Prevention, Early Intervention and Better Public Services for All (March 2023)

For more information about the consultation, please visit:
https://www.policyforum.labour.org.uk/commissions/prevention-early-intervention-and-better-public-services-for-all?active_tab=submissions

Background:

The Physiological Society (The Society) is Europe's largest network of physiologists, at the forefront of science for 146 years. Physiology is the science of life, and research in physiology helps us to understand how the body works in health, what goes wrong in disease, and how it responds and adapts to the challenges of everyday life. The Society's membership is made up of researchers in all of these areas, from neuroscience through to endocrinology, nutrition and sport and exercise science with the science ranging from the mechanistic to the applied, from molecular to whole body.

The Labour Policy Forum's consultation explores how early intervention can reduce health inequalities, support women's health, and improve services for vulnerable children. Given the spread of our membership and the role physiology plays in understanding the mechanisms of disease, research in physiology can also provide the basis for developing early interventions and preventative measures.

Policy recommendations:

- Public health guidance which encourages positive lifestyle changes by promoting physical activity and healthy diets as a way to prevent disease and ill-health.
- Invest in research on ageing in areas such as:
    - Longitudinal studies to understand the biological processes of ageing. These are expensive to conduct, but could provide high quality data to transform our understanding of ageing and its impact on physiology of the whole body.
    - How physiological interventions could potentially prevent or delay frailty.
    - Understand the underlying mechanisms that allow some people to maintain good health into old age.
- Strengthen occupational health services by working with providers and companies to ensure people remain healthy while at work. This could also include producing simple evidence-based employer guidelines for older people, rooted in the latest physiological and behavioural evidence.
- Improve public health messaging around poor health to ensure it is targeted, tailored and accessible to populations.
- Ensure a holistic and interdisciplinary approach to care where physiologists work collaboratively with researchers, doctors, and other healthcare professions to address emerging health challenges.
- Ensure that physiology education and training are central to training the next generation of health professionals.

Consultation response:

How can Labour ensure our public health services prevent worsening population health, ensure pandemic preparedness, address widening health inequalities, and offer early intervention programmes that reduce pressure on our communities and other services (in conjunction with wider social policy)?

The Physiological Society proposes the Labour party prevents worsening population health, and by extension strengthens public health services by looking into the following five categories:

1. *Preventing comorbidities through early intervention*

Comorbidities refer to the presence of more than one illness or disease in one person at the same time. Comorbidities are more likely to occur as the population ages, with obesity, heart diseases, and high blood pressure being the most common. For example, the likelihood of living with two or more significant conditions is estimated to be 60% by the ages of 75 and 79 years and exceed 75% between the ages of 85 and 89 years.[1]

The presence of comorbidities puts a huge burden on the NHS; one in three adults in the UK admitted to hospitals in an emergency have five or more comorbidities.[2] Further, people with comorbidities are higher users of ambulatory and inpatient care, and also have longer stays in hospitals.[2]

The lack of physical exercise and poor diet are major risk factors for disease-related comorbidities. For example, sedentary behaviour is linked to an increase in the occurrence of Type 2 Diabetes and cardiovascular disease.[3] Several studies have also linked chronic diseases such as these to physical inactivity and inappropriate diet.[4]

Positive lifestyle changes not only mitigate disease progression and improve existing symptoms, they also prevent them from occurring.[5] Physical activity can increase musculoskeletal health; is vital for older adults.[3] Physiological research into healthy diets and exercise can be used to develop individual meal plans and physical activity regimens for people at risk of comorbidities to prevent them from occurring. Physiologists, physiotherapists as well as nutritionists must be at the heart of the response to preventative healthcare programmes.

Encouraging use of health apps or monitoring devices such as the Fitbit are examples of early intervention programmes that could empower people to take their health into their own hands. This will require collaboration with industry to develop tools to track and monitor their health and see the progress they have made. However, measures must be put in place so that this does not widen health inequalities and the technology gap between those who are able to access such devices and those who cannot. There is also evidence that intervention programmes targeting people in mid-life can improve health outcomes for people later in life.[6]

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[1] Medical News. *Comorbidities in Older Adults.* Available from: https://newsmedical.net/health/Comorbidities-in-Older-Adults.aspx

[2] BMJ Best Practise. *The impact of comorbidities on health services.* Available from: https://bestpractice.bmj.com/info/the-impact-of-comorbidities-on-health-services

[3] Centre for Disease Control and Prevention. Physical activity. Available from: https://www.cdc.gov/chronicdisease/resources/publications/factsheets/physical-activity

[4] Roberts CK and Barnard RJ Effects of exercise and diet on chronic disease. *Journal of Applied Physiology*. Available from: https://journals.physiology.org/doi/full/10.1152/japplphysiol.00852.2004

[5] Rippe JM. Lifestyle Strategies for Risk Factor Reduction, Prevention, and Treatment of Cardiovascular Disease. *Am J Lifestyle Me*d. 2019 Mar-Apr; 13(2): 204–212. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6378495/

[6] The Physiological Society. *Understanding 'Early Exiters': The case for a healthy ageing workforce strategy*. Available from: https://www.physoc.org/policy/public-health-and-ageing/age-health-and-work/

Thus, preventing comorbidities and unhealthy lifestyles can improve healthy life expectancy, which in turn will reduce healthcare costs.

2. *Ensuring the health and wellbeing of people as they age by funding research on ageing*

Ageing is generally associated by the public with poor health. However, this is avoidable and preventing age-related decline in health must be a priority. It is important to take a life course approach to ageing, with health and wellbeing at the heart of policies. Efforts to prevent ill-health and promote healthy ageing must be based on scientific and medical research.

In our report *Understanding 'Early Exiters': The case for a healthy ageing workforce strategy*, The Physiological Society proposes the formation of a Global Centre for Healthy Ageing to co-ordinate UK and international research on health ageing.[6] Co-ordinating medical and physiological research on healthy ageing and longevity is important to weaken the link between ill-health and age; this will help identify where the gaps in research lie, and what further investment is needed. The Physiological Society has identified some areas where research is lacking, these include:

i. Longitudinal studies to understand the biological processes of ageing. These are expensive to conduct but could provide high quality data to transform our understanding of ageing and its impact on physiology of the whole body.
ii. Research into how physiological interventions could potentially prevent or delay frailty.
iii. Investigate the underlying mechanisms that enable some people maintain good health into old age.

3. *Supporting people with health conditions to stay in work*

Improving the health of the workforce should also be a priority, given the amount of time people spend at work. An increasing number of older people over the age of 50 are leaving work before state pension age and becoming economically inactive – neither in work nor actively searching for work.[7] Poor health is one of the main drivers of this rise in economic inactivity among the over 50s. Compared to before the pandemic, there are around 100,000 more people aged 50-64 who say they are not in work because of a long-term health condition.

Many people do not wish to leave work but are forced to do so due to health and other reasons. There is a need to strengthen occupational health services to ensure people are able to stay happy and healthy at work. Employers must be provided with support to improve access to occupational health services by removing the cost barriers for small and medium sized enterprises.[6] Further, occupational health providers and employers should aim to improve the quality of occupational health services by delivering continuity of care for employees and producing simple evidence-based employer guidelines for older people, rooted in the latest physiological and behavioural evidence.

4. *Improving public health messaging*

Public health messaging about preventing poor health must be improved. Current messaging is not as effective as it needs to be, and people from certain groups face barriers in trying to follow public health advice.[6] Public health advice must be targeted, tailored and accessible to all populations. For instance, over 1.6 million older people are

[7] The Physiological Society. *Age, health and work*. Available from: https://www.physoc.org/policy/public-health-and-ageing/age-health-and-work/

at risk of malnutrition, yet public health messaging around diet largely focuses on obesity in children and working adults, with many of these messages being unsuitable for older people.[8,9]

Public health advice must also be targeted by income group. In our report *Growing Older Better*, we found that people from low-income groups are less likely to be confident that lifestyle changes can have a positive impact on their health in later life, and they were over twice as likely to say that there was no tangible benefit that would encourage them to make healthier lifestyle choices.[10]

5. *Ensuring pandemic preparedness*

Pandemic preparedness must be at the heart of any strategy to strengthen public health. The UK must work with other nations to understand which emerging diseases pose a threat to the population and whether they potentially pandemics. Measures to build population resistance, such as by preventing comorbidities and encouraging people to lead healthier lifestyles, will help people strengthen their immune systems, preparing them for new and emerging diseases. People must be encouraged, and provided with appropriate support, to lead healthier lives by, for example, preventing smoking, lowering alcohol consumption, decreasing consumption of processed foods and reducing physical inactivity will help people strengthen their immune systems.

Physiology must be at the forefront of response to future diseases. As COVID-19 has shown, we cannot rely on treatment protocols alone to create gold standard treatments for patients. When novel diseases emerge, the building blocks of a physiology degree equip healthcare professionals with the understanding to innovate to give patients the best care as quickly as possible.[11] Further, a holistic and interdisciplinary approach to care is required in which physiologists work collaboratively with researchers, doctors, and other healthcare professions to address health challenges.

What should Labour do to strengthen primary care (including all primary healthcare professions) and to shift healthcare where possible into the community, while ensuring high quality hospital services?

The Labour Party has outlined its plans to train over 10,000 nurses and midwives each year. Physiology underpins clinical curricula and informs nurses and allied health professionals performing holistic assessments of people in their care, assisting in the early detection of disease or the development of frailty syndromes.[12] There is a need to ensure that physiology education and training is at a core of training the next generation of health professionals.

Further, primary care must be embedded in physiology principles. Research in physiology helps us to understand how the body works in health and how it responds and adapts to the challenges of everyday life. This research is

[8] Malnutrition Task Force. *State of the Nation: Older people and malnutrition in the UK today*. 2019. Available from www.malnutritiontaskforce.org.uk/sites/default/files/2019-09/State%20of%20the%20Nation.pdf

[9] Onambele-Pearson G, et al. Influence of Habitual Physical Behaviour – Sleeping, Sedentarism, Physical Activity – On Bone Health in Community-Dwelling Older People. *Frontiers in Physiology*. 2019;10:408. Available from: https://doi.org/10.3389/fphys.2019.00408

[10] The Physiological Society. *Growing Older Better*. Available from: https://www.physoc.org/policy/public-health-and-ageing/healthyageing/

[11] The Physiological Society. *UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks*. Available from: https://static.physoc.org/app/uploads/2021/02/22084209/The-Physiological-Society-response-to-the-STC-inquiry-into-future-UK-Capability-for-Global-Disease-Outbreaks-WEB.pdf

[12] The Physiological Society. *Contribution of Physiology Education and Training to the UK Economy*. Available from: https://www.physoc.org/policy/higher-education/physiology-education/

then translated into education and clinical practice, which gives patients the best chance of making a full recovery.

Lastly, measures must be taken to strengthen the health of the community which will reduce the burden on primary health care. People should be supported to take their health into their own hands by, for example, eating more healthily or engaging in physical activity. As mentioned previously, this could be achieved by promoting the use of at-home online classes, or wearable technologies. People are more likely to do something when they see the benefits for themselves. However, we must be careful that this does not widen the gap as a result of varying levels of access to technology.

Related reading:

Growing Older, Better

Contribution of Physiology Education and Teaching to the UK Economy

Understanding 'Early Exiters': The Case for a Healthy Ageing Workforce Strategy