

## Promoting Adaptability across the Life course

WUN Public Health Steering Group

(Perth, 21<sup>st</sup> - 22<sup>nd</sup> May 2018)

This workshop is jointly organised by the WUN Public Health Global Challenge and the Resilience Working Group.

From 2016-17 Prof Mark Hanson and team at University of Southampton, and colleagues at the World Health Organisation (WHO), Department of Ageing and Life course, worked together with the aim of developing a toolkit for the assessment of physiological processes, and biological markers of factors that influence the rate of decline in function throughout the life course. This was based on the concept of Intrinsic Capacity and Functional Ability, introduced in the *World report on Ageing* (2015). The key objectives of the WHO, post the World Report on Ageing and Health, included addressing the knowledge gaps related to healthy ageing and building platforms to create further networks. Several meetings conducted on frailty, measurement and operationalisation of intrinsic capacity and the development of a clinical consortium for healthy ageing, set the scene for the WHO-WUN meeting, which focused on the application of the intrinsic capacity concept across the life course. In the meeting on Working Group on Metrics and Research Standards on *Healthy Ageing*<sup>1</sup> (27-31 March 2017)

A three-day technical workshop was conducted in Geneva (June 28-30, 2017) led by Prof Hanson and Prof Yoav Ben-Shlomo (University of Bristol). This was attended by colleagues from the WUN, to identify the drivers of intrinsic capacity through the life course. Speakers included key stakeholders from the WHO, and other leading academics in the field of life course epidemiology. A gap highlighted during the meeting was the lack of consideration of resilience and adaptation of intrinsic capacity through the life course and its influence on later life health.

Prof Steve Reid at University of Cape Town together with colleagues at other WUN universities are leading the research group on resilience in youth and service providers, and were part of the Pathways to Resilience IV conference in June 2017. This meeting focused on how individuals, families and communities adapt positively to adversity such as migration. It provided an overview on how this adaptation varies across cultures, how those in the 'Global South' define resilience and how professional and semi-professional service providers can meaningfully support health, wellbeing and social justice at a population level.

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<sup>1</sup> Working Group on Metrics and Research Standards on *Healthy Ageing* - 27-31 March 2017  
<http://www.who.int/ageing/data-research/metrics-standards/en/>

To advance the agenda on using a life course approach to achieve optimal individual, family and population health, we are organising an expert meeting, with emphasis on promoting adaptability across the life course, using the *Healthy Ageing* framework as well as acknowledging the importance of early child health and development. This interdisciplinary workshop will harness ongoing research at WUN universities, encourage participation from early career researchers and create opportunities for future collaborations.

The need to revise the WHO definition of Health has been widely debated, and the introduction of the concept of intrinsic capacity and functional ability were a start to moving beyond a disease-focused approach. Functional ability comprises the intrinsic capacity (the composite of all the physical and mental capacities) of the individual, relevant environmental characteristics, and the interactions between the individual and these characteristics. The goal of *Healthy Ageing* is to build, and maintain this functional ability for as long as possible. Healthy ageing in many ways supports the call to define health as the ‘ability to adapt to one’s environment’<sup>2</sup>.

The terms resilience and adaptability are often used across health and social sciences, without a universally agreed definition or measure of resilience or adaptability. As a result, there are variations in the measured prevalence of resilience, and variations in the factors found to be associated with resilience. Resilience can be understood not only as an outcome but also as a dynamic process of positive adaptation in the face of adversity<sup>3</sup>. Through this workshop, we aim to understand the role of resilience in long-term health, how aspects of resilience can be measured and possible interventions that can support developing and sustaining resilience through the life course.

Themes for the 2-day workshop directly preceding the WUN-AGM 2018 at the University of Western Australia include:

- Understanding current knowledge on adaptability across the life course. Clarification on terminologies used in different disciplines. Measuring adaptability vs. reserve capacity.
- Measures that can be undertaken across the life course to slow the rate of decline of intrinsic capacity by sustaining adaptability to challenges.
- Inflammatory processes are key in age related changes occurring in the locomotor domain, and has been the focus of the In-FLAME network. The induction of inflammatory responses across the life course may also contribute to the pro-inflammatory trajectory of an individual. However, immune function has not been adequately considered in the existing domains of intrinsic capacity.
- Physical activity is important at every age, and this includes in later life and for healthy aging, specific activities such as muscle strengthening, and balance and stability exercises to prevent falls and maintain independent living. There is evidence supporting the need

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<sup>2</sup> Books Z. What is health? The ability to adapt. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)60456-6/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60456-6/abstract)

<sup>3</sup> Kuh D, Ben-Shlomo Y, Lynch J, Hallqvist J, Power C. Life course epidemiology. *Journal of Epidemiology & Community Health*. 2003 Oct 1;57(10):778-83.

for building locomotor capacity earlier in the life course, such as in working age adults, by providing interventions to increase levels of physical activity.

- How do the concepts of adaptability and intrinsic capacity apply to the 'domains' of psychosocial function and vitality as set out by WHO?

## Workshop Application Form

- **Before filling in the application form:**

- Please make sure that you meet the criteria, listed below, for participating in this workshop.
- Please submit the form to [partnerships@soton.ac.uk](mailto:partnerships@soton.ac.uk) copying in cc the WUN coordinator in your institution **by Wednesday 31<sup>st</sup> January 2018**. If you don't know your institutional coordinator, please contact the WUN website [here](#).

- **Criteria for participating in this programme**

By submitting the Workshop Application Form we understand that you fully meet the following criteria:

- Applicants must be a doctoral student, an early-career researcher or a junior academic at one of the WUN universities.
- Applicants must be enthusiastic about collaborative and interdisciplinary work.
- Applicants must be able to commit fully to the programme in Perth and must be able to travel to Australia.
- Applicants must be able to contribute to disseminating the outcome of the workshop to wider audiences in cooperation with WUN member universities and relevant stakeholders.
- Applicants must be able to demonstrate how their academic interests could contribute to the theme of the workshop.

- **Selection criteria**

Applications will be assessed by the organisers based on:

- Relevance and Contribution: how academic interests would could contribute to the theme of the workshop.
- Geographic representation: priority will be given to applicants from the Global South and from institutions that recently joined the WUN network.

## Workshop Application Form

<b>1. Name</b>	Given	Family
<b>2. Email</b>		
<b>3. University</b>		
<b>4. Current position</b> (e.g. PhD student, post doc...)		
<b>5. Current research topic</b>		
<b>6. Your brief biography</b> (300 words max)		
<b>7. Why are you interested in participating in this programme and how will you benefit from the experience?</b> (300 words max)		
<b>8. Please describe any past experience related to the theme of this programme</b> (300 words max)		
<b>9. How do you think you can contribute to this programme?</b> (300 words max)		
<b>10. Applicants must be able to contribute to disseminating the outcome of the workshop to wider audiences in cooperation with WUN Member and relevant stakeholder involved. If you agree, please tick the box</b>	<input type="checkbox"/> Yes, I agree to contribute to disseminating the outcome of the workshop	
<b>11. How do you intend to bring back benefit to your research or disciplinary group and university after the programme?</b>		