Measuring and Improving Care Home Quality for older people
The MiCare HQ project

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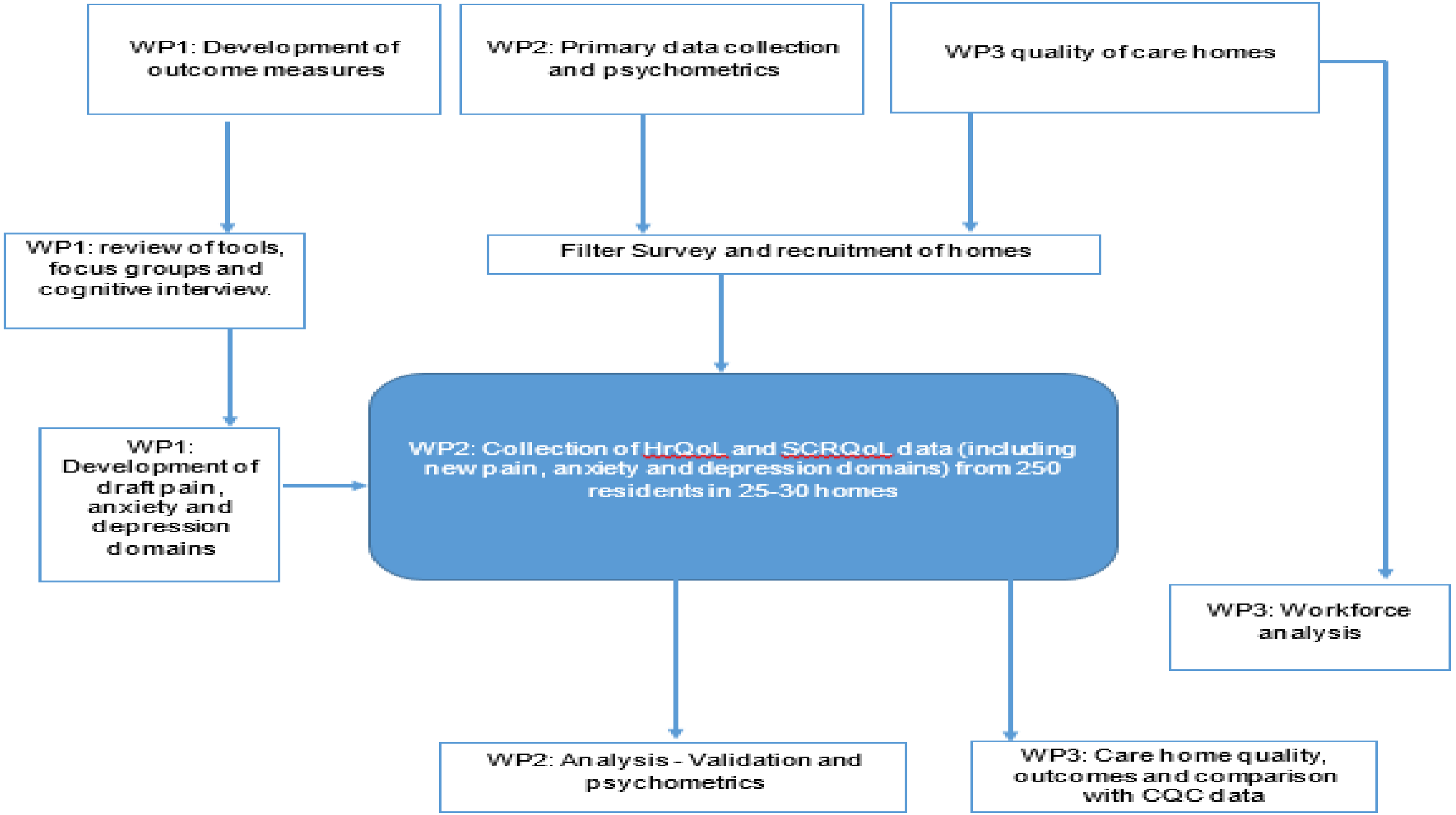
Jackie Cassell, Ann-Marie Towers, Nick Smith, Florin Vadean, Stephen Allan, Madeline Naick, Grace Collins, Stefania Lanza, Lisa Chen, Julien Forder, Jennifer Bostock, Helen Ramsbottom, Raffaella Tate

Study Aims

- Develop new measures for pain, anxiety and depression for use with care home residents unable to self-report (WP1).
- Pilot and psychometrically test the new measures alongside the Adult Social Care Outcomes Toolkit (ASCOT) (WP2).
- Explore the relationship between regulator quality ratings and residents health and social care outcomes (WP2 & 3).
- Understand how skill mix and employment conditions matter for care home quality (WP3).


WP1: Development of outcome measures
WP2: Primary data collection and psychometrics
WP3 quality of care homes
WP1: review of tools, focus groups and cognitive interview.
Filter Survey and recruitment of homes
WP1: Development of draft pain, anxiety and depression domains
WP2: Collection of HrQoL and SCRQoL data (including new pain, anxiety and depression domains) from 250 residents in 25-30 homes
WP3: Workforce analysis
WP2: Analysis - Validation and psychometrics
WP3: Care home quality, outcomes and comparison with CQC data

WP1: Developing the measures

Nick Smith

Aims

- Develop new measures for pain and anxiety/depression that can be used with care home residents unable to communicate their quality of life.
  - ASCOT domains
- Rapid review of pain and anxiety/depression measures concentrating on those used with people living with dementia and observational measures.
- Development and refinement of measures, testing in focus groups and cognitive interviews

Adult Social Care Outcomes Toolkit (ASCOT)

- A group of tools for measuring social care related quality of life (SCRQoL)
  - Areas or domains of life most affected by social care
- Current SCRQoL – what a person's life is like now (usually with services in place)
- Expected SCRQoL (in some versions) – what, hypothetically, would a person's life be like without services
- Allows us to capture/estimate impact, we call this SCRQoL gain
- More details on www.pssru.ac.uk/ascot

ASCOT

- Each domain rated
  - Ideal state
  - No needs
  - Some needs
  - High level needs

- Ratings combined in preference weighted algorithm – to provide an overall score of SCRQoL

Versions of ASCOT

- Self-completion tools for use in surveys
  - SCT4/Carer SCT4/SCT Easy read
- Face to face interviews
  - INT4/Carer INT4
- Multi-methods care home version
  - Rater collects evidence using
    - Observation
    - Interviews with residents
    - Interviews with staff

Rapid Review 1

- Pain tools
  - 22 tools reviewed
  - Most tools focus on intensity of pain
  - Different modes (self-report, observation, proxy report)
  - Self-reported tools designed for people living with mild levels of dementia
  - A number of validated observational tools specifically for people with more severe levels of dementia
  - Observational tools look for behaviours associated with pain
  - Multi-mode collection viewed as a positive

Rapid Review 2

- Anxiety/depression tools
  - 23 tools reviewed
  - Tend to focus on symptoms to establish if a person has depression or anxiety
  - Different modes (self-report, proxy report, clinician rated, observation)
  - Self report tools most common
  - Some proxy and clinician rated tools
  - Only four observational tools
    - Wellbeing, mood, emotion, rather than anxiety/depression.
  - Limited number of tools specific to dementia
    - Less work on anxiety

Team review 1

- Ensure our work not just replicating existing and (sometimes) well validated tools:
  - Our focus is on domains as part of a quality of life tool (ASCOT)
  - ASCOT method unique in estimating impact of the service
  - Focus on frequency not intensity of symptoms.
- Separate domains for anxiety and depression
- Not clinical measures (not for diagnosis)
- Draft questions and responses for each domain.
- An example…

Which of the following statements best describes how often you think [the resident] feels down or depressed?

I think [the resident]…

- Hardly ever feels down or depressed
- Occasionally feels down or depressed
- Often feels down or depressed
- Constantly feels down or depressed

I think [the resident]…

- Never feels down or depressed
- Rarely feels down or depressed
- Sometimes feels down or depressed
- Often feels down or depressed

Focus groups

- Three focus groups with care home staff
  - 22 participants
  - Care workers, nurses, managers and other support staff
  - Three sections
    - Signs of pain, anxiety, depression
    - Words used to describe pain, anxiety, depression
    - Reflection on draft questions
  - Three PPI co-researchers helped the team plan and carry out the focus groups
  - PPI co-researchers also fed into understanding the findings

Focus groups findings

- Signs of pain, anxiety, depression
  - Staff able to talk about a range of behaviours that may indicate pain, anxiety or depression
  - Indicators reflected the literature/tools
  - Overlap between behavioural indicators for the domains
  - Some staff struggle to distinguish between anxiety and depression
  - Some suggest knowing the resident well is the key to interpreting behaviour

- Words used to describe pain, anxiety, depression
  - Most staff constrained by wording of existing tools
    - E.g. Abbey Pain Scale: mild, moderate, severe
  - Some like to use the words residents use

Focus group findings

- Reflection on draft questions
  - 2 domains per group
  - Think about a resident and answer the question
  - Facilitated discussion
  - Most people able to answer the questions
  - Concerns around the term ‘never’, especially in the anxiety domain
  - A few people felt that they were being asked to make a clinical judgement about domains and felt uncomfortable, as not clinicians.

Team Review 2 (inc. PPI)

- Discussed questions and responses in light of focus groups
  - Is ‘never’ an appropriate option in our new domains?
  - Decided to cognitively test both response scales

- Reviewed signs of anxiety, depression & pain
  - Alongside review material, provides a basis for observational guidance

Cognitive testing

- 37 interviews (16 relatives, 21 care home staff)
- Collection of data on how people answer questions
- In three stages
- Revisions between each stage

Cognitive testing

- Stage one (14 interviews)
  - Two different four level scales
    - The scale containing ‘never’ ruled out
    - Feels depressed interpreted as a clinical diagnosis changed to low mood
- Stage Two (13 interviews)
  - Tested one four level scale and one three level scale and the term low mood
    - Four level scale preferred by respondents
    - Low mood a better term than feels depressed
- Stage Three (10 interviews)
    - Tested the four level scale in both current and expected formats

Tools

For each domain

- Observational/rating guidance
- Care home resident interview questions
- Family/staff interview questions

Tools (resident)

Which of the following statements best describes how often you feel down or have a low mood?

- I hardly ever feel down or have a low mood
- I occasionally feel down or have a low mood
- I often feel down or have a low mood
- I constantly feel down or have a low mood

Tools (family/staff)

Which of the following statements best describes how often you think [the resident] feels worried or anxious?

I think [the resident]…

- Hardly ever feels worried or anxious
- Occasionally feels worried or anxious
- Often feels worried or anxious
- Constantly feels worried or anxious

Tools (family/staff)

Imagine that [the resident] didn't have the support and services from [the care home] that s/he does now and no other help stepped in, which of the following statements would best describe how often you think [the resident] would feel worried or anxious?

I think [the resident] would…

- Hardly ever feel worried or anxious
- Occasionally feel worried or anxious
- Often feel worried or anxious
- Constantly feel worried or anxious

WP3: Workforce

Stephen Allan and Florin Vadean

WP3: Workforce

- To understand how much skill mix and employment conditions matter for quality
  - Econometric analysis of secondary data to investigate the relationship between CQC quality ratings and workforce characteristics
  - Particularly interested in factors such as: wage, training provision, staff vacancy rates, staff turnover and zero hours contracts
- Explore relationship between CQC quality ratings and resident outcomes, controlling for home and resident characteristics.

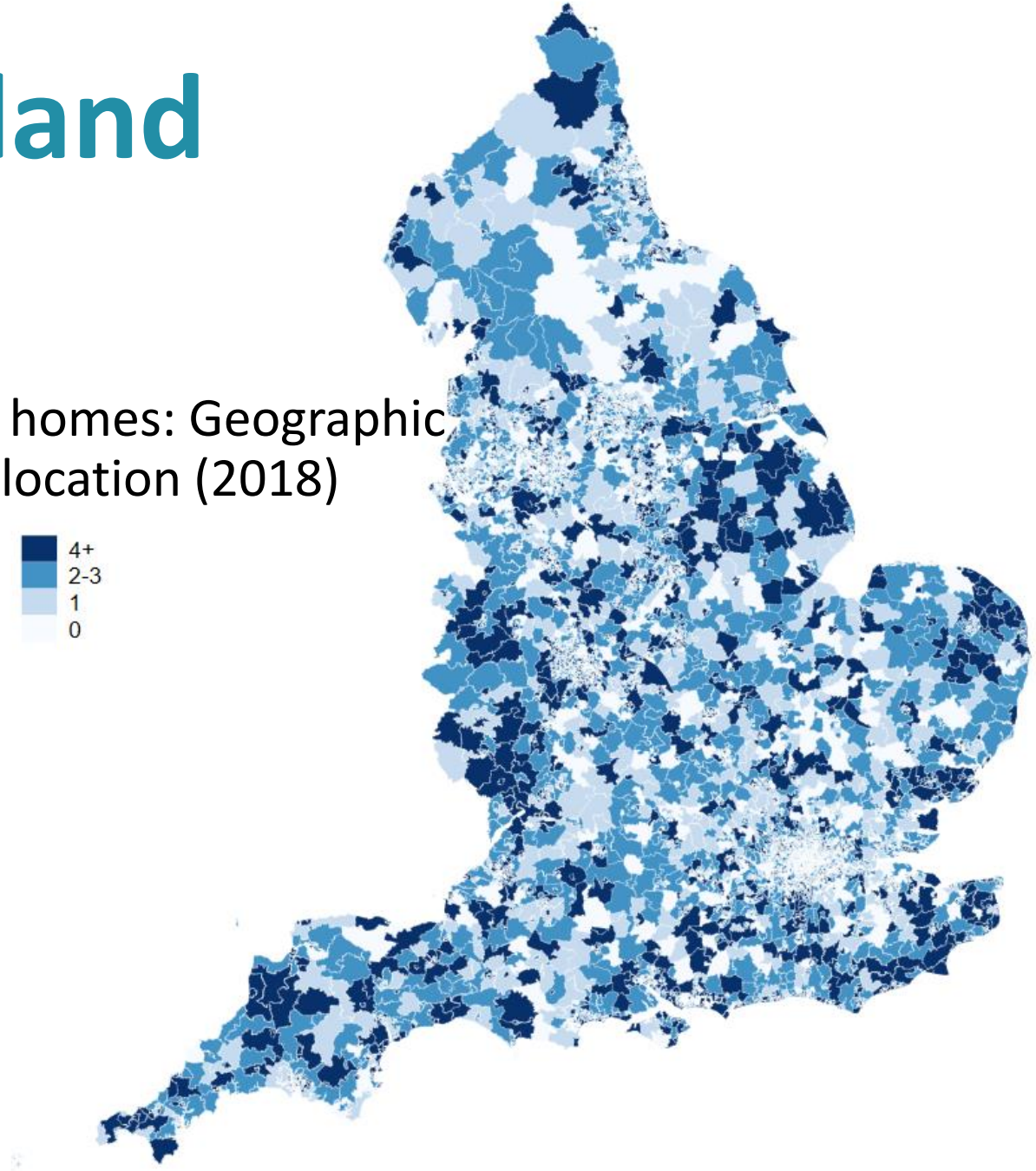
Previous research

- Mainly US research (nursing homes)
- What improves quality?
  - More staff (e.g. Zhang et al., 2008)
  - Registered nurses (e.g. Konetzka et al., 2008)
  - Agency staff? Castle and Engberg (2008a and 2008b)
  - Higher wages? Cawley et al. (2006)
- Qualitative/quantitative evidence for England/UK
  - Hussein et al. (2016)
  - Allan and Vadean (2017)

Care homes in England

- Over 11,000 care homes for older people in England
- Mainly private sector (for-profit)
  - Voluntary sector about 15%
  - Some LA-owned homes
- Demand:
  - Self-funders (private)
  - LA-funded (public)
  - NHS-funded (around 10%)
- Care homes regulated by Care Quality Commission (CQC)
  - Staffing regulations

Care homes: Geographic location (2018)

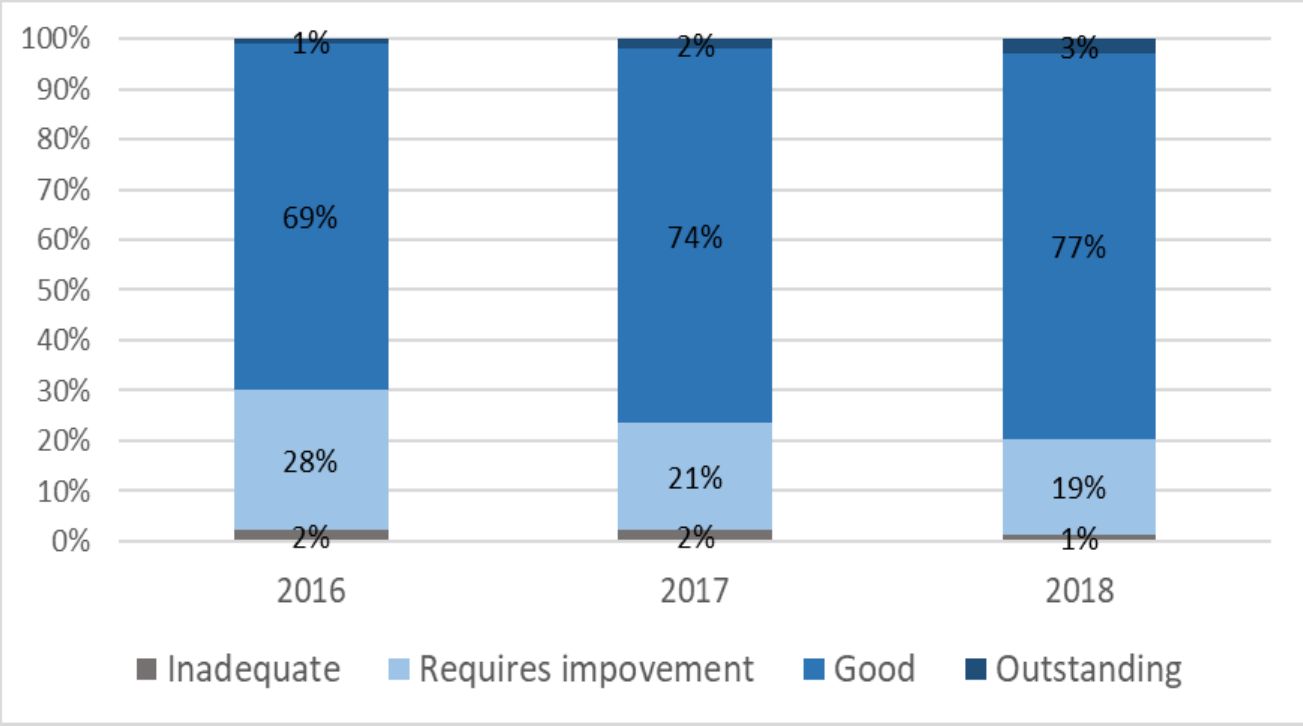


Data

- CQC Quality ratings
  - Inadequate, Requires Improvement, Good, Excellent
  - Underlying key lines of enquiry
    - Safe, Effective, Responsive, Caring and Well-led
- National Minimum Dataset for Social Care (NMDS-SC)
  - Anonymised version available from Skills for Care with CQC quality ratings matched
  - In addition to staffing info: type of home, size, sector & main service group
  - We use postcode district-level (e.g. SW1) measures of demand, need and supply (e.g. pension credit uptake, competition, house prices, female u/e rate)
- Data at October of years 2016-2018 – 12,056 independent care home observations across 3 years
  - Information for 5,557 unique care homes across the 3 years

CQC quality ratings

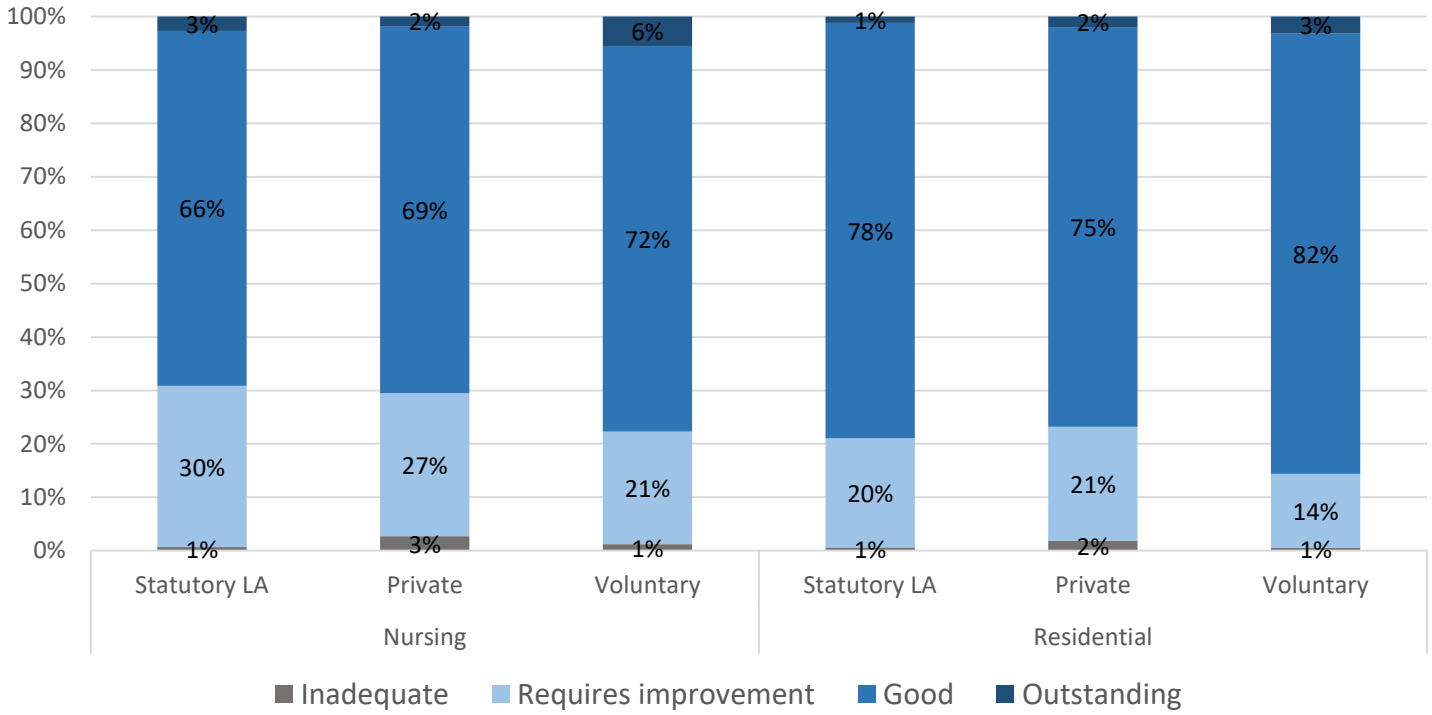
- NMDS-SC care homes, by year:



- Representative of the national picture
- Some homes are not rated (15% in 2016, 5% in 2017 & 2018)

CQC quality ratings

- By home type and sector:



Staff information

- Average hourly wage all staff (2018 prices): £8.64
- Direct care staff per resident ratio: 0.91
- 56% of homes have at least one member of staff trained on dementia
  - 28% of staff on average trained
- 37% of homes have at least one member of staff trained on dignity/person centred care
  - 13% of staff on average trained
- Average vacancy rate of 4.1%
- Average staff turnover of 29%
- Average home has 3% of staff on zero hours contracts

Estimation methods

- Binary model (probit) – “Outstanding or Good” vs. “requires improvement or Inadequate”
- Pooled (cross-section) and longitudinal (time-series)
- Large level of missing data for certain staffing variables
  - Assume data missing at random and use multiple imputation (MI)
  - Use both complete cases analysis and also full MI sample

Preliminary results – provider measures

- Staff vacancy rates have negative impact on overall quality:
- Turnover rates have negative impact on overall quality
- Zero hours contracts prevalence
  - Some indication of a positive effect on quality
  - Filling gaps in workforce?

Preliminary results – wages and training

- Average hourly wage has significant positive effect on quality
- Dementia training rates have positive effect on probability of being rated good/outstanding
- No effect of rate of training on dignity and/or person centred care

- Other findings
  - Negative impact on quality ratings of: nursing homes; dementia provision; competition; size
  - Positive impact on quality ratings of: voluntary sector

Next steps

- Look at effect of staff measures on ratings for key questions: Safe, Effective, Responsive, Caring, Well-led
- Control for endogeneity, i.e. that better quality homes have better wages, training etc.
- Looking for appropriate instruments – spatial lags, exogenous changes (e.g. national living wage uplifts)
- Split analysis by residential/nursing?
- Sensitivity of results to MI

Questions and discussion

Disclaimer

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