



GSA 2020 ANNUAL SCIENTIFIC MEETING O N L I N E

Turning 75: Why Age Matters

November 4-7, 2020



Multi-morbidity, disadvantage and trends in disability free life expectancy: the CFAS Studies

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DISCLOSURE(S)

I have no commercial relationships to disclose.



INTRODUCTION

- In England, between 1991 and 2011, both men and women at age 65 gained more years free of disability than years with disability
- Due to lower chances of developing disability for men and women, and lower chances of dying with disability for men.
- Women reach the age at which the remaining years are divided equally between years with, and without, disability some 10 years earlier than men.

What is driving these DFLE gains?

- These results and presentation focus on long terms conditions (LTC) and MLTC (Multiple long-term conditions)



INTRODUCTION

Why is this important to focus of LTC and MLTC?

- long-term conditions are the major drivers of disability
- the prevalence of LTCs and MLTCs appears to be increasing faster than would be expected from population ageing
- Are the gains in years with disability due to an increase in the prevalence of specific conditions or a rise in multiple conditions?
- And do they explain differences between men and women?
- Important for social care planning



MRC CFAS

- CFAS I six areas— sampling from whole population geographically (1991)
- Three taken forward for CFAS II (approx. 2008)
 - Cambridgeshire (Ely and surrounding area)
 - Newcastle
 - Nottingham
- Design:
 - Equal numbers aged 65-74 and 75+ years
 - Complete population (including care homes)
 - CFAS I: Two stage – screen then assessment
 - CFAS II: One interview (screen and assessment combined)
- Response rates
 - 7635 in CFAS I (80% response)
 - 7762 in CFAS II (56% response)

Sites in Britain



MRC CFAS - MEASURES

LONG-TERM CONDITIONS

Arthritis

CHD

Cognitive Impairment (MMSE<26)

Diabetes

Hearing Difficulties

PVD

Respiratory Difficulties

Stroke

Vision Impairment

Multiple long-term conditions = 2+ health conditions

DAILY ACTIVITIES

Severe disability:

help with either washing all over, preparing and cooking a hot meal, or putting on shoes and socks or if they were housebound

Mild to moderate disability:

needing help with heavy housework or shopping and carrying heavy bags.

Disability free:

did not need help with any of the above and were not housebound.



STATISTICAL METHODS

Comparison of prevalence of each health condition at baseline between the two studies



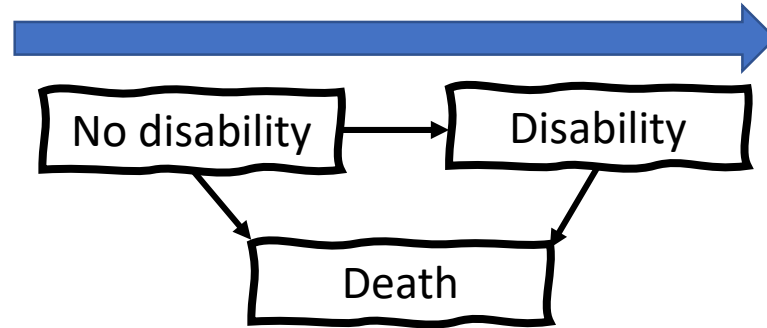
Logistic regression

Incident Disability



Population Attributable Fractions (PAFs)

Life Expectancies



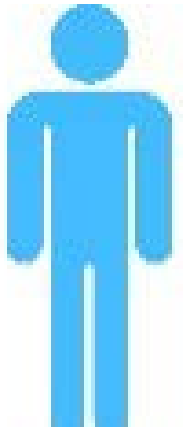
Longitudinal multistate models analysing transitions between no disability, disability and death in Interpolated Markov Chain (IMaCh) software version 0.99r19



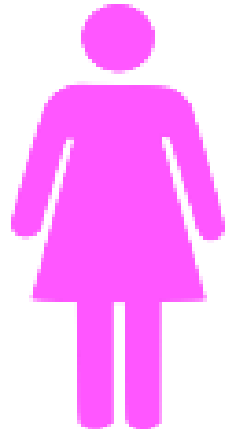
DEMOGRAPHICS

CFAS I - 1991

n=7635



39.2%



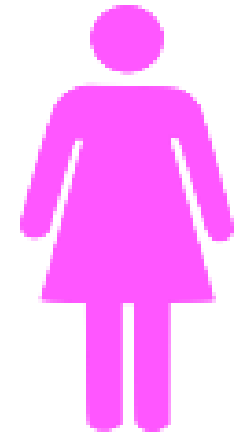
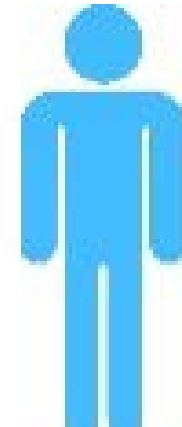
60.8%

Mean age:

75.6

CFAS II - 2011

n=7762



Mean age:

76.4

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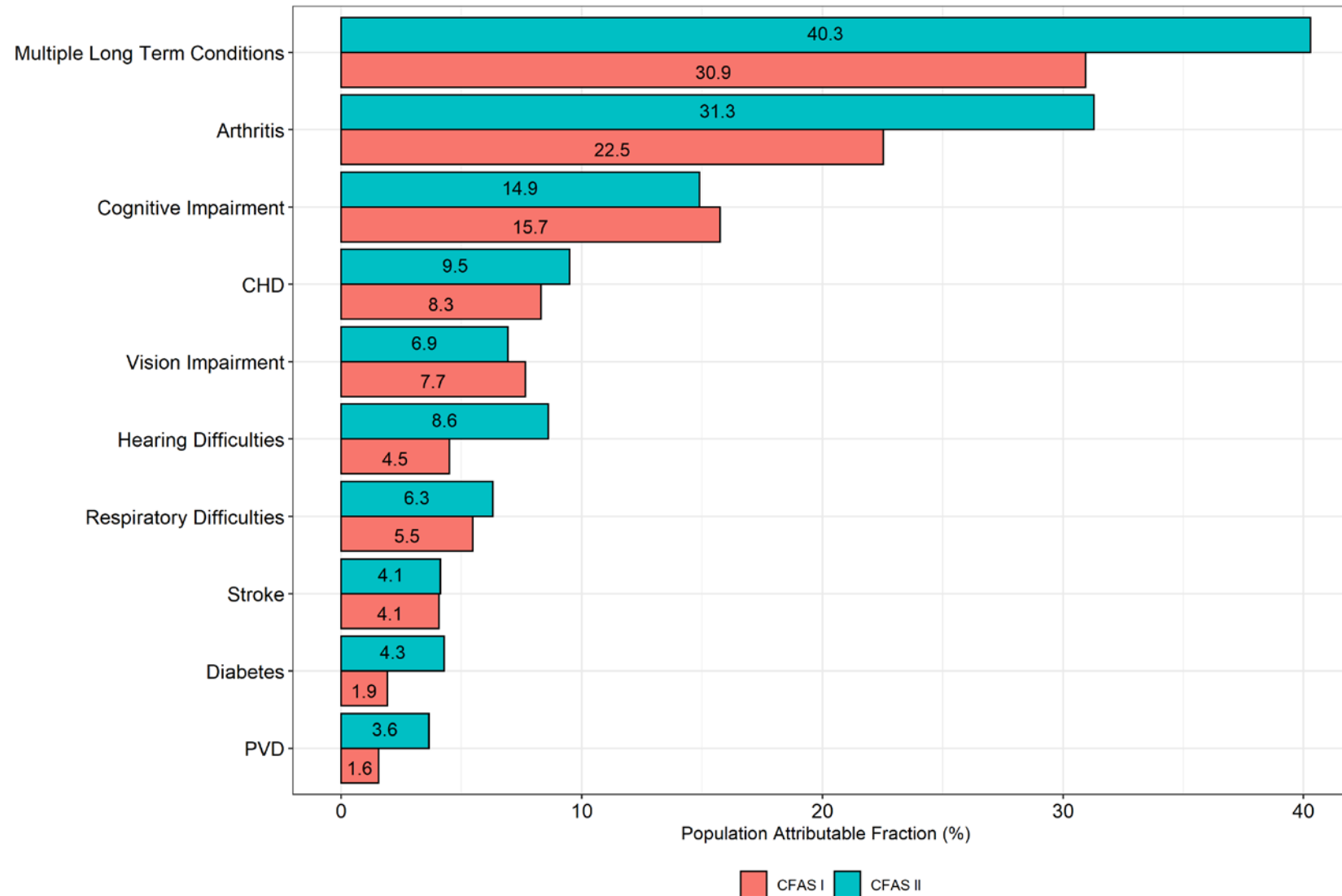


PREVALENCE OF LONG-TERM CONDITIONS

	65-74		75-84		85+		All ages	
	CFAS I	CFAS II	CFAS I	CFAS II	CFAS I	CFAS II	CFAS I	CFAS II
	%	%	%	%	%	%	%	%
Arthritis	50.0	50.1	55.3	57.1	57.0	64.2	52.9	55.0
CHD	15.7	16.3	19.7	24.9	19.7	26.3	17.7	21.0
Cognitive impairment	23.4	15.9	44.4	30.6	72.6	50.6	37.5	26.8
Diabetes	5.3	14.1	7.6	16.1	5.5	11.6	6.2	14.5
Hearing difficulties	15.2	19.6	24.4	28.6	45.4	43.5	22.5	26.9
PVD	4.0	10.2	4.6	11.3	4.0	10.8	4.3	10.7
Respiratory problems	20.0	19.8	18.3	20.5	19.2	16.4	19.2	19.5
Stroke	5.6	6.2	10.1	10.4	10.6	13.2	8.0	8.9
Vision impairment	7.1	11.4	15.9	15.1	32.7	26.8	13.6	15.2
Multiple LTC	42.8	47.1	61.1	63.9	77.6	75.4	54.3	58.1



POPULATION ATTRIBUTABLE RISK OF DISABILITY

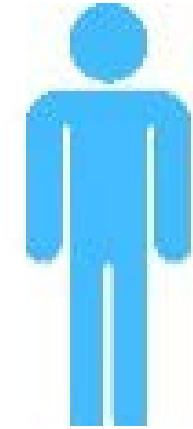


Estimates the percentage of new (incident) disability cases over the two year follow-up that are associated with each long-term condition



LIFE EXPECTANCY AND DISABILITY-FREE LIFE EXPECTANCY

SINGLE HEALTH CONDITIONS - MEN

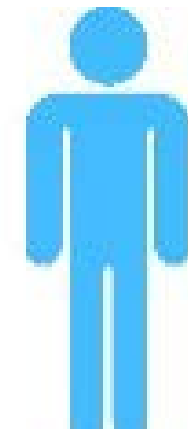


Between CFAS I and CFAS II

- 4.6 year increase in TLE
- 3.7 years disability free

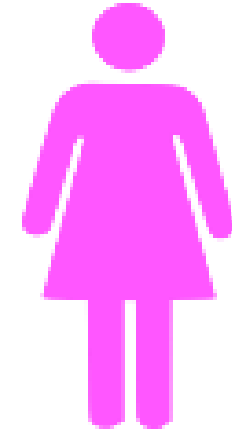
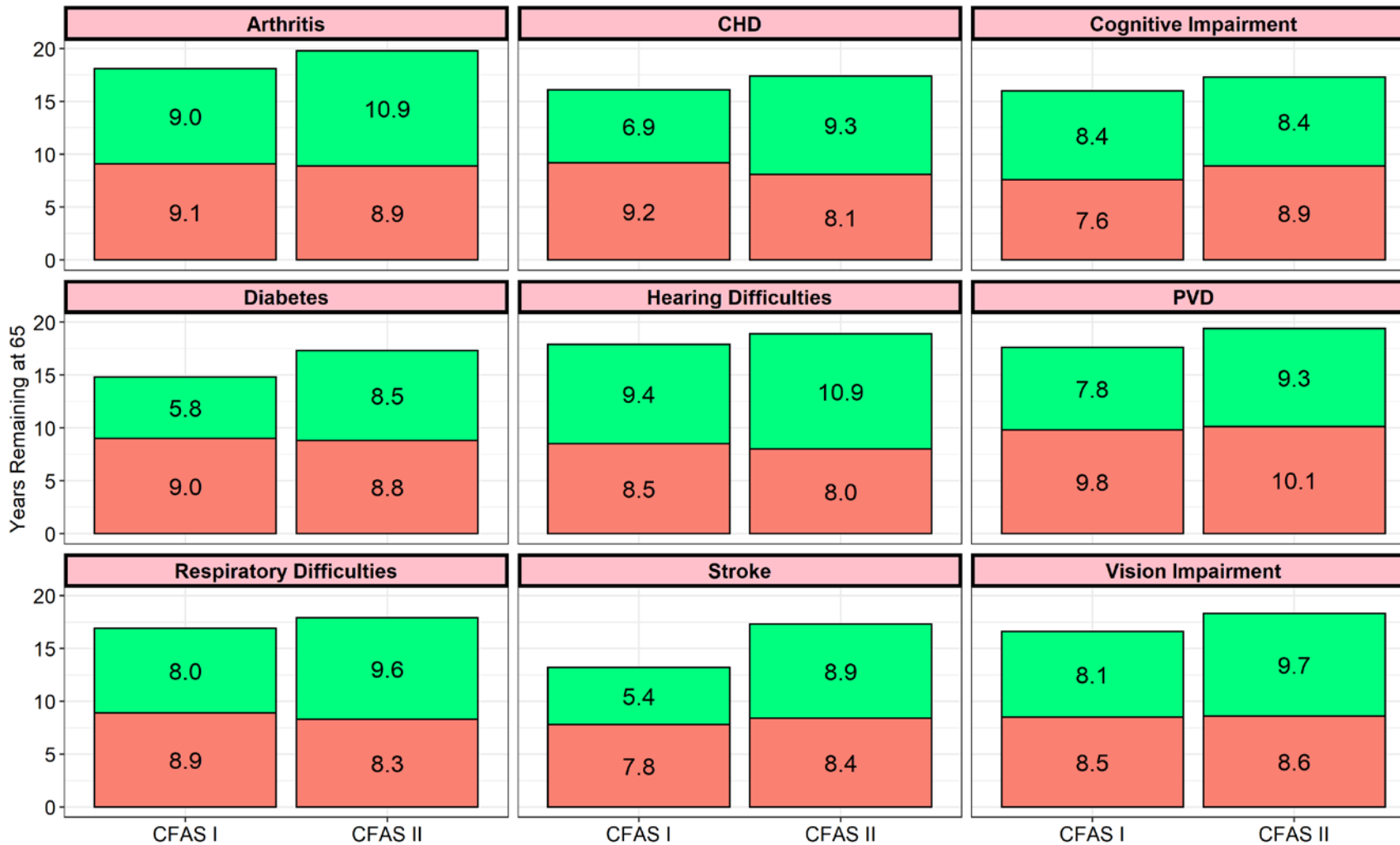


LIFE EXPECTANCY AND DISABILITY-FREE LIFE EXPECTANCY – WITH AND WITHOUT CONDITIONS - MEN



LIFE EXPECTANCY AND DISABILITY-FREE LIFE EXPECTANCY

SINGLE HEALTH CONDITIONS - WOMEN

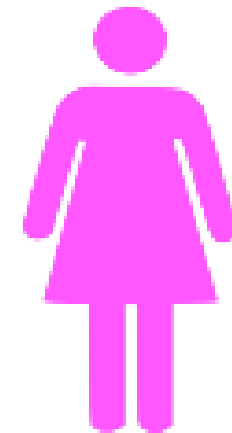
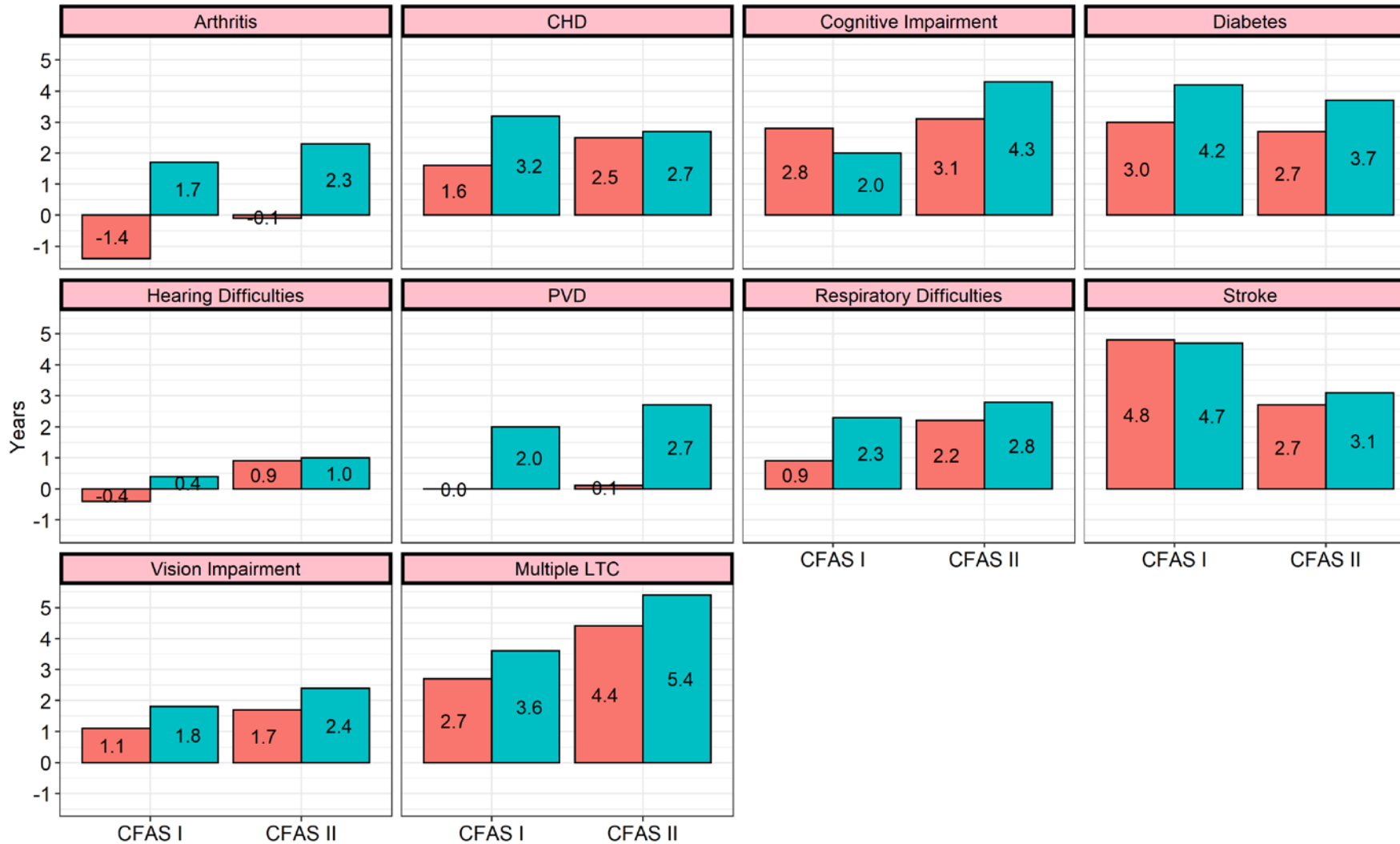


Between CFAS I and CFAS II

- 2.1 year increase in TLE
- 2.0 years disability free



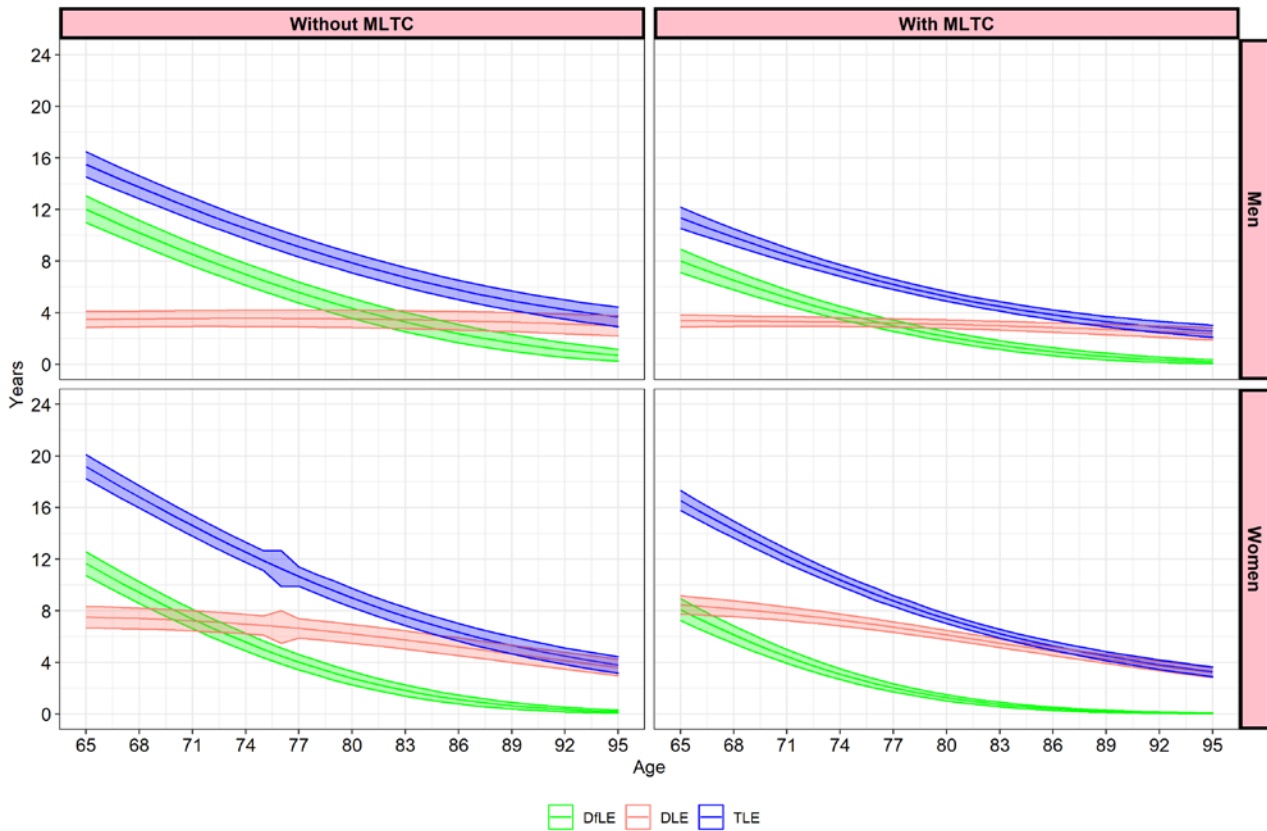
LIFE EXPECTANCY AND DISABILITY-FREE LIFE EXPECTANCY – WITH AND WITHOUT CONDITIONS - WOMEN



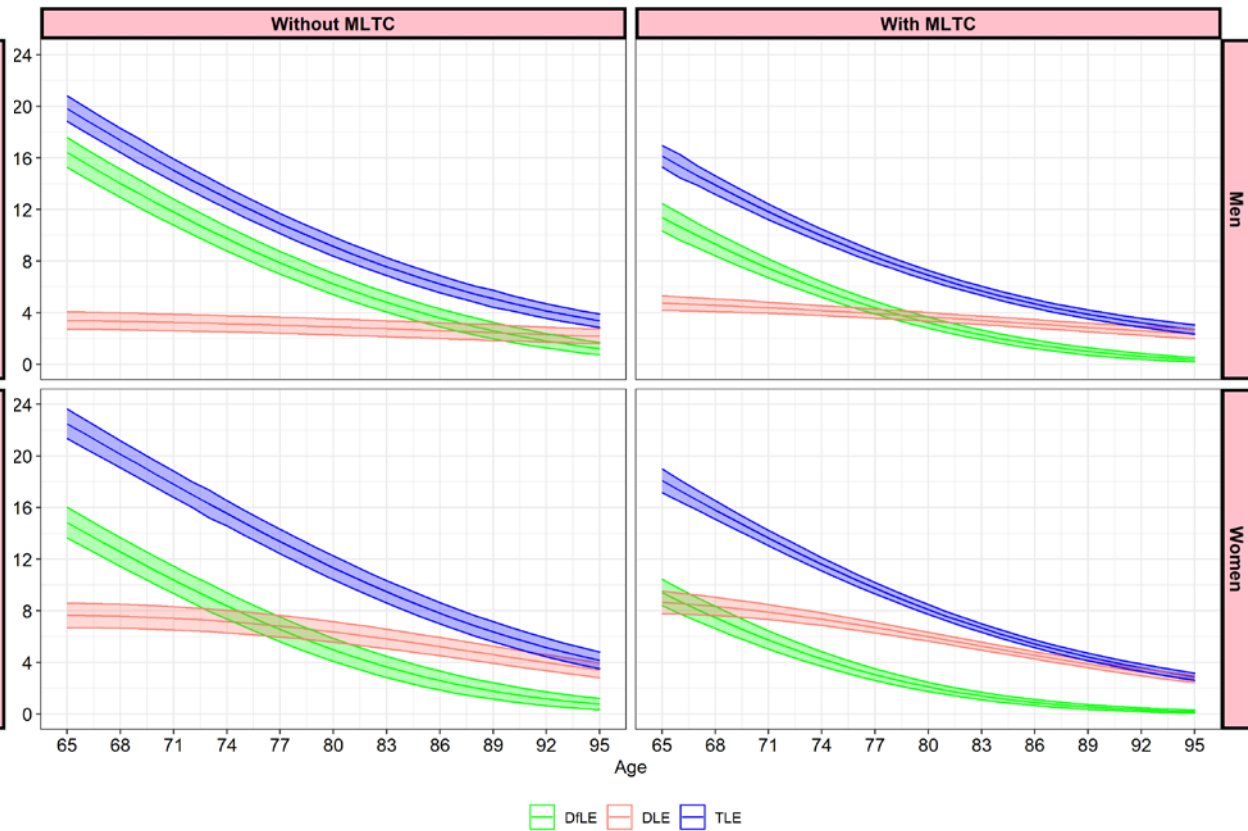
LIFE EXPECTANCY AND DISABILITY-FREE LIFE EXPECTANCY

MULTIPLE LONG-TERM CONDITIONS

CFAS I



CFAS II



CONCLUSION

Over the period between CFAS I and CFAS II (approximately 1991 to 2011) in women and men:

- The prevalence of multiple conditions (defined as two or more) increased between CFAS I and CFAS II only in the youngest age group (age 65-74 years).
- Apart from cognitive impairment and stroke, the percentage of incident disability associated with each health condition singly (and multiple conditions) increased.
- For most long-term conditions, the years gained disability-free (DFLE) between CFAS I and CFAS II exceeded those gained with disability (DLE).
- For men with cognitive impairment, years gained, but all gains in were years with disability.
- LE and DFLE at age 65 for men with multiple long-term conditions (two or more) increased between CFAS I and CFAS II by 4.7 years and 3.4 years respectively; women gained 0.7 years in LE, and 1.3 years in DFLE.
- The age at which the remaining years are divided equally between years with and without disability rose for both men and women: for men from age 79 to 82 years; for women from age 68 to 71 years. Thus, women reach this point some 10 years earlier than men



ACKNOWLEDGEMENTS





[Geron.org/2020](https://geron.org/2020)

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