

Home care market dynamics in England

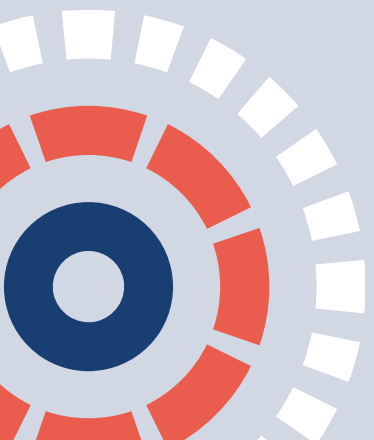


Steve Allan

Research Fellow, PSSRU, University of Kent

Presentation to Home Care Research Forum

5th May 2021



Introduction

- Why research into English home care market is important:
 - A growing elderly population
 - Policy of prevention and community-based care
 - A large market
- Yet little is known about the supply side of the home care market
 - How is supply changing over time?
 - How does supply vary across the country?
 - Why does supply vary by location?



Home care market: demand

- Demand comes from LAs, NHS, private individuals (self-funders)
- Size
 - £2.4bn spent on home care for long term support in 2016/17
 - Self-funder market unknown, estimated at £10.9bn for all ASC (NAO, 2018)
- LA funding
 - Direct payments to individuals
 - Commissioning
 - Most often 'time-and-task', payment by the hour
 - Outcome-based models and individual service funds



Home care market: supply

- Currently, over 10,000 providers of home care registered with Care Quality Commission (CQC)
- Difficult to measure
- National data:
 - CQC national register – Location of provider, size of provider unavailable
 - Workforce data (Skills for Care) – Not complete representation, (full) location unknown
 - Met demand – LA expenditure on adult social care
- Personal assistants/self-employed carers – estimated at 105,000 PAs in 135,000 jobs (Skills for Care, 2020)
- All measures with pros and cons



Home care supply: research to date

- Effect of supply on health care (LA-level):
 - LA expenditure: Fernandez and Forder (2008)
 - Workforce: Hall et al. (2018)
 - Count of providers: Allan et al. (in draft)
- Matosevic et al. (2001), Bottery et al. (2018), Allan and Darton (2020)
 - Location important
 - Market size: fairly small; across LA boundaries
- Holmes (2016) provides overview of home care supply market for 2015



Research aims

- Part of a wider study with aims of:
 - Analysing home care pay and staff turnover and the relationship between conditions of employment and quality of care
 - Analysing labour supply in home care and explore its impact on the quality of care
 - **Exploring the dynamics of the home care market**
- To assess home care at national, regional, LA and local levels over time: availability, competition, entry and exit
- To analyse the degree to which home care supply is affected by supply and demand factors
- To determine the factors which affect home care provider closure



Rest of presentation

- Development of home care providers dataset and measures of supply
- Assess home care markets
 - National and regional level
 - LA-level
 - Smaller level
- Analysis of drivers of home care supply
- Analyse determinants of home care provider closure
- **Note: This work is at a draft stage, so subject to change.**



Dataset development

- CQC register for Sept 2014-2018
 - Social care organisation, home care
- Matched providers over time using:
 - Provider ID
 - Name/Address
 - Organisation ID
- Closures: provider i was registered in time t but not in time $t+1$
- Openings: Provider i was registered in time t but not in time $t-1$
- Matching process errors
 - Chance of misidentifying a provider that is still open as a closure and *vice versa*
 - Assumed small given process



Supply and market measurement

- Supply
 - Count of the number of providers in the market
 - Correlation to workforce and LA expenditure
 - For individual providers, weight alternative providers by travel time
 - The further away the less the effect on provider in question
- Market Size
 - Region and LA
 - At smaller level, market measured as:
 - Statistical area (Middle-layer super output area, MSOA) n=6,791
 - Statistical area plus a travel time radius
 - At individual provider level use travel time radius



Supply of home care by region

	2014	2015	2016	2017	2018	Net change
East of England	871	928	980	1002	1080	24.0%
East Midlands	692	735	807	829	873	26.2%
London	1090	1143	1190	1296	1414	29.7%
North East	322	316	309	303	301	-6.5%
North West	1027	1051	1033	1019	1025	-0.2%
South East	1322	1338	1377	1426	1497	13.2%
South West	876	887	898	913	911	4.0%
West Midlands	920	983	1043	1098	1155	25.5%
Yorkshire & Humber	732	762	758	782	823	12.4%
England	7852	8143	8395	8668	9079	15.6%

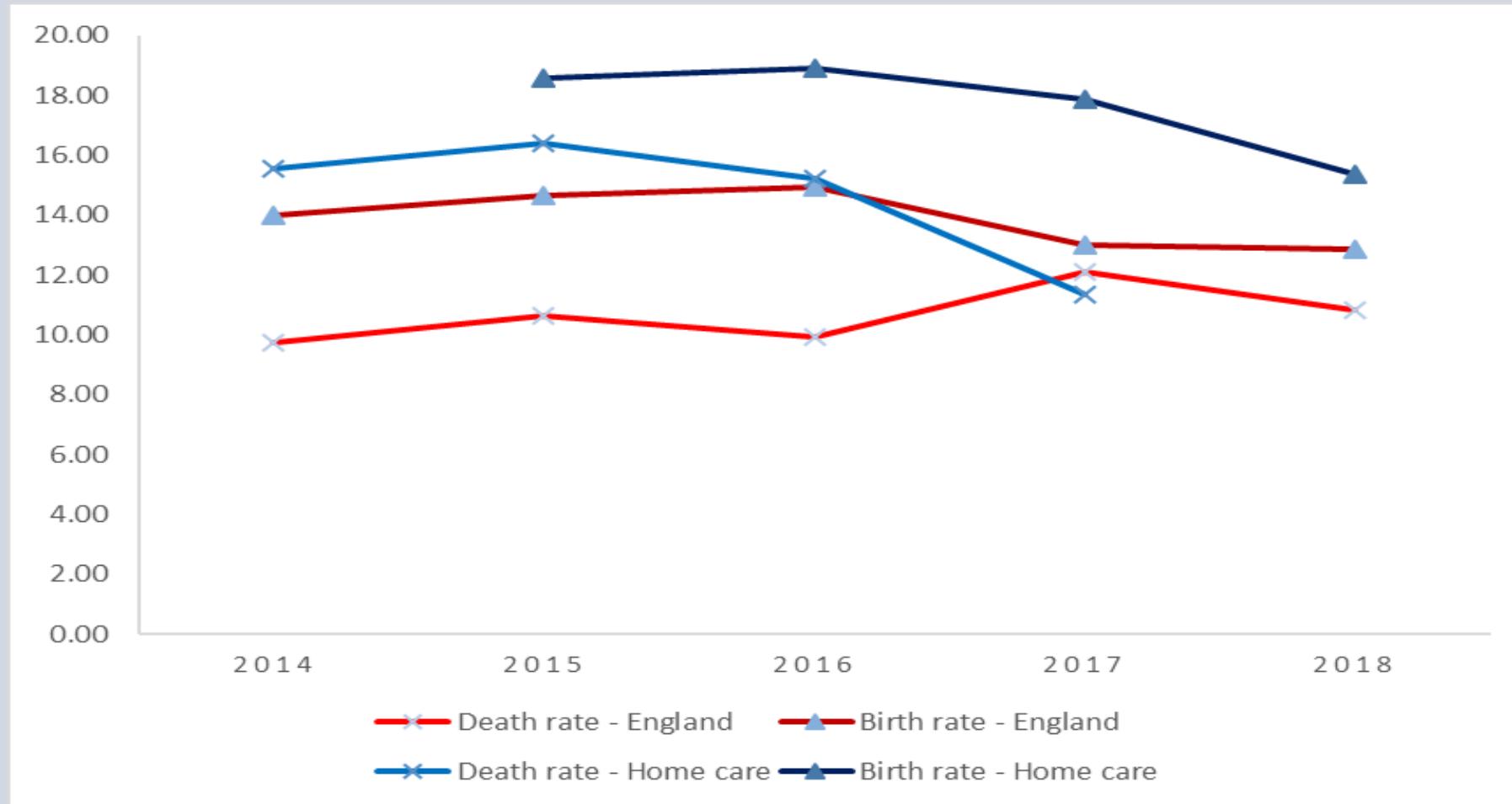


Closures by region

	2014	2015	2016	2017
	Total (Per cent rate)	Total (Per cent rate)	Total (Per cent rate)	Total (Per cent rate)
East of England	119 (13.7)	150 (16.2)	138 (14.1)	108 (10.8)
East Midlands	123 (17.8)	122 (16.6)	122 (15.1)	109 (13.2)
London	165 (15.1)	176 (15.4)	171 (14.4)	132 (10.2)
North East	58 (18.0)	52 (16.5)	53 (17.2)	40 (13.2)
North West	157 (15.3)	199 (18.9)	157 (15.2)	123 (12.1)
South East	224 (16.9)	209 (15.6)	227 (16.5)	161 (11.3)
South West	124 (14.2)	129 (14.5)	132 (14.7)	109 (11.9)
West Midlands	143 (15.5)	163 (16.6)	156 (15.0)	109 (9.9)
Yorkshire & Humber	110 (15.0)	135 (17.7)	121 (16.0)	93 (11.9)
England	1223 (15.6)	1335 (16.4)	1277 (15.2)	984 (11.4)



Home care birth/death rates in comparison to all businesses



LA markets: over time and by registration type for 2018

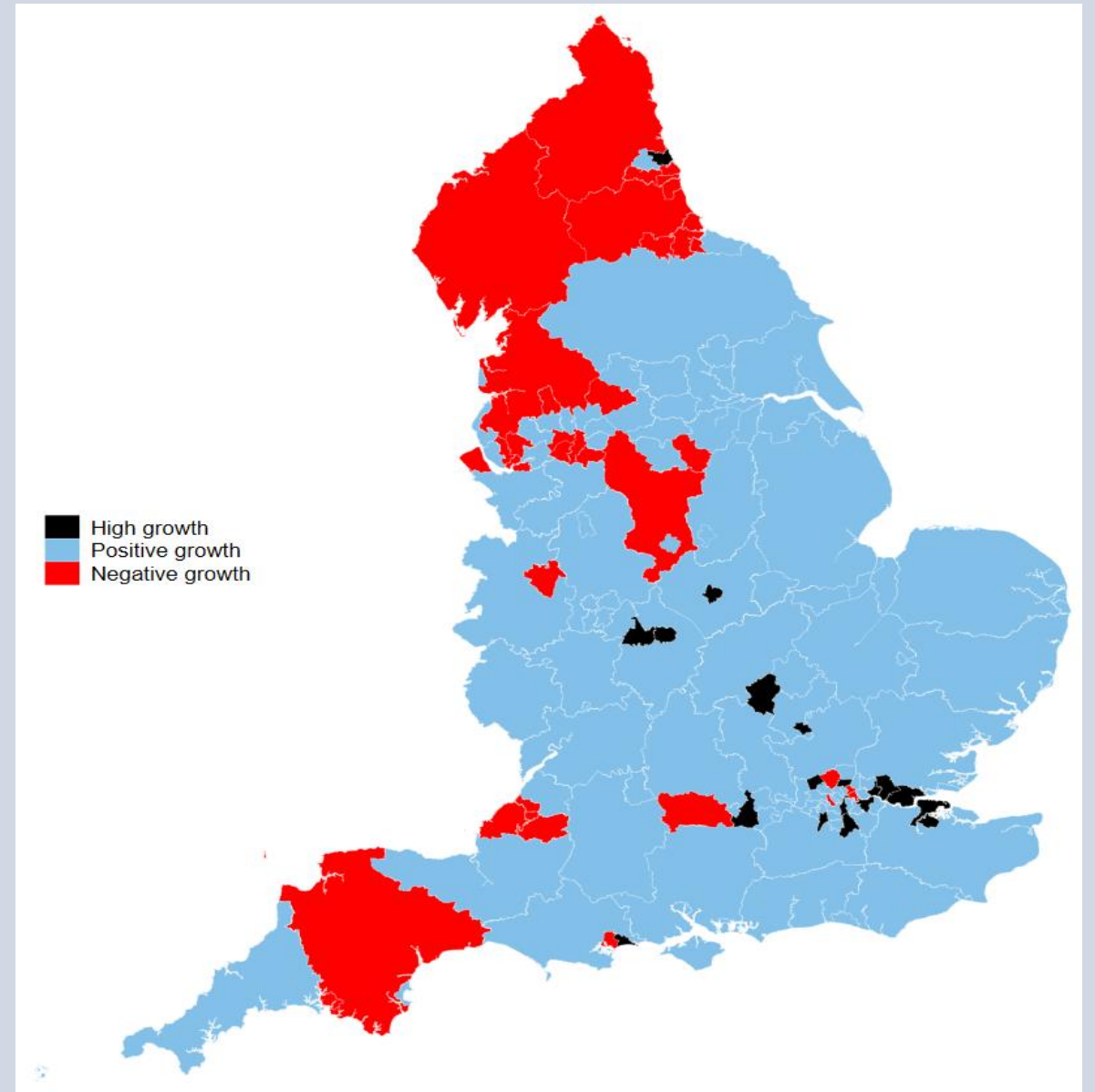
	2014	2015	2016	2017	2018	Average closure rate (Per cent)	Average opening rate (Per cent)
Mean	52	53.93	55.59	57.40	60.12	14.91	17.66
Standard deviation	41.69	43.10	44.72	45.95	48.53	3.34	3.87
25th percentile	26	27	27	28	29	12.71	14.69
Median	38	39	41	41	44	14.45	17.29
75th percentile	66	67	69	71	76	16.83	20

Registration type	Mean	Std. Dev.	Min	Max	Per cent change 2014-18
Older people/dementia	52.37	42.45	6	228	25.7
Learning disability	38.91	30.59	4	171	16.3
Mental health	34.76	27.04	3	147	21.3
Young adult	44.05	36.22	3	191	29.4
All	60.12	48.53	7	265	15.6

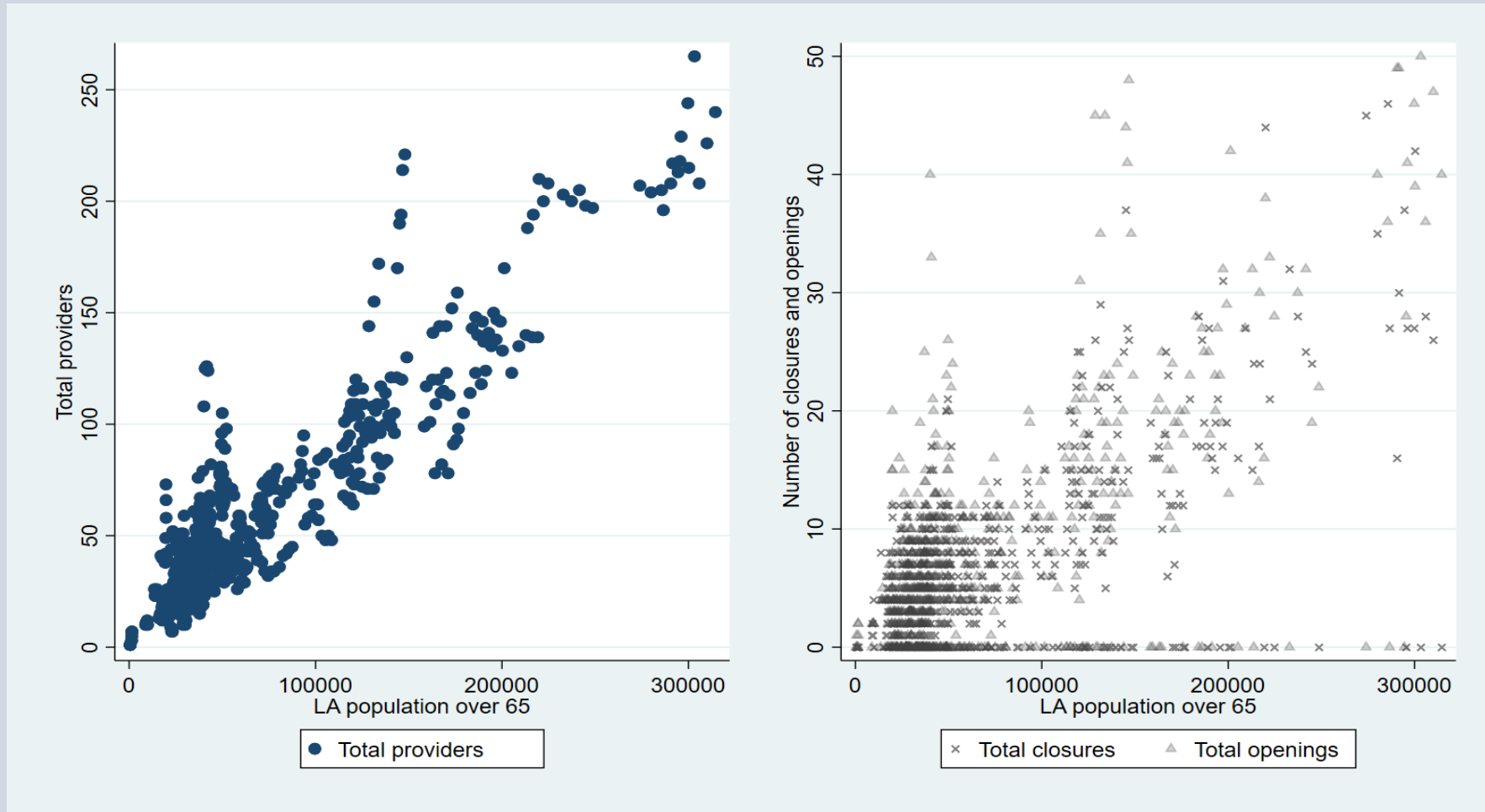


LA markets: Growth 2014-18

- 19 LAs have a very high growth rate over time of 43.4% or higher
- 35 LAs had a reduction in providers
- Dispersion between LAs in number of providers has increased
- Some LAs suffered with very high turnover of firms
- This could reflect changes to:
 - Demand
 - LA policy/expenditure
 - Supply factors (e.g. costs)

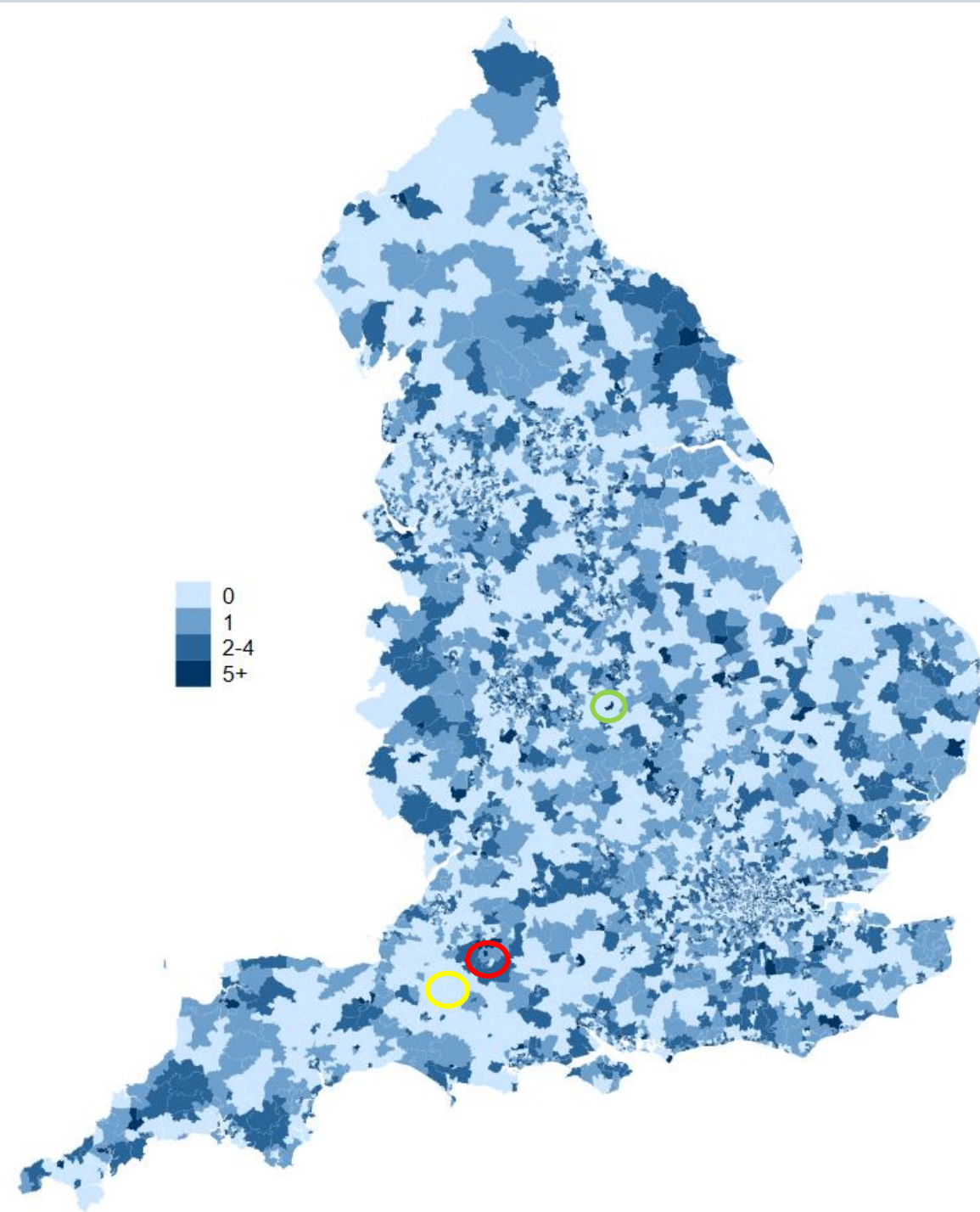


Relationship between home care supply and older population, 2014-18



Smaller level markets

- Map shows number of home care providers by their registered location for 2018
- Plenty of small markets have no registered providers within boundary
 - May be located in nearby markets
 - Location of employees may differ
- Only 6% of small markets have 5+ providers



Smaller level markets (2018)

Market size	Obs	Mean	Std. Dev.	Min	Max	<3 providers	Zero providers
MSOA	6,790	1.34	1.98	0	28	5,761	2,825
MSOA + 5mins	6,790	11.18	10.69	0	92	1,373	430
MSOA + 10mins	6,790	32.55	26.71	0	161	371	100
MSOA + 15mins	6,790	60.64	47.64	0	277	104	21

- More than 2 in 5 smaller markets have no providers located within their boundaries
- Average market of MSOA + 5 minutes has 11 providers in range
- 20%, 5.5% and 1.5% of smaller markets have two or less providers within 5, 10 and 15 minutes range, respectively



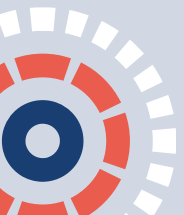
Quantitative analyses of supply and closures

- Analysis of drivers of supply and closure
 - Supply at small market level (MSOA)
 - Closure at individual provider level
- Include measures of demand and supply:
 - Demand: Population size, measures of need and income
 - Supply: Alternative supply (home care and care home), cost factors, provider level characteristics



Findings: home care supply at small area level

- Preliminary findings
- At the small market level:
 - Demand factors significantly influence home care supply
 - e.g. Population, older population rate, Attendance Allowance/Pension Credit uptake
- At a radius to the small market:
 - Effect of alternative supply negative closer to market
 - Turns positive for greater times
 - Some demand factors (e.g. population) still influence supply



Closure analysis: descriptive statistics

Variable	n	Mean	Std.Dev.	Min.	Max.
Home care provider closed	24,710	0.14	0.35	0	1
Number of Providers, 10mins (weighted)	24,710	17.22	13.83	0	89.84
Quality	11,151	0.80	0.401	0	1
Total population	24,710	1830.1	493.9	840	11514
Population 85+ rate	24,710	2.64	1.988	0	18.82
Attendance allowance 65+ rate	24,710	14.18	5.211	0	46.36
Pension credit 60+ rate	24,710	23.81	16.15	0	123.31
Hip fractures 65+ (LA)	24,710	247.8	178.7	38	967
LA non-residential care ASC expenditure (£000s)	24,710	25111.5	17628.5	590.7	75135.6
Care home beds, 10mins (weighted)	24,710	618.0	351.7	0	2225.0
Female JSA rate	24,710	1.12	1.121	0	9.615
Average house price, £	24,710	213365	141621	27513.9	2872631



Closure analysis: results

	(1)	(2)	(3)
VARIABLES	IV Probit	PA Probit	RE Probit
Providers, 10mins (log)	0.198** (0.0887)		
Providers, 10mins (predicted)		0.203** (0.0904)	0.214** (0.0970)
Quality (predicted)	-0.355*** (0.0699)	-0.363*** (0.0695)	-0.378*** (0.0738)
Total population (log)	-0.0463 (0.0477)	-0.0461 (0.0477)	-0.0478 (0.0509)
Population 85+ rate	0.00753 (0.00842)	0.00821 (0.00861)	0.00909 (0.00922)
Attendance allowance 65+ rate	-0.00713*** (0.00264)	-0.00733*** (0.00264)	-0.00776*** (0.00283)
Pension credit 60+ rate	0.000628 (0.00132)	0.000659 (0.00131)	0.000762 (0.00141)
Hip fractures (log)	-0.0420** (0.0212)	-0.0412* (0.0212)	-0.0429* (0.0225)
LA non-residential care expenditure (log)	0.0169 (0.0185)	0.0161 (0.0183)	0.0183 (0.0196)
Care home beds, 10mins (log)	-0.177** (0.0792)	-0.181** (0.0804)	-0.192** (0.0863)



Findings: overall

- Demand and supply factors important in determining home care supply
- Some indication that the average market for home care is small
- Nearby home care competition decreases supply in local markets and increases likelihood of closure
- Higher quality decreases likelihood of closure
- Closure significantly more likely the bigger the provider
- Indication of complementarity between home care and care home supply



Conclusion

- Home care markets growing over time in terms of providers
 - Masks differences between LAs
 - Masks high turnover of firms
 - Some locations still not well provided for – availability of choice?
- Home care supply depends on demand
- Home care closure determined by competition, demand and quality:
 - Important policy consideration for commissioning decisions
- Next steps
 - Refine and extend the analysis
 - Alternative measures of supply?



Disclaimer

- This study is funded by the National Institute for Health Research (NIHR) Policy Research Programme (Reference PR-PRU-1217-21101). The views expressed in this presentation are those of the author and not necessarily those of the NIHR or the Department of Health and Social Care.

