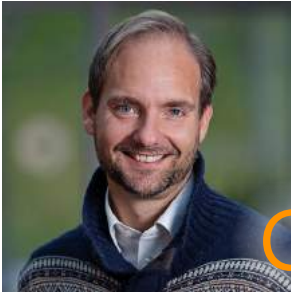




# CHAIN AT A GLANCE

Annual Report 2021



## CHAIN'S first major scientific breakthrough

2021 has been another successful year for CHAIN in our fight against rising global inequalities. Building our own and our partners' capacity to utilise comparative survey and register data, extensive literature reviews, and high-impact publications and dissemination activities with global visibility have underlined our key role in promoting health equity.

Among our many key achievements is our discovery of a [universal association between parental education and child mortality](#), the result of a longstanding collaboration between CHAIN and the Institute for Health Metrics and Evaluation (IHME), based in Washington.

We established that each added year of education among both mothers and fathers improves the chances of child survival everywhere in the world. This is a major scientific breakthrough that crosses the borders of the educational, social and medical sciences.

We have expanded the body of evidence needed to bring education to the global arena as a health determinant. Education is not only producing knowledge - it is a social vaccine that increases the chances of child survival.

This must become common knowledge, it must be taught to medical students, and it must be put on the political agenda. This is also why the Lancet chose to release our study on the day before the G7 meeting in the UK.

We are also proud to announce several new initiatives in this annual report, such as our involvement in the [UN WHO Technical Advisory Board on COVID-19 mortality](#). CHAIN's task will be to establish a global network of researchers that will assess the state of scientific knowledge of social inequalities in COVID-19 mortality, synthesise knowledge about the scope and magnitude of disparities, and identify key gaps for ongoing data collection and study. We expect that the outcomes of our work will make the UN, WHO, and governments better prepared for future health crises.

I hope you will find interest in learning more about these and other CHAIN contributions from the past year, including many of our policy events, which you can read more about on our social media channels. Finally, I want to thank the whole CHAIN team and our collaborators for all the excellent work during yet another difficult year for public health.

**- Terje Andreas Eikemo,  
Leader of CHAIN**

# CHAIN AT A GLANCE

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# 1

## **CHAIN - Centre for Global Health Inequalities Research**

CHAIN is the leading centre and interdisciplinary research network for global health inequalities, based at the Norwegian University of Science and Technology (NTNU) in Trondheim. It brings together expert researchers in the field of health and social determinants, civil society and the UN system to advance health inequalities research, especially for children's health.

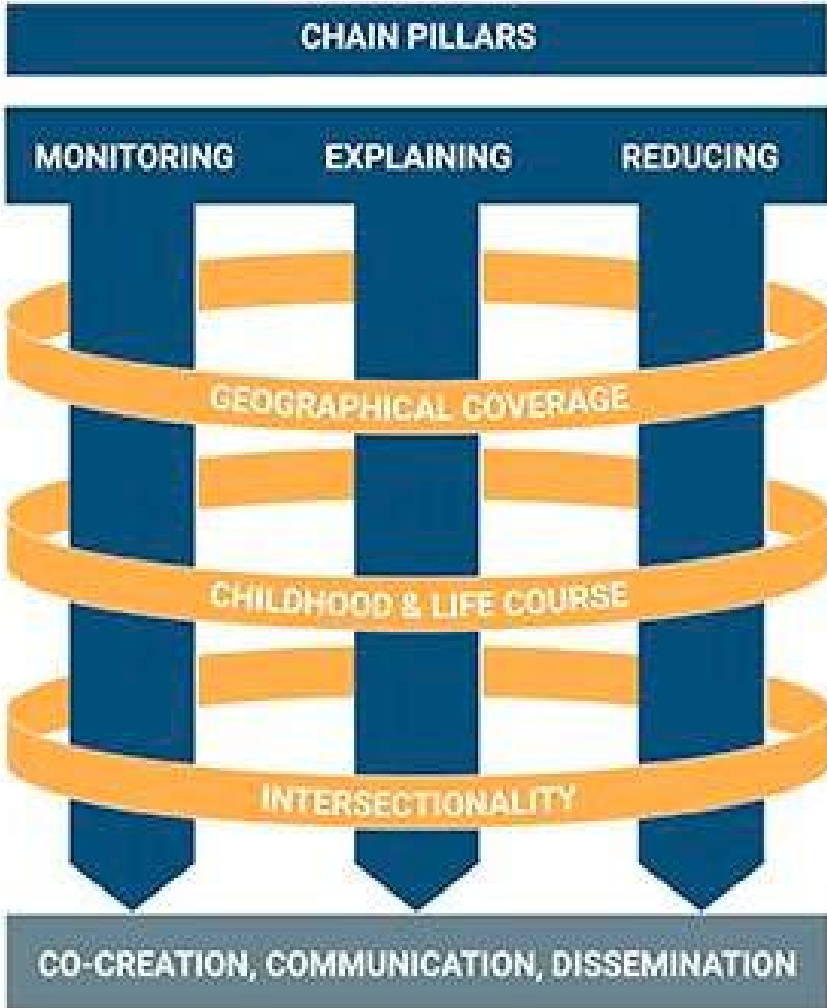


# The CHAIN Structure

CHAIN works towards a global transformation in actionable health inequalities to research. Our 5 main objectives are:

- 1. **monitor** health inequalities, by describing the magnitude and variation of socioeconomic inequalities in health and mortality in the world through time and space.
- 2. **explain** how these inequalities arise.
- 3. **reduce** health inequalities by evaluating interventions that are effective in promoting health equity.
- 4. reduce the distance between **research, policy and practice** through outreach activities.
- 5. develop the **next generation** of health inequality researchers.

Our activities are structured in three pillars. Their results feed into CHAIN's co-creation, communication and dissemination activities aimed at making bridges between research, policy and practice.





# CHAIN Centre for Global Health Inequalities Research

CHAIN is the result of a unique partnership between academic institutions, policy agencies, international organisations, and the UN system. Together, we are reducing the distance between research, policy and practice.

**Bocconi**

**Erasmus  
University  
Rotterdam**

*Erasmus*

**Euro  
Health  
Net** 

 **NIPH**  
Norwegian Institute of Public Health



**IHME**  
Measuring what matters

  
**unicef**

**International Agency for Research on Cancer**

 **World Health  
Organization**

 **Newcastle  
University**



# MONITORING HEALTH INEQUALITIES

**Data on health inequalities and determinants of health needs to be continuously expanded and updated to inform adequate policies and interventions. A core CHAIN priority is to ensure the availability and quality of data on health inequalities and determinants of health by building capacity to collect, analyse and share. The work of the Monitoring pillar helps monitor health inequalities in Europe and beyond, and lays the groundwork for all other CHAIN activities.**

“

*“Social inequalities in health have been thrust into the spotlight in a new way, with social gradients emerging as a defining topic for the decade. However, in order to assure that policies implemented to reduce inequalities can be guided by accurate and updated information, policymakers, academics, and the international community must work together to ensure streamlined data collection that overcomes new disruptions to data streams. Data must be reported with social stratifiers, and analyses must be undertaken quickly and thoroughly to track the evolving importance of social factors in driving health inequalities during and in the wake of the pandemic.”*

**In: Friedman, J. Calderon-Villarreal, A., Heggebø, K., Balaj, M., Bambra, C., & Eikemo, T.A. (2021) COVID-19 and the Nordic Paradox: a call to measure the inequality reducing benefits of welfare systems in the wake of the pandemic. Social Science and Medicine. [doi.org/10.1016/j.socscimed.2021.114455](https://doi.org/10.1016/j.socscimed.2021.114455)**

# Working with the Global Burden of Disease Study

CHAIN closely collaborates with its partner the Institute of Health Metrics and Evaluation at the University of Washington to add education as a risk factor to the Global Burden of Disease study. Adding education as a risk factor will help quantify how educational inequalities impact health, specifically child and adult mortality. Over the last few years, CHAIN and IHME worked closely together to develop a protocol, train master’s students and researchers on research techniques, and conduct systematic reviews that aim to quantify unequal education and disparities in child mortality.

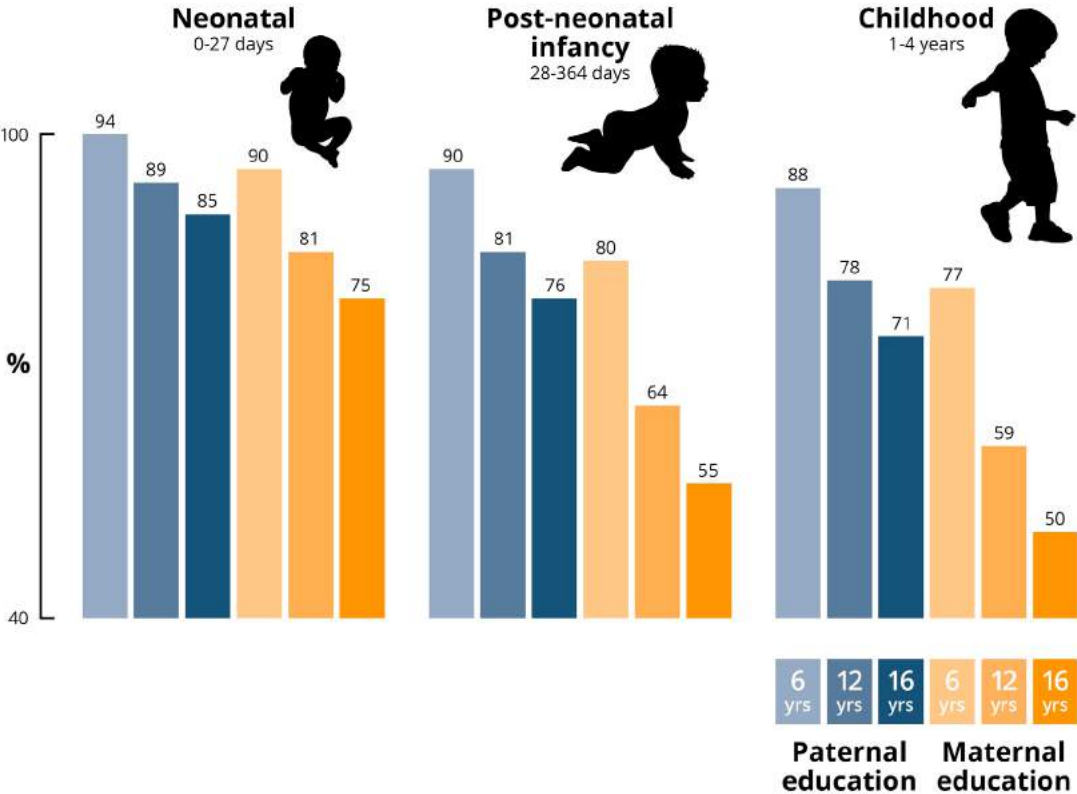
## Establishing the association between parental education and child mortality

In June 2021 this collaboration led to the publication of a [ground-breaking study](#) on the links between parental education and child mortality. The study is one of the first to include an examination of fathers’ education, which is critically under-communicated, as well as mothers’ education. Additionally, the study went beyond the perinatal period to examine mortality during the first 5 years of life, and by including over 3 million live births, exceeded the scope of any previous study.

The study found that lower parental education levels are a risk factor for child mortality under the age of 5. It further found that education of both parents is important, that each additional year is linked to an improvement in child survival, and that education matters regardless of location.

A [factsheet](#) was created to visualise the findings of the study.

### Summary of relative risks of child mortality by parental education





## Collecting data on health and the stratification of societies – a collaboration with the European Social Survey

The biennial [European Social Survey](#) maps the attitudes, beliefs, and behaviour patterns of people in Europe. CHAIN first implemented a health inequalities questionnaire (module on the social determinants) in [round 7 of the European Social Survey \(ESS\) in 2014](#), making the ESS the first health survey to include rich questions on the stratification systems of societies. The data of round 7 of the ESS, which is freely available, has been used by numerous researchers within and outside of CHAIN. In 2021, results were shared with the European Commissioner of Health and Food Safety, and national governments.



CHAIN is now working with ESS to repeat the module on the social determinants of health in the next round of the survey. The collection of data is expected to start in the final quarter of 2022, and the data to be released in 2023. Because of the timing, the module will provide a rare opportunity for the research community to examine how European welfare states of varying size and quality have influenced health and its social determinants during the COVID-19 pandemic.

CHAIN's long-term ambition is to expand the social determinants module to all world regions, making it the world's first comparative survey on health equity.

## Monitoring the impact of the pandemic to assess what works to reduce health inequalities

Researchers from [CHAIN and IHME published a paper](#) arguing that the pandemic offers an opportunity to measure what works in containing and decreasing health inequalities. To act on this potential, new, rapid, and socially stratified data collection and reporting mechanisms should be prioritised, and research agendas must now prioritise social inequalities.

## Changes in second-hand smoke exposure in workplaces

In the [largest study of its kind to date](#), CHAIN researchers and colleagues aimed to describe the scope, trends over time, socio-demographic risk groups, and the association with progressive regulations relating to workplace second-hand smoke (SHS) exposure. The study, using a multinational series of cross-sectional surveys on the trends in passive smoking in the workplace, showed that countries with more comprehensive workplace smoking bans overall report lower levels of SHS exposure among their work force.



# EXPLAINING HEALTH INEQUALITIES

How do socioeconomic determinants interact with health and lead to health inequalities? That is the core question examined by our Explaining pillar. In 2021, CHAIN researchers looked into a wide range of determinants to explain health disparities, including parental education, employment, gender, health systems, capital systems, and trade.

“

*“Although the mortality rate from COVID-19 may be higher amongst men, potentially as a result of both biological and social factors; the lockdown policies have led to higher rates of intimate partner violence, mental ill health and reduced healthcare access particularly impacting on women.”*

**Bambra, C., Albani, V., & Franklin, P. (2021).**  
COVID-19 and the gender health paradox.  
Scand J Public Health, doi: [10.1177/1403494820975604](https://doi.org/10.1177/1403494820975604)



## Trade, COVID-19, and health

In a two-part glossary published in the *Journal of Epidemiology and Community Health*, CHAIN senior researcher Courtney McNamara and colleagues discussed the main provisions of contemporary free trade agreements (FTAs) and the profound impact they can have on health. The authors consider how the COVID-19 pandemic is shaping the contemporary trade environment and argue that the pandemic puts in plain sight, and gives new urgency to, many of the health risks associated with FTA provisions.

Find Part 1 [here](#) and Part 2 [here](#).

## How do trade agreements affect public health?

Dr Courtney McNamara spoke at an event by Public Health Network Cymru about how trade agreements affect public health in Wales. Dr McNamara discussed her findings on the impact of the CPTPP trade agreement on health through medicines, health systems, labour, and environment.

[Find a recording of the event here.](#)

Also read: [The threat of a UK-US trade deal to managing non-communicable diseases](#) in the BMJ.

## Precarious employment and health in the context of COVID-19

CHAIN researcher Dr Courtney McNamara, Prof Martin McKee from the London School of Hygiene and Tropical Medicine and Prof David Stuckler of Bocconi University have published a [rapid scoping umbrella review](#) exploring how COVID-19 has affected the health of precarious workers.

Also read: [Working conditions, chronic diseases, and inequalities: what the research tells us](#) in EuroHealthNet Magazine.

## Does free-market capitalism drive unequal access to health?

In an article in the *International Journal for Research, Policy and Practice*, CHAIN researcher Indra de Soya and Krishna Chaitanya Vadlamannati from University College Dublin found that [greater economic freedom robustly reduces inequality of access to health](#).

The study used data collected by the Varieties of Democracy project that captures the degree of access to healthcare services. The authors argue that these results, robust to a number of alternative models and data, were obtained because greater exposure to global markets increases the premium on the productivity of labour, thereby increasing incentives for political elites to invest in productivity-enhancing public goods.



## Do cuts in local government funding impact life expectancy?

Researchers from CHAIN have published the results of a [long ecological study on local funding and life expectancy](#) in England. It has shown that cuts in funding for local government might in part explain adverse trends in life expectancy. They also found that deprived areas showed greater reductions in funding, suggesting that inequalities have widened. The authors suggested that strategies to address decreasing life expectancy and reduce health inequalities could prioritise reinvestment in funding for local government, especially in more-deprived areas.

## The impact of cuts to early years centres on childhood obesity in the UK

CHAIN researcher Tim Huijts published a [commentary reflecting on the impact of spending cuts to UK Sure Start Children's Centres](#), which aim to reduce obesity and reduce health inequalities.

The commentary focused on three main topics: (1) estimates of the number of children affected by the cuts, and its implications for reinvesting in Sure Start; (2) involvement of target/reference groups; and (3) the implications of this study in light of the COVID-19 pandemic.

“

*“Strategies that aim to address the relationship between government spending and life expectancy, and reduce health inequalities could prioritise reinvestment in funding for local government, especially in more-deprived areas”*

## Heavy metals and essential minerals during pregnancy and associations with ADHD and autism in children

Neurotox, a collaborative project between the Norwegian Institute of Public Health (NIPH) and CHAIN researchers, investigates whether environmental contaminants in maternal blood during pregnancy have a negative impact on the child's neurodevelopment. As part of the NeuroTox study, [NIPH conducted a study](#) that found that exposure to heavy metals and essential minerals during pregnancy is associated with autism and ADHD.

## COVID-19 and the gender health paradox

An [article by Prof Clare Bambra, Viviana Albani and Paula Franklin](#) examined gender-based health inequalities arising from the COVID-19 pandemic by drawing on insights from research into the 'gender health paradox'. The paradox is that, while men have shorter life expectancies and higher mortality rates than women, women report higher morbidity. These gender-based health inequalities also appear to be evident within the pandemic and its aftermath.





## Comparing American and OECD health systems

CHAIN researcher Roosa Sofia Tikkanen has authored a chapter in [\*Contemporary Public Health: Principles, Practices and Policy\*](#), published in July 2021. The chapter compares the US to other OECD countries in terms of population health outcomes; health insurance/universal coverage, health system governance and organization; public health systems; social determinants and social policy; and COVID-19 response. Social determinants of health and social/health policy are themes throughout the chapter.

## Health inequalities are ultimately determined by structural factors, but what does structural mean?

While researchers typically agree that health inequalities are ultimately determined by structural factors, the concept of 'structure' is often unspecified and vaguely understood.

[In this paper](#), Emil Øversveen explores and critiques two main understandings of structure within health inequality research. He outlines a more practice-oriented conception, and presents a model in which 'structure' is understood as the evolving conditions and outcome of practices in which actors produce, distribute and consume resources according to social schemas.



# 4 REDUCING HEALTH INEQUALITIES

In CHAIN's third pillar, our researchers are identifying what works to reduce health inequalities. In several ongoing research projects, journal articles and commentaries, we are raising awareness of key public health challenges and the need to take action.

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*“We found that communication, education, social mobilization and outreach interventions are effective in improving the use of preventive tools like immunization or bed nets both at population level and in addressing the health needs of the most disadvantaged. Such approaches offer a strong avenue to reduce morbidity and mortality from infectious diseases in children under five years old.”*

**Besnier, E., Thomson, K., Stonkute, D., Mohammad, T., Akhter, N., Todd, A., Rom Jensen, M., Kilvik, A., & Bamba, C. (2021).**

Which public health interventions are effective in reducing morbidity, mortality, and health inequalities from infectious diseases amongst children in low- and middle-income countries (LMICs): An umbrella review. Plos One

[doi.org/10.1371/journal.pone.0251905](https://doi.org/10.1371/journal.pone.0251905)



## Levelling up: Global examples of reducing health inequalities

In a [commentary in the \*Scandinavian Journal of Public Health\*](#), CHAIN researcher Prof Clare Bambra presented and analysed historical examples of when sizeable population-level reductions in health inequalities have been achieved. Examining five global examples between the 1950s and 2000s, she identified three commonly held 'levellers', whereby health inequalities can be reduced at scale. Welfare state expansion, improved health care access, and enhanced political incorporation are identified as three commonly held 'levellers' whereby health inequalities can be reduced – at scale. The article further argued that 'levelling up' population health through reducing health inequalities requires the long-term enactment of macro-level policies that aggressively target the social determinants of health.

## The double burden of COVID-19

2021's first issue of the [Scandinavian Journal of Public Health](#) was a special issue on the social, economic and health-related consequences of COVID-19. The editorial, written by editor and CHAIN leader Terje Eikemo, argues that the COVID-19 pandemic causes a double burden on the most disadvantaged social and demographic groups, due to pre-existing health and social inequalities. To lessen the burden, we need strategies that address the long-term population impact of the virus. Moreover, decision-makers need to weigh the gains of lockdowns against their consequences in terms of health loss and increased mortality, especially among vulnerable groups.

“**That the COVID-19 pandemic causes a double burden on the most disadvantaged social and demographic groups, due to pre-existing health and social inequalities. To lessen the burden, we need strategies that address the long-term population impact of the virus.**”

## Which public health interventions are effective in addressing health inequality among children?

In [an umbrella review](#), CHAIN PhD candidate Elodie Besnier and colleagues synthesised evidence on interventions to reduce health inequality in children under 5. The study focused specifically on preventing morbidity and mortality from infectious diseases amongst children in low- and middle-income countries. The review identified some prevention interventions that might be useful in reducing under-five mortality from infectious diseases in LMICs, particularly amongst the most disadvantaged groups.

Also read: [Beyond Covid, can the world address the challenges of childhood infectious diseases and inequalities?](#) (EuroHealthNet Magazine)

## Innovative health technologies can worsen health inequalities, CHAIN researcher warns

While new health technologies offer more opportunities for better treatment, not everyone has access to such technology. [CHAIN Researcher Emil Øversveen's work](#) examines whether new technology, while full of potential to improve health, might be further increasing health disparities due to unequal access.

In an [article in Norwegian SciTech News](#), Emil sets out his work on selective empowering in the distribution of medical technologies. He further argues that vaccines too are a health technology, and that this knowledge can help understand why some countries and groups get vaccinated first.







# POLICY & OUTREACH

**CHAIN's policy and outreach activities ensure that research from its three pillars (monitoring, explaining and reducing) leads to concrete action on the determinants of health. To make this happen we engage with researchers and policy-makers in- and outside of the public health community to share our findings, and use the evidence we have produced to demonstrate the need for and benefits of taking action.**

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*“The UNICEF Innocenti Report Card series is designed to monitor and compare the performance of OECD/EU countries in securing the rights of their children. We are excited to work with CHAIN on Report Card number 17 on the environment and children's health, a topic close to both CHAIN and Innocenti's hearts.”*

**Gwyther Rees,**  
Social & Economic Policy Manager,  
UNICEF Office of Research – Innocenti



## A new online portal for resources and information on health inequalities

## Health Inequalities Portal

A new online portal for information and resources on health inequalities in Europe, [health-inequalities.eu](https://health-inequalities.eu) was launched by EuroHealthNet. The portal is a platform for international exchange including information, policies, research, and initiatives on health inequalities, for anyone who has a role in the COVID-19 recovery and building a more sustainable and fair future.

The Portal's [resource database](#) provides over 900 examples of initiatives, policies, research, and publications at European levels and on the ground. Users are able to submit their own work. [An interactive map](#) allows users to compare the level of health inequalities within and between different countries in Europe, and find out more about national organisations working on health equity.



### CHAIN evaluates the European Joint Action on Health Equity in Europe (JAHEE)

CHAIN researchers have been involved in the EU Joint Action on Health Inequalities (JAHEE) as external evaluators. During the JAHEE general assembly in November, the [final results of the action](#) were presented, and Mirza Balaj and Professor Terje Andreas Eikemo presented the results of their evaluation.

### CHAIN contributes to the 2021 State of Health in the EU Country Health

Published once every two years by the OECD and European Observatory on Health Systems and Policies, the [State of Health in the EU report](#) and accompanying [Country Health Profiles](#) summarise knowledge and information on countries' health systems.

For this publication, CHAIN researcher Roosa Sofia Tikkanen was commissioned to write the [Danish](#) and [Norwegian](#) Country Health Profiles. The profiles offer an overview of public health, health system performance and recent reforms, as well as COVID-19 mortality/morbidity, health system resilience and containment and mitigation measures.

## New UK trade agreements and their implications for population health and well-being

Senior Researcher Courtney McNamara delivered two Masterclasses for the [Wales Health Impact Assessment Support Unit](#) in April and May this year: One on the health impacts of the new EU- UK Trade and Cooperation Agreement and one on the health implications of the UK joining one of the world's largest free trade agreements, the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP). These classes aimed to equip participants with the necessary knowledge to support better advocacy for health and health equity in the realm of trade policy.

## CHAIN contributes chapter on Albania to handbook on health systems throughout Europe

[Health Politics in Europe: A Handbook](#) is a work of reference that provides historical background and up-to-date information and analysis on health politics and health systems throughout Europe. In particular, it captures developments that have taken place since the end of the Cold War, when most post-communist transition countries privatised their state-run health systems, and many Western European health systems experimented with new public management and other market-oriented health reforms.

CHAIN researcher Mirza Balaj wrote a chapter which offers an in-depth look at health politics and the compulsory health insurance system in Albania.



## Promoting Digital Health Literacy for Europe's Digital Future

Digitalisation is transforming public health, health systems, and the health information we receive – as well as how we receive and understand it. How can we navigate these changes in ways which leave no one behind? That was the main question asked during EuroHealthNet's Annual Seminar on 7 December.

The seminar featured a keynote speaker from the WHO Europe Division of Country Health Policies and Systems, WHO Europe. She was joined by speakers from, among others, the European Commission, the Nordic Health 2030 Movement, Technical University Munch, and the European mHealth Hub, and several national organisations such as Public Health France and Trimbos Institute for Mental Health (Netherlands). [A recording and report of the event are available here.](#)

## Creating a common language about health determinants



Health Determinants, Data, and Decision-making  
Rockefeller Foundation-Boston University 3-D Commission

Professor Terje Andreas Eikemo spoke at the regional launch of a [3-D Commission report](#) that called to create a common language about health determinants, data science, and decision-making, and turning principles on health equality into concrete actions.

Terje Andreas spoke about CHAIN's work to improve the availability and comparability of data by creating a framework for global data collection, adding a health module to the European Social Survey, and imbedding education as a risk factor in the Global Burden of Disease study.

# CHAIN at the European Public Health Conference 2021

CHAIN and its partners were active at the 2021 European Public Health Conference:

- EuroHealthNet organised the closing plenary on climate change, justice, and public health, featuring speakers from WHO's Department of Public Health and Environment, the European Environment Agency, The Council of Europe Development Bank, and the European Environmental Bureau. ([Info on all of EuroHealthNet's EPHC sessions](#))
- Mirza Balaj participated in the round table 'European Perspective on JAHEE recommendations' in a discussion with DG SANTE, HaDEA and WHO. ([More info](#))
- Kam Sripada presented on child health and wellbeing in a changing climate during a session on addressing vulnerability within climate change-related health impacts. ([Abstract](#))

## COVID-19 & health inequalities: applying lessons to deliver change

EuroHealthNet organised a webinar as part of the 2021 EUPHA European Public Health Week. The webinar had a variety of speakers, including EuroHealthNet Director Caroline Costongs and CHAIN researcher Prof Clare Bamba. During the webinar, Clare laid out the key issues of the pandemic from a health inequalities view, and introduced her new book *The Unequal Pandemic: COVID-19 and Health Inequalities*. The speakers that followed discussed how to practically place health equity at the core of policy and practice responses to the pandemic.

Watch: [COVID-19 & Health Inequalities: applying lessons to deliver change - EuroHealthNet & EUPHA webinar](#)

## Calling on policy makers to consider social inequalities in the distribution of vaccines

In [an editorial in the \*European Journal of Public Health\*](#), Newcastle University faculty members and CHAIN partners Adam Todd and Clare Bamba called on policy-makers to consider the inverse equity hypothesis in the COVID-19 vaccine roll out.

The inverse equity hypothesis suggests that, as new health interventions are developed, they initially favour more privileged members of our society. This, in the short term, increases health inequalities. It is only over time that the intervention reaches all parts of society. Because of this preferential access and uptake, less privileged groups always lag behind their more privileged counterparts



# Are available EU recovery-oriented funds being used to build back in ways that promote health equity?

EuroHealthNet published [an assessment of the use of the EU Recovery and Resilience Funds](#) in 8 countries. For the cross-country analysis EuroHealthNet spoke to experts in each country about plans to spend the recovery funds and identify interrelated areas where they could be invested for a healthy and socially-just recovery.

Several recommendations were made, including to invest in enabling environments for healthy lifestyles, in primary and community care, mental health, and improving monitoring and surveillance systems with an equity focus.



## **Funds and programmes available in the new EU budget to act on health equity.**

Earlier in 2021, EuroHealthNet published a comprehensive overview of funds and programmes in the new EU budget and their relevance for health. The publication "[Seizing the opportunities for a healthy recovery – Multiannual Financial Framework 2021-2027 and NextGenerationEU](#)" not only covers health funding, but also social, environmental, and economic recovery, among other mechanisms.

## **The changing world of work, health and the covid-19 recovery**

Another EuroHealthNet publication sets out how changes in the way we work and working conditions can affect health and wellbeing. The policy précis further explores how investments in employment can help reduce health inequalities, in particular as part of a fairer and more sustainable recovery and resilience building in Europe. [Read the policy précis on employment and health here.](#)

## Gender equality and health in the EU

In 2020, CHAIN Researchers from Newcastle University wrote a [report on gender equality and health](#) in the EU. The report, which was commissioned by the European Union's Directorate-General for Justice and Consumers, provides a cross-cutting view of the different health challenges that men and women face.

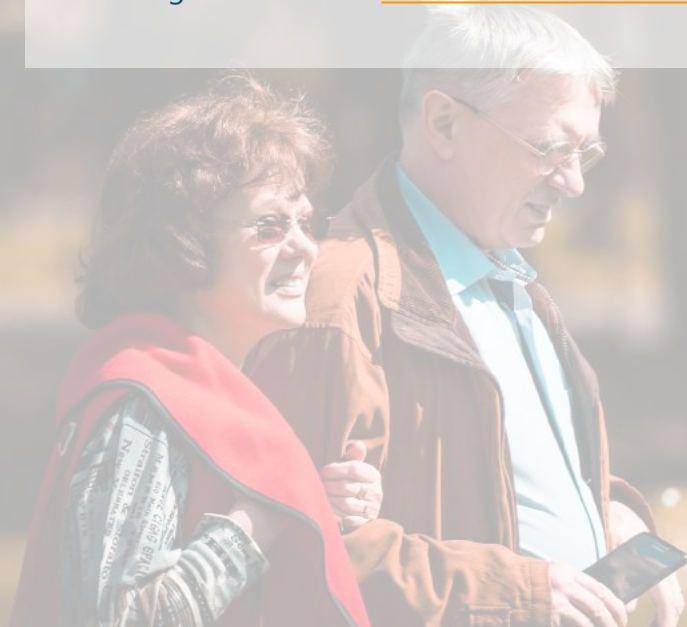
## EuroHealthNet argues for policy action to promote gender equality in health

EuroHealthNet has published [a policy précis on gender, health and inequalities](#). The précis covers the evidence on health inequalities between men and women and why those differences might occur, as well as what can be done to address these inequalities on the European and national level.

## Addressing social inequalities in cancer screening

Mirza Balaj spoke about social inequalities in cancer screening and how to address them at the cancer screening expert workshop *How can cancer screening programmes targeting breast, cervical and colorectal cancers, be improved throughout the EU?*

The scientific evidence discussed during the workshop will feed into a [Science Advice for Policy by European Academies \(SAPEA\)](#) report, which will inform the European Commission's [Group of Chief Scientific Advisors'](#) Scientific Opinion on cancer screening. Both the report and Scientific Opinion will be published in February 2022. The latter will feed into the European Commission's proposal to update the 2003 Council Recommendation on cancer screening to ensure the [latest available scientific evidence](#) is reflected.



## New UNICEF program for child health and environmental health

CHAIN postdoc Kam Sripada spearheaded the creation of a new programme area at UNICEF focusing on the growing global health problems related to environmental pollution and climate change. UNICEF launched a strategic framework to guide this work, called [‘Healthy Environments for Healthy Children’](#) early 2021, capping nearly 2 years of collaboration.



unicef

## UNICEF Innocenti launches children and COVID-19 database

A [new database](#) created by UNICEF Innocenti, collects research from around the world on COVID-19 and its impact on children and adolescents. The library is an important global public good for children and features evidence generated by UNICEF, as well as from others working to minimise the impact of COVID-19 on children and adolescents from institutions worldwide.

[www.unicef-irc.org/covid-children-library/](http://www.unicef-irc.org/covid-children-library/)

## UNICEF Innocenti holds webinar on Early Childhood Education (ECE)

UNICEF Innocenti organised a webinar called Reopening the Future: Prioritising Pre-primary Education. Experts made the case for prioritising ECE in the context of school reopenings. Speakers shared good practices and implementer experiences, how partners are working to address learning gaps, and the role and potential of ECE bridge/catch-up programs in stemming ECE learning loss.

[A recording of the event is available here.](#)





# 6 THE CHAIN TEAM

**All CHAIN work is overseen by CHAIN Leader Terje Andreas Eikemo and Research Coordinator Mirza Balaj at the Norwegian University of Science and Technology in Trondheim. The Trondheim-based team, composed of 33 interdisciplinary researchers, works with CHAIN's global colleagues to collect data and build data warehouses, to explore and explain the links between social and economic circumstances and health, to gather evidence on what works to reduce health inequalities, and to reach out to researchers and policymakers both within and outside of the global public health community.**

# TRONDHEIM-BASED TEAM



Norwegian University of  
Science and Technology

**Leader:** Terje Andreas Eikemo

**Research Coordinator:** Mirza Balaj

**Professors:** Indra de Soysa, Henning Finseraas and  
Tim Huijts

**Senior researcher:** Courtney McNamara

**Post doctoral researchers:** Emil Øversveen, Kristian  
Heggebø, Kam Sripada

**PhD students:** Elodie Besnier, Virginia Kotzias, Amanda  
Aronsson, Roosa Tikkanen

**Librarians:** Solvor Solhaug and Magnus Rom Jensen

**Social Media:** Kathryn Beck

**Research assistants:** Lorena Donadello, Pilar Vidaurre,  
Solomiya Kasyanchuk, Anna Gkiouleka, , Kathryn Beck,  
Talal Mohammad, Hanne Dahl Vonen, Claire Degail, , Indrit  
Gradeci, Gerasimos Parisi, Julia Jackman, Lode Van Der  
Velde, Gazmir Lame, Gilda Hoxha, Mouna Bourakkadi, Besi  
Gjylbegaj, Jenny Reid.

# THE GLOBAL TEAM

## WP1 Monitoring health inequalities

Erasmus  
University  
Rotterdam



IHME

Measuring what matters



Norwegian Institute of Public Health

Wilma Nusselder, Frank van Lenthe and Silvia Klokgieters  
(Erasmus MC, Netherlands)

Emmanuela Gakidou, Joseph Friedman, Hunter York, Claire Henson, and Erin Mullany (Institute for Health Metrics and Evaluation, IHME, University of Washington)

Simon Øverland and Carl Michael Baravelli (Norwegian Institute of Public Health)

KEY PROJECTS: GBD Education, European Social Survey round 11, GBHI, Expansion of education-linked mortality data warehouse.

## WP2 Explaining health inequalities

International Agency for Research on Cancer

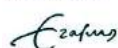


World Health  
Organization



UNIVERSITÉ  
DE GENÈVE

Erasmus  
University  
Rotterdam



Norwegian Institute of Public Health

Partha Basu, Andre Carvalho, Isabel Mosquera and Eric Lucas  
(IARC, WHO)

Heidi Aase, Gro Dehli Villanger, and Thea Steen Skogheim  
(Norwegian Public Health Institute)

Silvia Stringhini and Hugo Santa (University of Geneva)

Tanja Houweling and Leah Prence (Erasmus MC)

KEY PROJECTS: NeuroTox and CanScreen5

## WP3 Reducing health inequalities

Bocconi



Newcastle  
University

Clare Bamba, Viviana Albani, Adam Todd, Heather Brown,  
and Sarah Darbyshire-Evans (Newcastle University, UK)

Alexander Kentikelenis and Manuel Serrano Alarcon  
(Bocconi University)

KEY PROJECTS: Heal-Tech project Environment and child health

## WP4 Bridging research, policy and practice

Euro  
Health  
Net



unicef



United Nations  
Global Compact

Caroline Costongs, Chantal Verdonschot, Alba Godfrey,  
Alison Maassen, Alexandra Latham and Caoimhe Kelly  
(EuroHealthNet)

Kyrre Lind (UNICEF Norway)

Kerry Albright and Gwyther Rees (UNICEF Innocenti)

Kim Gabrielli (UN Global Compact)

KEY PROJECTS: UN WHO TAG on COVID-19-mortality,  
UNICEF Report Card 17, policy-exchange, publication material



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## CHAIN AT A GLANCE

Annual Report 2021

**CHAIN** is the leading centre and interdisciplinary research network for global health inequalities, based at the Norwegian University of Science and Technology (NTNU) in Trondheim. It brings together expert researchers in the field of health and social determinants, civil society and the UN system to advance health inequalities research, especially for children's health. To find out more about CHAIN, visit our [website](#) and follow us on [Twitter](#) and [Facebook](#).

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This publication is supported by a grant awarded by the Norwegian Research Council (project number 288638) to the Center for Global Health Inequalities Research (CHAIN) at the Norwegian University for Science and Technology (NTNU).