOOCs (Massive Open Online Courses) which are university level teaching courses, available on the open access « Coursera » learning platform. The student must choose to follow and validate 2 MOOCs from a list composed by the coordination team and updated every year, and which includes MOOCs designed by the Institute of Global Health.

Conclusion

The doctoral program provides professionals working in international organizations and non-governmental organizations with the opportunity of carrying out public and global health projects implemented by the institution they serve. At the same time, by developing their methodological research skills and developing their professional networks, doctoral students contribute to the implementation and development of several global health projects of these organizations.
Furthermore, doctoral students from international organizations provide thesis directors – to date, 33 professors from the Faculty of Medicine – with the possibility of opening up new transdisciplinary collaborations. Meanwhile, these organizations see this program as an opportunity to improve the loyalty of their best employees, by offering them the possibility of high-level training on the job, with the doctorate being considered an "executive doctoral degree".
In summary, the University of Geneva’s proximity with ‘International Geneva’ greatly facilitates this program and makes it economically efficient for all parties concerned.

– List of thesis:

Aristide Gnassingbe
September 2018
Problématique de la lutte contre les faux médicaments au togo : état des lieux de l'action publique et élaboration de stratégies alternatives.

Martin Schneider
May 2019
Soins palliatifs et assistance humanitaire d'urgence. Projets spécifiques des organisations internationales et vécu des expatriés y engagés.

Dalia Samhouri
June 2019
International health regulation (2005). Analysis of the implementation: how can compliance be improved?
A field-based, mixed method analysis.

Caroline Perrin
January 2020
From proxy-indicators to connecting disparate evidence: a multilevel-toolkit for evaluating the impact of digital health implementations on health outcomes.

Jean-Marc Biquet
February 2020
Patient safety in Medical Humanitarian action. Medical error prevention and management.

Emilien Jeannot
February 2020
HPV vaccination in Switzerland: knowledge, attitude and effectiveness.

Melissa Harper Shehadeh
February 2020
Le développement et l'adaptation culturelle d'une intervention psychologique en ligne pour la dépression.

Chin-Shui Chih
March 2020
E-cigarettes: users' profiles, stakeholders and public attitudes to regulations in Taiwan,

Jiancong Wang
September 2020
Epidemiology of healthcare-associated infections and implementation of infection prevention and control in acute care hospitals in Mainland China.

Dzmitry Krupchanka
June 2020
Mortality gap associated with mental disorders in the Czech republic

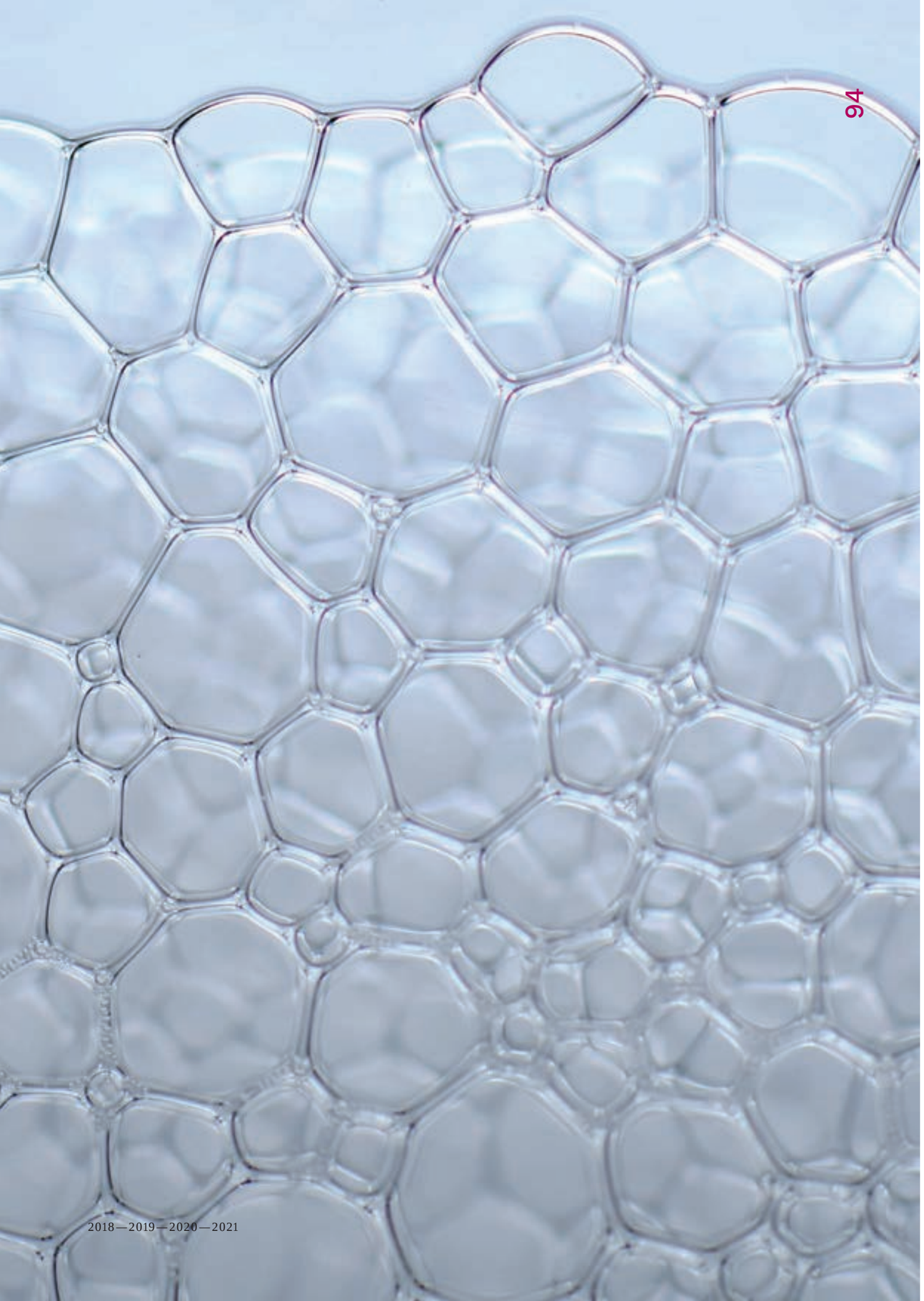
Yew Fong Lee
October 2020
Innovative social and behavioural change strategies to strengthen and improve infection prevention and control – A World Health Organization first Global Patient Safety Challenge.
« Clean Care is Safer Care » project.

Ermira Tartari
October 2020
Healthcare-associated infections: implementation of global initiatives to improve infection prevention and control.

Cleophas Chimbetete
October 2020
HIV drug resistance and third line treatment outcomes in patients failing Protease Inhibitor based second-line antiretroviral therapy in Zimbabwe.

Kanika Koirala
February 2021
Epidemiology of persistent febrile illnesses in Eastern Nepal.

Sara Tomczyk
April 2021
Improving the Quality of Infection Prevention and Control (IPC) Evidence: An Assessment of Interventions to Improve Practices and Reduce Health Care-Associated Infections (HAIs).



IV – E
Certificate of Advanced Studies (CAS)

Runs in French

– Certificate of Advanced Studies (CAS) in Discrimination, Health and Human rights (in French)

The CAS in Discrimination, Health and Human rights set up in collaboration with the Office, for the fight against discriminations of the Swiss Department of Interior and the University of Geneva, enables the deepening of knowledge and the acquiring of instruments necessary for the prevention of discriminating behaviours in the field of health. It also leads to the development, implementation and evaluation of projects of the fight against discriminations and assistance to the victims. This programme is intended for health professionals, political leaders, teachers and communication professionals active in the field of health.

National collaborations: The Swiss Health Promotion (PSS) is a private law foundation supported by the Cantons and the insurers on the basis of article 19 of the Health Insurance Act (LAMAL). Its mission is to "stimulate, coordinate and evaluate measures to promote health and prevent disease" in Switzerland. Since 2012, our University has developed a partnership with PSS around two basic projects:

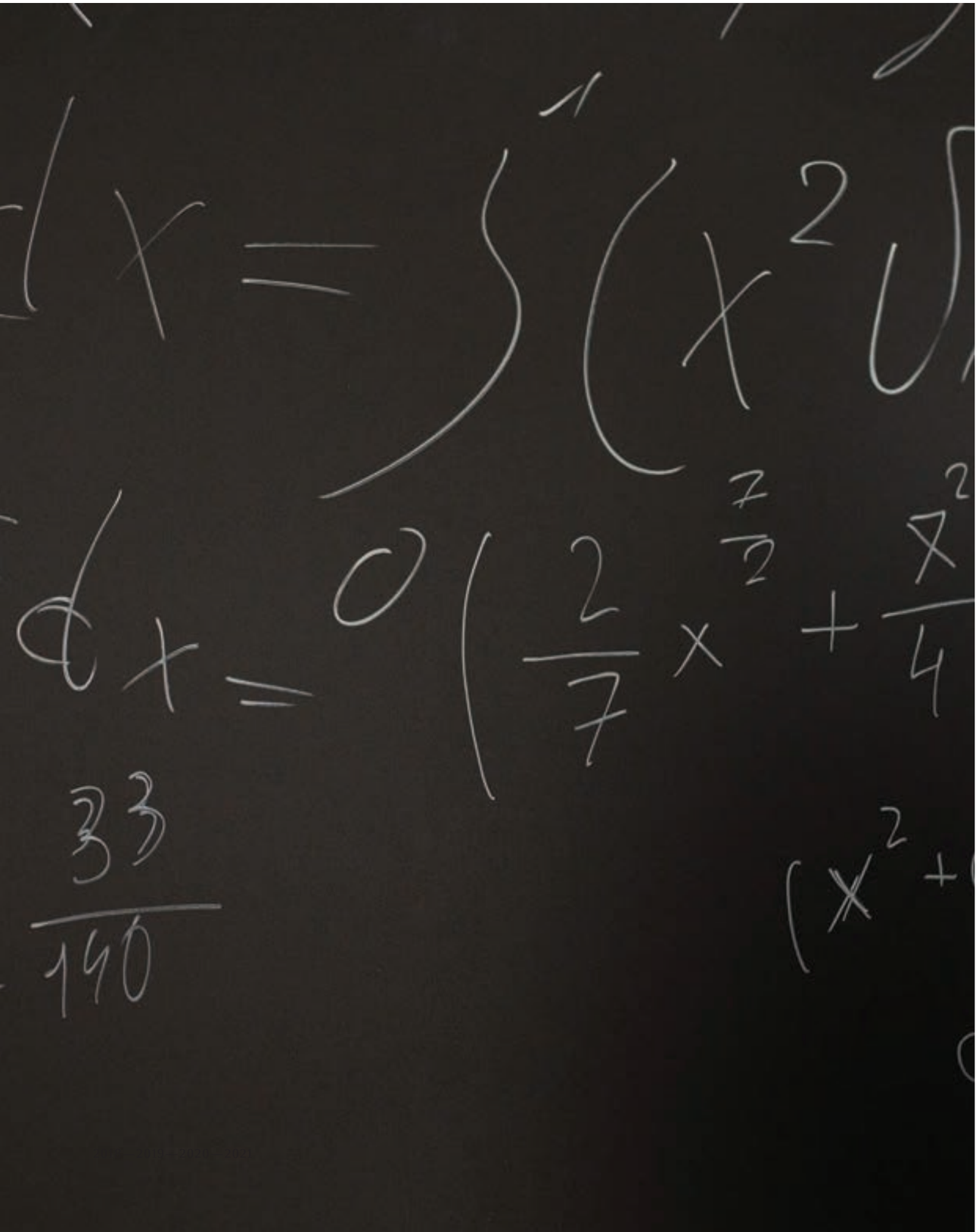
1. The knowledge management and initiation of a process towards a university promoting health (Convention of 27 March 2012).
2. The development of a CAS in Health Promotion and Community Health in French-speaking Switzerland (Convention of 11 December 2012).

Renewed annually, the Convention of March 2012 which include carrying out collaborative projects in particular regarding research or services relating to the field of health promotion, and the integration of the competencies of Swiss Health Promotion staff at the Faculty of Medicine of the UNIGE, in order to strengthen the teaching health promotion. Prof. Thomas Mattig and Emmanuel Kabengele Mpinga are responsible for the implementation of this Convention Since 2008, the programme is given in a “distance learning” format with teleconferences, case studies and work led in collaboration with the WHO.

– Certificate of Advanced Studies (CAS) in Health Promotion and Community Health (in French)

The programme is intended for everyone facing health issues in her/his professional activity. It leads to the conception, the implementation and the evaluation of a community health project at a local, national and/or international level. The formation gives the basis of a multidisciplinary and multi-professional approach of community health, along the academic year (October to June), at the pace of one day every two weeks, as well as thematic and methodological workshops on various subjects like planning, epidemiology and communication. The main objectives are to provide the basis of a multidisciplinary and multi-professional approach of health promotion and community health, as well as to define and illustrate the notions of public health, health promotion and community health in a global perspective. The participants are required to develop a common methodology for the running and the managing of health prevention and promotion, and to adopt participative process around community health. Finally the programme aims at promoting networking with actors of the community.

V. Innovative Education



Flipped Classroom

The NCD's prevention unit led by Prof. Etter introduced an innovative teaching approach for a public health course for master degree medical students (year 5 of medical studies): team-based learning, which is a variant of the flipped classroom. Before each class, students study a 20-pages document. Each class starts with an online test to ensure that all students actually read the preliminary document. Then, during the class, students are divided into small groups to solve an application exercise, and thereafter the professor moderates a general discussion.

IHR Simulator 3.0

Health crises of multiple natures – infectious, chemical or nuclear – are growing worldwide and most recently with the current COVID-19 pandemic. International Health Regulation (IHR) implemented by the WHO, allows States and the international community to respond to these challenges. Recently, the H1N1 virus, the resurgence of poliomyelitis, the Ebola virus, the Zika virus, were all declared "Public Health Emergency of International Concern". The IHR 3.0 Simulator was initiated by a consortium of European public universities in consultation with the WHO. Like a flight simulator for pilots, it aims at virtually training national focal points at distance. By analysing in real-time the responses and behaviours when participants are placed in a virtual crisis situation, it identifies the potential shortcomings in the training of teams. It also reinforces learning outcomes concerning the implementation of the International Health Regulations. In practice, the participants are placed within a management team in real-time for a simulated health crisis occurring in a given country. Each of them play a virtual role as a member of one of the following four teams: the ministry of health of the affected country; other ministries of the country; World Health Organization; or neighbouring countries. They follow a news thread displaying the information that allows them to take the decisions that are the most relevant to the crises within everyone's role. Smartphone, iPad or laptop, can be platforms to answer to the multiple-choice quiz given by the simulator.

MOOCS

Since 2013, The Institute of Global Health has developed a range of Massive Open Online Courses (MOOCs) (number to date tbc) in collaboration with a diverse set of partners including Institute Pasteur, University of Montreal, Centre Virchow-Villermé/University Paris Descartes, the University of Lausanne and many more.
List of MOOCS available :

More information about the objectives and curriculum of each MOOC can be found here : https://www.unige.ch/medecine/isg/en/teaching/moocs/

List of MOOCs available

“Global Health: A General Overview”

is meant to draw a comprehensive picture of Global Health according to the School of Geneva.

“Ebola : vaincre ensemble! (in French)”

in collaboration with Centre VirchowVillermé, Paris Descartes and UNF3S – was designed to assist and inform people during the outbreak of Ebola in West Africa about the disease, but also about how it was addressed medically and politically.

“To Screen or not to Screen?”

Methods and health policies through case studies in collaboration with the Ecole Romande de Santé Publique (ERSP) and IUMSP is a pure public health course about the process of screening for non-communicable diseases.

“In the footsteps of Zika… approaching the unknown”

developed in collaboration with the Institut Pasteur , Centre Virchow-Villermé, Paris Descartes and UQAM – explores the recent Zika phenomenon, a previously rare benign virus that unexpectedly turned into the limelight, when declared as Public Health Emergency of International Concern, by WHO on the 1st of February 2016.

The One Health / Eco-Health Unit produced an interdisciplinary and multi-expert MOOC Global Health at the Human-Animal-Ecosystem

Interface in partnership with Institute Pasteur and its global network, Centre Virchow-Villermé for Public Health Paris-Berlin/Université Paris Descartes, University of Montreal, and thanks to the excellent contribution by a large number of experts from other research and international institutions based in Geneva and beyond (to be launched March 2017). This MOOC is fully aligned with the strategic priorities of the UNIGE reinforcing the links with UNIGE’s strategic partners, both in Geneva and internationally (OIs, NGOs, University of Montreal).

“The Violence Against Healthcare”

MOOC, is a collaborative project between the ICRC and IGH whose aim is to give a proper perspective and the right tools for all actors concerned with violence against healthcare, be they decision makers or field actors. This MOOC regroups the key messages and lessons learned of 5 years of the Healthcare in Dangers project of the ICRC with the support of the organization’s members of the Community of Concern, through 6 modules, that go from the healthcare worker’s mental health, to proper research; from working with armed parties be they from the army or non-state armed groups, to ensuring passage for first aiders; from hospital crisis preparation to working with communities. These essential and timely lessons aim for a large public, be they actors of the red cross/red-crescent, NGO’s, governments, armed groups or anyone in healthcare who may need to prepare for situations of violence and crisis. The MOOC is developed by Bogomil Kohlbrenner, anthropologist – scientific collaborator, ISG-UNIGE, PD Dr Beat Stoll, MPH, Coordinator of MSc in Global Health, ISG-UNIGE, Dr. Bruce Eshaya-Chauvin, scientific collaborator, ICRC, Sophie Inglin, sociologist – scientific collaborator, ISG-UNIGE.

*Based on the last two GHF conferences

3
Days of Conference*

1500
Participants

105
Countries

120
Innovations

2018—2019—2020—2021

The Geneva Health Forum (GHF) is the forum of innovative practices in Global Health. Created in 2006 by the Geneva University Hospitals (HUG) and the Faculty of Medicine of the University of Geneva, and taking place every two years, the Geneva Health Forum is one of the most important international conferences on Global Health. Nowadays, crucial Global Health actors, such as the World Health Organization (WHO), are among the key partners of the Geneva Health Forum.

With the overall goal of contributing to improve health and care access in the world, the Geneva Health Forum brings together key global health actors to discuss current crucial global health challenges. It gives a voice to actors from the field and bridges them with policy-makers present in Geneva. The GHF capitalizes on the strengths of international Geneva, where many international organizations, non-governmental organizations and Permanent Missions to the United Nations Office at Geneva work on global health.

The team:

Eric Comte

Jelena Milenkovic

As the complexity of global health challenges is growing, answering those challenges requires a multidisciplinary approach as well as being able to bring innovative solutions. The Geneva Health Forum gives visibility to innovative, accessible and sustainable practices and tools that can allow for better access to health and care worldwide.

Usually gathering more than 1500 participants from all sectors - field practitioners, academics, professionals from public and private sector, policy-makers, international and non-governmental organizations - the Geneva Health Forum offers a unique opportunity for a dynamic exchange between the key stakeholders of global health.

The seventh edition of the Geneva Health Forum took place from 10th to 12th April 2018 under the overall theme: Precision Global Health in the Digital Age. As always, other crucial global health themes were also discussed among the 1200 participants coming from international Geneva and beyond.

The 8th edition of the Forum was held from 16 to 18 November 2020. Given the global COVID-19 pandemic, the Geneva Health Forum was held in an entirely virtual way for the first time in its 14 years of existence. Usually offering about 70 sessions, this edition was revised to comprise 21 online streaming sessions dedicated to crucial global health challenges, starting with the global pandemic, but without forgetting issues that affect millions of people worldwide, such as cancer, neglected tropical diseases, Universal Health Coverage, digital health and artificial intelligence, SDGs or the resilience of societies in front of global health crises.

This 8th edition also offered institutional and commercial virtual exhibition booths, as well as photo exhibitions, a fully virtual Innovation Fair showcasing more than 120 innovations, E-Posters and a networking tool.

With more than **1200 online participants**, originating from **130 countries**, this 8th edition of the Geneva Health Forum was a success upon which it will continue to build in the future.

Save-the-date: the next edition of the Geneva Health Forum will be held from 3rd to 5th May 2022!

1 — Louis Brisset

Ms Tatiana Valovaya, Director-General of the United Nations Office at Geneva, speaking at the 8th edition of the Geneva Health Forum, November 2020.

2 — Antoine Geissbuhler

A Malian radiologist training doctors and midwives to mobile and tele-echography in a maternity in Nouakchott, Mauritania.

International society for social paediatrics and child health (ISSOP) annual meetings.

Annual meeting 2018

ISSOP held its annual congress in Bonn, Germany from 27 to 29 September 2018. The theme of the meeting was "Early Intervention".

Annual meeting 2019

The theme for the 2019 Annual Meeting of the International Society for Social Pediatrics & Child Health (ISSOP) is "Children in Armed Conflict: Rights, Health and Wellbeing".

Swiss Public Health Conferences

In the occasion of the 50th anniversary of the Institute of Social and Preventive Medicine (ISPM) of the University of Bern, the Swiss Public Health Conference 2021 will focus on the important following theme «**COVID-19 and the public health management of pandemics**»

VII. National and International collaborations and networks

– National collaborations

ERSP

The Institute of Global Health of the Faculty of Medicine at the University of Geneva is a founding member of École Romande de Santé Publique (ERSP).

It was created and launched simultaneously with the IGH, in 2014. Prof Fred Paccaud was its founding director up to 2017, and initiated a new and friendly dynamic between Institutes in Lausanne, Neuchâtel and Geneva. The ERSP started to have discussions on improving our common training programs. We have monthly meetings, participate in jointly organized seminars and conferences, and build a common vision on the Pôle Romand de Santé Publique of the Swiss School of Public Health (SSPH+).

SSPH+

The University of Geneva is also a founding member of SSPH+, which was created 12 years ago, funded by the federal government to foster joint academic public health in Switzerland.

IGH contributed largely in its development, support and benefits from its professorships (Prof E. Kabengele and Prof E. Albanese), and its PhD programs (Winter School of Epidemiology, Spring School of Global Health and Summer School of Health Ecomomics and Policy). The SSPH+ created a unique momentum in academic public health in Switzerland, offering an opportunity to share various experiences, skills and competencies between our respective Institutes from Basel (who played a leading role), Bern, Zürich, Lugano, Neuchâtel, Lausanne and Geneva. We participate in SSPH+ retreat every year, the Swiss Public Health Conference (organized in Geneva in 2015), and various other joint meetings and research programs.

Healthy Cities, The Theory, Policy and Practice of Value-Based Urban Planning, Evelyne de Leeuw, Jean Simos (eds.)

The World Health Summit is the annual conference of the M8 Alliance of Academic Health Centers, Universities and National Academies. Through the Inter Academy Medical Panel (IAMP), it is organized in collaboration with national academies of science in more than 67 countries.

The vision behind the World Health Summit is to improve health all over the planet, catalysing that process through collaboration and open dialogue, and steering tomorrow's agenda to improve research, education, healthcare, and policy outcomes.

The University of Geneva is the only Swiss member in the Alliance. Professor Antoine Flahault, Director of Unige's Institute of Global Health, was head at the World Health Summit as president from 2016 on.

The "G3" Alliance for Global Health: Université libre de Bruxelles, Université de Montréal, and University of Geneva

With the support of our respective universities, in 2015 we set up an Alliance for Global Health between our three institutions. Our first priorities were focused on non-communicable diseases (NCDs). We studied an integrated model of partnerships with patients with chronic conditions; we investigated equity issues regarding access to primary care; we discussed about various strategies of implementing preventive measures against NCDs in LMICs. We had a couple of meetings aimed to report on the work in progress, in each site, taking advantage of international events and collaboration (e.g. Entretien Jacques Cartier at Montreal, Geneva Health Forum in Switzerland).

World Federation of Public Health Associations (WFPHA)

The World Federation of Public Health Associations (WFPHA), founded in 1967, is an international, nongovernmental organization (NGO) composed of over 100 associations member, mostly multidisciplinary national public health associations, and representing around 1 million public health professionals worldwide. It is the only worldwide professional society representing and serving the broad field of public health. WFPHA's mission is to promote and protect global public health. It does so by supporting the establishment and organizational development of public health associations and societies of public health, through facilitating and supporting the exchange of information, knowledge and the transfer of skills and resources. The WFPHA also promotes and undertakes advocacy for public policies, programs and practices that will result in a healthy and productive world.

WFPHA has developed, in collaboration with WHO, "A Global Charter for the Public's Health". The intention of the Charter is to take the next step after the Declaration of Alma-Ata and the Ottawa Charter, in providing a succinct and practical implementation guidelines to public health associations to work with other NGOs, universities, civil society, governments, foundations and companies, to plan and implement strategies for better health outcomes across the globe. The WFPHA has several partners such as; the International Association of National Public Health Institutes (IANPHI), the International Federation of Environmental Health (IFEH), the International Epidemiological Association (IEA), Health Care Without Harm (HCWH) and the European Forum for Primary Care (EFPC).In 2007, the WFPHA signed a Memorandum of Understanding with the University of Geneva in order to pursue a closer collaboration on the international level.

WFPHA staff at the Institute of Global Heath:

Prof. Bettina Borisch

Dr. Marta Lomazzi

Dr. Eleonora De Cata

World Federation of Academic Institutions for Global Health (WFAIGH)

WFAIGH is a global platform for an academic voice to influence policies on health and global governance mechanisms, to promote methodological development and research, and to share good practices in capacity building and educational innovations.

Association of Schools of Public Health in the European Region (ASPHER)

The Association of Schools of Public Health in the European Region (ASPHER) is the key independent European organisation dedicated to strengthening the role of public health by improving education, and training of public health professionals for both practice and research. ASPHER is a membership organisation of institutions, spread across EU and wider across WHO European Region. ASPHER and affiliated organisations and institutions, are all concerned with the education and training, and professionalism, of those entering and working within the public health workforce. Founded in 1966, ASPHER currently has over 110 members in 43 countries in Europe.

European Academic Global Health Alliance (EAGHA)

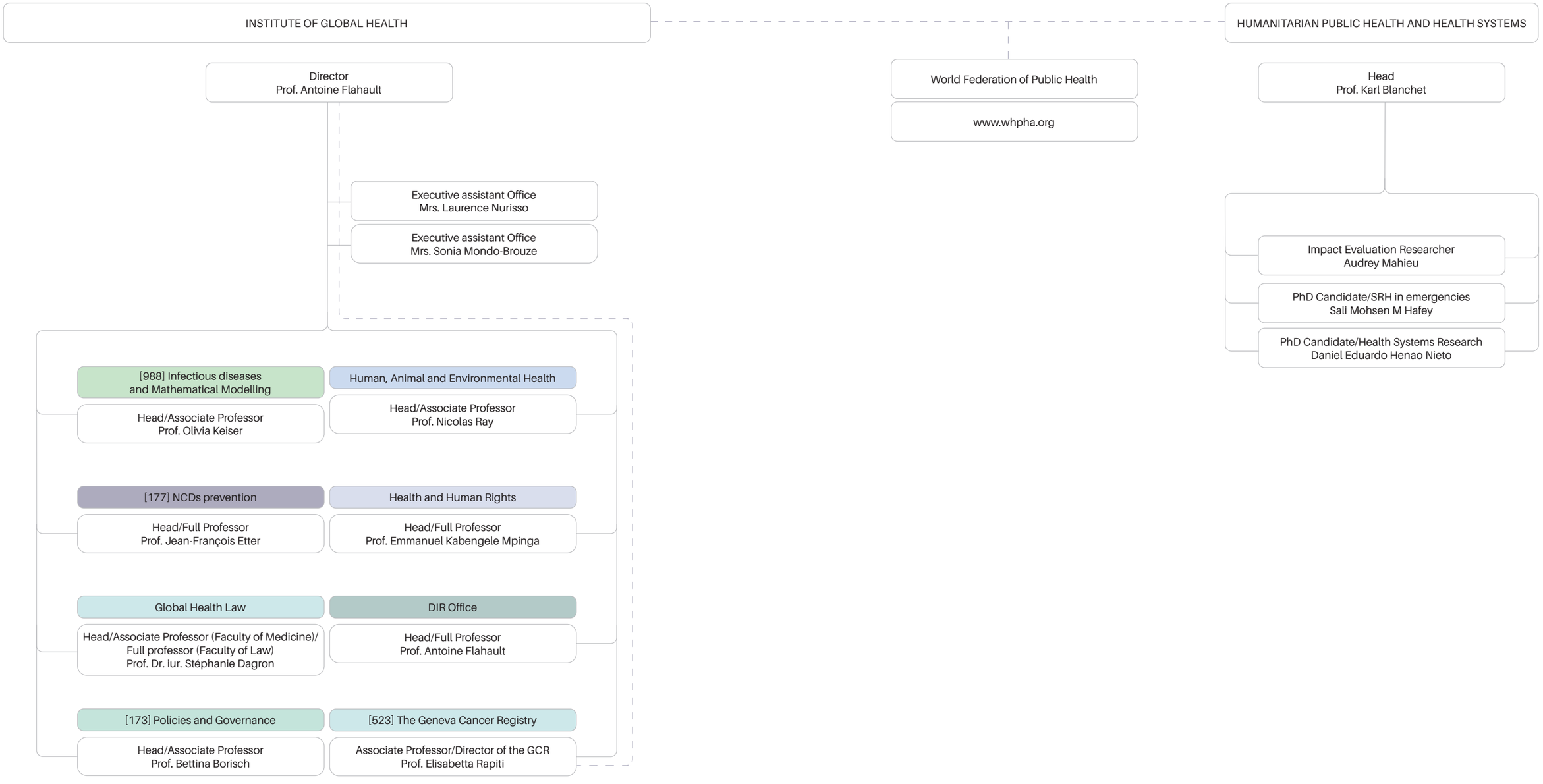
The Alliance's goal is to bring together International Health/Tropical Medicine and Public Health institutions. We aim to constitute a forum for interested academic institutions with involvement in Global Health to exchange views and ideas, so as to develop a European voice on Global Health issues and influence relevant policies.

Agency for Public Health Education Accreditation (APHEA)

APHEA represents the five leading associations of public health in the European Region and is committed to assuring and improving the quality of educational activities throughout the European Region and the globe. Accreditation is aimed at supporting the continued amelioration of education and training for public health workforces throughout the world by providing international and transparent quality recognition. APHEA accreditation is available to any public health institution, programme or training course throughout the world.

The APHEA contributes to the development, transparency and convergence of Public Health education, provides an added sector based value to national quality assurance and accreditation, and also recognises a school's quality beyond the borders of its home country, allowing for transferability of qualifications and potentially providing graduates with better opportunities for employment internationally.

ORG CHART



[n°] *Research group number*

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"In global health, transdisciplinarity is necessary to address complex health issues which cross borders, and to look for accessible and sustainable innovative solutions through systems thinking approaches."

Antoine Flahault
Director of the Institute of Global Health

SSPH+ SWISS SCHOOL OF PUBLIC HEALTH

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