

Multimorbidity and Access to Social Care

Exploiting emerging administrative datasets in Scotland

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3rd April 2018



Introduction

- Personal Background
- Project funding and supervision
- Project outline
- Progress



Personal Background





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PHD STUDENTS have admitted it is just an excuse to spend another three years arsing about.

Julian Cook, who is currently writing a PhD thesis on the history of tables, said. "I really enjoyed my degree because I only had to do a relatively small amount of work and was able to have a bath during the day without anyone shouting at me.



<http://www.thedailymash.co.uk/news/science-technology/people-doing-phds-admit-its-just-an-excuse-to-fanny-about-201709261364>

Project funding and supervision

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



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Project outline

Background (a) Multimorbidity

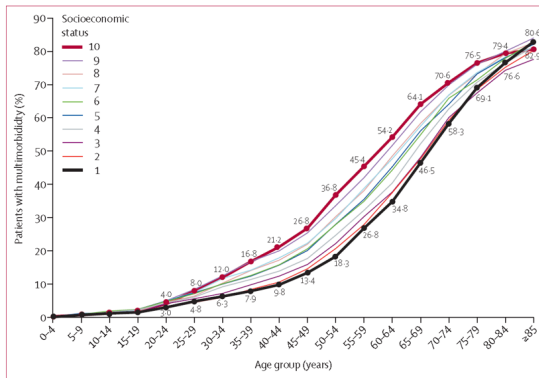


Figure 2: Prevalence of multimorbidity by age and socioeconomic status
On socioeconomic status scale, 1=most affluent and 10=most deprived.

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?????



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- But what about social care?????



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

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

Alison Porter,¹ Martin Bardsley,² David Ford,¹ John Grenfell,³ Martin Heaven,¹
Sian Morrison-Rees,¹ Judith Oades,⁴ Bernadette Sewell,¹ Karen Tingay,¹
Alan Watkins,¹ ¹Swansea University; ²The Nuffield Trust; ³City and County of
Swansea; ⁴SUCCESS 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, $p<0.01$)

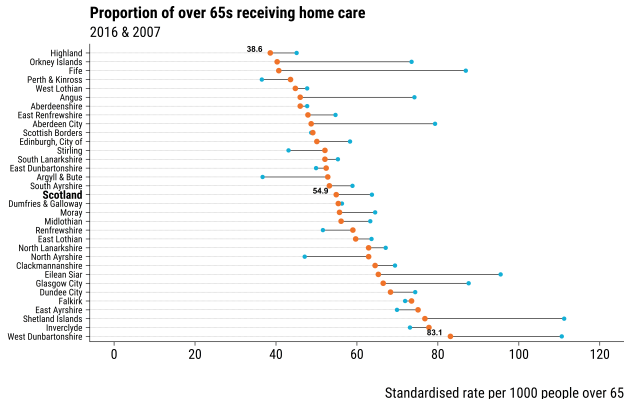
Conclusions Anonymously linking health and social care data for research is feasible and has potential for being taken further. Linked data reveals more about the relationship between health and social care use than unlinked data sets.

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

Project outline

Measures

1. Multimorbidity

- (a) Count of regular medicines
- (b) Count of prescribing from BNF chapters
- (c) Cross reference with diagnoses data

2. Social Care

- (a) Any social care (yes/no)
- (b) Weekly hours of home care
- (c) Telecare (yes/no)

3. Unscheduled health care use

- 3.1 Any USC (yes/no)
- 3.2 Count of USC episodes
- 3.3 Count of USC category (A&E, Admissions)

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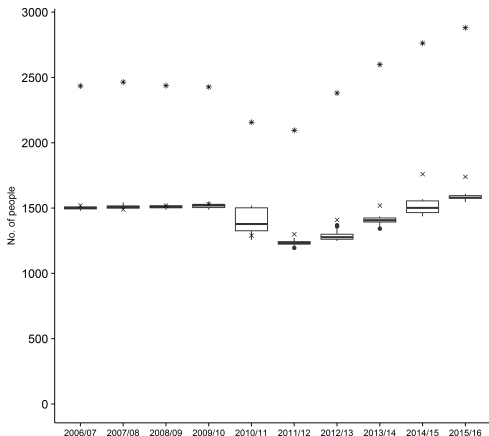
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Progress

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

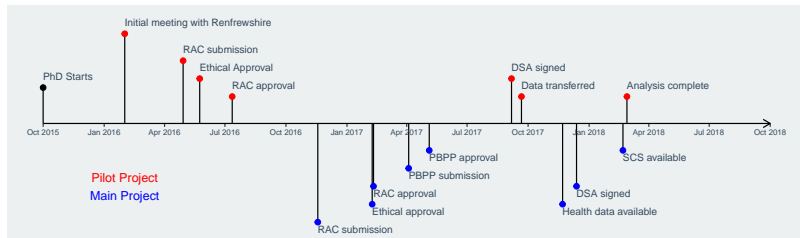


Boxplot = weekly variation
X = Social Care Survey Return
* = total number receiving home care throughout the year

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.

