# Validation of the Long-Term Conditions Questionnaire (LTCQ)

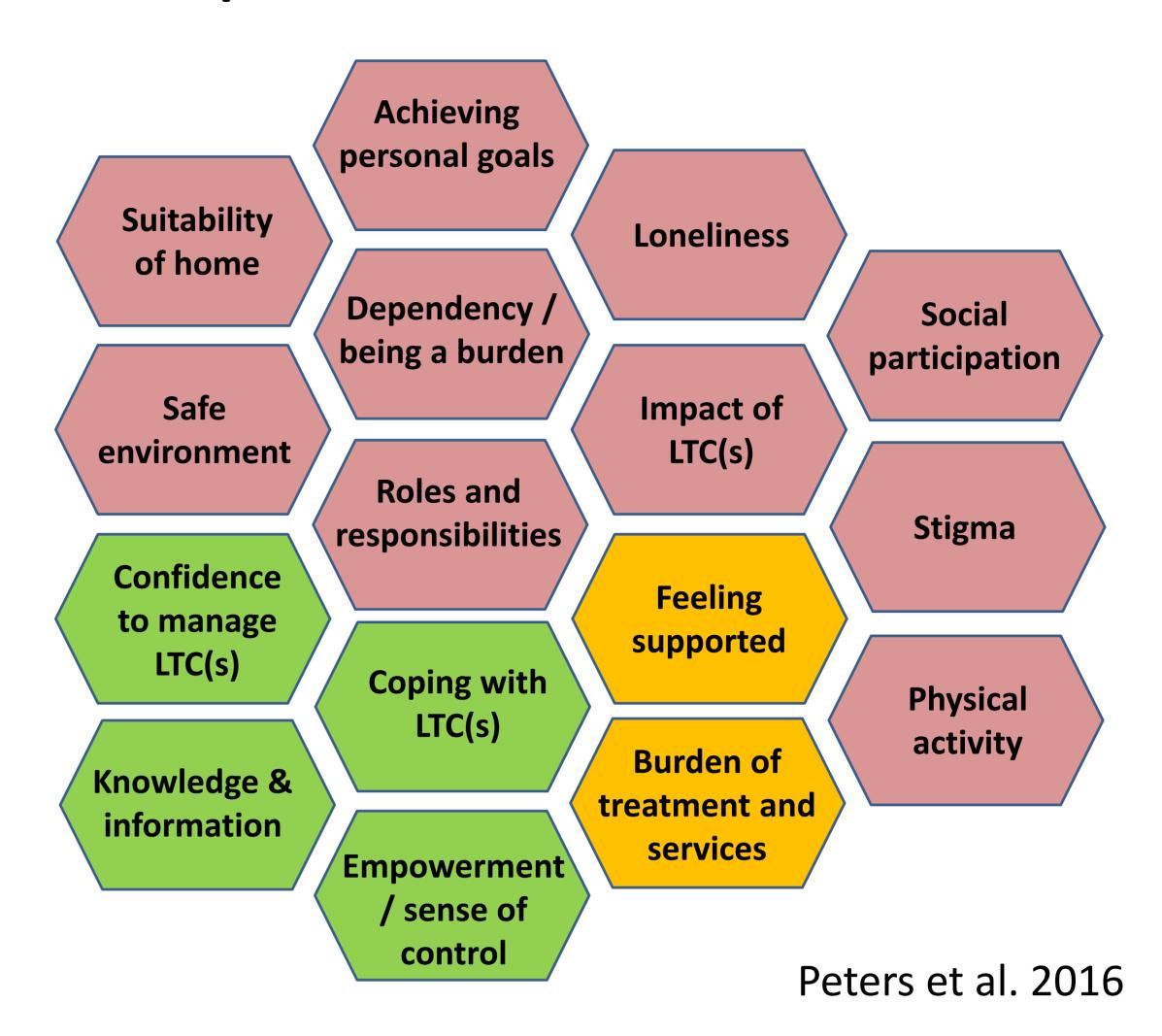
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# Background

- Long-term chronic conditions (LTCs) are the main challenge of health and social care services today due to their increasing prevalence and complexity, including multi-morbidity.
- Monitoring outcomes is a key focus of UK health care policy. The EQ-5D is the current measure of choice, but it does not capture all issues of importance for people living with LTCs.
- From previous research (Hunter et al. 2015), professional and lay stakeholders support the idea of a new measure for LTCs.
- The aim of this work was to validate the Long-Term Conditions Questionnaire (LTCQ), a short self-report measure for people living with a broad range of LTCs. Conceptual development of items for the LTCQ has been previously reported (Peters et al. 2016).
- The LTCQ is intended to be used across both health and social care services, on its own or as a complement to the EQ-5D.

# Conceptual framework for the LTCQ



#### Methods

- Random selection of patients with at least one of eleven selected LTCs, identified by fifteen primary care practices across England
- Concurrent identification of social care recipients with at least one LTC through a local authority in southern England
- Survey 1 containing the LTCQ, EQ-5D-5L, Lorig self-efficacy scale, an Activities of Daily Living scale, the Bayliss multi-morbidity scale, and ASCOT (social care sample only) were mailed to potential participants
- Participants returned Survey 1 anonymously OR provided contact details for a follow-up survey approximately two weeks later
- A sub-sample who provided contact details (N=612) were sent Survey 2, containing the LTCQ and health change/demographic questions only

# Participants (N=1,090)

#### **Health Care sample (N=917)**

- 52% female, 95% white British
- Age range 18 to 101 (mean 66)
- 12% permanently sick or disabled
- 2% completed by proxy
- Number of LTCs (mean): 6

#### Social Care sample (N=173)

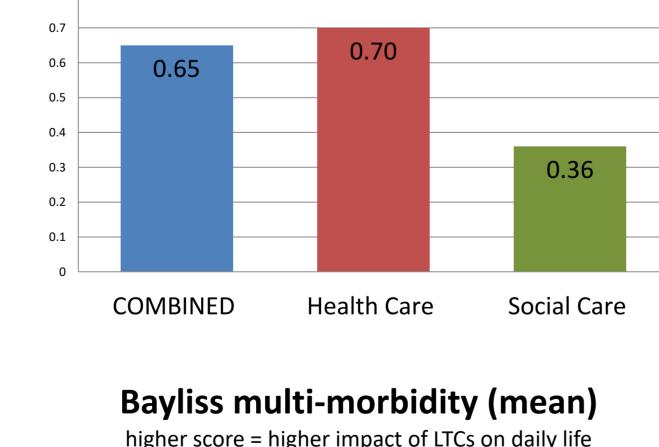
- 65% female, 82% white British
- Age range 19 to 102 (mean 70)
- 41% permanently sick or disabled
- 22% completed by proxy
- Number of LTCs (mean): 7

#### Prevalence of recruiting conditions across the total sample:

depression / anxiety (39%), chronic back pain / sciatica (37%), diabetes (26%), osteoarthritis (25%), heart disease (23%), colon problems (23%), COPD (15%), cancer in the last 5 years (14%), stroke (14%), bipolar / schizophrenia (7%), multiple sclerosis (5%)

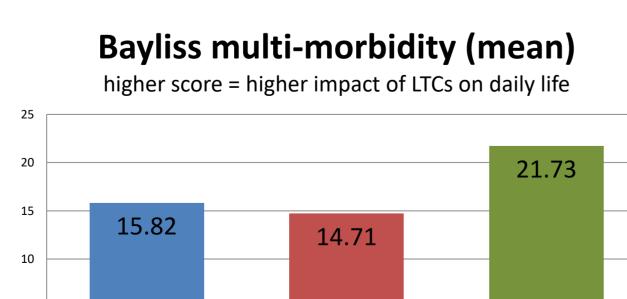
# A diverse sample: health and social care users

# higher score = greater well-being in relation to LTCs 70 70 72.08 74.73 57.63 COMBINED Health Care Social Care



**EQ-5D-5L index values (mean)** 

higher score = better health-related quality of life



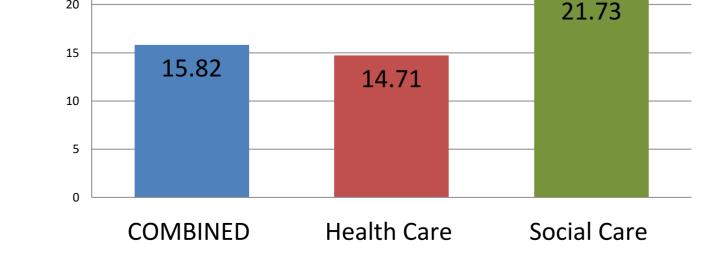
6 6.43 6.79 4.51

Health Care

Social Care

Lorig self-efficacy scores (mean)

higher score = greater confidence to manage LTCs



**References:** Hunter C, Fitzpatrick R, Jenkinson C, et al. 2015 Perspectives from health, social care and policy stakeholders on the value of a single self-report outcome measure across long-term conditions: a qualitative study. *BMJ Open.* 5(5):e006986.

Peters M, Potter CM, Kelly L, et al. 2016. The Long-Term Conditions Questionnaire: conceptual framework and item development. *Patient Related Outcome Measures* 7:109-125.

# **Summary of preliminary findings**

- The LTCQ is a new measure for assessing well-being in people living with a wide range of long-term conditions. For preliminary analysis the score was calculated as the sum of all items, with maximum score of 100 and higher scores indicating greater well-being.
- The LTCQ was acceptable to a diverse sample of health and social care users, with low levels of missing data (≤ 2% per item).
- Preliminary analysis indicates excellent internal reliability ( $\alpha$ =0.96) and test-retest reliability (ICC = 0.92, 95% CI 0.90 to 0.94)
- Further analysis will be undertaken to refine the scoring system and to clarify the interpretation of scores.

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**COMBINED** 





