## **NIHR** Policy Research Unit Older People and Frailty



The contribution of single and multiple chronic conditions to the deteriorating time trends in later-life disability Part 1: Incidence, recovery or longer survival?

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# The contribution of single and multiple chronic conditions to the deteriorating time trends in laterlife disability

## Part 1: Incidence, recovery or longer survival?

## **Executive Summary**

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#### **Executive Summary**

In recent decades gains in life expectancy have left women living longer with mild disability and low-level dependency. Our understanding of these changes has come from different studies that collect data at a single point in time. This report adds valuable new information from analyses of the Cognitive Function and Ageing Studies (CFAS I and II), both of which collected information from participants at multiple time points, with CFAS I beginning in 1991 and CFAS II in 2011. The analyses presented here address the question of whether people are living extra years with disability and dependency because a) more people are becoming disabled or dependent, b) people are surviving longer with disability and dependence or c) because when people develop disability or dependence, they are less likely to recover.

#### Findings

**MEN:** Changes in years lived with disability and dependence, over the period between CFAS I and CFAS II (approximately 1991 to 2011).

Disability

- Men aged 65 years
  - o Gained on average 3.7 years of life disability-free, 0.8 years with disability
  - Could expect to live around 75% of their remaining years without disability in both studies
- Gains in years disability-free and with disability over time resulted from
  - Lower risk of becoming disabled
  - Lower risk of death from both disability-free and disabled states
  - No change in risk of recovery from disability
- The age at which men could expect to have an equal number of remaining years without disability or with disability rose from 79 years in CFAS I to 82 years in CFAS II.

#### Dependency

- Men aged 65 years
  - Gained on average 3.5 years of life independent and 1.1 years dependent
  - Could expect to live around 70% of their remaining years independent in both studies
- Gains in years independent and dependent over time resulted from
  - Lower risk of becoming dependent
  - Lower risk of death from both independent and dependent states.
  - No change in risk of recovery from dependency
- The age at which men could expect to have an equal number of remaining years of life independent and dependent rose from age 75 in CFAS I to age 79 in CFAS II.

**WOMEN:** Changes in years lived with disability and dependence, over the period between CFAS I and CFAS II (approximately 1991 to 2011).

Disability

- Women aged 65 years
  - o Gained on average 2.0 years of life disability-free, 0.1 years with disability

- $\circ~$  Could expect to live 60% of their remaining years without disability in CFAS II, a rise from 56% in CFAS I
- Gains in years disability-free and with disability resulted from
  - Lower risks of becoming disabled
  - No change in risk of death from either non-disabled and disabled states
  - No change in risk of recovery from disability
- The age at which women could expect to have an equal number of years without disability and with disability rose from age 68 in CFAS I to age 71 in CFAS II.

#### Dependency

- Women aged 65 years
  - Gained on average 2.5 years of life independent and had 0.6 fewer years dependent
  - $\circ~$  Could expect to live 54% of their remaining years independent in CFAS II, a rise from 45% in CFAS I
- Gains in years independent and dependent resulted from
  - o Lower risk of becoming dependent
  - Lower risk of death from both dependent and independent states.
  - No change in risk of recovery from dependence
- The age at which women could expect to have an equal number of remaining years of life independent or dependent rose from before age 65 years in CFAS I to 67 years in CFAS II.

#### Conclusion

This report highlights three important points:

- 1. Recent gains in disability-free and dependency-free life years from age 65 appear to be due to lower probabilities of becoming disabled or dependent for men and women, and lower probabilities of death from non-disabled or independent states for men.
- 2. Although the prevalence of disability and dependency increased between 1991 and 2011, these prevalences are likely to stabilise due to the greater decrease in incidence of disability/dependency than the increase in survival.
- 3. Women are experiencing more disability and dependency. Women spend more years with disability or dependency than men, and reach the age where they can expect an equal number of remaining years with and without disability, some 10 years earlier than men.

These analyses provide the basis for future analyses which will take into account disability and dependency severity and how changes in health conditions over time contribute to trends in disability-free and dependency-free life expectancy. Our analyses show the importance of delaying the onset of disability and dependency, particularly in women, so that a greater proportion of their remaining life is independent and free of disability.

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