



**Global Challenge Steering Group
Strategic Review Position Paper**

Directions	<p>A fundamental review of WUN, to evolve and be responsive to future objectives and priorities, is in progress. Consultations for options, opinions and data, including governance representatives and the internal and external stakeholders of WUN, will be presented at the Annual Conference and AGM in New York on 3-5 May 2017. The future directions and priorities of WUN will form the sinews of the new Strategic Plan, formulated and implemented in 2017-18. This includes the research, education and mobility programmes, function of board and secretariat, and funding strategies.</p> <p>In order to fully engage the Global Challenge Groups, who are the main base of WUN activities, we request that you prepare a short position paper that summarises at high level, (i) major achievements of WUN in 2013-16, (ii) and major priorities 2017-20, and (iii) the top five papers, grants and outcomes over the past three years.</p> <p>ACTION: So that this may be considered alongside other Strategic Review input, we ask that you please consult your respective steering groups and complete the form below, submitting the final agreed draft immediately after your January teleconference.</p>
Global Challenge: Name of Global Challenge	
Public Health (with emphasis on non-communicable diseases [NCDs]).	
Summary objectives and rationale: Why is your Global Challenge an appropriate area of primary focus for WUN, and why should it continue to be so?	
<p>The WUN Public Health Global Challenge brings together some of the world’s leading experts to explore socioeconomic, cultural, environmental and behavioural solutions across the life-course. Research focuses on four themes: the health of families and migrants across the life-course; health resilience in adolescents in different cultural contexts; the life course approach to healthy ageing and schools as a setting for reducing risk factors related to NCDs. There are links to major global initiatives such as the UN’s Sustainable Development Goals and WHO programmes, with a focus on population-level and individual approaches that increase access to education, promote health literacy and empower women.</p> <p>The 2030 Agenda for Sustainable Development was adopted by world leaders in September 2015 at the United Nations meeting. The 17 goals aim to end poverty, protect the planet, and ensure prosperity over the next 15 years. Among these goals is ‘Good Health and Wellbeing’, which includes targets to reduce the global maternal mortality ratio; end preventable deaths of newborns and children under 5 years of age; reduce premature mortality from non-communicable diseases; ensure universal access to sexual and reproductive healthcare services; provide support for the research and development of vaccines; and more. However, many of the SDGs are relevant to public health and cross over with other WUN key areas such as climate change and education and the PH group wishes to work collaboratively with these groups. The strategic objectives of the WUN Public Health GC align closely with the UN Sustainable Development Goals.</p>	
Current Status: Outline major directions, priorities, programmes (IRGs), workshops, and achievements. from 2013-15.	

Directions: The WUN Public Health Global Challenge emphasizes a life-course approach to opportunities for addressing NCDs especially in low and middle income countries and transitioning populations but also in developed societies where there are large social disparities in risk. This focus is based on substantial evidence for the inextricable link between parental, perinatal, infant, childhood factors and adult lifestyle factors that accumulate and contribute to the risk of developing NCDs later in life and which contribute to reduced health and well-being in ageing. It is recognised that some NCDs are linked to communicable disease and some others have genetic predisposing factors. Particular attention will be paid to both population- and individual-based approaches to increase access to education, to promote nutritional and health literacy and physical activity in children, adolescents and parents and to empowering women. Such strategies will contribute to the reduction in the burden of NCDs, promote healthy ageing and provide other benefits such as gender equality, promotion of neurocognitive capacities and healthcare and economic cost savings.

Priorities:

Health of migrants across the life course.

How does migration affect the health and well-being of families? This theme includes ageing, NCDs, mental health and the economic impact of migration as a determinant of health outcomes for both migrants and family members who are left behind.

The resilience of adolescents and health workers in different cultural contexts.

This theme addresses the biological, socio-ecological and psychological resources associated with resilience with a particular focus on two groups: young people and health workers. It includes how resilience compares in young people from different cultures, and the factors that contribute to their resilience; and why and how formal and informal health professionals adjust positively to occupational adversity across time. It also addresses issues of resilience in ageing populations.

Schools as a setting for reducing risk factors associated with NCDs.

How can interventions in schools help to effectively reduce the burden of NCDs? This theme includes identification, implementation and measurement of best practice to support the development of sustained health behaviours through curriculum-based, policy-based and public health messaging interventions in a wide range of social, cultural, geographic and economic contexts.

Life course approach to healthy ageing.

There is growing evidence supporting the life course model of ageing, and for early life as period of opportunity to prevent accelerated ageing. This theme aims to increase knowledge of markers of factors which influence the trajectories of intrinsic capacity across the life course. A multidisciplinary group within this theme looks into several processes that influence the pathways to healthy ageing including biological factors (genetic and epigenetic factors, physiological changes) as well as social and environment determinants.

Programmes, workshops and achievements:

Members from the theme on life course and ageing attended several meetings with the WHO on Healthy Ageing. A meeting on trajectories of intrinsic capacity through the life course was also organised at the WHO in Geneva in June 2017, attended by several experts from WUN institutions and key stakeholders from the WHO.

Early Life Opportunities for the Prevention of NCDs in Developing Countries. Experts from 27 organisations and institutions are leveraging their expertise in public health, epidemiology, underlying mechanisms and biomarkers, and translational clinical medicine, to present a concerted view on the prevention of NCDs. So far, the group has produced 14 publications and have met in Shanghai, Cape Town, Hong Kong, Southampton and Washington DC to further the collaboration. They have also contributed to the WHO Commission on Ending Childhood Obesity (ECHO) report and developed a Research Fellow position to strengthen the link between WHO and WUN with a particular focus on the life-course approach to healthy ageing.

in-FLAME, the International Inflammation Network, was formed in 2012. This is an interdisciplinary

collaboration (currently comprising 125 experts across 19 countries) dedicated to understanding the risk factors for inflammation and devising strategies to prevent them, particularly in early life. The rising burden of NCDs now poses the greatest threat to global health. Inflammation is a common element in almost all of these diseases, including obesity, allergies, asthma, autoimmune disorders, cardiovascular and metabolic diseases, cancer, and neurodegenerative conditions. A substantial component of the risk of all NCDs is programmed in early life. The group has produced 31 publications and have met in Southampton, Washington DC, Cape Town, Marburg and Maastricht.

Future Directions: What are your predicted priorities for the next three years?

How might the global environment affect this?

What work should grow and/or be added? What should be reduced and/or stopped?

The importance of socio-demographic and environmental factors underlies the importance of links with ongoing global initiatives, in particular the 2015 UN Sustainable Development Goals which highlights the importance of the environment for good **maternal and child health**, food security, climate change and **health systems responses to global public health**. NCDs are responsible for over 60 per cent deaths worldwide. The areas most affected are low and middle income countries, where the heavy burden of healthcare drives millions into poverty each year and consequently impedes economic development. This poses a serious threat to human health and productivity, as deaths by NCDs are expected to rise by 17 per cent over the next decade. The WUN Public Health GC aims to undertake advocacy to promote wider recognition of the importance of a life-course approach to NCD prevention with a particular focus on the adolescent and preconception periods and low and middle income countries. The group is committed to reducing health inequalities in all its manifestations be they at global or local level. This relates to our work in different behaviour settings (e.g. schools), the wider community and in different cultural contexts and is intended not only to promote health in young people now and as future adults but also in future generations.

The impact of **migration on health** is often neglected since international migrant policies tend to focus on aid, security, immigration enforcement, trade and labour. Furthermore, migrant health policies tend to be implemented at a national level. However, since it is now recognized by the WHO that exposure to hazards during sensitive periods or accumulated over the life-course significantly affects health outcomes, there is an urgent need to establish international policies that ensure equal health opportunities for migrants. International collaborative research about the effects of migration, the migration of health and relevant approaches is urgently needed.

Lower levels of **health literacy** are increasingly linked to higher mortality, inappropriate medication and higher hospitalisation rates. Evidence shows that levels of health literacy are lowest among socially disadvantaged groups, which have higher rates of preventable NCDs as a result. Thus, improving health literacy has been identified by the WHO as a key strategy for tackling health inequalities in both developed and developing countries.

A life-course approach to **healthy ageing** is an overarching theme which will draw on other priority areas in the Public Health Global Challenge . Ageing populations and the concomitant growing burden of NCDs are high on the international agenda for health and social policy. WUN responds to this by bringing to bear its considerable strengths in life-course approaches. We are examining evidence surrounding the early-life indicators of healthy ageing and the interventions that can be introduced at an early age to ensure healthy outcomes across the life-course. This may support the development of biomarkers of resilience which can be used to predict outcomes and devisor monitor potential interventiosn to improve intrinsic capacity.

Data: Indicate your Global Challenge group's

- Five top publications;
- Five top grants;
- Leading strategic workshops;
- Key points of influence;
- Sustainable programs that have or are currently emerging (e.g. Critical Zones, Migration; Ageing Health, Higher Education Access, etc);
- Top think tank contributions.

GC Public Health highlights in WUN Annual Reports 2011/12 to 2015/16.

2011/12:

- 1st WUN Public Health Global Challenge conference in Shanghai in May 2011 assembling 70 leading academics and representatives from external agencies.
- Outcome of the conference was the Shanghai Declaration of the Worldwide Universities Network on Early Life Opportunities for Addressing NCDs in Developing Countries submitted to the WHO and published in The Lancet in 2011.

2012/13:

- Journal articles on health literacy education in Education in Science and Health Education (2012).
- Commentary on public health leadership published in The Lancet (2012).
- Two journal articles on medicines information in International Journal of Pharmacy Practice (2012).
- A systematic review published in the Cochrane Database of Systematic Reviews (2013).
- Bupa Foundation Multi-Country Grant of £307,000 for new project on achieving sustainable health behaviour change in adolescents.
- RCUK School-University Partnerships Initiative grant of £300,000 for project engaging secondary school students and teachers.
- Contribution to European Commission working group examining the future of medical informational leaflets across Europe.
- Input into Australian Government policy on over-the-counter medicines labelling.

2013/14:

- Paper on governance, transparency and alignment in the Coalition of Australian Governments National Health Reform.
- AUD\$268,000 Australian Research Council Discovery Grant awarded for research on the topic "How Australians navigate the healthcare maze: the differential capacity to choose".
- Input into Secretary-General's Every Woman, Every Child review and UN Global Compact meeting.
- Forged new ongoing partnerships between WUN, WHO and United Nations Foundation.
- Working with Novo Nordisk, Steno Diabetes Centre, Malaysian Government and other partners to reduce risk of diabetes.

2014/15:

The in-FLAME network:

- Over 25 research papers published, with more submitted or in review.
- Origins: Early-life solutions to the modern health crisis by Professor Susan Prescott published (2015).
- Three Research Collaboration Awards totalling AU\$60K from the Univ of Western Australia, 2012-2014.
- Presented data from food allergy survey at the WAO International Scientific Congress in Brazil (2014).

Immune Responses Underlying COPD Pathology project:

- Five research papers published, as well as one book titled 'How Helminths Alter Immunity to Infection'.
- Patent application for 'Protection against parasitic nematode infection by surfactant (SP-D)' (2014).
- Awarded over £150K from the Marie Curie Incoming Fellowship (EU), National Research Foundation (South Africa), Royal Society International Exchange (UK), Sir Halley Stewart Trust (UK) and the University of Cape Town (South Africa).

Health Literacy Network:

- Six papers published (2015).
- Attracted over AU\$230K in funding from the Australian Research Council, ANZSN-Amgen and the NSW Agency for Clinical Innovation.

Scoping Survey of Autism Care Resources: Social Integration of Diagnosis, Treatment, and Support Systems:

- International conference titled Autism: Global Challenges and Local Needs was held at CUHK on 16-17 January 2014 with 150 participants attending.
- A symposium titled Genetics and Epidemiology in Autism was held at CUHK on 20 November 2014 featuring international speakers from the fields of genetics, genomics, neuroscience, and psychiatric epidemiology in autism.
- Grants from the Hong Kong Health and Medical Research Fund (HK\$ 999,898)
- Grants from the Hong Kong Health Care and Promotion Fund (HK\$299,886)

2015/16:

Early Life Opportunities for the Prevention of NCDs in Developing Countries:

- 14 research papers published in 2014-2015.
- Contributed to the Commission on Ending Childhood Obesity (ECHO) report to the WHO (2016).
- Development of a WUN/WHO Research Fellow position to strengthen the link between NGOs and academic institutions.

Health Outcome of Migration Events group:

- Awarded \$40,000CAD from the Alberta Centre for Child, Family and Community Research, 2015.
- Received joint funding from the University of Bergen and UWA for research into health interventions targeted at migrant populations, 2015.

Lessons for Life: Innovating and Evaluating School Age Health Education Interventions for the Prevention and Control of NCDs:

- Two research papers published.
- Hosted a session at the European Science Education Research Association (ESERA) Conference (2015).
- Awarded £50,000 by the Research Councils UK's School-University Partnership Initiative, 2016.

OPERA - Optimal Pregnancy Environment Risk Assessment group:

- Inaugural meeting in San Francisco in March 2015 where 38 members attended and presented papers.
- Participation in the PREBIC Annual Meeting of the Global Initiatives Working Group in Italy in 2015.

Other comments: Enter any further relevant comments in this section. This may include, but need not to be limited to, outlining interaction with other Global Challenges and/or Cross-cutting Themes.

It is relevant for the WUN Public Health GC to interact with other Global Challenge Groups and cross-cutting themes. The examples include:

- Food security and health (GC Responding to Climate Change)
- Migration and health (GC Understanding Cultures and Global China Group)
- Care, ageing and health systems (Economics Group)
- Effect of NCDs on poverty and health care systems in LMI-countries (Global Africa Group)
- Health, environment and socio-demographic data (Big Data)