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Social Care in the time of COVID

What we have learned from the pandemic and what lies ahead

Dan Ryan, COIOS Research & COVID-19 Actuaries Response Group

What we will cover today

- Charting the epidemiology of outbreaks in care homes in UK
- International dimension and learnings from contrasting experience
- Initiatives taken by care homes to limit further outbreaks
- Threats to viability of care home sector
- Longer term funding challenges for adult social care



Continuing Care Retirement Communities

Hartrigg Oaks, Joseph Rowntree Housing Trust



B.A.J. 4, III, 547-614 (1998)

CONTINUING CARE RETIREMENT COMMUNITIES — ATTRACTIVE TO MEMBERS, BUT WHAT ABOUT SPONSORS?

BY R. A. HUMBLE AND D. G. RYAN

[Presented to the Institute of Actuaries, 26 January 1998,
and to the Faculty of Actuaries, 16 November 1998]

ABSTRACT

This paper is concerned with the development and operation of Continuing Care Retirement Communities (CCRCs). The paper examines the financial structure of a CCRC, being developed by the Joseph Rowntree Housing Trust, and describes a population model utilising transition probabilities to project care needs and financial performance.

The paper then explores the possibility of commercial organisations becoming involved in this market, and examines the risks that such a venture would entail and the strategies that may be adopted to reduce these risks.

KEYWORDS

Continuing Care Retirement Communities; Transition Probabilities; Activities of Daily Living

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1. INTRODUCTION

1.1 Recent years have seen a considerable increase in public awareness of the issues relating to the financing of long-term care for the elderly. The actuarial profession has been actively involved in this area, and has produced technical papers, discussed the issues at professional meetings, and taken part in consultations with government.

1.2 The public sector currently provides long-term care for the elderly in the following settings:

- (1) geriatric beds in National Health Service (NHS) hospitals;
- (2) domiciliary care provided by local authority social services, subject to a discretionary means tested charge;
- (3) residential or nursing care provided in private sector homes, financed by local authority social services and subject to a means tested charge; and
- (4) residential or nursing care provided in local authority homes, subject to a means tested charge.

1.3 In recent years, financial pressures in the NHS have encouraged the closure of geriatric wards. This has significantly reduced the scope for obtaining long-term care without a means tested charge. There have also been reductions in

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Overview to Social Care

Social care setting	Number of people receiving care in the UK	Data source
Care home	411,000	London School of Economics UK Home Care Association (UKHCA) NHS Confederation 2012/2013
Domiciliary care	500,000	
Community-based care and support at home	417,910	

- More people receive care in their own home than in a care home
- 1.5 million people are employed in the adult social care
- 9.1 million unpaid carers pre-pandemic, plus 4.5 million new carers during pandemic



UK Department of Health and Social Care

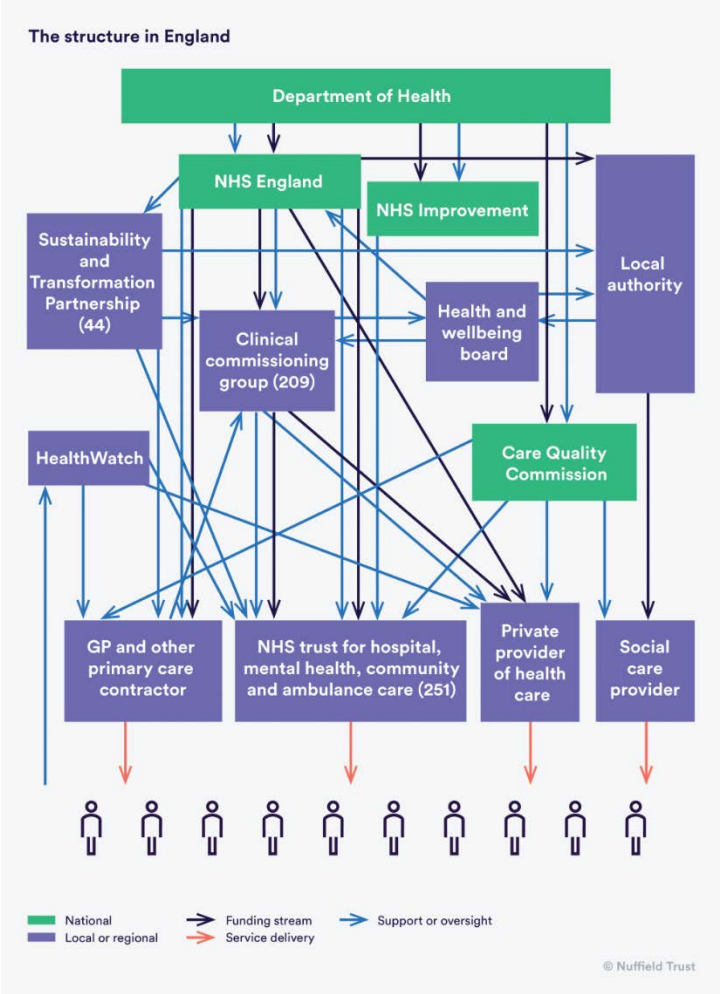
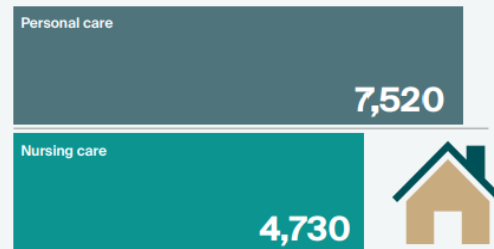
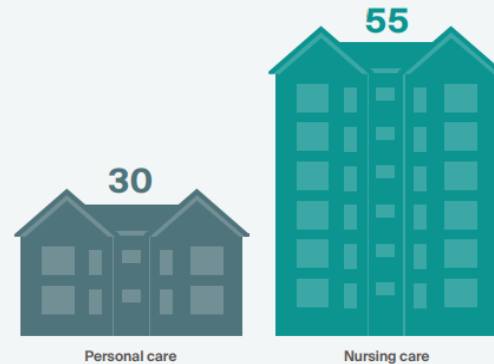


FIGURE 1
UK elderly care inventory

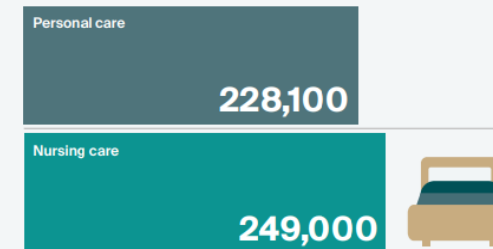
ELDERLY CARE HOMES (TOTAL 12,250)



AVERAGE HOME SIZE (BEDS)



ELDERLY CARE BEDS (TOTAL 477,100)



CARE HOME SPECIALIST SERVICES

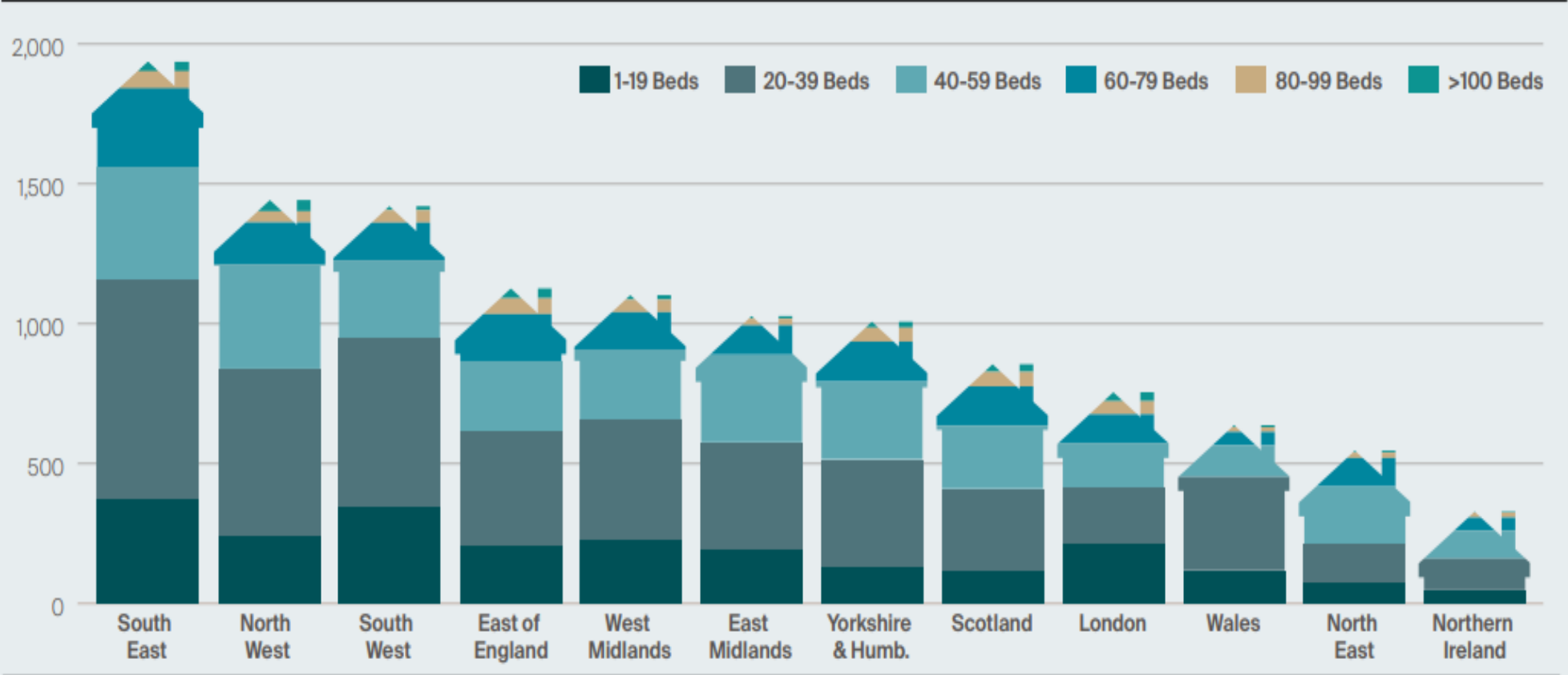


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Source: Knight Frank Research

UK Department of Health and Social Care

FIGURE 2
UK elderly care home stock by home size (beds)



Source: [Knight Frank Research](#)



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UK care homes during pandemic

06 May 2021

COVID – charting an “annus horribilis” for care homes

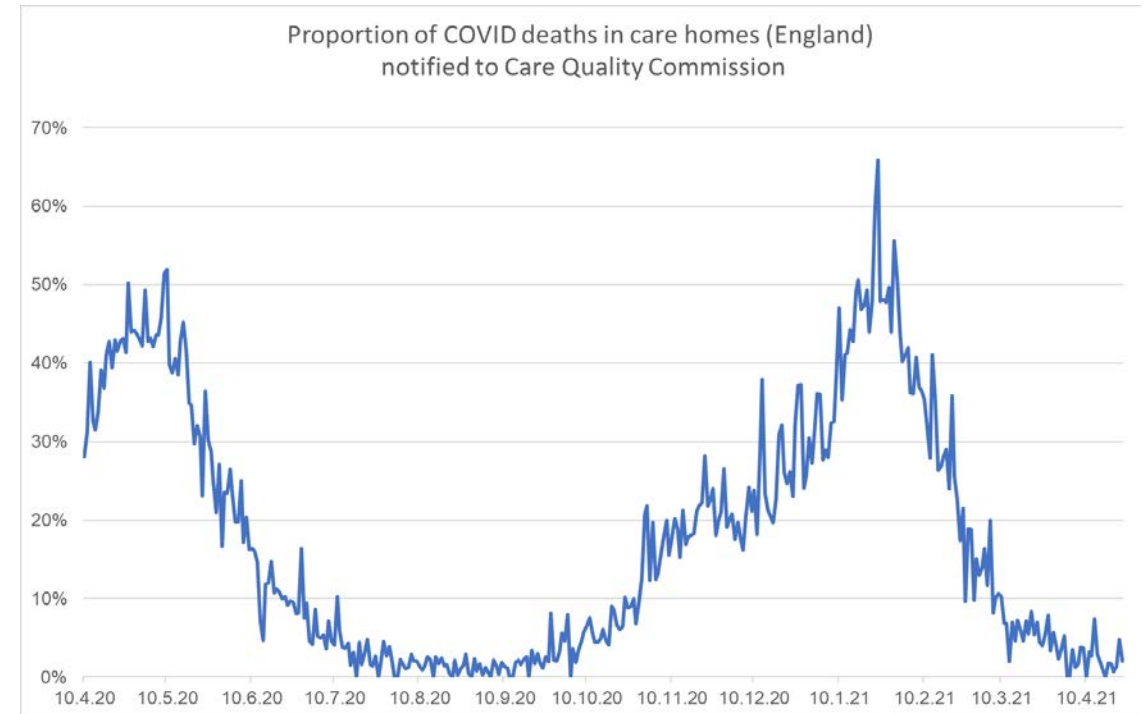
COVID-19 deaths

29,009

Other deaths

125,447

notified to CQC between
10 Apr 2020 and 9 Apr 2021

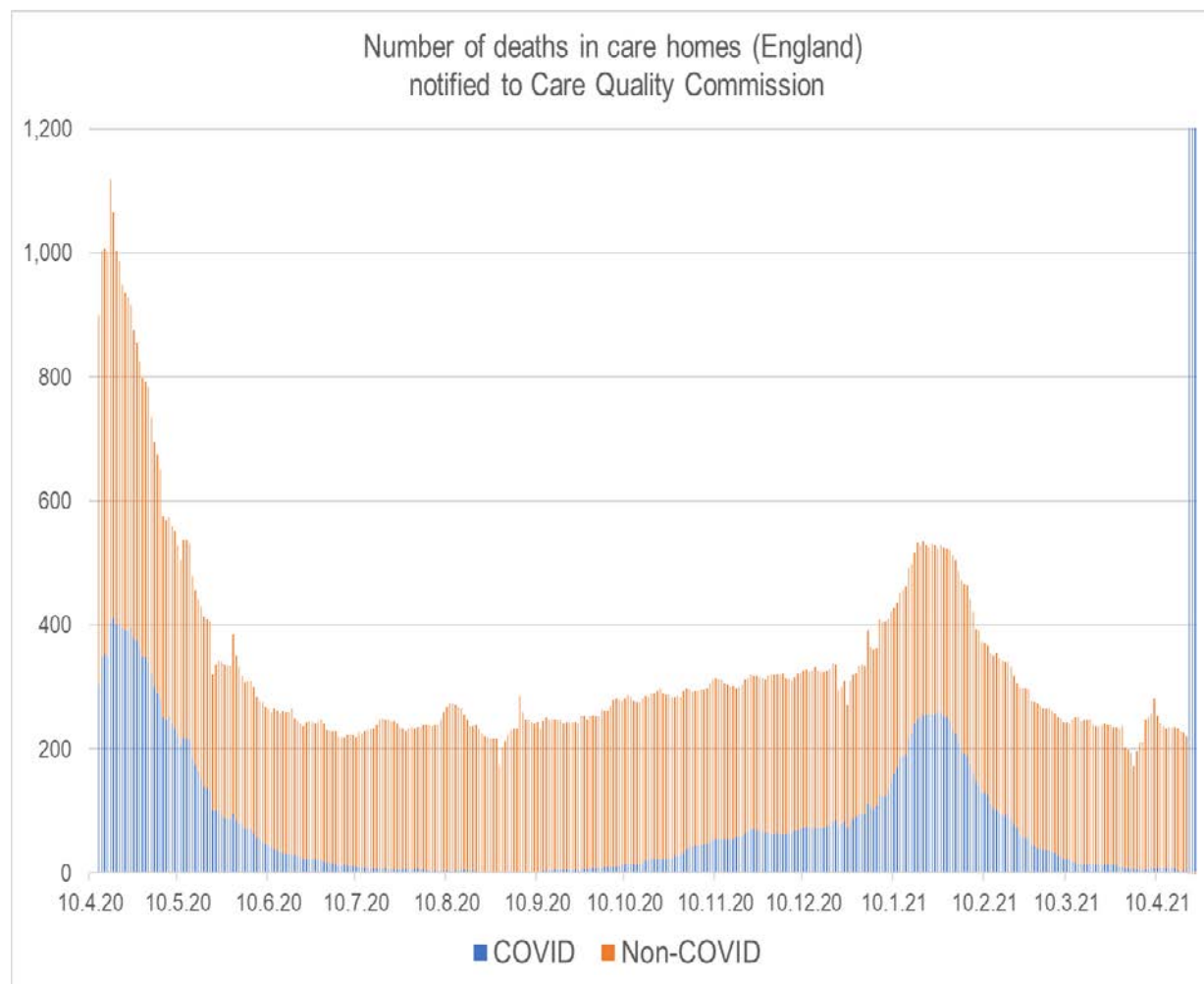


Source: [Care Quality Commission](#)



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COVID – charting an “annus horribilis” for care homes



Source: [Care Quality Commission](#), [TheGuardian](#)

Social care

Families question isolation rule for visits out of English care homes

Anyone making visits out of home faces having to isolate in their room for two weeks

- [Coronavirus - latest updates](#)
- [See all our coronavirus coverage](#)

Robert Booth *Social affairs correspondent*

Thu 8 Apr 2021 19:55 BST



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▲ The DHSC guidance acknowledges that the isolation rule 'is likely to mean that many residents will not wish to make a visit out of the home'. Photograph: Hannah McKay/Reuters



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Readying the NHS and social care for the peak

- Action Plans
 - (Early Feb) Weekly briefings to NHS leaders
 - (17 March) letter to NHS providers and commissioners
 - (15 April) Action Plan for Adult Social Care
- 25,000 patients discharged from hospitals to care homes between 17 March and 15 April to increase capacity without policy to test prior to discharge
- Limited testing capacity in March focused on NHS hospitals
- No-one tasked with responsibility for ensuring sufficient PPE until mid-April
- 15 May: Plan for asymptomatic testing in care homes announced (only rolled out in September)



Report
by the Comptroller
and Auditor General

Department of Health & Social Care

Readying the NHS and
adult social care in England
for COVID-19

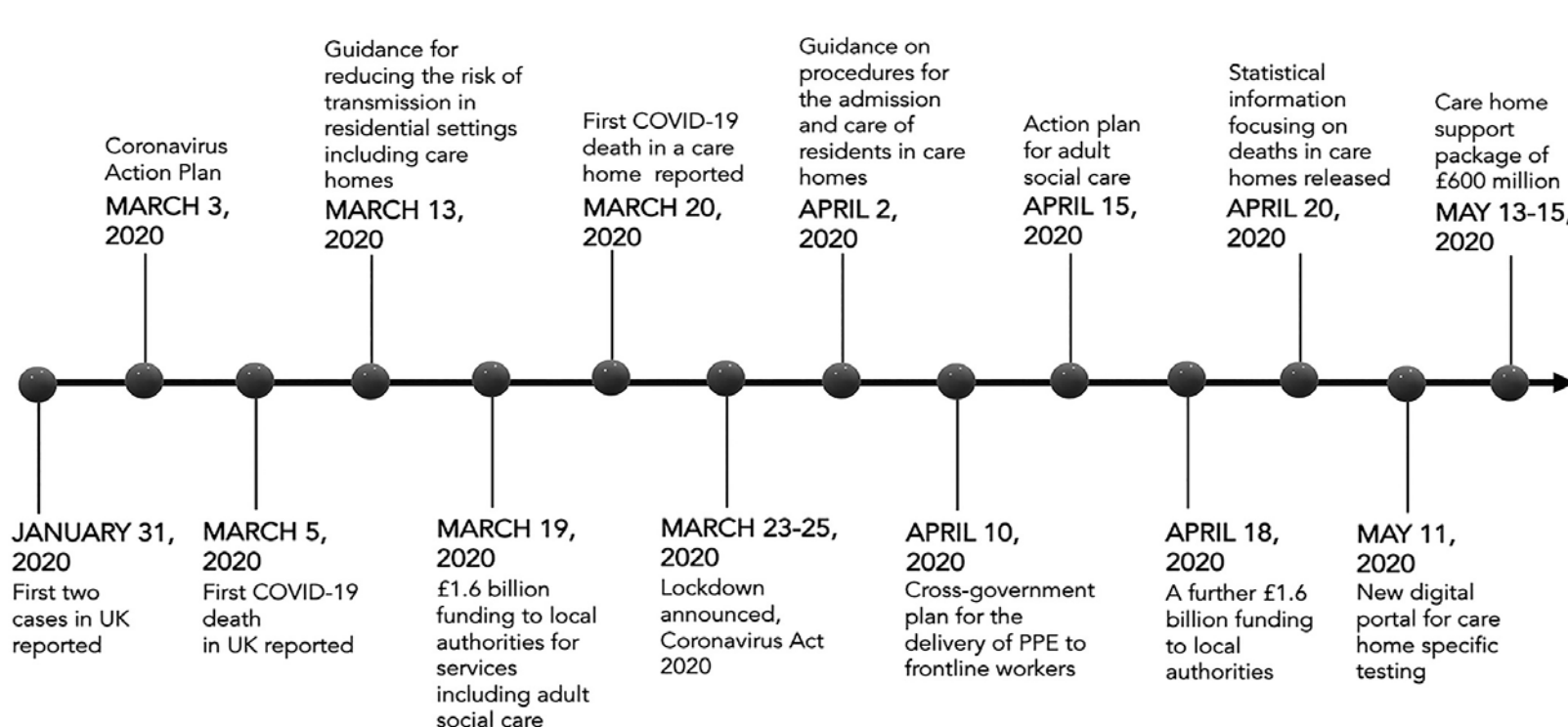
HC 367 SESSION 2019-2021 12 JUNE 2020



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Source: [Readying the NHS and social care for the COVID-19 peak](#)

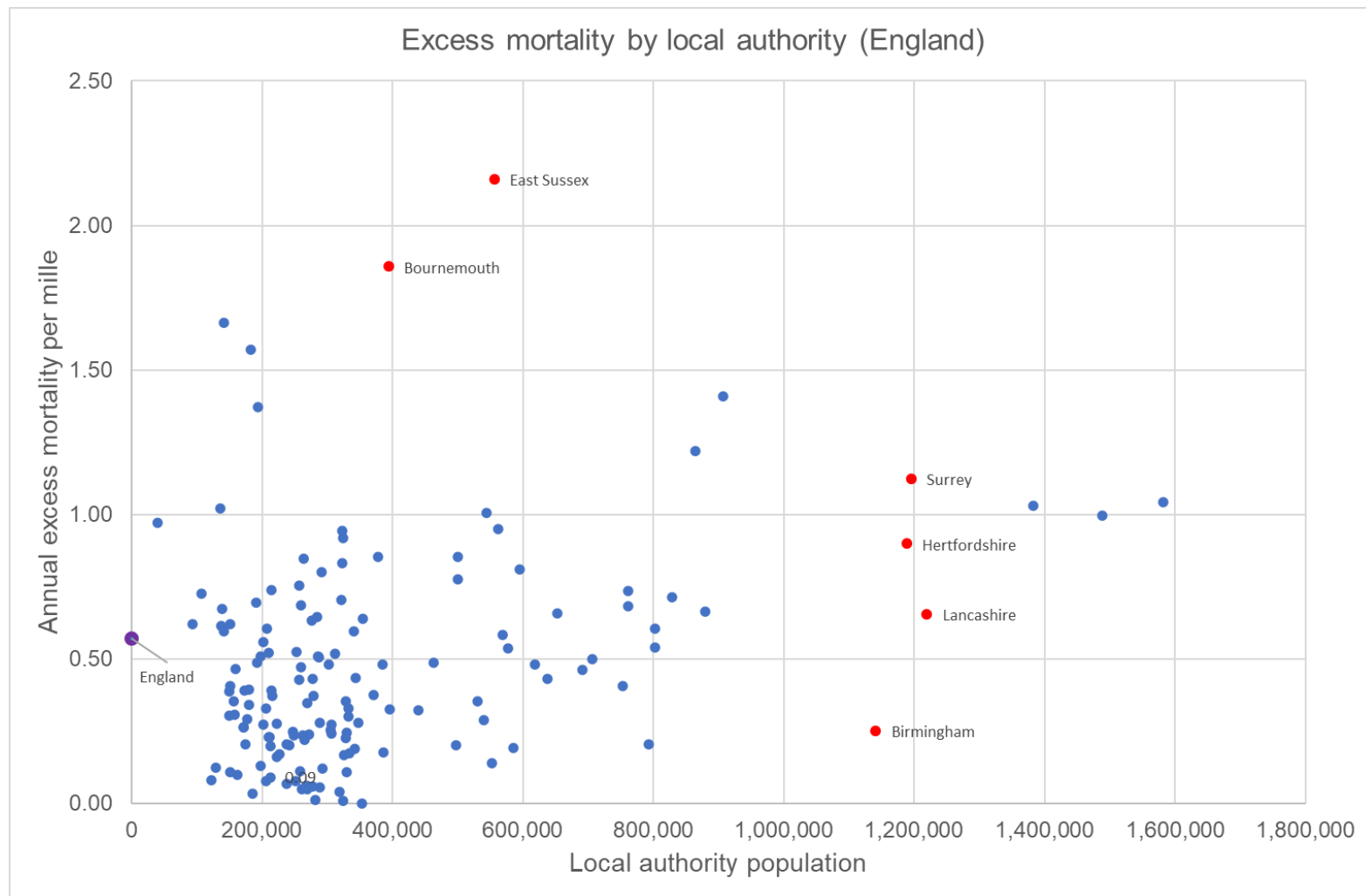
Readying the NHS and social care for the peak



- 15 May: Plan for asymptomatic testing in care homes announced (only rolled out in September)

Source: [Readying the NHS and social care for the COVID-19 peak](#)

Local patterns in COVID mortality in 2021

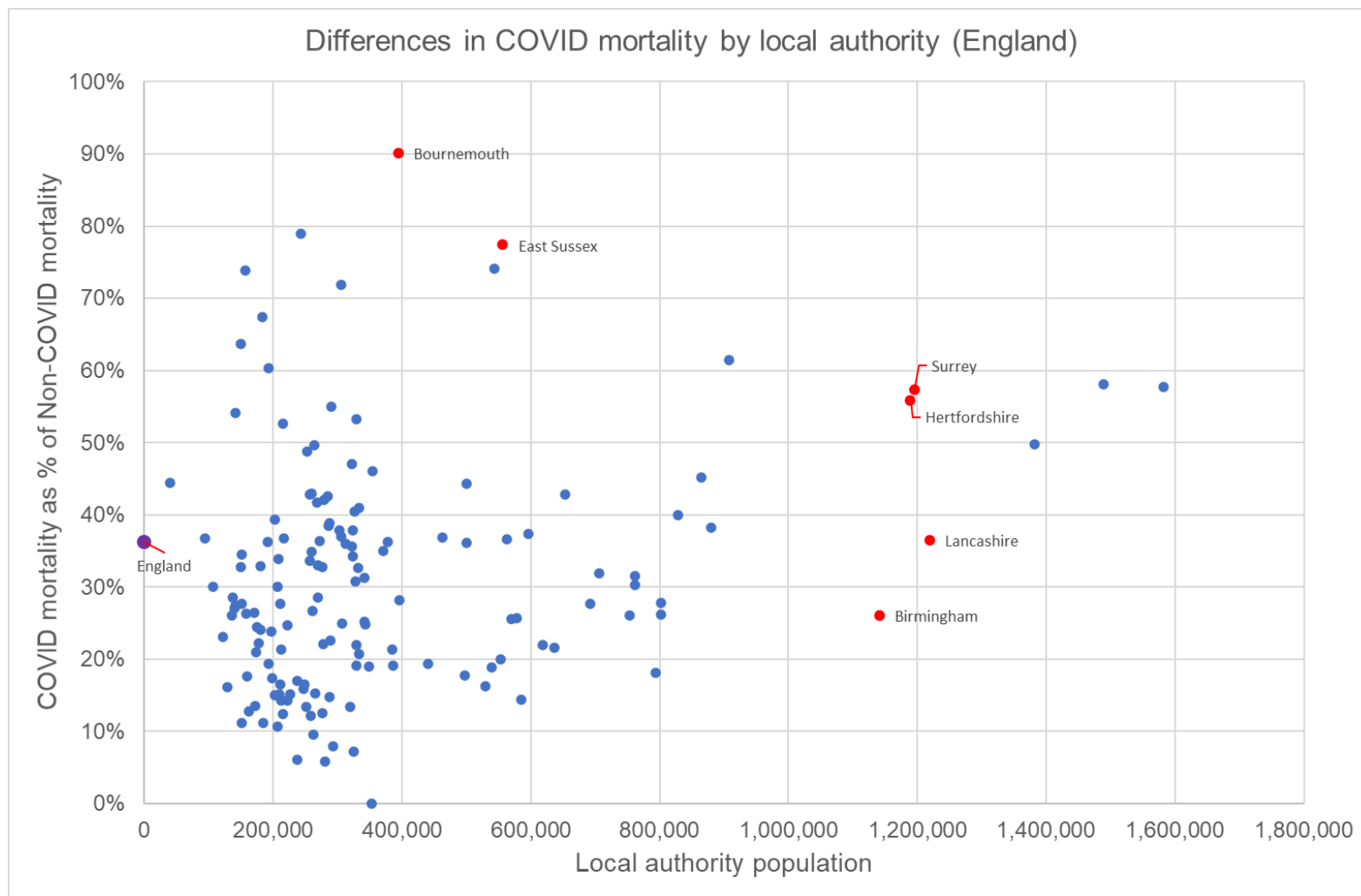


Source: [Care Quality Commission](#), analysis by COIOS Research



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Local patterns in COVID mortality in 2021

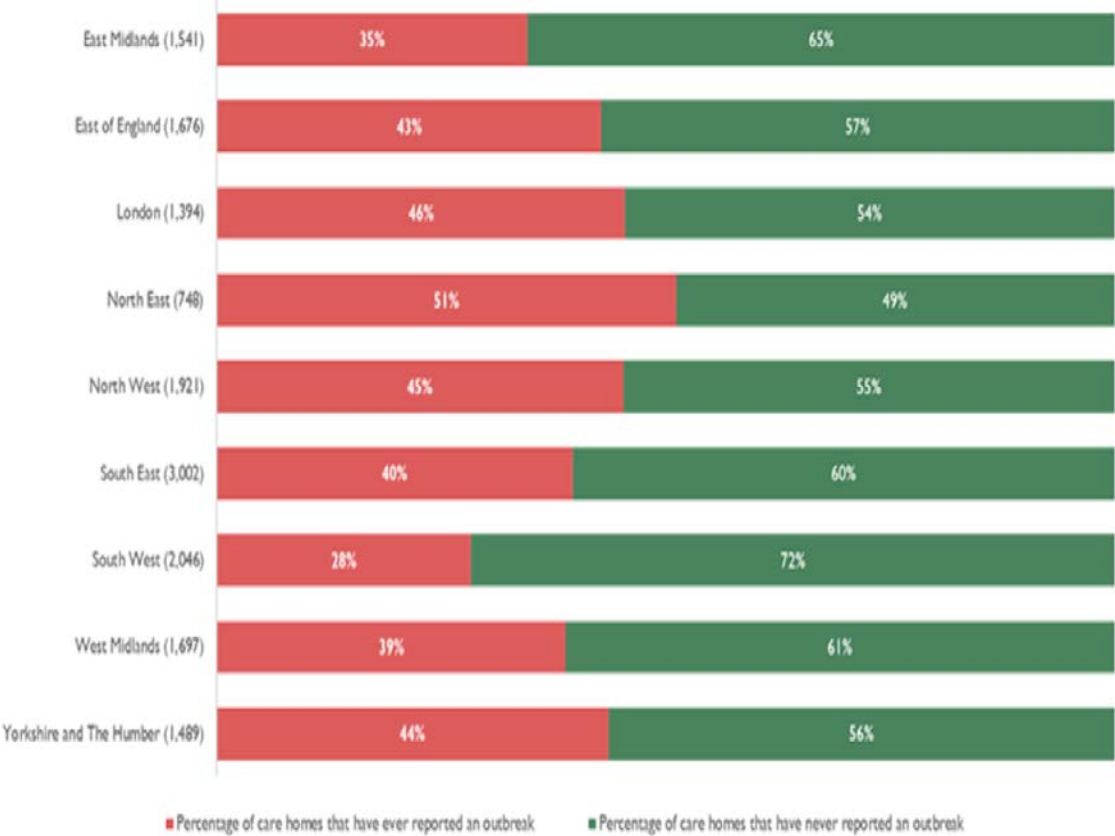
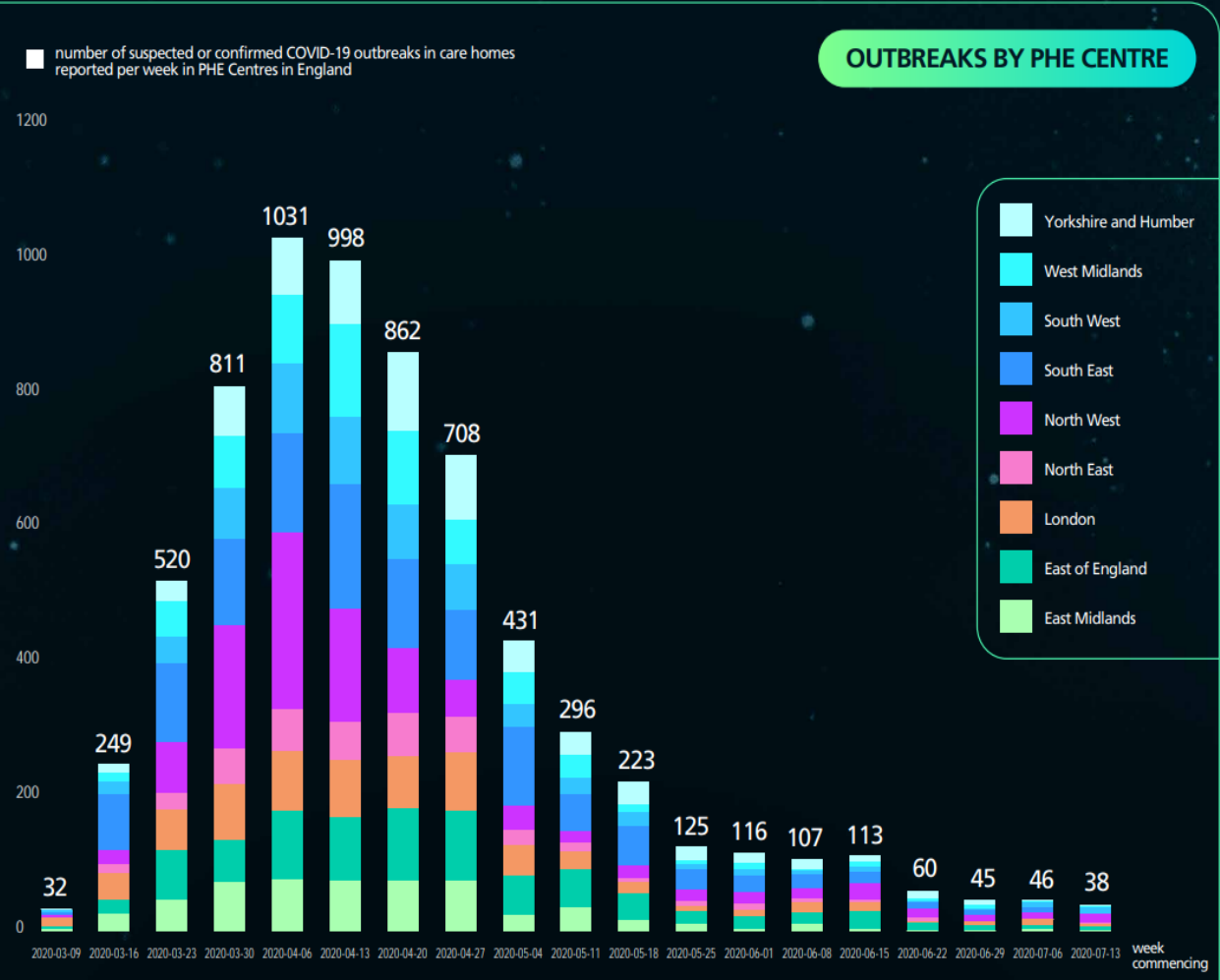


Source: [Care Quality Commission](#), analysis by COIOS Research



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Outbreaks and contagion in care homes in England



Sources: [PHE Care Home Weekly Summary Data Report](#), [PHE Our Data from COVID-19 Insight: Issue 2](#)

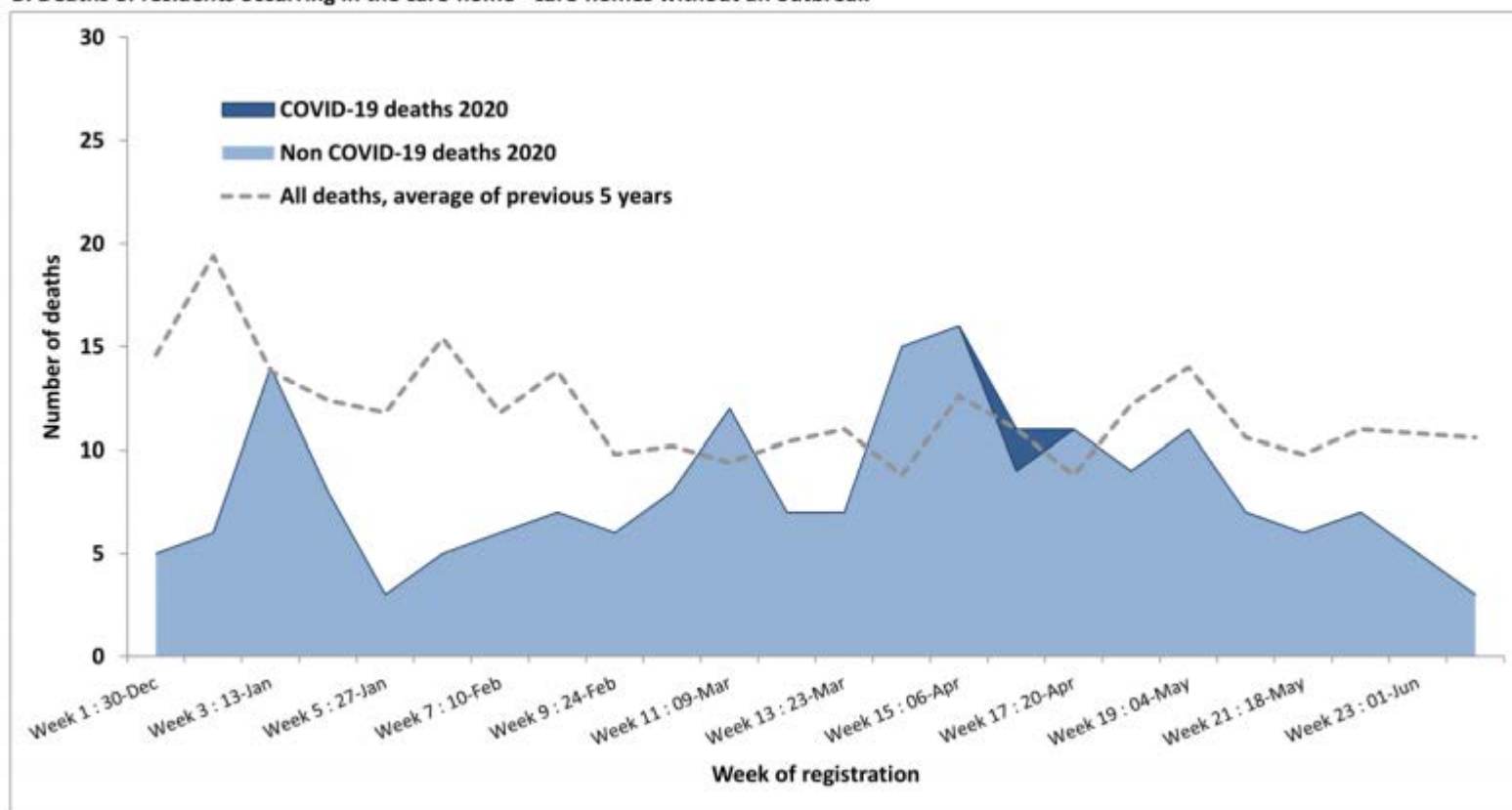


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Outbreaks and contagion in care homes in Scotland

Longitudinal study of care homes in a Scottish health board

B. Deaths of residents occurring in the care-home - care-homes without an outbreak



Source: [Evolution and impact of COVID-19 outbreaks in care homes: population analysis in 189 care homes in one geographic region](#)

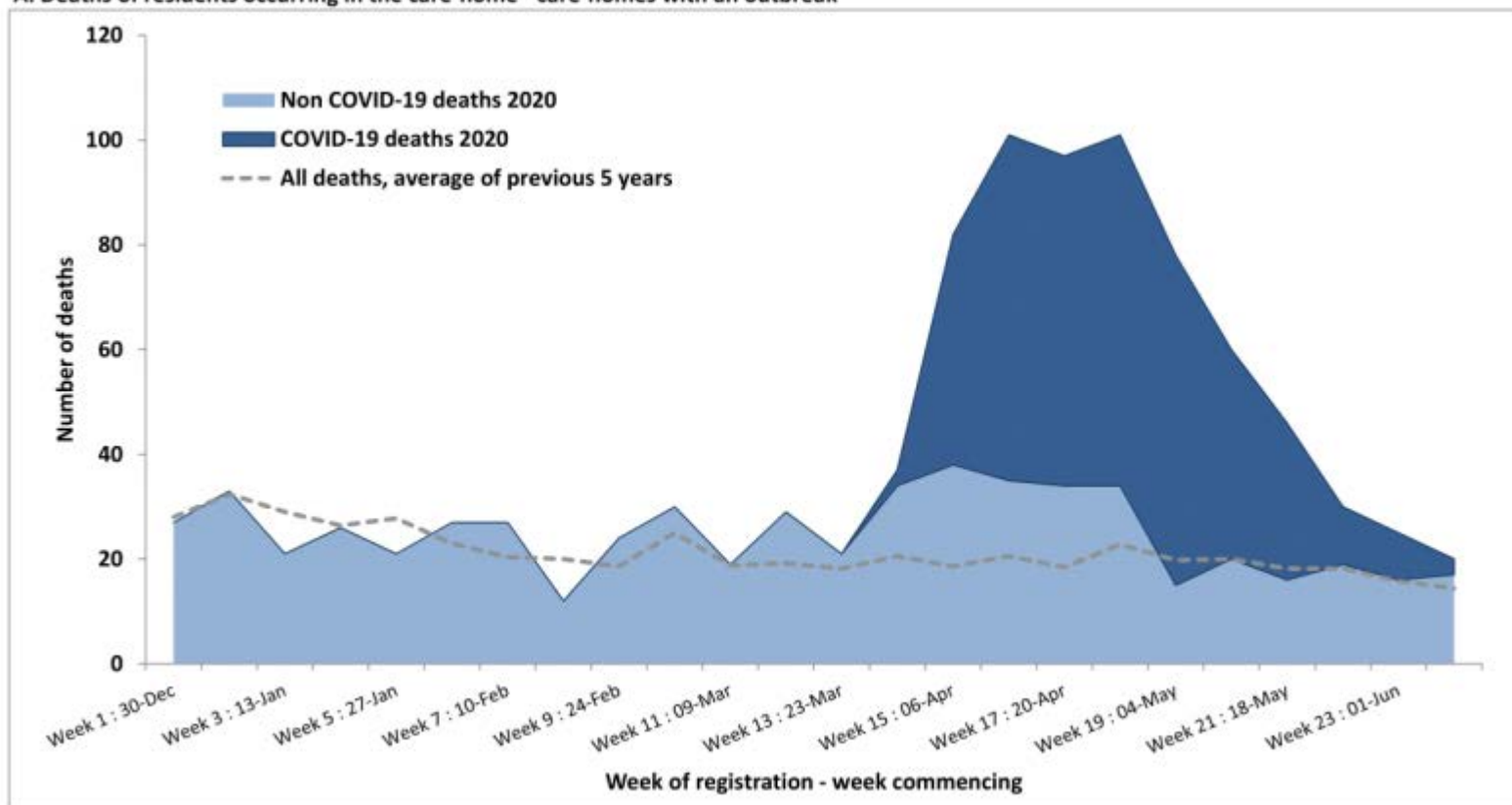


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Outbreaks and contagion in care homes in Scotland

Longitudinal study of care homes in a Scottish health board

A. Deaths of residents occurring in the care-home - care-homes with an outbreak



Source: [Evolution and impact of COVID-19 outbreaks in care homes: population analysis in 189 care homes in one geographic region](#)



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Vivaldi study - COVID infection in care homes

- Vivaldi is a multi-stage study involving UCL, Four Seasons healthcare and the Department of Health and Social Care. Aims of the study were to use national samplings of care home staff and residents to determine:
 - how many care home staff and residents were infected with COVID-19 in the past
 - how many care home staff and residents are infected now
 - how does antibody effectiveness change over time
- Testing from the survey in Vivaldi 1 indicated that:
 - 2.4% of all tests were positive (9,674 out of 397,197)
 - 3.9% of residents tested positive (6,747 out of 172,066)
 - 3.3% of asymptomatic residents tested positive (5,455 out of 163,945)
 - 80.9% of residents who tested positive were asymptomatic (5,455 out of 6,747)
 - 1.2% of asymptomatic staff tested positive (2,567 out of 210,620)
- Key risk factors to infection include: use of agency staff, number of new admissions and return to care home from hospital

Source: [Vivaldi study – COVID infection in care homes](#)



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Explanation of excess mortality during 1st wave

Table 2 Excess deaths (panel a) and excess deaths per bed (panel b) by care home type (in the first 24 weeks with COVID-19)

	Overall (nursing and residential homes combined)	Nursing homes	Residential homes
Panel b. Total excess deaths per bed (in %, adjusted for bed capacity as reported in March 2020)			
Overall excess	6.5 [5.5; 7.4]	8.4 [7.1; 9.7]	4.6 [3.8; 5.3]
Overall excess attributable to COVID-19	4.2 [3.1; 5.7]	5.7 [4.1; 7.7]	2.8 [2.0; 3.9]
Reporting COVID-19 deaths	13.5 [11.5; 15.5]	13.8 [11.7; 15.9]	13.0 [10.7; 15.2]
Not reported	0.0 [−0.2; 0.3]	−1.0 [−1.6; −0.5]	0.6 [0.3; 0.9]
Providing services to older people/with dementia	7.0 [5.9; 8.0]	8.6 [7.3; 9.9]	5.1 [4.3; 6.0]
Providing non-dementia services to children and/or adults only	1.5 [1.0; 2.0]	1.9 [0.8; 3.0]	1.4 [0.9; 2.0]
For-profit care homes	6.3 [5.4; 7.2]	8.4 [7.2; 9.7]	4.1 [3.3; 4.9]
Not-for-profit care homes	8.0 [6.1; 10.0]	8.7 [4.8; 12.6]	7.7 [6.1; 9.2]
Branded care homes	7.2 [6.0; 8.5]	8.4 [6.9; 10.0]	5.6 [4.4; 6.9]
Non-branded care homes	5.8 [5.0; 6.7]	8.4 [7.0; 9.9]	4.0 [3.4; 4.6]
Small homes [0–23 beds]	2.2 [1.8; 2.7]	2.6 [0.7; 4.5]	2.2 [1.7; 2.6]
Medium homes [24–40 beds]	4.7 [4.0; 5.5]	6.0 [4.6; 7.5]	4.1 [3.5; 4.7]
Large homes [41+ beds]	8.6 [7.3; 10.0]	9.2 [7.8; 10.7]	7.3 [5.6; 8.9]
% care homes reporting any death in the COVID-19 period	59.7%	89.0%	47.9%
% care homes reporting confirmed/suspected COVID-19 fatalities	27.4%	54.2%	16.7%

Own elaboration on CQC data on care homes reported to be active in March 2020

Source: [Excess mortality for care home residents in England during first 23 weeks of COVID-19 pandemic](#)



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End of 2nd wave – benefits of lockdown & vaccination

COVID registered deaths as % of Non-COVID deaths in each week

Age group	Week ended														
	08-Jan-21	15-Jan-21	22-Jan-21	29-Jan-21	05-Feb-21	12-Feb-21	19-Feb-21	26-Feb-21	05-Mar-21	12-Mar-21	19-Mar-21	26-Mar-21	02-Apr-21	09-Apr-21	16-Apr-21
<1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1-4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5-9	100%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%
10-14	0%	0%	25%	0%	0%	0%	0%	20%	0%	20%	17%	0%	0%	0%	0%
15-19	25%	0%	10%	0%	25%	9%	0%	0%	7%	0%	0%	0%	8%	0%	0%
20-24	5%	18%	12%	4%	12%	6%	17%	6%	0%	5%	0%	7%	10%	4%	0%
25-29	26%	12%	25%	9%	22%	16%	11%	33%	14%	3%	0%	0%	0%	0%	3%
30-34	30%	27%	17%	49%	33%	19%	18%	6%	9%	6%	2%	8%	18%	8%	10%
35-39	24%	36%	35%	41%	38%	25%	21%	23%	20%	10%	6%	4%	6%	4%	2%
40-44	26%	35%	34%	42%	46%	25%	22%	16%	23%	13%	7%	3%	3%	9%	5%
45-49	33%	50%	55%	52%	61%	36%	31%	21%	19%	10%	12%	8%	8%	4%	6%
50-54	40%	44%	46%	62%	66%	52%	33%	31%	19%	22%	9%	16%	7%	6%	4%
55-59	45%	62%	72%	78%	64%	45%	44%	32%	25%	20%	14%	10%	9%	7%	6%
60-64	49%	64%	71%	78%	71%	71%	47%	42%	32%	19%	17%	15%	7%	7%	4%
65-69	48%	59%	78%	81%	75%	70%	48%	33%	31%	23%	13%	9%	7%	6%	5%
70-74	50%	66%	83%	80%	72%	55%	43%	32%	21%	15%	10%	6%	3%	4%	3%
75-79	56%	71%	94%	87%	72%	61%	43%	32%	22%	15%	10%	6%	5%	5%	3%
80-84	60%	78%	89%	92%	79%	60%	42%	28%	21%	16%	10%	7%	5%	4%	3%
85-89	57%	74%	92%	94%	83%	65%	45%	30%	21%	16%	10%	7%	5%	4%	4%
90+	49%	67%	85%	89%	76%	62%	41%	30%	21%	14%	9%	7%	5%	3%	3%

Source: ONS weekly provisional deaths for England & Wales



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International dimension

Boundless thanks to LTCCOVID.org



LTCcovid aims to:

- Document the impact of COVID-19 on people who rely on long-term care (including unpaid care) and those who provide it
- Share information about policy and practice measures to mitigate the impact of COVID-19 in long-term care and gather evidence about their success or otherwise.
- Analyse the long-term implications of this pandemic for long-term care policy.



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Source: [LTCCOVID.org](https://ltccovid.org)




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Essential research hub for COVID-19 and LTC



LTC RESPONSES
TO COVID-19
INTERNATIONAL LONG-TERM
CARE POLICY NETWORK

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Resources to support community and institutional Long-Term Care responses to COVID-19

Research Projects on COVID-19 and Long-Term Care

This page gathers information about completed or ongoing research projects on COVID-19 and long-term care. If you would like to contribute information about your project, please [complete our online submission form](#).

Use these options to filter projects ? RESET

Country

All countries

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All care settings

Funding

All funding types

Impact/outcomes

All impact/outcomes

Intervention Types

All intervention types

Methods

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Groups/organisations


All groups/organisations

All impact/outcomes

Wellbeing and quality of life (50)
Mental health (42)
Quality of care (35)
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COVID-19 Infection rates (21)
Implementation outcomes (21)
Cost and other financial impacts (19)
Deaths (18)
Physical health (18)
Social interaction (18)
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Staff skills (13)
Treatment outcomes (10)
Pandemic preparedness (6)
Staff retention (6)
Access to care and care utilisation (1)
Improved care home design (1)
Rights and social justice (1)

All countries

Argentina (1)
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Austria (6)
Belgium (1)
Brazil (4)
Canada (24)
Chile (1)
Colombia (2)
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Denmark (2)
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Finland (1)
France (1)
Germany (5)
Ghana (1)
Greece (1)
Hong Kong (1)
Hungary (1)
India (4)



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Source: [LTCCOVIG.org](https://ltccovig.org)

06 May 2021

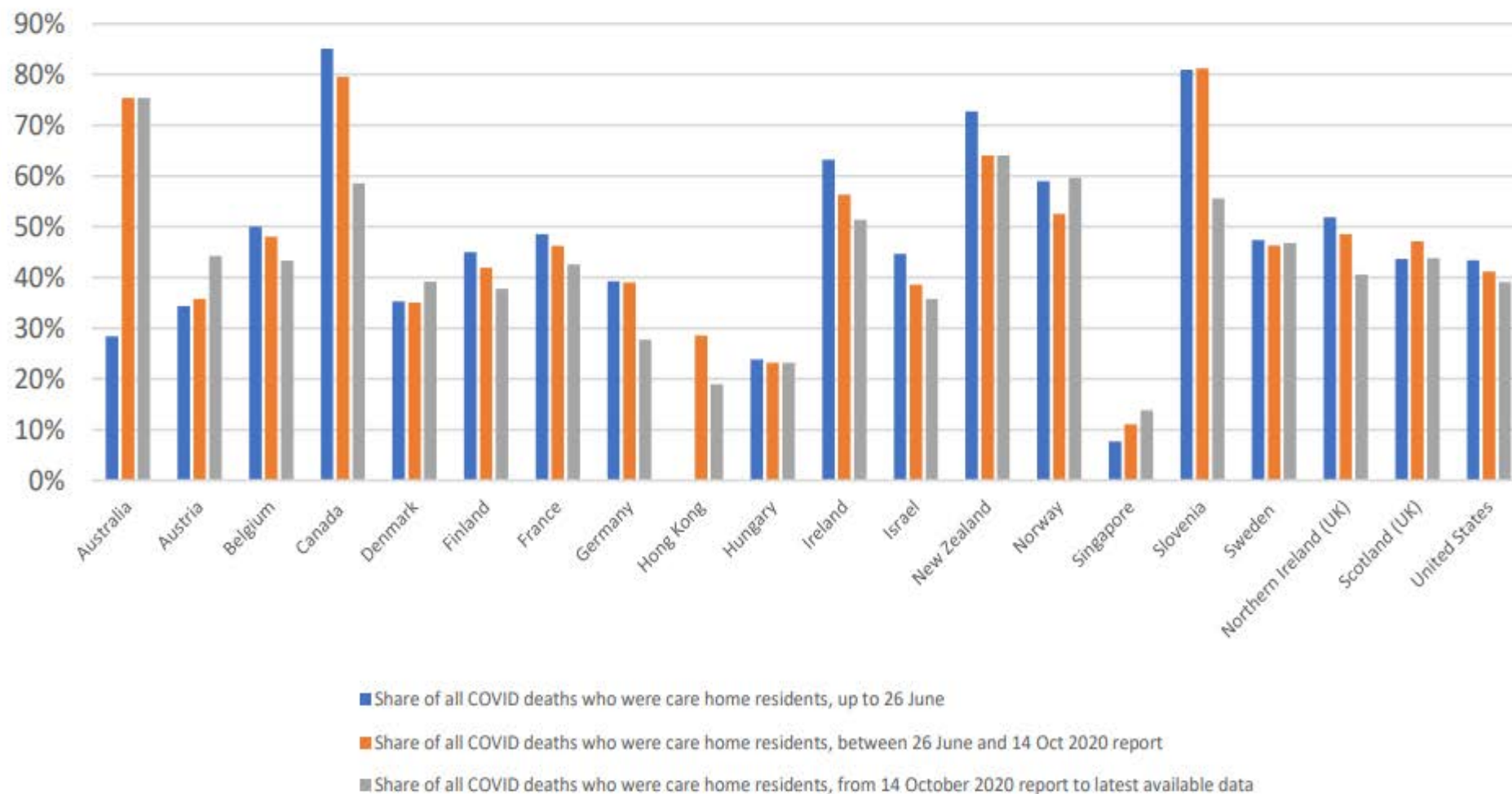
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International experts sharing views on care homes & LTC



Source: [LTCCOVIG.org](https://ltccovid.org)

International comparisons of mortality in care homes

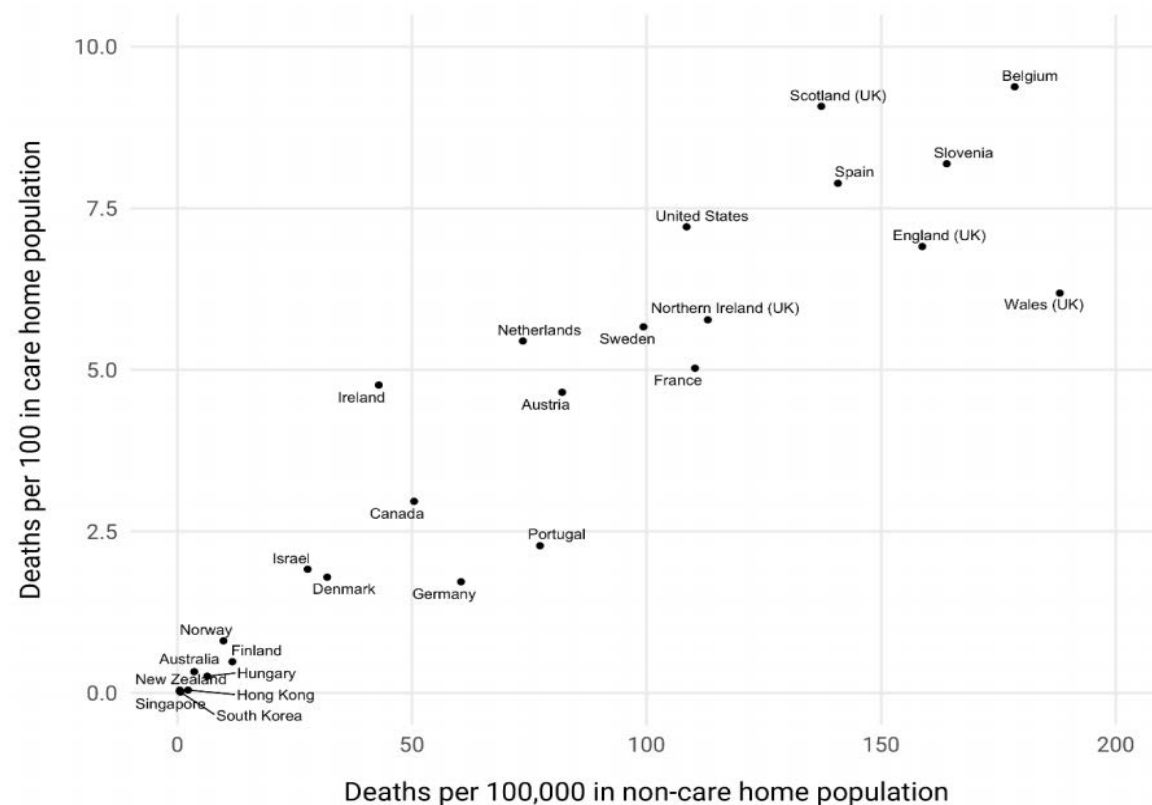
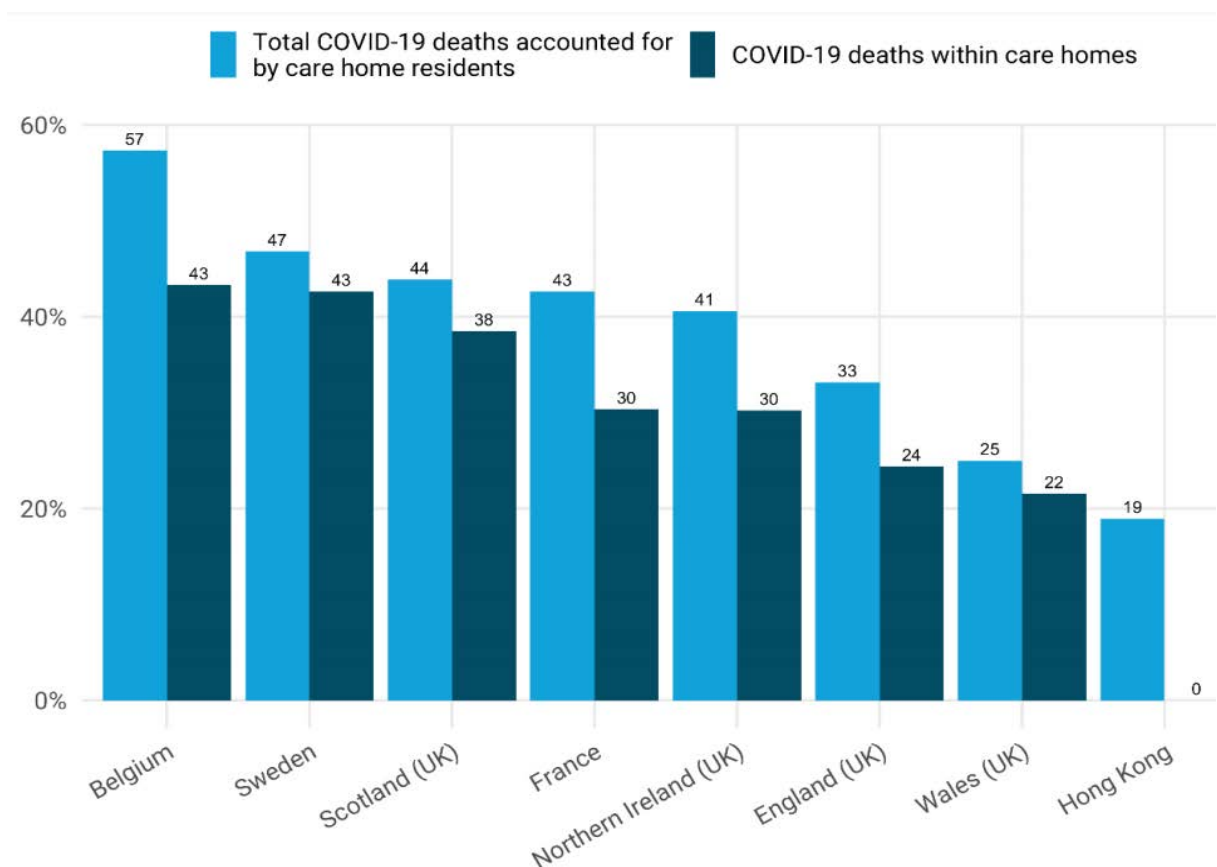


Source: [Mortality in care homes: international evidence](#)



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International comparisons of mortality in care homes



Source: [Mortality in care homes: international evidence](#)



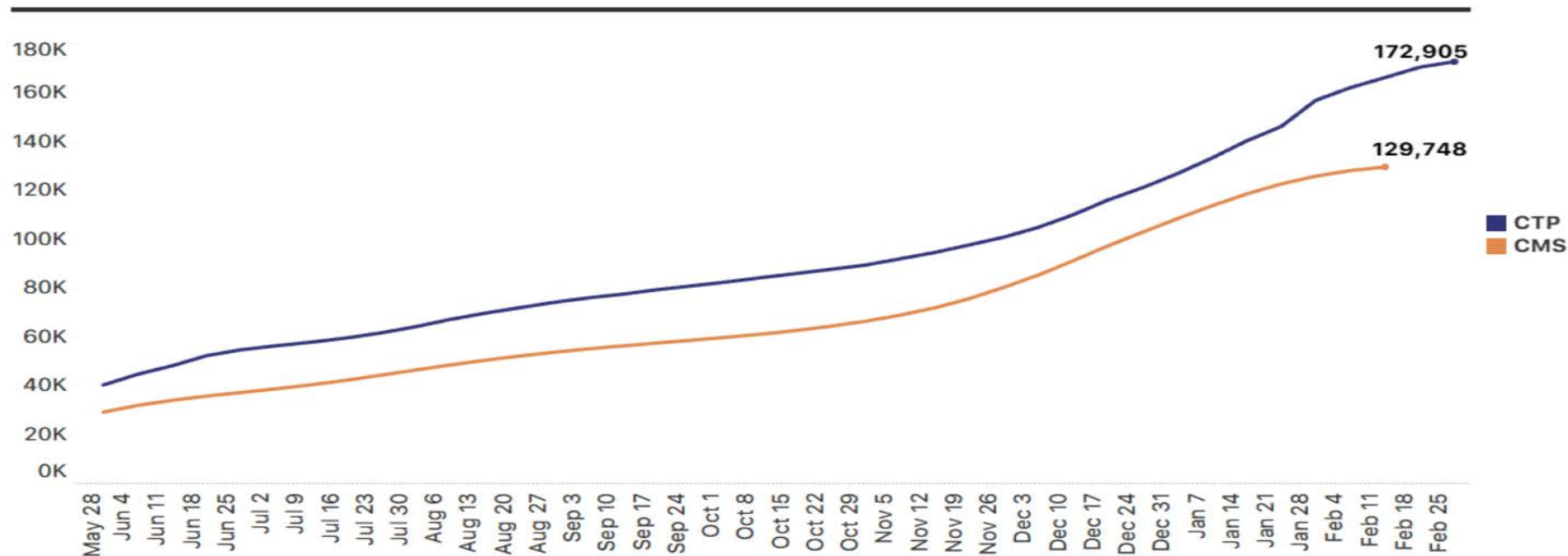
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USA: Long-term care COVID tracker

- Part of the COVID Tracking Project, established by the Atlantic, bringing together state and federal data on long-term care facilities

CUMULATIVE DEATHS IN LONG-TERM CARE FACILITIES BY WEEK

Comparison of CTP and CMS datasets



Source: [Long-term care COVID tracker](#)

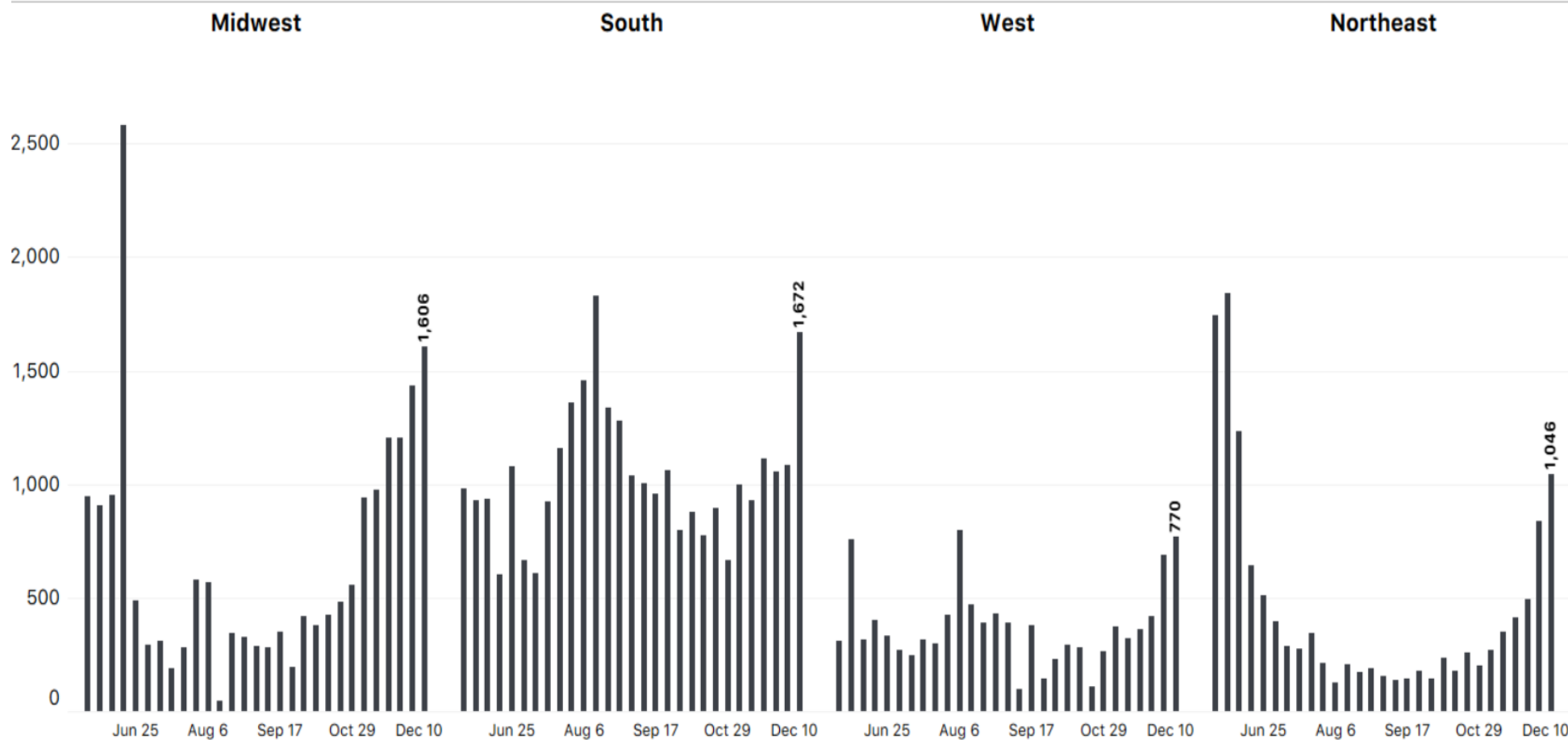


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USA: Regional analysis of pattern of LTC mortality

NEW DEATHS IN LONG-TERM-CARE FACILITIES

May 28 - Dec 10



Source: [Long term care COVID Tracker](#)

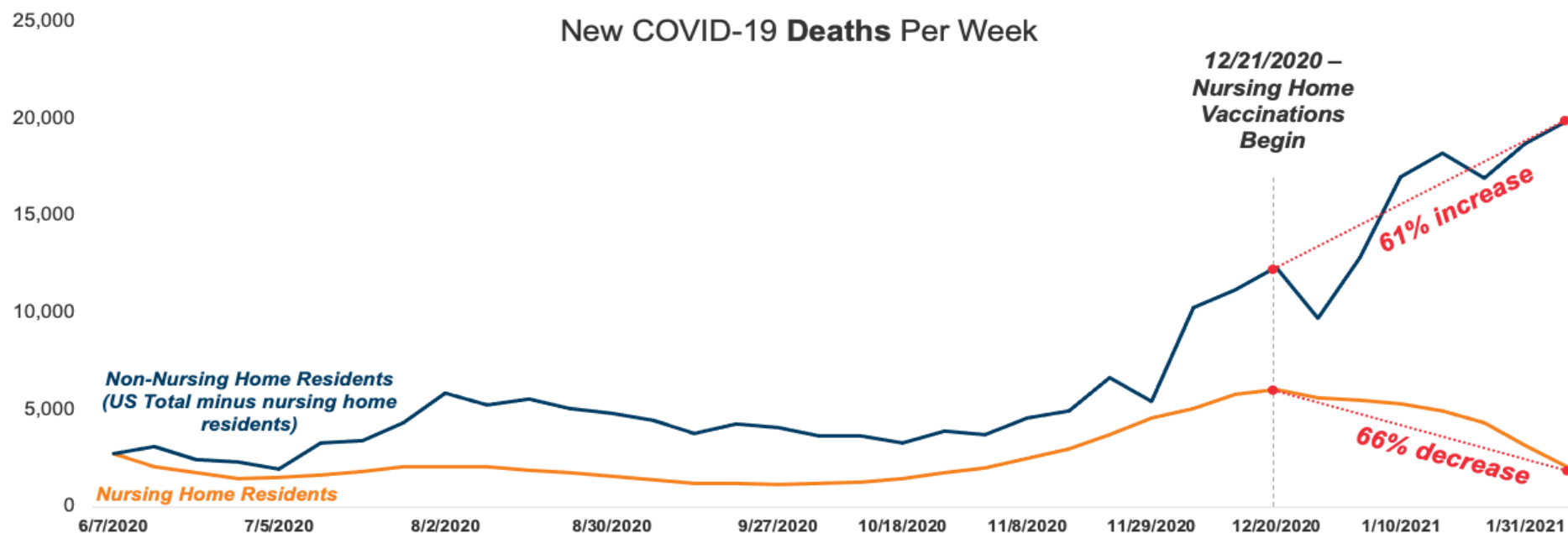


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USA: Benefits of vaccinations in nursing homes

Figure 1

Weekly COVID-19 Nursing Home Resident and Non-Nursing Home Resident Deaths in the US, June 2020 – February 2021



NOTES: Nursing home deaths include resident deaths only. Non-nursing home resident deaths calculated as total US deaths minus nursing home resident deaths. Nursing home staff deaths are included in "Non-nursing home resident" values.

SOURCES: Nursing home resident deaths are from CMS COVID-19 Nursing Home Data, as of the week ending on 2/7/2021. US weekly deaths data is based on analysis of COVID Tracking Project data.

KFF



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Source: [Is the End of the Long-Term Care Crisis Within Sight?](#)



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COIOS
Research

Preventing further outbreaks

06 May 2021

Best practices for care homes going forward

NHS Long Term Plan (2018) committed to roll-out EHCH across England by 2024 as part of Ageing Well Programme



The Framework for Enhanced Health in Care Homes

Version 2

March 2020

NHS England and NHS Improvement



Source: [CQC guidance to care homes](#), [British Geriatrics Society](#),



British Geriatrics Society
Improving healthcare
for older people

Date first published:
30 March 2020

Current version updated:
16 November 2020

Managing the COVID-19 pandemic in care homes for older people

GOOD PRACTICE GUIDE

VERSION 4

The COVID-19 pandemic raises particular challenges for care home residents, their families and the staff that look after them. This guidance has been developed to help care home staff and NHS staff who work with them to support residents through the pandemic. **This is Version 4.**

This guidance is written as the United Kingdom moves into the second wave of the COVID-19 pandemic. It is designed to be applicable to care home residents across all four nations of the UK. Residents of care homes for older people have been particularly affected by COVID-19. Across the four nations 28-50% of all COVID-related deaths occurred in care home residents.¹

The majority of people living in care homes are over the age of 80. Most have multiple long-term health conditions, and the majority of residents are affected by physical disability and cognitive impairment. These factors explain, in part, the vulnerability of older people living in care homes to COVID-19. But there is much that can be done in care homes to improve outcomes for residents during the pandemic.

Since the BGS first produced guidance on COVID-19 in care homes in March 2020, health and social care teams have learned much about how to manage both the illness and spread of infection in care homes. In addition, there have been multiple versions of government guidance across the four UK nations during the intervening period.

We provide here an updated version of our previous guidance. We have taken account of suggestions from colleagues in the care home sector and have therefore designed this version to be brief, outlined as bullet-points, written in plain English, and compatible with all existing government guidance. This guidance covers the following issues that care home staff are likely to come across when managing COVID-19 in a care home environment:

1. Infection control
2. Staff and resident testing
3. Admissions to care homes
4. Family visiting
5. Diagnosing COVID-19 in care homes
6. Management and treatment of COVID-19 in care homes
7. Advance Care Planning
8. End of life care
9. Continuing routine healthcare



How care homes managed **infection prevention and control** during the coronavirus pandemic 2020

November 2020



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How care homes are trying to prevent outbreaks

- Routine testing of staff and residents + awareness of non-classical symptoms - lethargy, lack of appetite and delirium
- Change care home layouts to reduce maximum occupancy and allow for segregation of possible, probable and confirmed cases
- Discharging patients from “hotzone” hospitals to “quarantine centres” with repeated swabbing over multiple days
- Better information systems that monitor outbreaks and link care homes to suppliers
- Rapid response teams to be deployed where staff illness significant to maintain continuity of care
- Limit staff to one care home, and provide support so not compelled to work when ill
- Use of tele-medicine for offsite HCW during pandemic



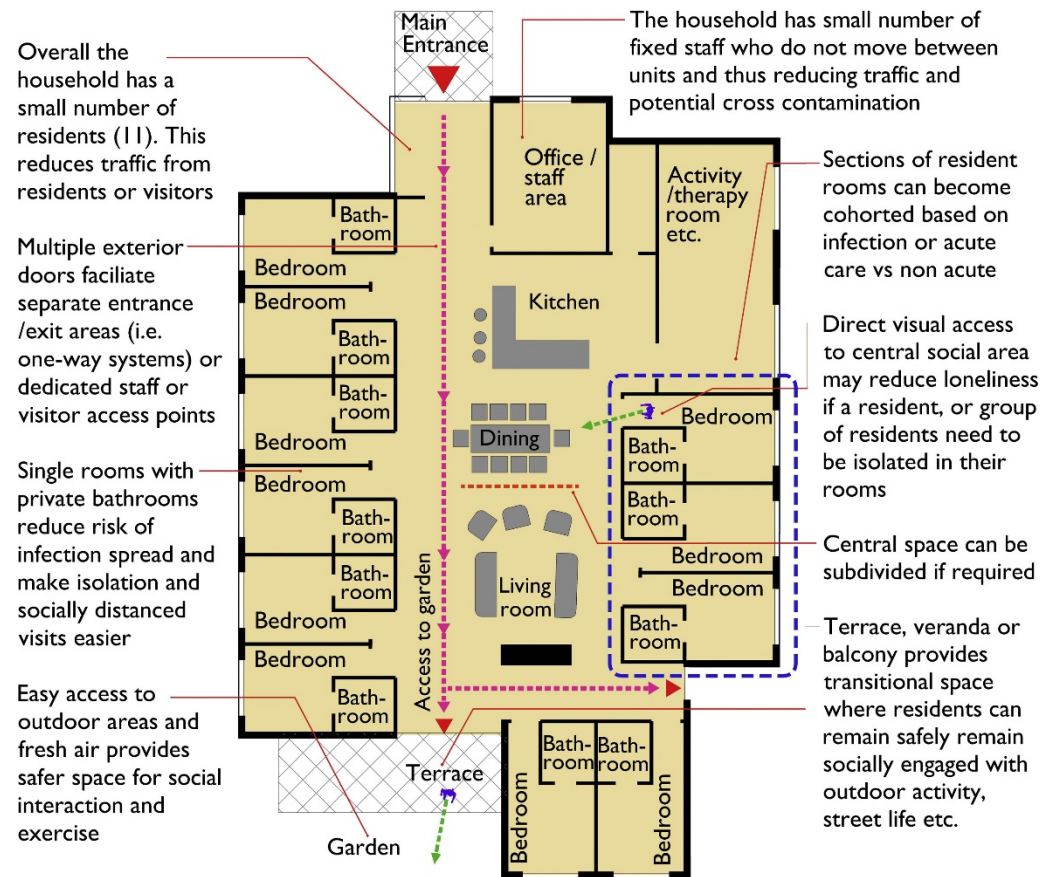
However, social distancing with PPE may achieve better overall outcomes than blanket visiting restrictions that intensify social isolation.



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Re-designing care homes in a COVID world

- “Household” or “Green Care” model
- Preference for autonomous residences with dedicated staff with decentralised care station
- 10-12 residents with private bedrooms/bathrooms
- Onsite therapy and activity rooms
- Promote engagement and address directly fear of isolation
- Reduce traffic and limit number of access points
- Protected outdoor space



Source: [Nursing home design and COVID-19](#)



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Future of care home sector & adult social care

Future impact of COVID on care home industry

- Reduced demand for care home places
 - Typical occupancy 88%
 - Occupancy below 85% affects financial viability
 - Estimated at 79% second half of 2020, will take till November 2021 to recover to pre-pandemic levels
- Home care agencies and care homes subject to increased costs
 - More staff needed to maintain bubbles
 - Sick pay to deal with staff absence, no sick pay is a disincentive to be tested
 - Staff shortages require a recruitment drive
 - PPE requirements



Care homes at risk of closure

- Knight Frank predicted in July 2020 that 6,500 smaller, older care homes (140,000 beds) are at risk because properties need to be updated to wet room provision & unable to cope with occupancy loss.
- Increasing appetite for home care
 - 92% (YouGov Nov 2020) of over 65s preferred home care over care home
- Prior to COVID, challenges for home care over staffing, quality of care and integration with healthcare – desire to move beyond time and task

Fig 4: UK care homes by size and en suite provision

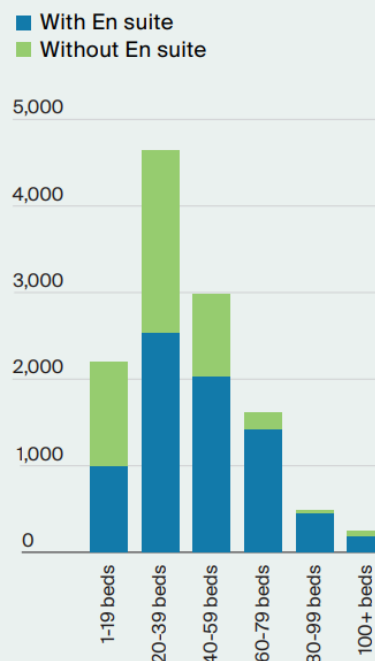
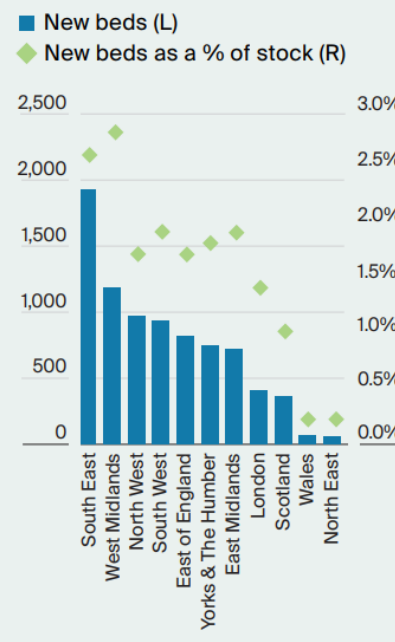


Fig 7: New beds completed (16 months to April 2020)



Virtual care homes

- Combination of internet technology & support services enable individuals to stay at home with cloud monitoring and one-stop access
- 135,000 registered in China as at December 2020
- Challenges over staffing and quality of service



Longer term funding of social care in UK

- 30 year debate of funding solutions, referencing social insurance models elsewhere. Care Act 2014 reforms have been delayed and suspended.
- Estimated that UK adult social care will require extra £7bn in 2023/4 at least to meet demographic pressures, fund minimum wages and protect individuals from catastrophic costs (1 in 10 face £100,000+). Actual costs of adequate social care likely to be much higher.
 - White paper (Feb 2020) from DH&SC under consultation: Integration and innovation: working together to improve health and social care for all
- Asset means testing include primary residence when vacated for care homes; exclude for home care
- Insurance solutions such as equity release and investment require clarity over funding and level at which costs are capped
- Joint report by IFoA and Independent Age “Will the Cap Fit? What the government should consider before introducing a cap on social care costs”

Region	Upper savings threshold for any local authority funding in 2020-21	Lower savings threshold for maximum local authority funding in 2020-21
England	£23,250	£14,250
Wales	£24,000 (care at home) or £50,000 (care in a care home)	£24,000 (care at home) or £50,000 (care in a care home)
Scotland	£28,500	£18,000
Northern Ireland	£23,250	£14,250



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Source: Health & Social Care Committee: Social care – funding and workforce

Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

Very happy to answer any questions that you may have after the webinar. If so, please contact me at dan.ryan@coios.health.



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