

Multimorbidity:

an NIHR SPCR funded research programme

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Why multimorbidity?

- Increasingly elderly population
- Living with multiple long term conditions
- Increasingly standardised care on single disease lines

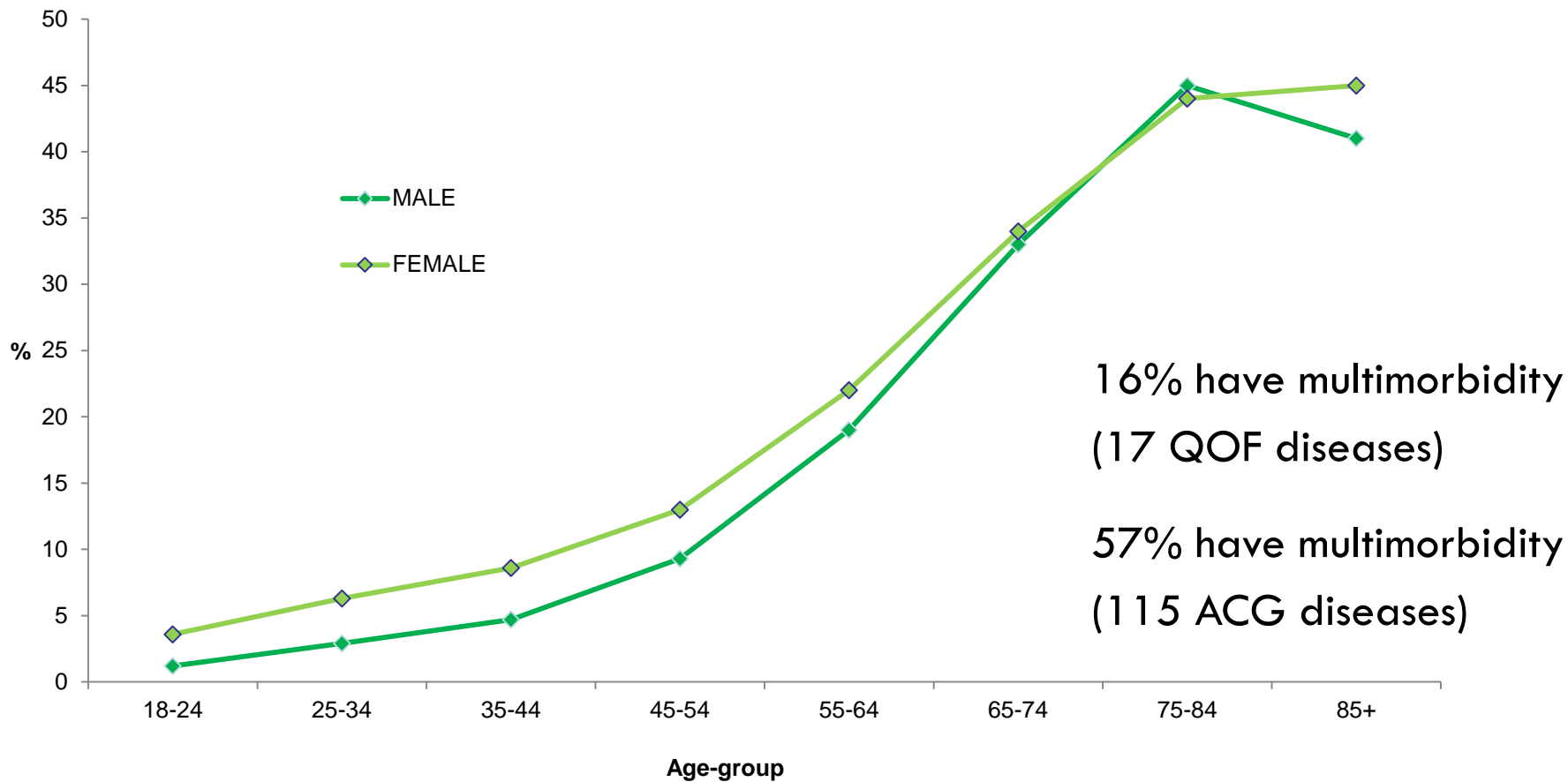


Epidemiology of multimorbidity in England

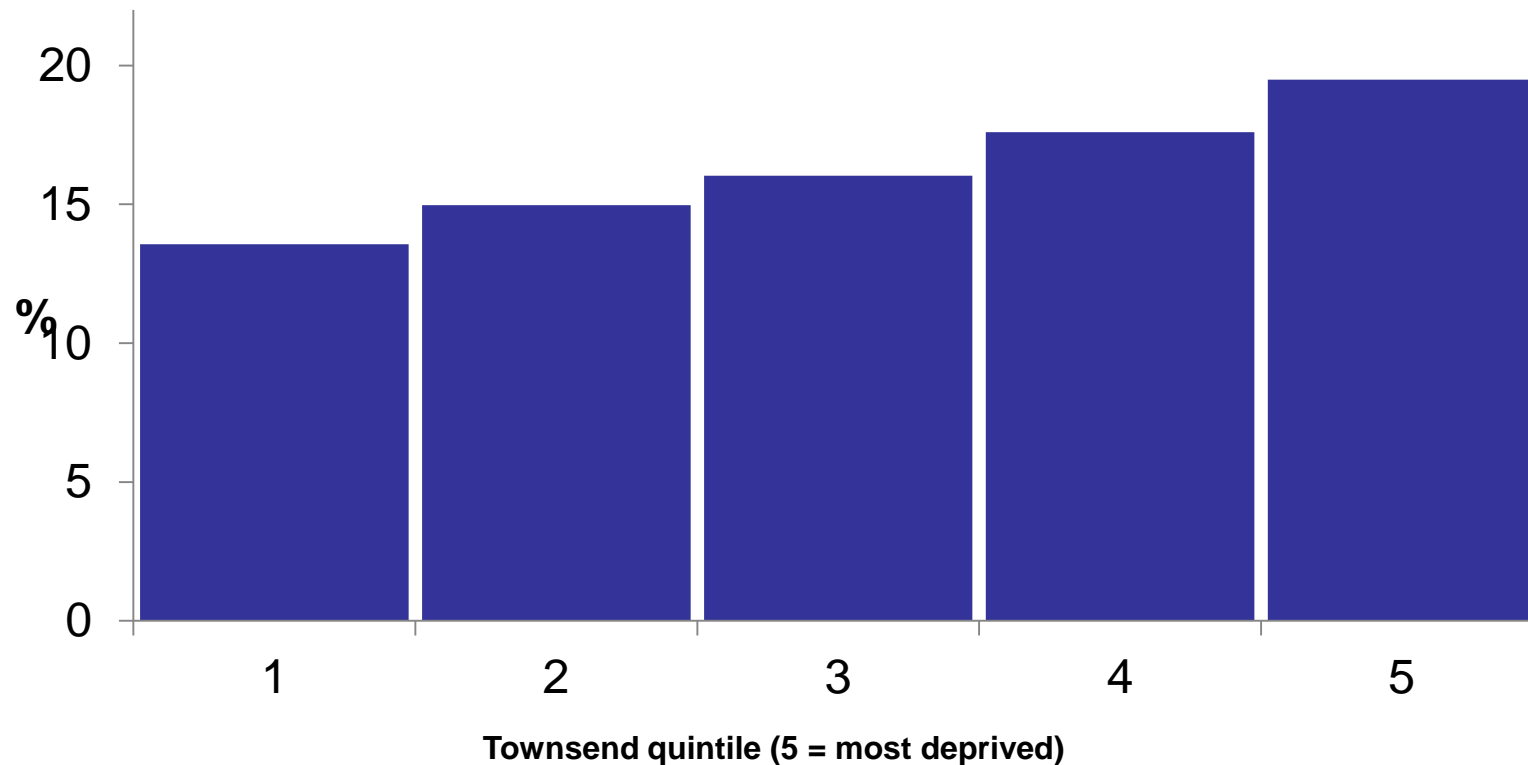
Salisbury C et al. Brit J Gen Pract 2011

- General Practice Research Database (GPRD)
- 100,000 adults aged >18, sample stratified by practice, age, sex, from 182 practices with deprivation scores
- Multimorbidity at index date 1 March 2005, followed up 3 years
- Multimorbidity:
 - 17 QOF diseases
 - 114 ACG diagnostic clusters

Percentage with > 1 QOF condition by age and sex



Percentage of population with QOF multimorbidity by deprivation quintile



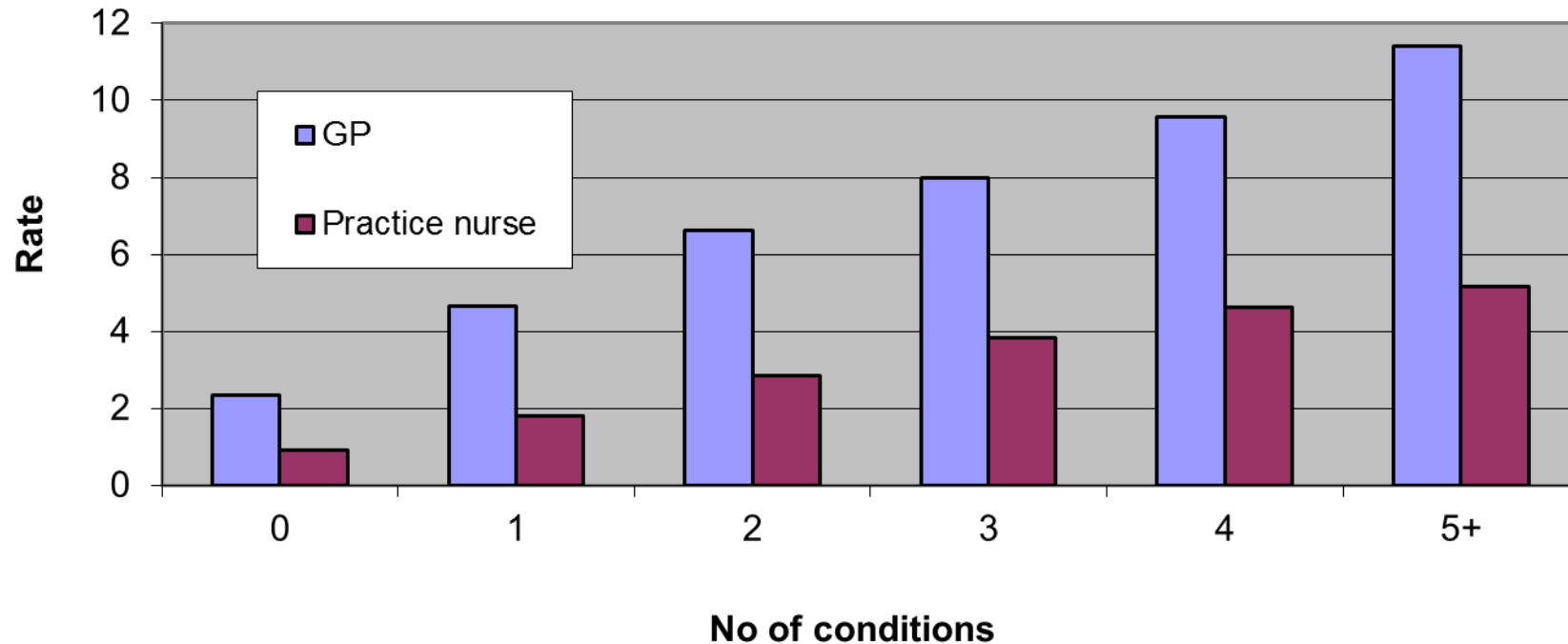
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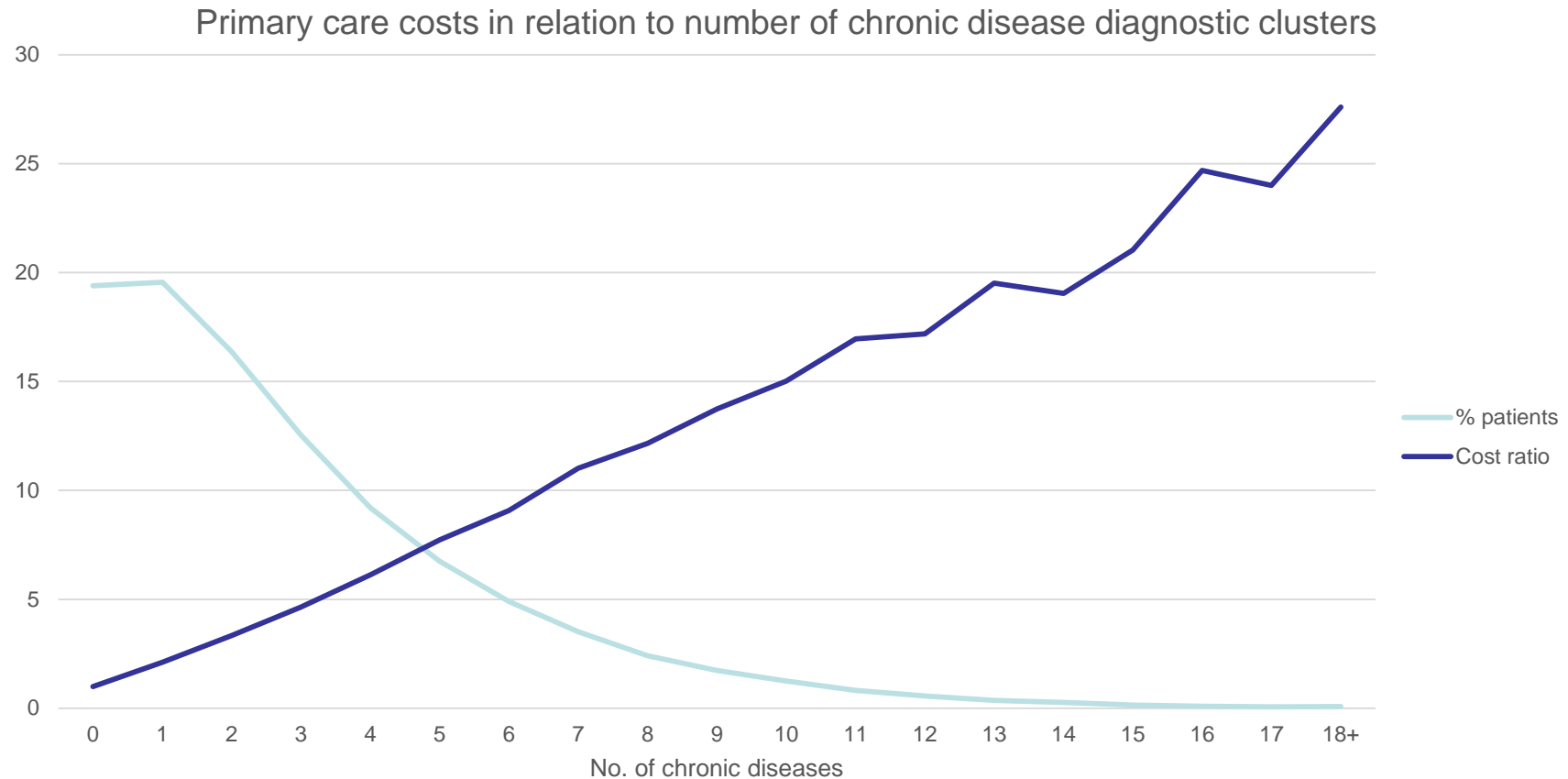
Consultation rate by number of QOF conditions



People with multimorbidity account for 16% of the population but 33% of all consultations

Predicting primary care costs

Brilleman S et. J Health Economics 2014



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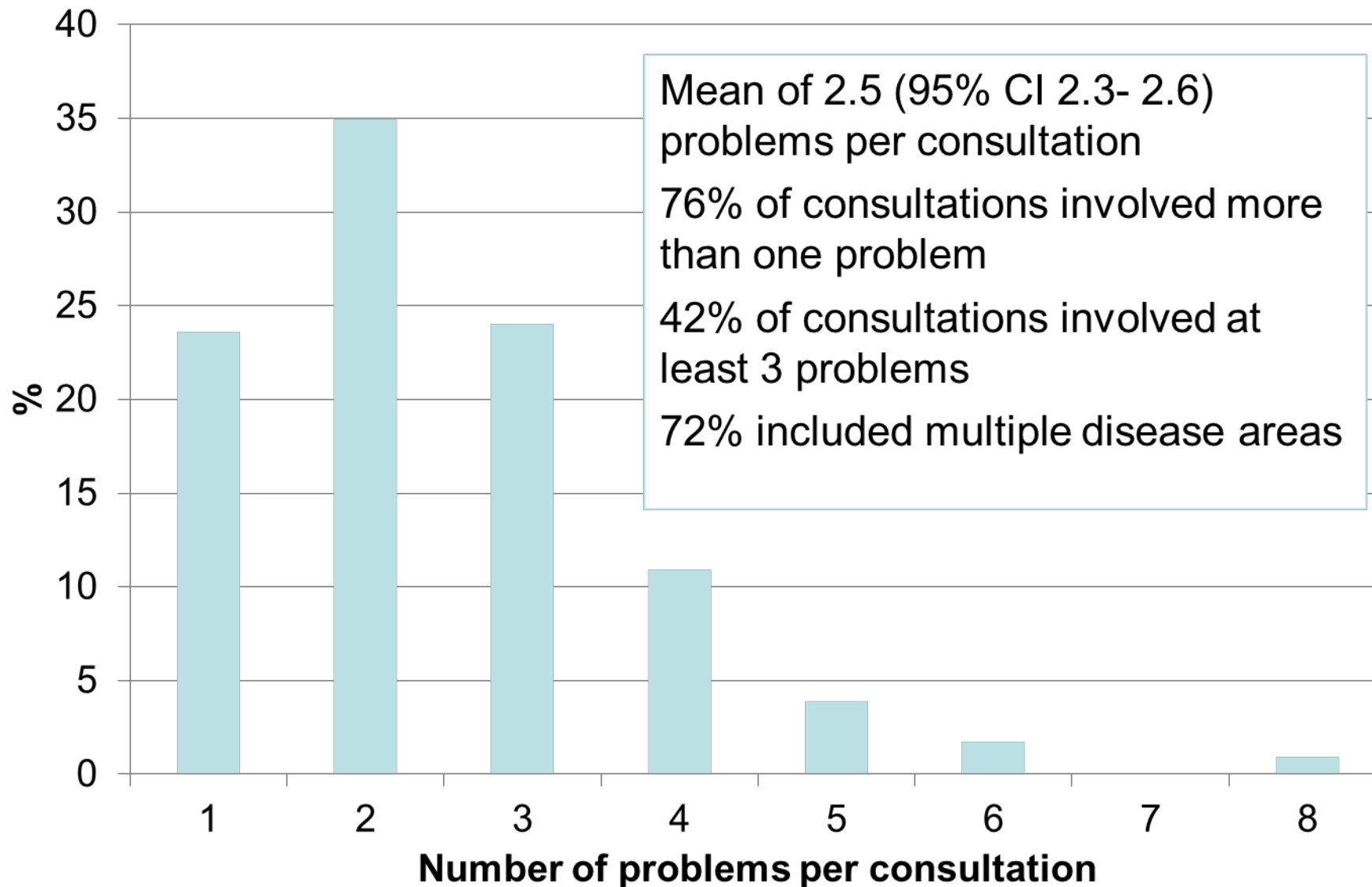


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Complex consultations

Salisbury C et Brit J Gen Pract 2013

- Cross-sectional study of 229 video-taped general practice consultations
- Developed method to code number and type of problems discussed [Procter S et al BMC Family Practice 2014](#)



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Measures of Multimorbidity and Morbidity Burden for Use in Primary Care and Community Settings: A Systematic Review and Guide

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ABSTRACT

PURPOSE Many patients consulting in primary care have multiple conditions (multimorbidity). Aims of this review were to identify measures of multimorbidity and morbidity burden suitable for use in research in primary care and community populations, and to investigate their validity in relation to anticipated associations with patient characteristics, process measures, and health outcomes.

METHODS Studies were identified using searches in MEDLINE and EMBASE from inception to December 2009 and bibliographies.

RESULTS Included were 194 articles describing 17 different measures. Commonly used measures included disease counts (n = 98), Chronic Disease Score (CDS)/ RxRisk (n = 17), Adjusted Clinical Groups (ACG) System (n = 25), the Charlson index (n = 38), the Cumulative Index Illness Rating Scale (CIRS; n = 10) and the Duke Severity of Illness Checklist (DUSOI; n = 6). Studies that compared measures suggest their predictive validity for the same outcome differs only slightly. Evidence is strongest for the ACG System, Charlson index, or disease counts in relation to care utilization; for the ACG System in relation to costs; for Charlson index in relation to mortality; and for disease counts or Charlson index in relation to quality of life. Simple counts of diseases or medications perform almost as well as complex measures in predicting most outcomes. Combining measures can improve validity.

CONCLUSIONS The measures most commonly used in primary care and community settings are disease counts, Charlson index, ACG System, CIRS, CDS, and DUSOI. Different measures are most appropriate according to the outcome of interest. Choice of measure will also depend on the type of data available. More research is needed to directly compare performance of different measures.

Ann Fam Med 2012;10:134-141. doi:10.1370/afm.1363.

202 citations in 4 years

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Complex care

Capacity, Responsibility, and Motivation: A critical qualitative evaluation of patient and practitioner views about barriers to self-management in people with multimorbidity. Coventry P, Fisher L, Kenning C, Bee P, Bower P. BMC Health Services Research 2014

Development of a Multimorbidity Illness Perceptions Scale (MULTIPlE S). Gibbons C, Kenning C, Coventry P, Bee P, Bundy C, Fisher L, et al. PloS One 2013

What are the core predictors of 'hassles' among patients with multimorbidity in primary care? A cross sectional study. Adeniji, C., Kenning, C., Coventry, P. A. & Bower, P. BMC Health Services Research 2015

Primary care practitioner and patient understanding of the concepts of multimorbidity and self-management: A qualitative study . Kenning C, Fisher L, Bee P, Bower P, Coventry P. SAGE Open Medicine 2013

What is the relationship between diabetes and depression? A qualitative meta-synthesis of patient experience of co-morbidity. Gask L, MacDonald W, Bower P. Chronic Illness 2011

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Impact on medical care of multiple health problems

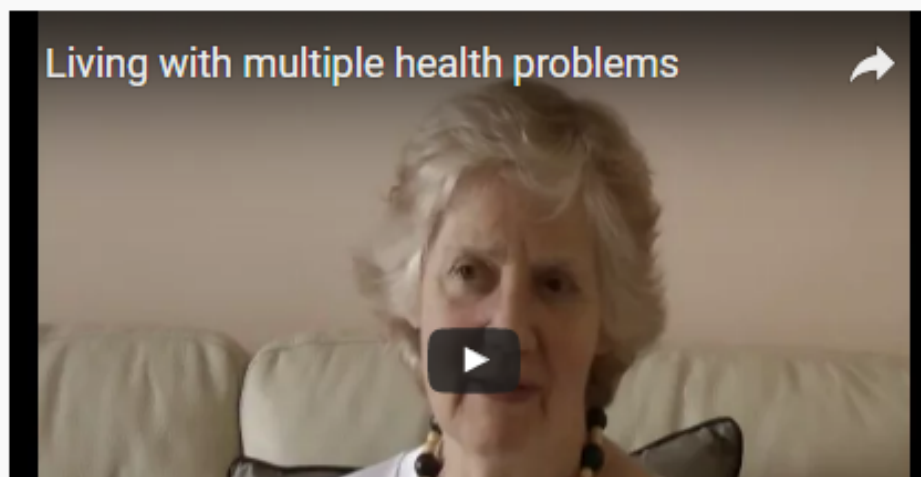
Interactions between different symptoms, conditions and

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Overview

Living with multiple health problems



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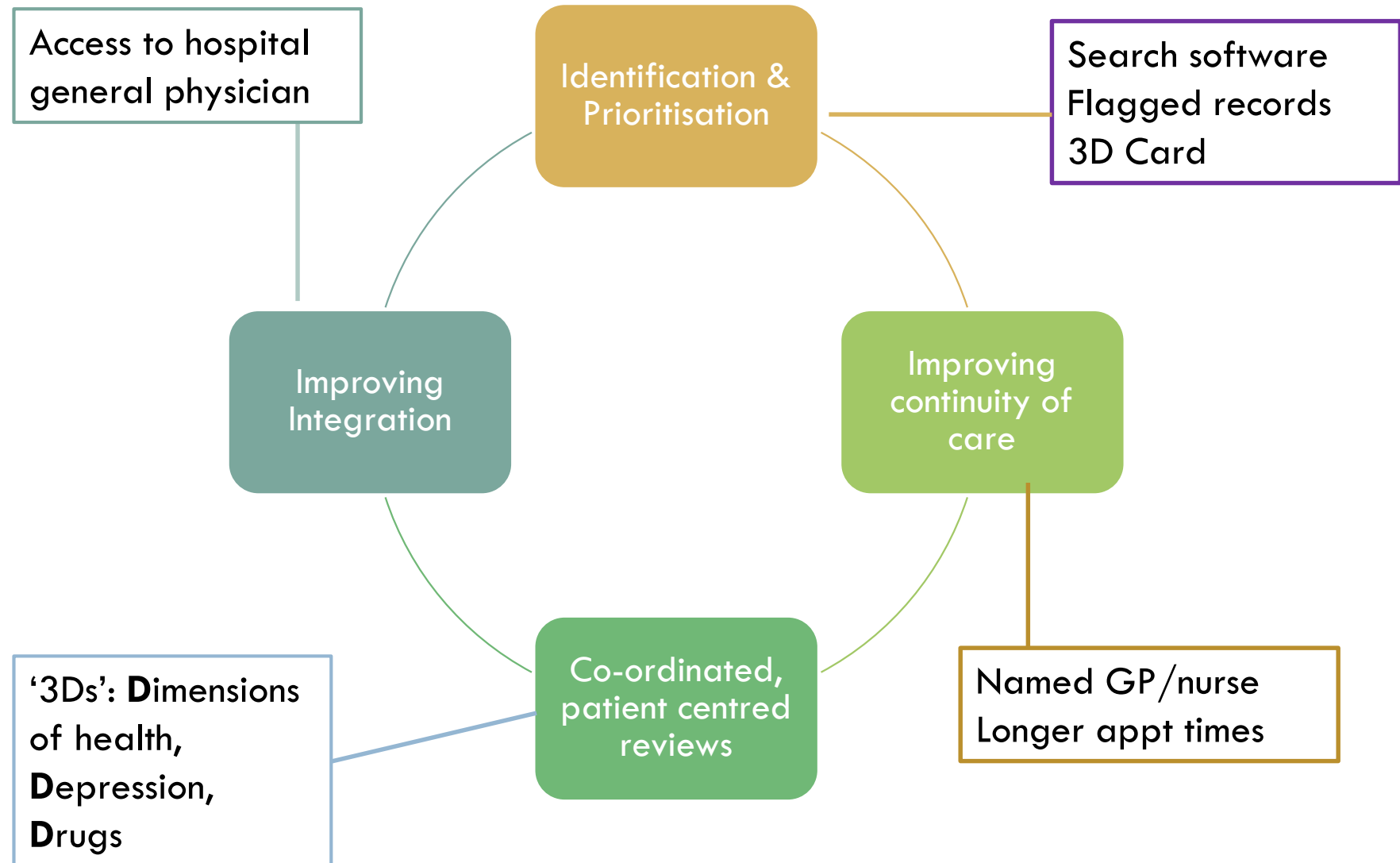
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3D Trial:

improving management of multimorbidity in general practice

- **Design:** Cluster RCT; process and economic evaluation
- **Collaboration** between Bristol (PI Salisbury), Manchester (PI Bower), Scottish School Primary Care Research (PIs Mercer, Guthrie), RCGP
- **Funded** NIHR HS&DR programme £1.8M

3D Intervention



3D Trial:

improving management of multimorbidity in general practice

- **Participants:** Adults with 3 or more LTCs
- **Setting:** 33 practices in England and Scotland
- **Intervention:** 3D approach
- **Control:** Usual care
- **Primary outcome:** Health related quality of life

Conclusions

- A coherent programme of research
- Addressing aspects of an important problem
- Advantages of focused funding
- Building collaboration
- Impacting on guidance
- Will hopefully benefit patients

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This programme is funded by the National Institute for Health Research School for Primary Care Research (NIHR SPCR). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.


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