

FINANCE COMMITTEE

DEMOGRAPHIC CHANGE AND AGEING POPULATION INQUIRY

SUBMISSION FROM CENTRE FOR COGNITIVE AGEING AND COGNITIVE EPIDEMIOLOGY

Summary

- Loss of cognitive ability (thinking skills) is a feared aspect of ageing
- Cognitive loss comes in many forms, not just clinical dementia but milder forms loss like age-related cognitive decline
- A person's cognitive ability affects their ability to remain independent and have a good quality of life
- Encouraging and enabling everyone to realise their potential throughout their lives will be crucial for our future prosperity and wellbeing
- How individuals age with respect to cognition is dependent on many factors including lifelong lifestyle choices, demographics, education and genetics. About a quarter of the variation in lifetime cognitive change is estimated to be caused by genetic differences, implying that the majority non-genetic and therefore may be subject to social and public health interventions.

Background

1. A major impact which demographic change and an ageing population will have in Scotland will be with respect to cognitive functions (thinking skills). Losing cognitive capability is one of the major fears among older people. This applies to the clinical states of dementia, but also to milder forms of cognitive loss including mild cognitive impairment and age-related cognitive decline.

Independent Living

2. Not only is cognitive impairment a feared aspect of growing old, it also affects the person with respect to their ability to remain independent and have a good quality of life. There are also impacts on the families and carers of individuals with cognitive impairments, and implications for society as a whole because caring for people with cognitive impairments is one of the largest costs in the health and social care systems and is set to increase. Therefore, due weight should be given to the possibilities for detecting accelerated cognitive decline early, ameliorating cognitive decline, understanding why some people decline more than others, and estimating the implications for society.

3. The UK Government Office for Science produced a "Foresight Mental Capital and Wellbeing Project Report" in 2008. It had the following overall statement:

"A key message is that if we are to prosper and thrive in our changing society and in an increasingly interconnected and competitive world, both our mental and material resources will be vital. Encouraging and enabling everyone to realise their potential throughout their lives will be crucial for our future prosperity and wellbeing."

4. The University of Edinburgh Centre for Cognitive Ageing and Cognitive Epidemiology at was set up in the year of the report: 2008. We are funded by the UK Research Council's Lifelong Health and Wellbeing Initiative. We are the sole Centre in the United Kingdom dedicated to studying the nature and causes of people's differences in cognitive ageing.

5. **Our research stretches across the lifecourse, and recognises that there is a reciprocal dynamic relationship between the ageing of the body and the ageing of the brain and their effects on thinking skills in older age.**

6. Our Centre brings together a large range of scientists from those interested at the population level, through those interested in conducting studies on individuals, to those interested in how cells work in terms of keeping the brain healthy. Therefore, over the years of our research collaborations we have produced a great deal of information on the nature and causes of cognitive decline across the life course. We would be happy to provide information with respect to this large and addressable public health concern.

7. **Lothian Birth Cohorts 1921 and 1936 – A Unique Resource**

One of the special advantages we have in Scotland is the privilege of being able to follow up studies of Scotland's unique Mental Surveys of 1932 and 1947. The Lothian Birth Cohorts of 1921 and 1936 are following up people whose cognitive ability was tested at age 11 and who have and are being followed up in old age by our researchers to discover the many factors—genetic and environmental—that contribute to healthy mental ageing. This information from these cohorts, who have been studied from childhood to old age (up to 90) will make a valuable contribution to assessing the impact of cognitive ageing on Scotland's society in the years to come.