# Multimorbidity and Access to Social Care

## Exploiting emerging adminsitrative datasets in Scotland

David Henderson

4th October 2018

# Project funding and supervision

- Scottish Government
- ESRC
- UBDC
- Nick Bailey, Colin McCowan, Stewart Mercer

# Project outline

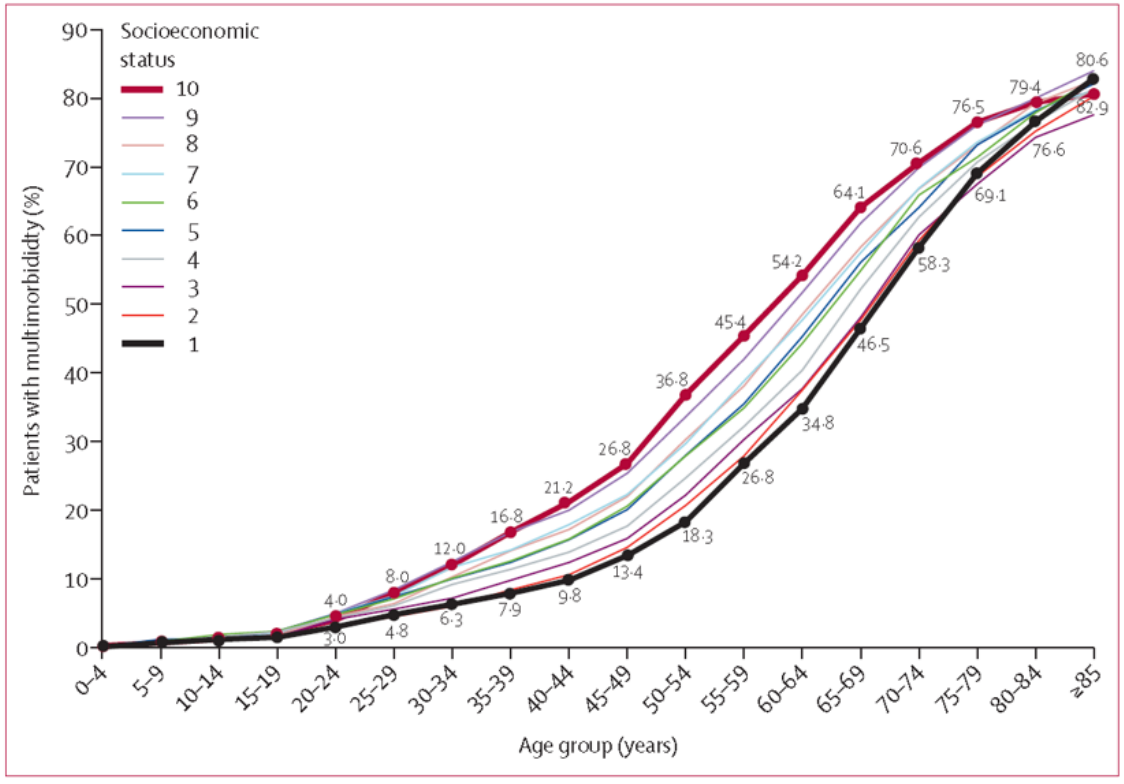


***Figure 2:*** **Prevalence of multimorbidity by age and socioeconomic status**
On socioeconomic status scale, 1=most affluent and 10=most deprived.

Barnett et al (2012)

# Project outline

# The Inverse Care Law: Clinical Primary Care Encounters in Deprived and Affluent Areas of Scotland

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## ABSTRACT

**PURPOSE** The inverse care law states that the availability of good medical care tends to vary inversely with the need for it in the population served, but there is little research on how the inverse care law actually operates.

**METHODS** A questionnaire study was carried out on 3,044 National Health Service (NHS) patients attending 26 general practitioners (GPs); 16 in poor areas (most deprived) and 10 in affluent areas (least deprived) in the west of Scotland. Data were collected on demographic and socioeconomic factors, health variables, and a range of factors relating to quality of care.

**RESULTS** Compared with patients in least deprived areas, patients in the most deprived areas had a greater number of psychological problems, more long-term illness, more multimorbidity, and more chronic health problems. Access to care generally took longer, and satisfaction with access was significantly lower in the most deprived areas. Patients in the most deprived areas had more problems to discuss (especially psychosocial), yet clinical encounter length was generally shorter. GP stress was higher and patient enablement was lower in encounters dealing with psychosocial problems in the most deprived areas. Variation in patient enablement between GPs was related to both GP empathy and severity of deprivation.

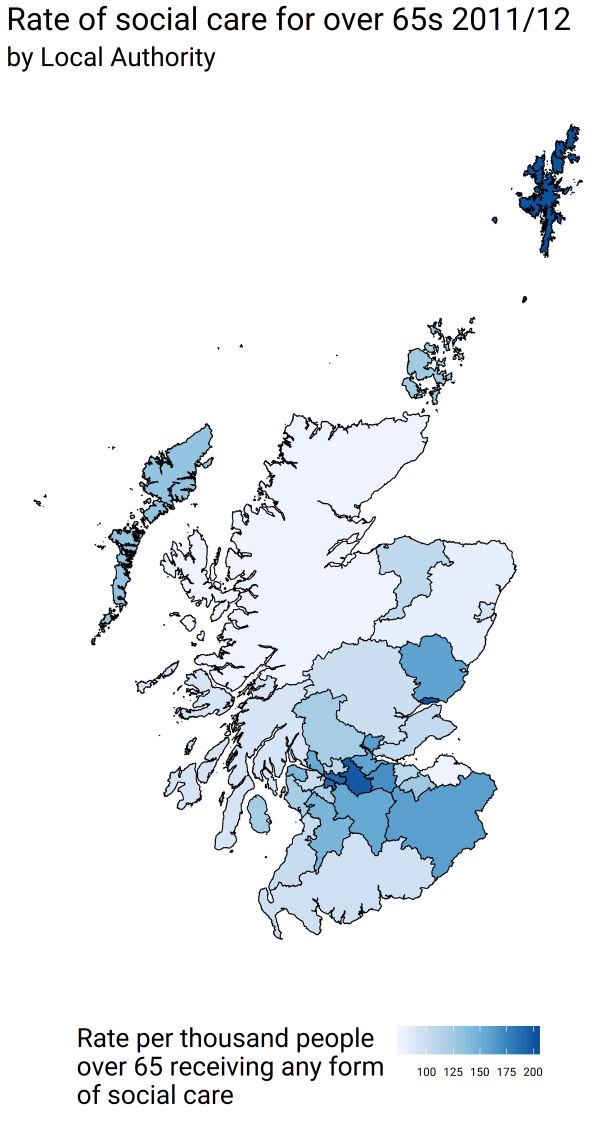
**CONCLUSIONS** The increased burden of ill health and multimorbidity in poor communities results in high demands on clinical encounters in primary care. Poorer access, less time, higher GP stress, and lower patient enablement are some of the ways that the inverse care law continues to operate within the NHS and confounds attempts to narrow health inequalities.

*Ann Fam Med* 2007;5:503-510. DOI: 10.1370/afm.778.

## INTRODUCTION

Scotland has the lowest life expectancy for women in Western Europe and the second lowest for men, with a widening gap between the health of the rich and the poor.[1] Twenty-one percent of the population in poorer areas have limiting long-term illnesses or disabilities, compared with only 8.5% in affluent areas.[1]

# Project outline



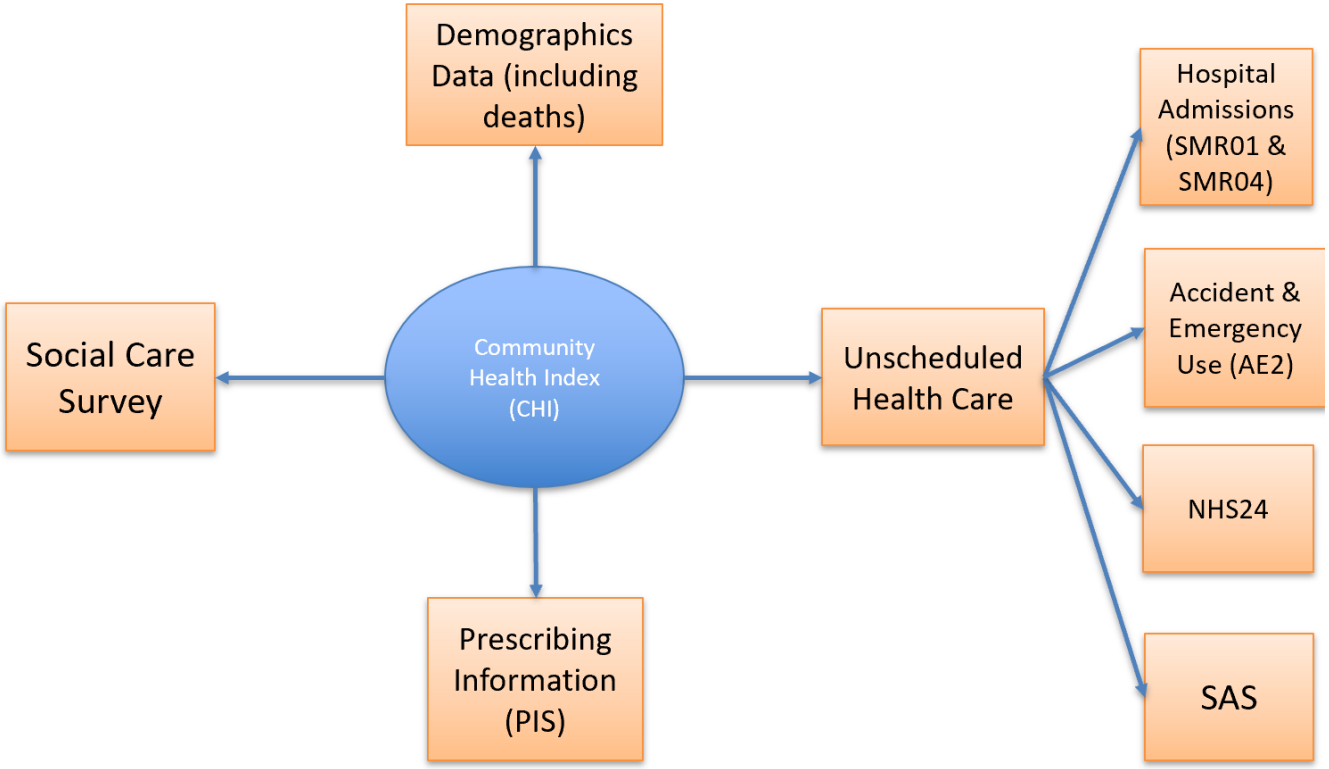
# Project outline

In people over the age of 65 in Scotland:

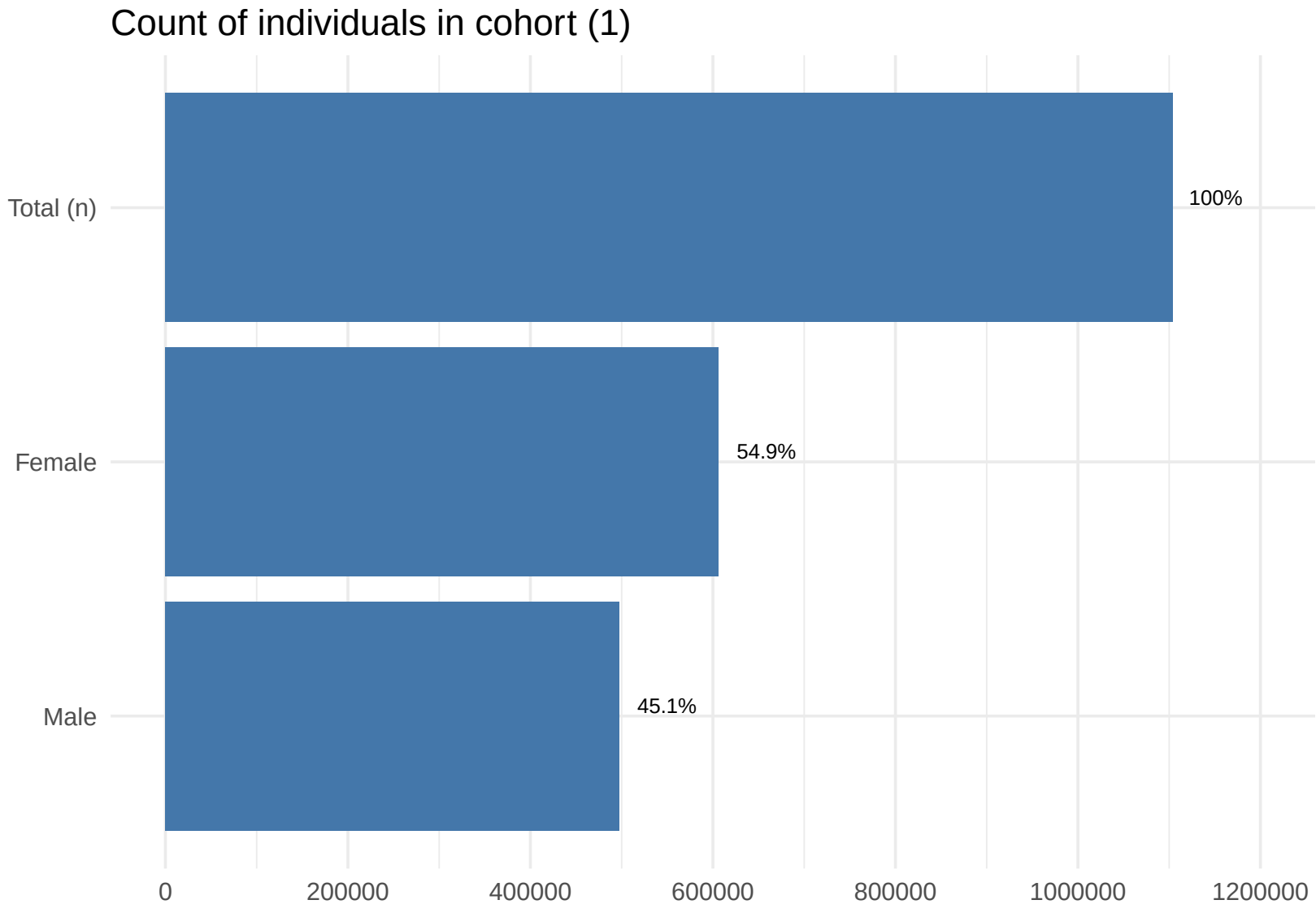
1. (a) What are the socioeconomic, demographic, and geographic patterns in the use of social care?
   (b) Is there an association between multimorbidity status and the amount and type of social care use over time? Does this vary by the patterns described in 1(a)?
2. Is there an association in the use of social care services, multimorbidity status and unscheduled health care use?

# Project outline

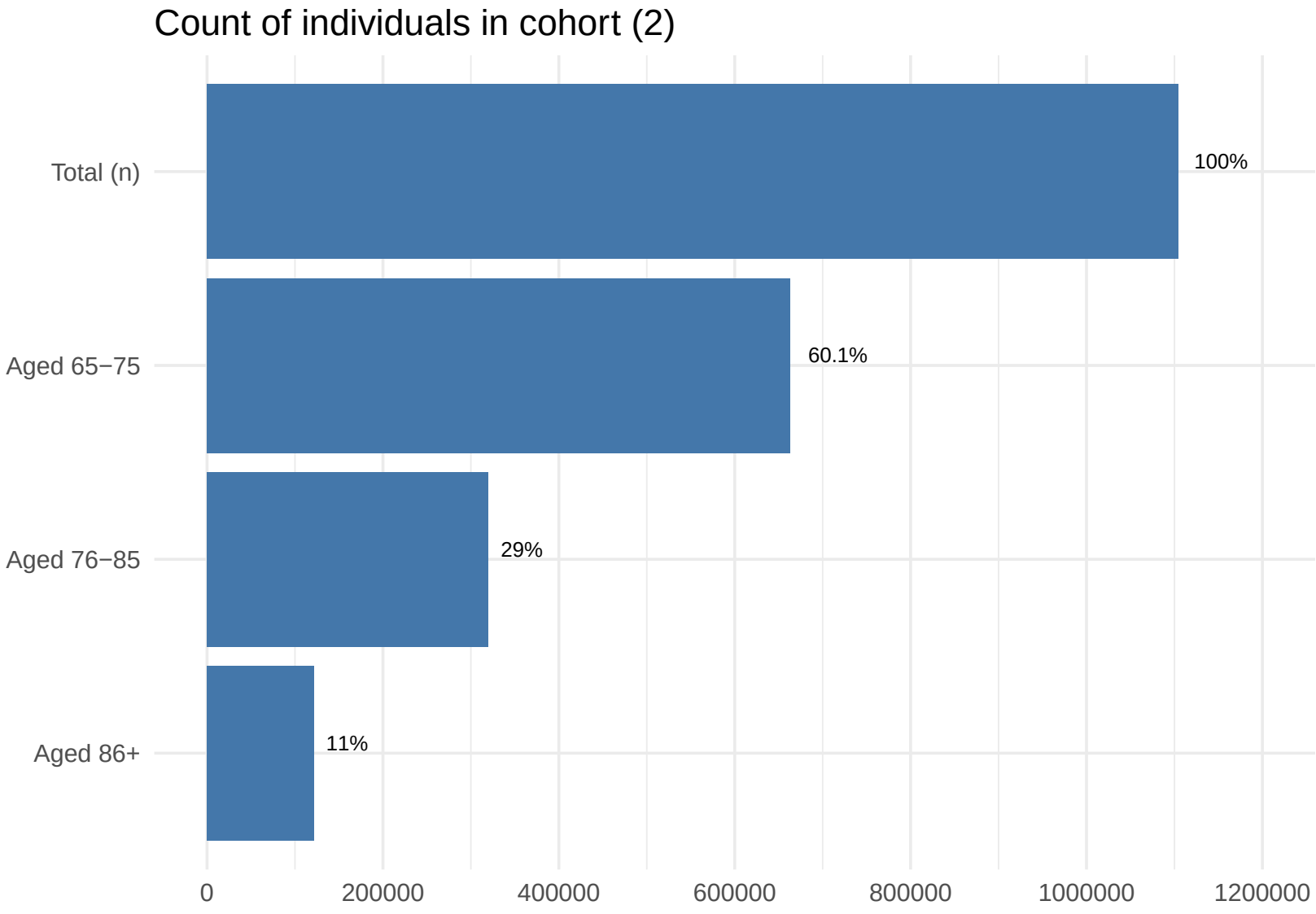
## Study period 2011-2016



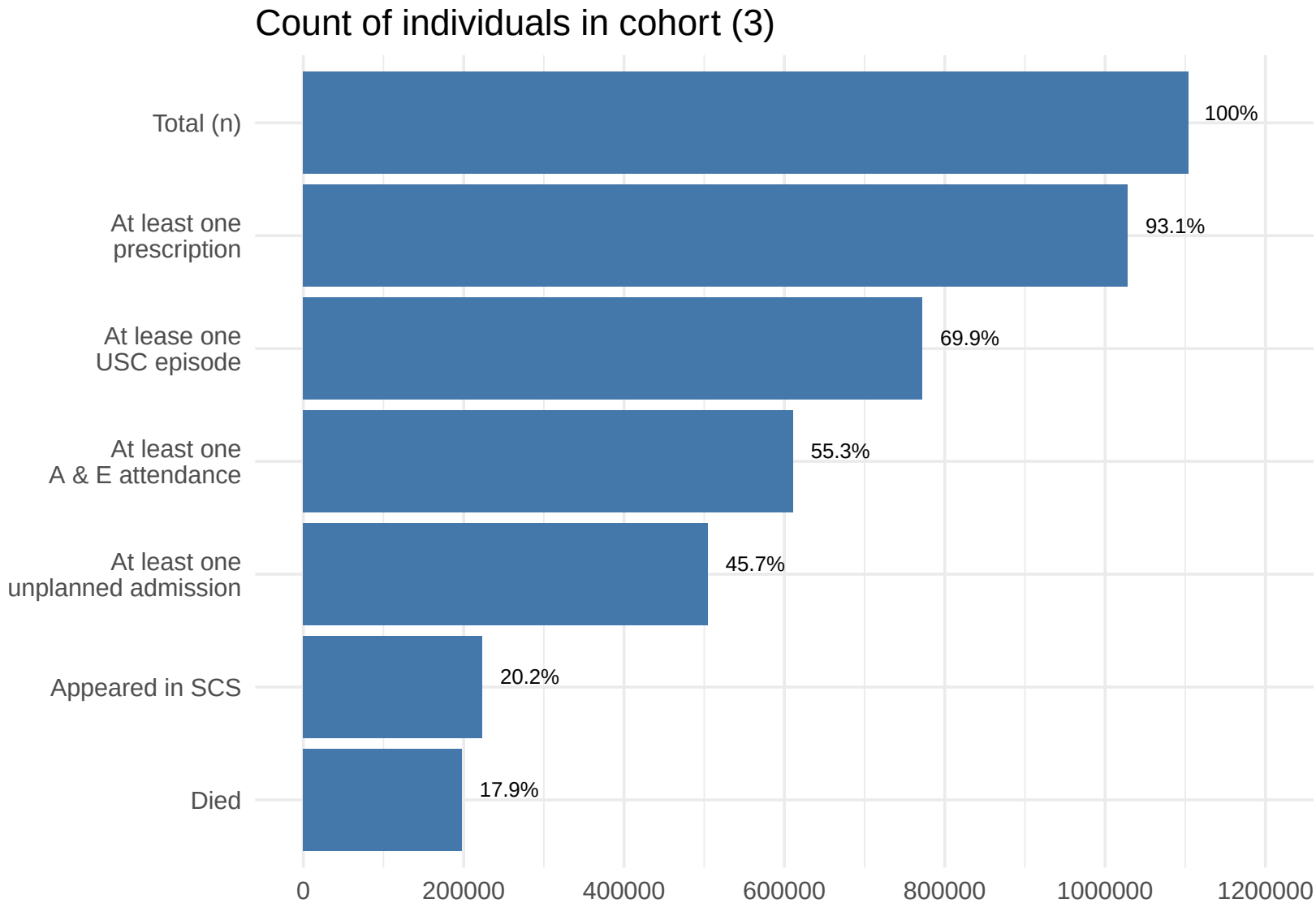
# Results


Count of individuals in cohort (1)
Total (n)
Female
Male
100%
54.9%
45.1%
0
200000
400000
600000
800000
1000000
1200000

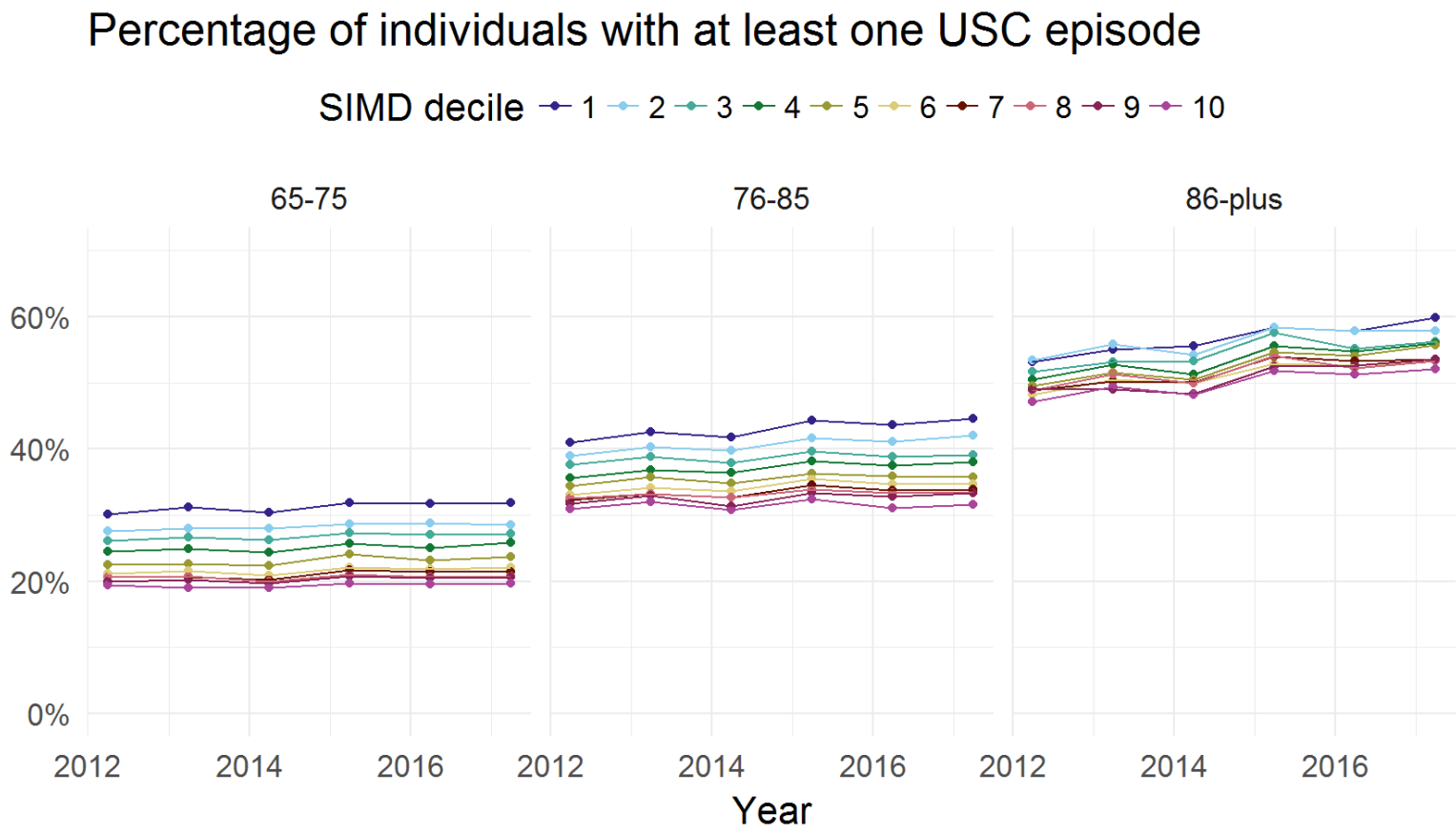
# Results


Count of individuals in cohort (2)
Total (n)
Aged 65−75
Aged 76−85
Aged 86+
100%
60.1%
29%
11%
0
200000
400000
600000
800000
1000000
1200000

# Results


Count of individuals in cohort (3)
Total (n)
At least one prescription
At lease one USC episode
At least one A & E attendance
At least one unplanned admission
Appeared in SCS
Died
100%
93.1%
69.9%
55.3%
45.7%
20.2%
17.9%
0
200000
400000
600000
800000
1000000
1200000

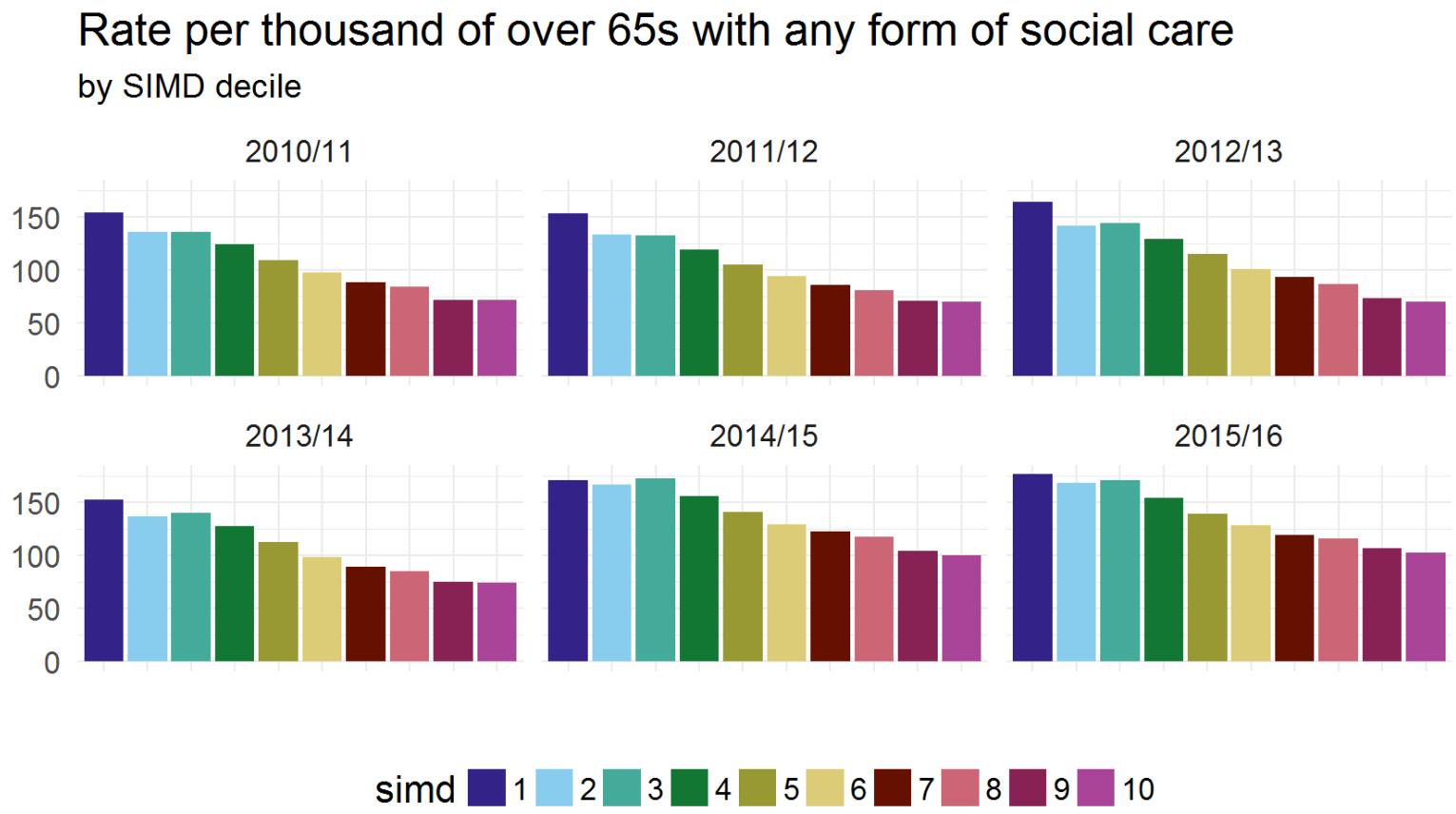
# Results


Percentage of individuals with at least one USC episode
SIMD decile 1 2 3 4 5 6 7 8 9 10
65-75
76-85
86-plus
60%
40%
20%
0%
2012
2014
2016
Year

# Results

Percentage of individuals in SIMD deciles
by Local Authority
40%
30%
20%
10%
0%
Aberdeen City
Aberdeenshire
Angus
Argyll and Bute
City of Edinburgh
Dumfries and Galloway
Dundee City
East Ayrshire
East Dunbartonshire
East Lothian
East Renfrewshire
Falkirk
Fife
Glasgow City
Highland
Inverclyde
Midlothian
Moray
Na h-Eileanan Siar
North Ayrshire
North Lanarkshire
Orkney Islands
Perth and Kinross
Renfrewshire
SCOTLAND
Scottish Borders
Shetland Islands
South Ayrshire
South Lanarkshire
Stirling
West Dunbartonshire
West Lothian
SIMD Decile 1 2 3 4 5 6 7 8 9 10

# Results


Rate per thousand of over 65s with any form of social care
by SIMD decile
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
150
100
50
0
simd
1
2
3
4
5
6
7
8
9
10

# Summary

- Linkage of health and social care datasets is possible in Scotland
- Lots still to be done in terms of quality
- Preliminary results suggest there is *not* an inverse social care law
- Impact of Multimorbidity on social care and both of these on unscheduled care use still to be analysed
- Watch this space....

# Acknowledgements


- Scottish Government and NHS National Services Scotland
- UBDC and eDRIS for secure data management
- Amy Tilbrook

# Thank you

- www.davidhen.com
- www.github.com/davidhen
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