

# Multimorbidity and Access to Social Care

Exploiting emerging administrative datasets in Scotland

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# Introduction

- Project funding and supervision
- Project outline
- Progress



# Project funding and supervision

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



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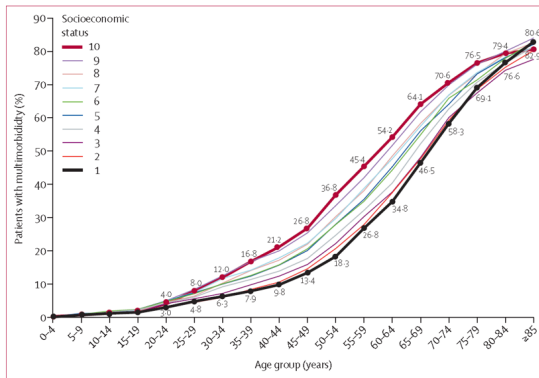
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# Project outline

## Background (a) Multimorbidity



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

# Project outline

## Background (b) What we know..

- There is a strong socioeconomic gradient observed for those with multimorbidity which feeds the inverse care law in primary care services.
- MM associated with higher mortality, psychological distress, worse QOL, worse functional status, and increased health care use.
- But what about social care?????





# Project outline

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- But what about social care?????



## Project outline (c) Social Care

*“Social care supports people of all ages with certain physical, cognitive or age-related conditions in carrying out personal care or domestic routines. It helps people to sustain employment in paid or unpaid work, education, learning, leisure and other social support systems. It supports people in building social relationships and participating fully in society.”*<sup>1</sup>

Definitional split:-

- Home Care
- Care Home
- Nursing Home

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<sup>1</sup>Commission on Funding of Care and Support. (2011) Fairer Care Funding: The Report of the Commission on Funding of Care and Support.

# Project outline

## Background (c) Social care and multimorbidity

**NICE** National Institute for  
Health and Care Excellence



### Older people with social care needs and multiple long-term conditions

NICE guideline  
Published: 4 November 2015  
[nice.org.uk/guidance/ng22](http://nice.org.uk/guidance/ng22)

Older people with social care needs and multiple long-term conditions (NG22)

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## Hospital admissions among people 65+ related to multimorbidity, municipal and outpatient care

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Available online 2 April 2007

### Abstract

This study aimed to examine the number of planned and acute hospital admissions during 1 year among people 65+ and its relation to municipal care, outpatient care, multimorbidity, age and sex. Four thousand nine hundred and seven individuals having one or more admissions during 2001 were studied. Data were collected from two registers and comparisons were made between those having one, two and three or more hospital stays and between those with and without municipal care and services. Linear regression was used to examine factors predicting number of acute and planned admissions. Fifteen percent of the sample had three or more hospital stays (range 3–15) accounting for 35% of all admissions. This group had significantly more contacts in outpatient care with physician (median number of contacts (md) = 15), compared to those with one (md: 8), or two admissions (md: 11). Main predictors for number of admissions were number of diagnosis groups and number of contacts with physician in outpatient care. Those who are frequently admitted to hospital constitute a small group that consume a great deal of inpatient care and also tend to have frequent contacts in outpatient care. Thus interventions focusing on frequent admissions are needed, and this requires collaboration between outpatient and hospital care.

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**Keywords:** Hospital admissions of older people; Municipal care and services; Outpatient care; Multimorbidity



## Most innovative use of routine data

Alison Porter, Associate Professor,  
Swansea University Medical School

### 04 TIMELY SOCIAL CARE AND EMERGENCY HOSPITAL ADMISSIONS

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Sian Morrison-Rees,<sup>1</sup> Judith Oades,<sup>4</sup> Bernadette Sewell,<sup>1</sup> Karen Tingay,<sup>1</sup>  
Alan Watkins,<sup>1</sup> <sup>1</sup>Swansea University; <sup>2</sup>The Nuffield Trust; <sup>3</sup>City and County of  
Swansea; <sup>4</sup>SUCCESS Service User Group

10.1136/emermed-2016-206139.4

**Background** Appropriate and timely social care can potentially delay or avoid the need for interventions such as emergency hospitalisation. Routine data provides scope to examine the relationship between emergency hospital admissions in Wales and local authority-supported social care for people aged 65 and over.

**Methods** This observational study employed mixed methods for data collection and analysis covering the period January 2006 to December 2012. We used interrupted time series analyses to study overall trends in the use of social care and unplanned use of secondary care across Wales. Within one case study area, we used the SAIL database to link health and social care data anonymously, to examine service use at an individual level.

**Results** At an all-Wales level, we observed no relationship between trends in health care and social care for older people.

In our case study area, we examined data on 'qualifying emergency admissions' (QEAs), that is, the first emergency admission to hospital in the study period for a person aged 65 or over. Over the study period, about four-fifths of all the people receiving social care (n=10,864) also had a QEA.

We compared those receiving social care before the QEA (n=3362) with those who received social care only after their QEA (n=7478). Those receiving social care before the QEA were likely to:

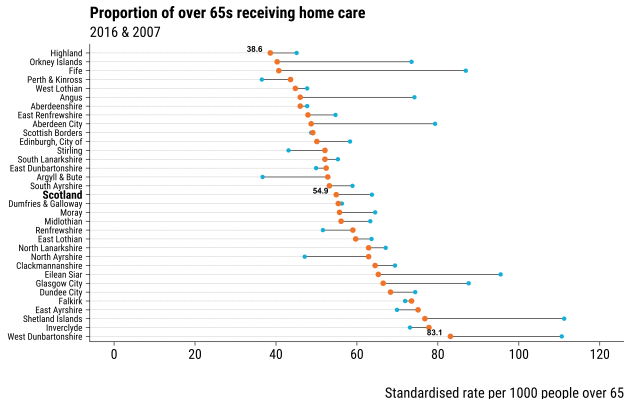
- ▶ have fewer subsequent admissions (1.4 v 2.9,  $p<0.01$ ).
- ▶ have a shorter length of stay for all subsequent admissions (41.5 v 66.4 days,  $p<0.01$ )

**Conclusions** Anonymously linking health and social care data for research is feasible and has potential for being taken further. Linked data reveals more about the relationship between health and social care use than unlinked data sets.

Social care appears targeted appropriately at the frailest older people, and seems to have a protective effect in reducing emergency admissions and length of stay following an admission.

# Project outline

## Background (d) Social Care



# Project outline

## Aims

- Describe and and compare social inequalities in the use of social care services using linked health and social care data.
- Explore the effects of social care use for those with multimorbidity on;
  - unscheduled health care use
  - mortality
- Assess the validity of existing administrative data on social care for research purposes.





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# Project outline

## Research questions:

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. (a) Is there an association in the use of social care services, multimorbidity status and unscheduled health care use?  
(b) Do multimorbidity status and social care use predict mortality?

# Project outline

## Data sources

- Demographics, Deaths, and SIMD (CHI database and NSS)
- Social care survey (Scottish Government)
- Prescribing information (ISD)
- Unscheduled Care Data Mart (ISD)
- SMR01, SMR04, A & E, and USC LTC diagnoses

## Study period

- 1st April 2011 to 31st March 2016

## Cohort

- Everyone born before 31st March 1951 (over 65s)



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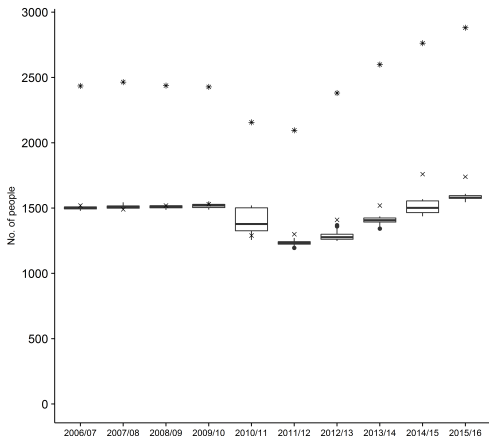


# Project outline

	n	Total number of records
Total Cohort	1,134,445	
Total Deaths	274,011	
At least one prescription	1,109,168	134 million
Captured by social care survey	227,345	663,809
At least one episode USC	845,893	3,772,402

# Progress

## Weekly variation in number of individuals receiving home care in Renfrewshire council area



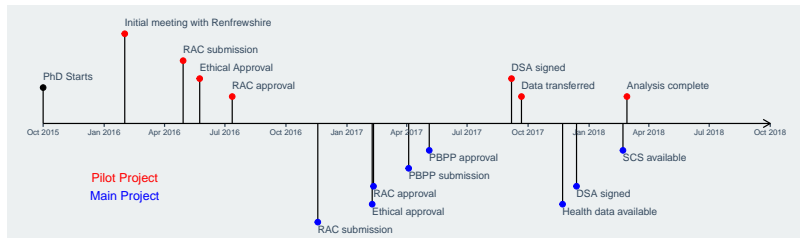
Boxplot = weekly variation  
X = Social Care Survey Return  
\* = total number receiving home care throughout the year



# Progress

## PhD Timeline

Multimorbidity and access to social care



RAC = Research Approvals Committee  
PBPP = Public Benefit and Privacy Panel  
DSA = Data Sharing Agreement

# Any Questions ??

If life gives you questions, Google gives you answers.

