EXPERIENCES OF DIRECTORS OF NURSING IN PREPARING FOR AND MANAGING COVID-19 IN CARE HOMES FOR OLDER PEOPLE.

Phelan, A., Daly., L, Coffey, A., Kent, S. Naughton, C. Tuohy D., Ryan, A. and Byrne M.

Acknowledgements

Table of Contents

List of figures

List of tables

Foreword: Nursing Homes Ireland

Nursing Homes Ireland (NHI) are proud to have supported this research that captures the experiences of Directors of Nursing within care homes during the early phases of the COVID-19 pandemic in Ireland. It is known that this period of the pandemic had the biggest impact on older people, particularly those residing within care homes.
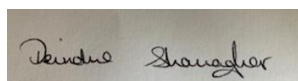
The intensified application of infection, prevention and control practices resulted in care homes being required to apply a medical model of care rather than a social model of care throughout this period. The findings support those of the COVID-19 Care Homes Expert Panel report (2020) and shine a light on some of the historical state failings in relation to the provision of care to older people. Also highlighted is the disjointed place of care homes within our health and social care system, signalling the well-known requirement for significant and meaningful change in relation to the provision of care and integration of services for older people in Ireland.

The report indicates that care homes faced a mammoth task in navigating pandemic preparation, management of care and protection of residents. It also outlines the realities of care home life for Directors of Nursing during the pandemic and provides a snapshot of the lengths and personal sacrifices that staff went to, to maintain the provision of high-quality care to residents. Nurse leadership throughout the pandemic is captured and care home staff are to be applauded for their work, particularly throughout this period.

Many individuals have contributed to this research and the outcomes are enriched by their participation. Particular thanks are due to the Directors of Nursing that provided their accounts and perspectives of providing care throughout the most challenging of times for the healthcare system globally. NHI are particularly proud to champion these nurse leaders and are immensely proud to work alongside them. The resilience of staff working within the care home sector is evident. We know that care and compassion were to the forefront for care home staff during this period. These are cornerstones of the provision of gerontological nursing care, and we are delighted to see that captured within this report.

Finally, significant thanks are to be expressed to the researchers at University of Dublin, Trinity College and all the academic team for leading this research and capturing this vital information.

Deirdre Shanagher

Strategic Clinical Nurse Expert with Regulatory Compliance

Nursing Homes Ireland.

Foreword: AIGNA
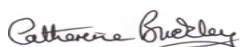
The All-Ireland Gerontological Nurses Association (AIGNA) is pleased to partner with Nursing Homes Ireland (NHI), the School of Nursing and Midwifery, TCD and other academic colleagues in this important research. As the President of AIGNA, it is a pleasure to endorse the research presented in this report. There is a growing body of knowledge around the world on the effects and challenges of both working and living in a pandemic. This research adds to the body of evidence on the challenges of working in residential care during a pandemic. This research highlights the unique experience of Directors of Nursing who were managing residential care facilities during the first and second wave of Covid-19 in Ireland. Findings demonstrate their resilience and their commitment to continue to provide a social model of care whilst dealing with complex clinical issues, namely increased infection control precautions and adherence to both national and regulatory guidance and standards.

The research shows the real struggle that existed during the early stages of the pandemic for Directors of Nursing to be able to balance a range of competing demands, values, strategies and regulatory frameworks in order to provide effective care services for vulnerable older people. The research also highlights both the physical and psychological demands that were placed on these nurses at this time.

It is clear from the findings of this research that Directors of Nursing worked above and beyond their call of duty and many had a very real sense of responsibility for both the older people in their care and for their staff. AIGNA would like to acknowledge the efforts of Directors of Nursing to maintain and promote person-centred services for residents in difficult situations and to support families and staff in changing circumstances. The pandemic has brought into focus the need to ensure the availability of expert gerontological nurses in social care settings. This finding is supported by previous research supported jointly by AIGNA, NHI, UCD and UU, on "Exploring nursing expertise in residential care for older people in Ireland" (Phelan and McCormack 2016) that demonstrates the critical contribution that expert gerontological nurses make to the lives of older people in residential care settings. It is now more important than ever that the voice of these gerontological experts be included in national policy, review boards, ministerial appointments and national discussion forums. AIGNA, as the voice of nurses in Ireland who work with older people, will continue to build on the findings of this research and to influence decisionmakers.

AIGNA would like to thank all the Directors of Nursing who took the time to take part in this research as without their valuable contribution the project would not have been completed. A final thank you to the researchers from the School of Nursing and Midwifery, Trinity College and all the academic team for their valuable work in undertaking this research project.

Catherine Buckley

President of AIGNA

Executive Summary

COVID-19 presented a major challenge to health and social care systems globally. In Ireland, the Health Protection and Surveillance Centre (2022a) report COVID-19 deaths in the over 65 age group represent 89.6% of total related deaths. As the pandemic approaches a third year, it has been a steep learning curve for all environments within health and social care systems. Care homes were disproportionally impacted due to the high-risk factors (older age, congregated setting, co-morbidity risk), resulting in high mortality rates. The evidence from the literature points to the efforts made by care homes in many countries to keep residents and staff safe while coping with the increased infection prevention and control demanded by COVID-19. Challenges identified pertain to the initial experiences of care home management, however, adaptations have been made to ensure resident safety and, like other healthcare environments, responses have been refined as new insights into the management of COVID-19 emerged.

In this study, we examined the experiences of care homes' Directors of Nursing/Persons in Charge (DoN) in their preparedness, management and control of care during COVID-19. Using a mixed methods approach, we collected data from a survey (n=122) of, and semi-structured interviews (n=20) with, DoNs in private and voluntary older person care homes in the Republic of Ireland. Our results echo the findings from the literature and demonstrate a very difficult transition to the higher infection prevention and control demands of a pandemic. Notwithstanding this transition, at the point of survey data collection, most DoNs (97%) identified they were confident in their current abilities to prepare for COVID-19 outbreaks and had adapted to the requirements within public health guidance. Over 50% of respondents had experienced a COVID-19 outbreak, but there was no significant difference in preparedness and management in care homes which had outbreaks and those who had no outbreaks. The survey data also indicates that care homes experienced financial challenges and that they struggled with staffing issues during the pandemic. An important finding is that almost one fifth (19%) of DoNs were actively seeking other work, while a further 28% admitted to thinking of leaving their post.

The interview findings provided more depth to the DoNs' experiences and detail a constant concern about the welfare and protection of residents and staff. This concern blurred lines between work hours and personal time and rendered the DoNs to being on relentless alert to comply with rapidly changing public health guidance, completion of documentation, identification and management of infection control in the care homes, containment of outbreaks and staffing issues. DoNs also illuminated careful strategies to ensure resident connection with family and friends through alternative (i.e., virtual) methods and described how they responded to the unintended consequences of restrictions, such as resident loneliness, isolation and deconditioning. Recognition was also given to palliative care and the challenges in delivering end of life care in pandemic times.

The study findings further demonstrated DoNs' disappointment at the ways in which the care home sector was characterised both in media and political narratives as incidences of sub-standard care, outbreaks and high mortality rates were described as not being subject to a balanced discussion and neglected positive representations of experiences within this care sector. The report concludes with a number of general recommendations related to public health guidance, long term care, serial testing, staff recruitment and retention and political and media reporting. Finally, sector level recommendations related to resident well-being and rehabilitation, staff psychological well-being, family support, safe staffing, financial support and viability, staff training and preparation and access to medical support are also identified.

Abbreviations

AACOD	Authority, Accuracy, Coverage, Objectivity, Dare and Significance
APH	Allied Healthcare Professional
CCAT	Crowe Critical Appraisal Tool
CCG	Clinical Commissioning Groups
CDC	Centre for Disease Control and Prevention
CFS	Clinical Frailty Scale
CHO	Community Healthcare Organisation
CMS	Centres for Medicare and Medicaid Services
CPD	Continuous professional development
DOHNPHET	Department of Health and National Public Health Emergency Team
DOHNI	Department of Health Northern Ireland
DoN	Director of Nursing
FTE	Full time equivalent
HCA	Health care assistant
HIQA	Health Information and Quality Authority
HPSC	Health Protection and Surveillance Centre
HR	Human resources
HSE	Health Service Executive
GP	General practitioner
IPC	Infection prevention and control
IV	Intravenous
LTC	Long term care
LTCF	Long-term care facilities
MCO	Movement Control Order
MTA	Multitask assistant
NHI	Nursing Homes Ireland
NHS	National Health Service
NPHET	National Public Health Emergency Team
NSW	New South Wales
PCR	Polymerase chain reaction
PI	Principal Investigator
PIC	Person in Charge
PICO	Population, intervention, comparative intervention and outcome. For this study, a modified approach was used PIC (population, interest and outcome).
PPE	Personal protective equipment
PPPG	Policies, procedures, protocols and guidance
PSS	Perceived Stress Scale
SARS	Severe Acute Respiratory Syndrome/ SARS CoV-2. COVID-19
SCF	Sub-cutaneous fluid
SD	Standard deviation
UK	United Kingdom
US	United States
WHO	World Health Organisation

Chapter 1 Introduction

1.1 Introduction

COVID-19 (Severe Acute Respiratory Syndrome (SARS) or SARS CoV-2), represents a worldwide health challenge which placed significant stress on health systems. Although it was not the first major global pandemic, it was unprecedented in most people's living memory. First detected in December 2019, John Hopkins University coronavirus resource centre demonstrates the continuing impact of 293,586,768 infections and a total of 5,452,702 COVID-19 related deaths to date (04/01/22). The major burden of COVID-19 mortality rates has been in older age groups, particularly within the care home[1] environment; for example, in a review of care home deaths in 22 countries, available data suggests there were 325,000 COVID-19 related deaths (Comas-Herrera et al., 2020 (updated Feb 2021)). In this setting, responses to the COVID-19 pandemic were initially very challenged as systems of care orientated to appropriate actions in terms of government mandated infection prevention, control and management (HPSC, 2020). As the COVID-19 pandemic progressed, responses and interventions evolved to react to the dynamics of the country's COVID-19 incidence rates with the protection of residents as paramount. This has required multiple revisions of processes and practices within the care home environment in response to emergent evidence. This study explores the experiences of Directors of Nursing (DoNs) in care homes in Ireland in managing care during the COVID-19 pandemic.

1.2 Layout of report

The current chapter provides a brief overview of the background to the study. Chapter two presents a literature review based on describing the experiences of care homes' management and preparedness within the context of the COVID-19 pandemic. Chapter three outlines the methodology used to underpin the study, while chapter four presents the quantitative findings and chapter five the qualitative findings. Chapter six presents a discussion of the findings with chapter seven providing the conclusion and recommendations arising from the study.

---

[1] Residential care for older people is described by a number of terms such as long-term care facilities, old people's homes, assisted living facilities care homes, or care homes. For the purposes of this report, the term care home is used.

1.3 COVID-19

COVID-19 is a viral infection transferred from animal to humans which was first identified in Wuhan, China in December 2019. The potential for rapid transmission of COVID-19 is high, as the virus has a greater reproduction number than influenza (Verity et al., 2020; Heid et al., 2021). Concerns regarding global incidence led the World Health Organisation (WHO) to declare a public health emergency of international concern on 30th January 2020 and a pandemic on 11th March 2020.

Older people and those who have risk morbidities (i.e., cardiovascular disease, diabetes, chronic respiratory disease or cancer) were deemed to need additional public health restrictions to safeguard their health. For older people, this was predicated on changes due to ageing (especially of the respiratory and immune systems) and that ageing increases both morbidity risk as well as multi-morbidity risk (Office for National Statistics, 2020; Rocca et al., 2021). The higher risk is demonstrated in COVID-19 statistics; for example, from March 2020 to March 2021, people over 65 years and older represented 56 percent of COVID-19 related hospitalisations and 87 percent of COVID-19 deaths in Ireland (CSO, 2021a). This concurs with the experience in other countries, for example, figure 1 shows the age groups in relation to provisional death counts due to COVID-19 in the United States (US) (National Centre for Health Statistics, 2021). The highest numbers are in the 65 years and over groups.
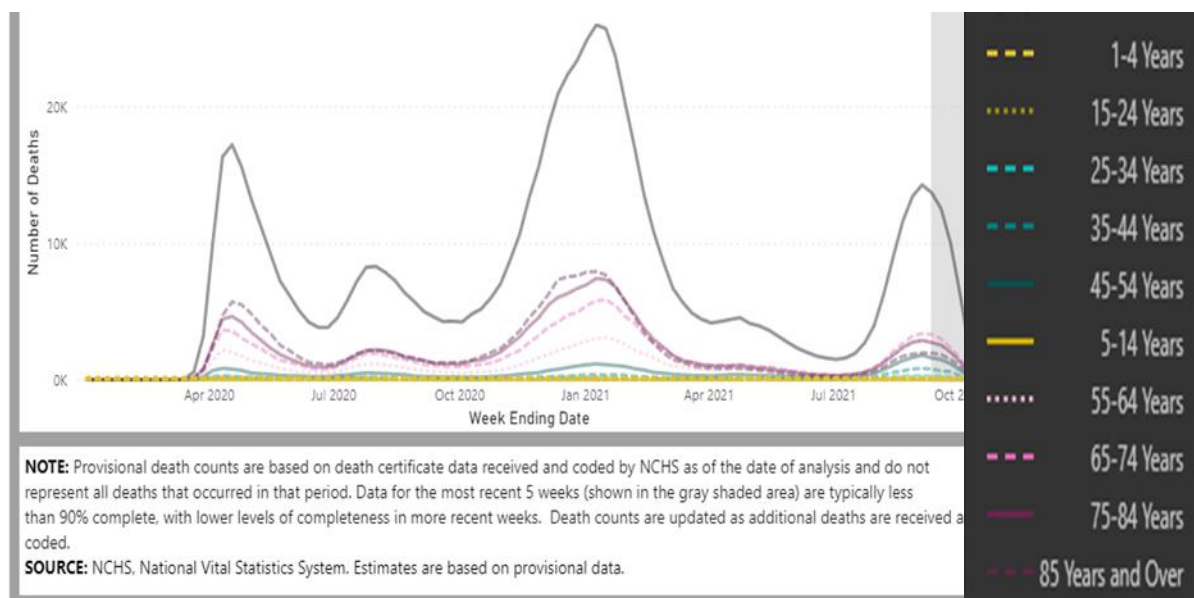
Figure 1.1 Provisional death counts for corona-virus disease (2019) (COVID-19) (National Centre for Health Statistics, 2021) (US figures)[2]

---

[2] Disclaimer: This figure does not imply endorsement by CDC, ATSDR, HHS or the United States Government of this report.
Freely available from the National Centre for Health Statistics webpage.

Kucharski (2020) identified four relevant factors in the context of pandemic control: duration, opportunity, transmission, and susceptibility. From the beginning of the pandemic, the first three provided potential rapid spread conditions in congregated settings such as care homes, especially in the context of COVID-19 (Romero-Ortuño and Kennelly, 2020). This was exacerbated by the variance in symptoms in individuals as some carriers of the virus were asymptomatic, thus unaware of the risk of spreading the disease. As the pandemic has progressed, public health restrictions have changed in response to infection rates and hospital admissions, particularly in relation to intensive care bed capacity. Figure 1.2 identifies the waves of the pandemic in Ireland to the point of completion of this report.
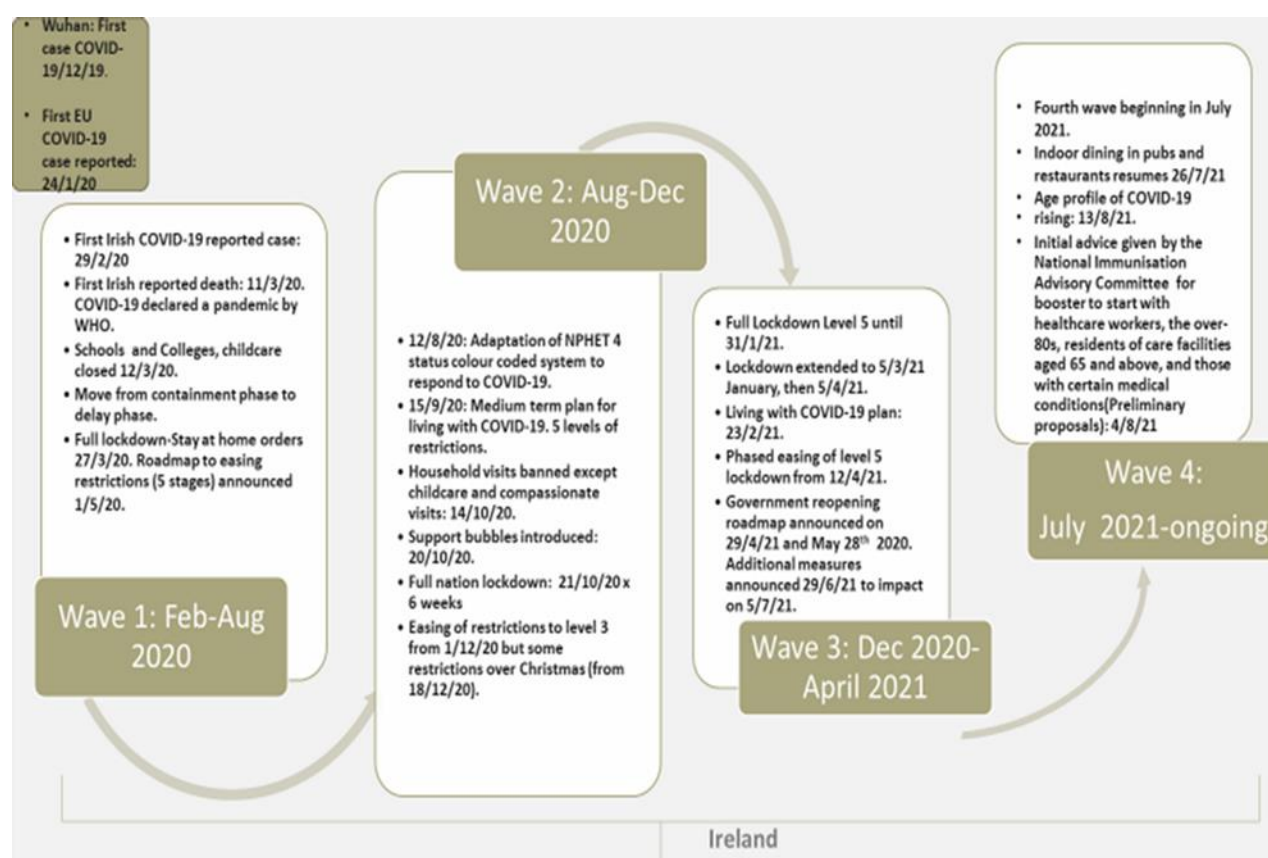
Figure 1.2 COVID-19 timeline for Ireland (Phelan et al., 2021)

1.4 Care homes

Ireland has 585 registered care homes providing care to approximately 32,000 residents (HIQA 2020a). It is estimated that between 15,000-20,000 residents in Irish care homes are living with dementia (Pierce and Pierce, 2017). In addition, a recent report by the Ombudsman (2021) identifies 1,300 people under 65 years living in care homes with one third of these being under 50 years of age.

Older people in Ireland have a statutory entitlement to care home financial support (Care home Support Scheme also known as Fair Deal Scheme) subject to health and financial assessment. Care homes have been subject to regulation since 2009 under the Health Act 2007 (as amended). Bed capacity in Irish care homes ranges from less than 20 beds to 184 (HIQA 2020a). Care is provided by public facilities (HSE), private providers and HSE funded bodies (Sections 38 and 39 Health Act, 2004) (HIQA 2020a) (table 1.1). In addition, long term care is also provided in HSE run community hospitals.

Table 1.1 Type, numbers, and bed capacity in care homes in Ireland 2019 (HIQA, 2020a)

Type	Numbers	Beds
Private providers	443	24,981
Public provider (HSE)	122	5846
Section 38/39	20	1124

1.5 Care homes and COVID-19

While countries with past experience of SARS (i.e. Hong Kong) have reported low or zero COVID-19 mortality rates in residential care of older people (Lam 2020), countries in the European Union have demonstrated a disproportionately higher impact in older age deaths, particularly in the first wave of the pandemic (West et al., 2020; Comas-Herrera et al., 2020). Overall, up until 10th December 2021 Ireland was recorded as having 65% of deaths in the over 65 years (CSO, 2021b). In mid-July, 51% of all COVID-19 deaths in Ireland were identified as being from residents in the care home sector and 4.75% of all care home residents were identified as dying due to COVD-19 (Comas-Herrera et al., 2020). In the HSPC (2022a) '*Weekly Report on COVID-19 deaths',* (12/1/22), the total number of COVID-19 death numbered 6035, with 2252 occurring in care homes (care homes). This represented 37.3% of total COVID-19 deaths with 61.5% being linked to outbreaks. The high impact of COVID-19 deaths related to older age is also supported by data from the Health Protection Surveillance Centre (HSPC) (2020) with care homes being identified as second to private houses in terms of cluster outbreaks. Death rates internationally have also been high in people living with dementia in care homes. In a study of COVID-19 related mortality of people living with dementia in care homes in nine countries in August 2020, death rates range between 29-75% with Ireland reporting 29% as a proportion or number of residents with dementia who died (% of all COVID deaths in care homes)/infected cases) (Suárez-González et al., 2020). Suárez-González et al.'s (2020) study also considered how the impact of COVID-19 restrictions may have had a consequence in terms of human

rights and access to care (ICU, palliative care, hospital admissions and visitors), concerns which have also been echoed in Ireland (Irish Human Rights and Equality Commission, 2020).

As the pandemic evolved in Ireland, there were persistent calls for the inclusion of private care homes[3] in public responses. For example, Nursing Homes Ireland (NHI) made many requests early in the pandemic for inclusion in areas such as access to personal and protective equipment (PPE). It was evident that many private care homes struggled to meet the demands of prevention and control of COVID-19 leading to the provision of €72 million in a support package for impacted care homes in April 2020. In addition, as the pandemic progressed, collaborations between private care homes and public health teams increased.

Care homes were subject to various iterations of COVID-19 related guidance which included precautionary activities linked to areas such as infection control, transfer of residents to hospital, quarantine zones, social distancing in the care homes, cancellation of residential care respite, managing palliative and end of life care, staff testing, and visitor restrictions. In addition, there was a requirement to inform the Chief Inspector of Social Services in the Health Information and Quality Authority (HIQA) of COVD-19 outbreaks, and for a period from 12th March 2020, HIQA routine inspections of designated centres were cancelled to curb infection spread (HIQA, 2020b). In addition, the Health and Safety Authority required outbreaks to be reported as any outbreaks and staff related infections were deemed a workplace risk for employees. This notification also involved being informed of the care home's response in terms of risk assessments, contingency plans and response measures in place (HSA, 2021). Although the formal government advice for preventing visitors to care homes occurred later, NHI issued advice on visiting restrictions on 6th March 2021. As the COVID-19 vaccination programmes[4] have rolled out, visiting restrictions have eased (HPSC, 2021; 2022b; 2022c), however, some criteria remained such as most residents in the care home needing to be vaccinated, and a limit of two people per resident with scheduled timing advised at busy visiting periods (HSE, 2021). From February 8th, 2022, the HPSC (2022c) have removed the requirement of scheduled visiting, however, advice points to enabling visiting over the period of the day to avoid high numbers and as long as numbers are controlled and other precautions (i.e. no interactions between visitors, entry and exit points, check for COVID-19 signs or if they were advised to self-isolate). While there is

---

[3] For the purposes of the study, the term private nursing homes includes voluntary run facilities.
[4] From 29th December 2020 with COVID-19 vaccination boosters from October 2021.

a limit on number who can visit at one time, there is no limitation on who can visit and there is no requirement to maintain schedules (HPSC, 2022c).

In a review on the outbreak of COVID-19 in care homes in Ireland, HIQA and the HSPC (2021) noted that the there was no difference in outbreak prevalence related to the provider type and the probability of an outbreak arose when community prevalence increased. Analysis of data demonstrated that outbreaks were more prevalent when care homes were in proximity to a number of other care homes and were also related to the number of beds in the care home (care homes with higher bed numbers being more at risk). This review also detailed experiential learning in the management of COVID-19 as care homes which had previous outbreaks were better able to contain subsequent outbreaks and there were less outbreaks in wave two than the first wave. This concurs with international evidence of care homes' acclimatisation to response actions (Comas-Herrera et al., 2020). Observations of how Irish care homes responded to COVID-19 are also further presented in the review of the literature (chapter 2) within the context of a previous HIQA report (2020c), the expert panel report (Kelleher et al., 2020) and an overview by the National Public Health Emergency Team (2020).

1.6 Summary

- COVID-19 is an unprecedented global health challenge that renders older people and those with some medical conditions at higher risk.
- Care homes have been disproportionately impacted by COVID-19 in terms of morbidity and mortality rates.
- Drawing on emerging findings on COVID-19 in residential care, a number of factors have pointed to challenges such as preparedness, co-ordination and monitoring (Davidson and Szanton, 2020), while there is evidence that the constantly changing policy documents as well as submitting similar requested information to multiple sources have aggravated the stressful experience of care delivery (NHI, 2020).
- Consequently, with a major demand on the care home sector to safeguard older people in care homes, this study aimed to explore the experiences of DoNs[5] in this setting their

---

[5] Directors of Nursing in private or voluntary care homes. For the purposes of this study, Directors of Nursing may also include the Person in Charge.

preparedness, co-ordination and management during the pandemic so that better supports can be identified for similar health crisis in the future.

Chapter 2 Literature Review

2.1 Introduction

Residential care settings for older people were disproportionately affected by the COVID-19 pandemic. However, little is known about the experiences of the DoNs or managers (including Person in Charge (PIC)) of care homes. This review of literature was conducted to determine what was known about DoNs' or managers' experiences of preparing and managing COVID-19 in residential settings for older people. Empirical, theoretical and grey literature sources were included in this integrative review.

An integrative review framework developed by Whittemore and Knafl (2005) was used to guide this review and to present a clear audit trail of the review process (Table 2.1). The following section outlines the strategy for formulating the research question, the search terms and search strategy used, the inclusion and exclusion criteria, the screening process, critical appraisal and data extraction. Deductive thematic analysis was conducted. A synthesis of the findings is presented.

Table 2.1 Adapted from Whittemore and Knafl's (2005) five stage framework

No	Stage	Description
1	Identify the problem	The problem is identified by having a clear purpose for the review and identification of variables such as concepts, population, health issue, sampling frame (literature to be reviewed e.g., empirical, theoretical and grey).
2	Literature search	Clear well defined search strategy including search terms, databases, additional search strategies, inclusion and exclusion criteria.
3	Data evaluation	Outline the methods of data appraisal noting that depending on the sampling frame that different appraisal tools may be required.
4	Data analysis	A process of coding and categorising data through data reduction, data display, data comparison, drawing conclusions and verification of these conclusions and provide a synthesis of the findings.
5	Presentation	Write up of the finding in a clear coherent synthesis.

2.2 Identify the Problem

Research Question: What are managers' (including DoNs and PICs) experiences of preparing and managing COVID-19 in older person residential care settings?

Aim: To undertake an integrative review to determine what were managers' experiences of preparing and managing COVID-19 in older person residential care settings.

Objectives:

To:

- Describe the experiences of management and preparedness
- Identify facilitators to managing and preparing
- Identify barriers to managing and preparing

The research question typically comprises a number of parts or components. The acronym PICO stands for population, intervention, comparative intervention and outcome (Bettany-Saltikov and McSherry, 2016). However not all questions fit neatly with this format. The PICO acronym for this review question was modified from that recommended by Bettany-Saltikov and McSherry (2016) and was more suited to the PIO format (population, interest and outcome) (Wakefield, 2015) (Table 2.2).

Table 2.2: PIO strategy for formulating the research question

P	Population	Managers of care homes/residential care
I	Phenomenon of Interest	Experiences of managing and preparing for COVID-19
O	Outcomes	Level of Preparedness/ Readiness
		Management strategies
		Barriers and facilitators
		Impact (staff, residents, management)

2.3 Literature Search

2.3.1 Search Strategy

The search strategy was developed with reference to the types of papers which would report upon management and preparedness in care home/residential care facilities. These included both empirical studies as well as grey literature. The search strategy comprised a number of steps (determining keywords, identifying search terms, use of Boolean operators, inclusion and exclusion criteria and databases). The first step was to determine the keywords and from there, search terms, so as to ensure that all variations of a word were used or to include different words which mean the same thing, for example care homes and residential care are both included. This is necessary so that important papers are not omitted (Table 2.3). Furthermore, Boolean operators were used to either widen or narrow a search. There are a number of Boolean operators, but the three main ones are: AND (narrows the search), OR (broadens the search), NOT (makes the search more specific by excluding certain terms). The search also included using a wildcard search using an asterisk (*).

Table 2.3 Keywords and Search Terms

Keywords	Search terms
Care home (Care Home, Residential Care, Long term care, Continuing care, retirement)	Residential care or care home or long-term care or care home
Manager, management, supervisors	Manager or management or supervisors
Preparedness, readiness	Preparedness or readiness or preparation
COVID-19 coronavirus	Coronavirus or 2019-ncov or sars-cov-2 or cov-19

Determining the inclusion and exclusion criteria is important so that the search can be targeted to papers which will answer the review question (Bettany-Saltikov and McSherry, 2016). Key elements in determining the criteria are: time frame, language, using the PIO i.e. population, interest and outcome. The inclusion and exclusion criteria for this review are included in Table 2.4.

Table 2.4 Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Time frame	Within last 12months	Before 2020
Language	English	Not English
Type of literature	Empirical research, Grey literature including policy documents, reports, guidelines	Grey literature other than policy documents, reports, guidelines
Population	Managers of care homes	Those not managers of care homes/residential care facilities
Phenomenon of Interest	Experiences of managing and preparing for COVID-19	Experiences not addressing management and preparedness for COVID-19
Outcomes	Level of Preparedness/ Readiness Management strategies Barriers and facilitators Impact upon staff, residents, relatives, management	Literature not addressing any of the outcomes we have identified

2.3.2 Databases

Searches were conducted using electronic databases, relevant websites as well as hand searching. The following databases were searched: Academic complete, CINAHL, Cochrane library, Google Scholar, Medline, PubMed, Sage and Scopus. Grey literature included: International and national policies, guidelines and initiatives (*including the World Health Organisation (WHO), National Institute for Health Care Excellence (NICE) guidelines*), Governmental and non-governmental reports (*including Department of Health, Ireland, Health Service Executive (HSE), Ireland; National Public Health Emergency Team (NPHET), UK Department of Health, UK National Health Service (NHS*). Regulatory bodies including Health Information and Quality Authority (HIQA). Specifically, grey literature was searched through LENUS, University of Limerick Institutional Repository and World Health Organisation Global Index Medicus. The literature search was undertaken during the period from November 2020 to January 2021.

2.3.4 Screening

Papers and reviews were stored on in a designated/specific endnote library (Endnote, nd). The literature search resulted in 624 citations. Preliminary screening of these resulted in 60 papers being included for next stage. Of these, 4 duplicates were removed. The titles and abstracts of the remaining 56 papers were screened and 11 were deemed irrelevant. Full paper screening of the 45 potentially relevant papers resulted in 8 being excluded for not fitting the criteria. Appraisal of the remaining 37 papers (15 empirical research papers and 22 grey literature papers) resulted in 14 papers being included in the review. These comprised six (6) empirical research papers and eight (8) grey literature papers. The search history is outlined in the Figure 2.1. Prisma Flow Diagram.
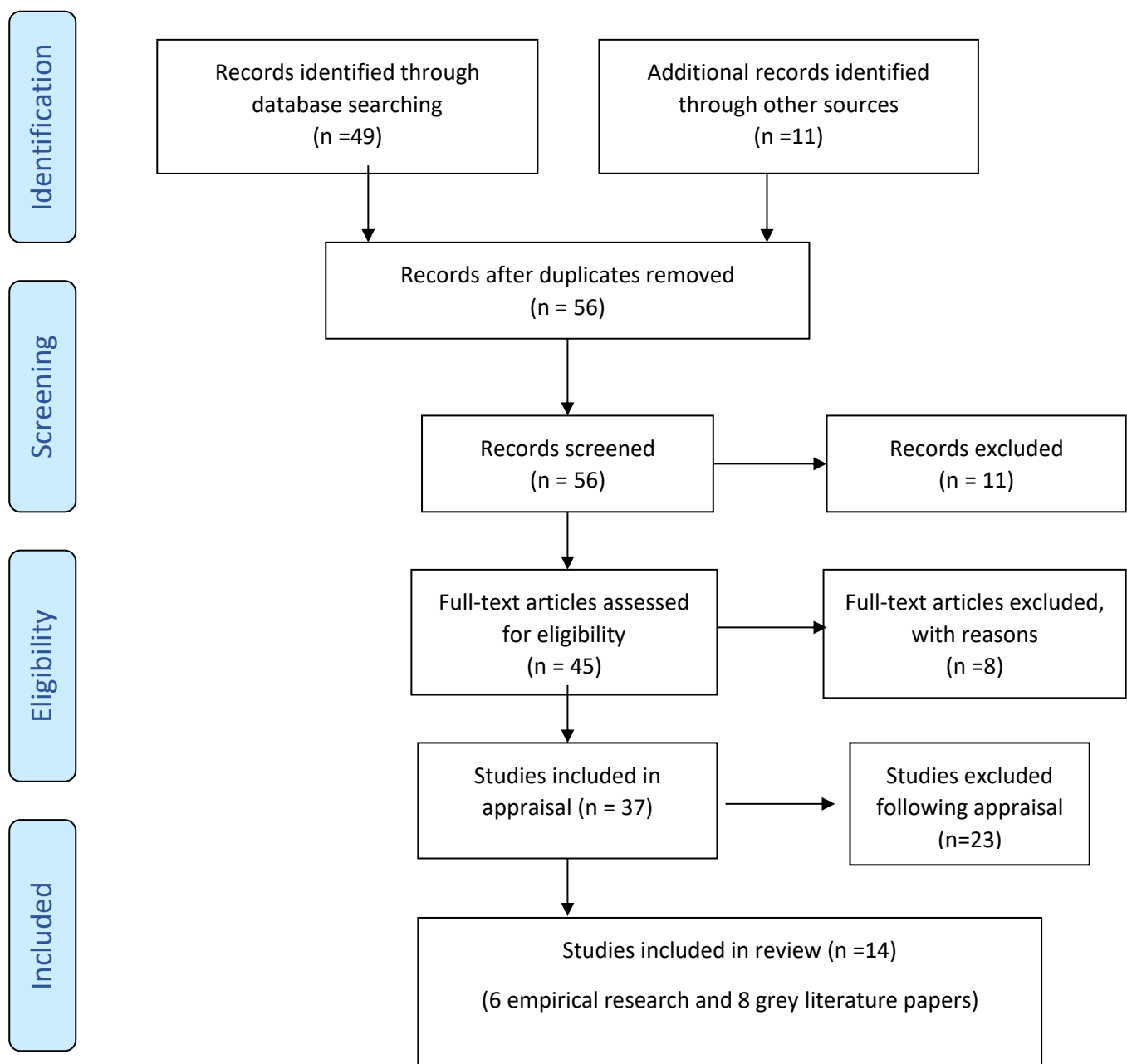
Figure 2.1 Literature Search: PRISMA Flow Diagram (Moher et al, 2009)

2.4 Data Evaluation

COVIDence software was used to manage the literature review. COVIDence is an online tool developed for systematic review management and it is flexible, intuitive, and streamlined way to manage the review (COVIDence, n.d.). A review file was set up for two designated researchers to work on. Studies and reports were imported from Endnote, preliminary screening was undertaken to decide whether to view or not. Screening of title and abstract were first conducted by two reviewers, followed by full text review. When there were area of conflict and/or not decided or unsure, both researchers met, discussed and agreed a decision. A bespoke data extraction tool was developed by the two researchers to include material from both empirical studies and grey literature.

2.4.1 Critical Appraisal

Two tools were used to critically appraise the literature. The Crowe Critical Appraisal Tool (CCAT) (Crowe, 2013) was used for appraisal of the research papers. CCAT appraisal comprises two parts, the CCAT form and the CCAT user guide. The form has eight categories (Table 2.5) and 22 items (each has a descriptor). Each category is scored from 0-5 (six-point scale) (Crowe, 2013). The maximum score is 40. The score is then converted into a percentage. Appraisal of the grey literature was undertaken using the Authority, Accuracy, Coverage, Objectivity, Dare and Significance (AACOD) checklist (Tyndall, 2010) (Table 2.6).

Table 2.5 CCAT Form Categories (Crowe, 2013)

1	Preliminaries: *Title, Abstract, Text*
2	Introduction: *Background, Objective*
3	Design: *Research design, Intervention/treatment/exposure, Outcome, output, predictor, measure, Bias*
4	Sampling: *Method, Size, Protocol*
5	Data Collection: *Method, Protocol*
6	Ethical Matters: *Participants, Researcher*
7	Results: *Analysis, Integration, interpretation method, Essential analysis, Outcome, output, predictor analysis*
8	Discussion: *Interpretation, Generalisation, Concluding remarks*
9	Total Score (out of possible 40) and Percentage

Table 2.6 Adapted from AACODS checklist (Tyndall, 2010)

Descriptor	AACODS checklist (Tyndall, 2010)
Authority	Who is responsible for the content in this document and what is their credibility?
Accuracy	Is the support for the document content from credible authoritive sources?
Coverage	Does the document clearly state the parameters that define their content coverage?
Objectivity	Is there bias, is it easily detected? Note some documents will come from a particular worldview or standpoint
Date	Is there a date? And is this recent?
Significance	Does this document add something unique to your research?

Fifteen (15) of the empirical studies were appraised with scores ranging from 20% to 100% (Table 2.7). Six of these were included in review (Table 2.8). Twenty-two (22) grey literature papers were appraised using AACODS and eight of these were included in the review (Table 2.8).

Table 2.7 CCAT Score Summary Table

Number	Authors	Score	Percentage
1	Frazer et al. (2020)	32/40	80%
2	Harrington et al. (2020)	30/40	75%
3	HIQA (2020d)	28/40	70%
4	Jones et al. (2020)	23/40	58%
5	Miller et al. (2020)	34/40	85%
6	Mo and Shi (2020)	12/40	30%
7	Nyashanu et al. (2020)	40/40	100%
8	Perrotta et al. (2020)	33/40	83%
9	Quigley et al. (2020)	30/40	75%
10	Rajan and McKee (2020)	20/40	50%
11	Scopetti et al. (2021)	8/40	20%
12	Siu et al. (2020)	40/40	100%
13	Spilsbury Paper 1 (2020a)	40/40	100%
14	Spilsbury Paper 2 (2020b)	36/40	90%
15	Telford et al. (2020)	Begun but did not to proceed to appraisal	n/a

Table 2.8 Data Extraction Table (Papers included in the review)

Title Author Year Country	Aim / Purpose	Study design Methods	Setting Population	Key findings	Components of preparedness / Recommendations	Quality Appraisal	Include /exclude
Quigley, D.D., Dick, A., Jones, K.M., Mody, L., Stone, P.W. (2020) COVID-19 Preparedness in Care homes in the Midst of the Pandemic USA	To describe the COVID-19 preparedness of NHs across the nation.	30-item survey Qualtrics software	A convenience sample of NHs with available email addresses drawn from national surveys conducted in 2013 and 2017 (n = 942). Response rate: 56 NHs from 29 states: Midwest (30%), West (25%), Northeast (23%), and South (22%).	*NHs used two/five guidance documents *Staff responsible for preparedness: infection preventionists (39%), directors of nursing (32%), administrators (27%). *54% had separate COVID-19 plans *All had plans for: staff training, restrictions; return to work; outbreak guidance. * Most had policies for screening visitors; reported clear communication and relationships with hospitals and public health officials; policies to free beds for hospital patients; had access to testing; expected significant staff shortages but most reported having inadequate supplies.	*Used national Guidance Staff responsible for preparedness *Common strategies to address staff shortages included having staff volunteer for extended hours (55%) and nonclinical staff filling different roles (45%). *Less common were using contracted/agency staff (19%) and mandating extended hours (16%). *Separate COVID-19 plans policies for screening visitors. *Some (29%) conducted COVID-19 outbreak simulations. *Clear lines of communication and relationships with hospitals and with public health officials *Access to testing for staff and residents	CCAT 30 (75%)	Include

Rajan, S. and Mckee, M. (2020) Learning From the Impacts of COVID-19 on Care Homes: A Pilot Survey UK	To establish the impact of COVID-19 on care homes by exploring *the challenges presented by the COVID-19 pandemic * the ways they have addressed them *the support that they feel they would need to optimise their response to future outbreaks	Two anonymous online pilot surveys Surveys were structured with open and closed questions; questions adapted to reflect the respective aspects of care and business continuity that managers and directors were likely to have oversight of	Care home managers and directors across England 35 managers and 42 care home directors responded	**Experiences**: Bed Capacity had fallen due to COVID-19 deaths (1-5%); confirmed case (34%), suspected case (55%) mentioned in death cert (33%); Lack of funding and/or problems accessing; Poorly communicated guidance plans; Encouraged to place blanket 'Do Not Attempt Resuscitation' orders on all the residents; Little contact from The Care Quality Commission CQC; Variable support from NHS Clinical Commissioning Groups (CCGs); challenges with infection control, testing **Needed:** Financial, staffing, psychological support; better access to testing, PPE; Structural changes; Partnership with a more coordinated response, minimise red tape; clarity re track and trace app, mitigation of staffing shortages; clarity re. testing and documentation of same at time of hospital discharges.	Partnerships: relations with other agencies were good or satisfactory. Managers' perceptions of helpful measures of support: PPE offers, financial, psychological, residents' relative and local communicates, supportive cultures, co-ordinated responses, training, access to direct clinical services. Helpful actions for staff morale and wellbeing: policies and procedures, smart rostering; supports (peer, pay rise, official organisations, teamwork, staffing).	20/40 50%	Include (acknowledged that the score is low but focus of the study is pertinent)

Siu, H.Y., Kristof, L., Elston, D., Hafid, A. and Mather, F. 2020 A cross-sectional survey assessing the preparedness of the long-term care sector to respond to the COVID-19 pandemic in Ontario, Canada. Canada	To assess the preparedness of the long-term care sector to respond to the COVID-19 pandemic	A cross-sectional survey of clinicians from the Ontario Long-Term Care Clinicians (OLTCC) and Nurse-led Outreach Teams (NLOTs) anonymous electronic questionnaire was sent to all OLTCC and NLOT clinicians	Ontario Long-Term Care Clinicians (OLTCC) and Nurse-led Outreach Teams (NLOTs). (n=294) The response rate was 54% (160/294); Half female largely physicians (80%, 128/ 160), worked in an urban region (87.3%, 137/160)	The top five outbreak prevention measures implemented in respondent LTC homes were: 1) instituting established isolation protocols for respiratory conditions (92.5%, 148/160) 2) active screening of new LTC admissions (90%) 3) increasing staff education about infection control processes (83%) 4) active coordination with regional public health officials (83%) 5) encouraging sick staff members to take time off work (83%) Other interventions were: visitor restrictions; screening, cohorting, virtual health solutions, increased staffing, increased hand sanitizer availability. Significant communication regarding pandemic preparation was received from multiple sources; Mixed views re sufficient engagement in planning a coordinated primary care response ; feasibility of public health	Authors defined "preparedness" in this questionnaire as a function of three factors: 1) timeliness and appropriateness of recommendation communication 2) resources available to manage and respond to changing pandemic demands 3) perception of LTC sector engagement Respondents did not feel their LTC home had the ability to secure additional resources or manage a COVID-19 outbreak. This finding highlights the need to address the underlying issues (e.g. chronic under-funding, inadequate staffing, and the physical environment of LTC homes) that increase the vulnerability of the LTC sector to the pandemic.	CCAT 40, 100%	Include

				recommendations: how well their LTC home could manage an outbreak; availability of/access to sufficient resources			
Spilsbury, K., Devi, R., Daffu-O'Reilly, A., Griffiths, A., Haunch, K., Jones, K. and Meyer, J. 2020 Paper 1(2020a) LESS COVID-19: Learning by Experience and Supporting the Care Home Sector during the COVID-19 pandemic: Key lessons learnt, so far, by frontline care home and NHS staff UK	To capture the experiences of frontline care home and NHS staff caring for older people with COVID-19 and to share the lessons learnt about the presentation, trajectories, and management of the infection with care homes that have and have not yet experienced the virus.	An appreciative approach working across disciplinary boundaries and care settings, to identify lessons learnt. 2 Phases 1) Interviews with frontline staff to establish the clinical presentation and trajectory; what worked and what did not work, what was needed; lessons learnt. 2) Consultations with senior operational and quality managers of care homes: resonance, relevance, and any gaps in phase 1 and management strategies Data were collected remotely by telephone or video conference Framework Method data analysis	Frontline staff n=35 (17 Care home employees; 18 NHS Acute Hospital/Community Operational and quality managers n=11 Care home settings	Phase 1 1. COVID-19 does not always present as a new continuous cough and fever in older people. 2. A range of symptoms have been identified in older people with COVID-19. 3. Staff (and families) should be alert to subtle changes in the older person and seek to 'rule out' COVID-19 Phase 2: Findings confirmed Phase 1 findings and considered the findings worth sharing with other care homes, especially those who had not yet experienced COVID-19. They also added to the richness of the data by commenting on some of the related operational and quality management issues.	*Educate about the varied symptoms of COVID-19 *Ensure a system is in place for routine assessment and monitoring * Develop an understanding of the baseline status of residents *Identify training and resources needs *Manage a person as a 'suspected case' *Access where available, and advocate for, regular and accurate testing, with timely results * Ensure confirmation of COVID-19 status for new admissions *Maintain close communication with GPs and other relevant healthcare professionals *Winter planning * Communicate with colleagues in the sector to learn from their experiences * Review equipment and supplies * Educate staff about rehab approach to care *End of life care preparation *Care home manager have a key role in reassuring care home staff and promoting their confidence in care provision.	CCAT 40(100%)	Include

| Spilsbury, K., Devi, R., Griffiths, A. Akrill, C. Anita Astle, A. Goodman, C. Gordon, A. Hanratty, B. Hodkinson, P. Marshall, F., Meyer, J. and Thompson, C. 2020

Paper 2 – short report (2020b)

SEeking AnsweRs for Care Homes during the COVID-19 pandemic (COVID SEARCH)

UK | 1. To identify care and organisational questions and uncertainties expressed by care home staff.
2. To understand what information would address these uncertainties and provide support in the short-, medium- and long-term. | Service evaluation and development

Screening and Captures of WhatsApp group discussion in text

Using The NICHE-Leeds university-care sector partnership (https://niche.leeds.ac.uk/), replicating the Dutch Living Lab on Ageing and Long-Term Care -

Embedded 'link' researcher roles were adapted for a social media context. Working as 'virtual link' researchers within the WhatsApp™ group we identified questions and uncertainties raised by the 250 care home staff members and considered how, and if, these uncertainties

Inductive thematic analysis | WhatsApp™ group of care home managers and staff During an 8-week period at the onset of the COVID-19 pandemic.

The WhatsApp™ group was setup to facilitate information sharing and peer support precisely because of this variation | 72% were background questions e.g. guidance available, minimum requirements, eligibility criteria for testing, maintaining effective care, recommendations for infection prevention and control
Questions represented uncertainty: (i) <u>effectiveness</u> (what works/might work?); (ii) <u>diagnostic</u> (what is going on here/causing this?) and (iii) <u>prognostic</u> (what is likely to happen?)
Most questions and uncertainties related to infection prevention and control (41.5%; n=49), including those pertaining to personal protective equipment (PPE), isolation of residents and staff, zoning/ cohorting of residents and/ or staff and testing. 38% of infection control and prevention questions were "fact-based" (resolvable through efficiently targeting extant materials such as guidelines and fact sheets) | Effectiveness questions (or "what works?") reflected the phase of the pandemic and work as context.

The researchers argue many UK care homes have been in "responsiveness" mode since February 2020, focusing on "doing" rather than detailed planning. Strategizing and associated diagnosing, forecasting and prognosticating has been a lower priority in this time and human-resource-constrained period.

Minimal mention of contact tracing in the context of testing; | CCAT 36, 100% Short report but good quality – mentioned but does not detail most of the quality criteria | Include |

Miller, V.J., Fields, N.L., Anderson, K.A., Kusmaul, N. and Maxwell, C. 2020 Care home Social Workers Perceptions of Preparedness and Coping for COVID-19 USA	To identify social workers' perceptions of levels of preparedness	*Cross-sectional survey comprising quantitative and qualitative sections *Analysis via SPSS and data reduction technique	Care home social workers (n=65)	*Although some social workers felt prepared many respondents felt unprepared to meet the demands and challenges, they were facing. *Professional support was identified as critically important to get through the pandemic	Yes, this research speaks directly to how prepared they felt were for the pandemic and also identified important support systems. It also emphasizes the importance of peer mentoring and suggests it would be worth assesses improved leadership.	CCAT 34/40 (85%)	Include
Chen, A.T, Ryskina, K.L., Jung, H-Y 2020 Long-Term Care, Residential Facilities, and COVID-19: An Overview of Federal and State Policy Responses, USA	To provide an overview of regulatory and policy changes by policymakers by summarising federal regulatory changes and reviewing state-level executive orders	report paper	Care home regulations at state and federal level	Classification of CMS (Centers for Medicare and Medicaid Services) COVID-19 regulatory responses into the following 4 categories and provide an overview of each below: *preventing virus transmission, *expanding facilities' capacities, *relaxing administrative requirements, *reporting COVID-19 data. A number of recommendations made re these four key points	Yes, as it speaks to prevention, facilities, administrative duties and reporting on COVID-19 information	AACODS, Yes, to all	Include
Department of Health (DoH) and National Public	To set out the challenges and actions taken to support those	Report	Care home sector Tracks the incidence and prevalence of	Findings presented under: Public health led response, COVID-19 LTRC	Discusses how prepared/unprepared care homes were in general	AACODS, yes to all	Include

Health Emergency Team (NPHET) 2020, 26th May Overview of the Health System Response to date: Long-term residential healthcare settings Ireland	residents in LTRC settings, the primary focus of paper is on care home sector.		COVID-19 in NHomes, whose residents are 45 times more likely to develop COVID than general population.	surveillance information; COVID-19 impact on LTRC and operational responses; international guidance; learning for future. Discusses containment, delay and cocooning. Recommends COVID-19 NH expert panel examination of measure (*this was carried out in august 2020)*			
Kelleher, C., Doherty, B., Donnelly, P and Twomey, C. l. 2020 COVID-19 Care homes Expert Panel Examination of Measures to 2021 Report to the Minister for Health Ireland	To *Provide assurance that the measures to safeguard residents in NH are appropriate, comprehensive and in line with international guidelines *Identify what, if any lessons can be learned *Provide an overview of the international response to COVID-19 in care homes *Report to the Minister for Health in order to provide immediate real-time learnings and recommendations in light of the expected	Report by an expert panel through 1)review and analysis of available epidemiological data 2) rapid systematic review of measures to protect older people in LTRCs 3) 3part consultation process involving meetings with stakeholders, inviting written submissions from stakeholders, and a public consultation 4) site 'visits' to three care home 5) Engagement with several residents/relatives, (identified from independent advocacy organisations) who want to	Care homes	Findings relate to: care home procedures *staffing levels and skill mix * communication across the health system *oversight and guidance. *future preparedness * the need for a revised model of care for care homes * representation and advocacy *end of life care 15 thematic areas are outlined which need attention in the next 12-18months	*Future preparedness is one of the main findings *Specifically identifies the need for more defined roles for the Person in Charge. *Recommends that the person in charge should need to have gerontology qualification.	AACODS, yes to all	Include

	ongoing impact of COVID-19 over the next 12-18 months.	share their thoughts and experiences with the Expert Panel.					
Gilbert, G. L. 2020 COVID-19 in a Sydney care home: a case study and lessons learnt. Australia	To describe a case study of a resident with COVID-19 and identify what lessons can be learnt in order to limit future impacts.	Case study of an outbreak in a care home	Long term residential care setting	*Optimal infection prevention and control (IPC) practice cannot be assumed, even among trained healthcare workers, in an outbreak setting. *Ongoing training and advice, from experienced IPC professionals is needed.	*Not specifically outlined as to what was in place prior to outbreak. *Following the outbreak: expert advice provided, isolation, infection control procedure, PPE, staffing, isolation, cleaning, food delivery, testing, hospital admission, medical rounds, support to family and residents	AACODS yes to all	Include
Hasmuk, K., Sallehuddin, H., Tan, M.P., Cheah, W.K., Rahimah, I. and Chai, S.T. 2020 The Long-Term Care COVID-19 Situation in Malaysia Malaysia	Preliminary report on the impact of COVID-19 on vulnerable older Malaysians residing in long term care facilities (LTCF) such as Care Homes (CH) and/or Care homes (NH).	Report	Long term care facilities	This provides an overview of key events and measures introduced at the national level, and responses by key / relevant stakeholders as well as Non-Governmental Organisations (NGOs)	Key items of the report's findings of measures / polices in place: Mass testing strategy, lack of basic PPE, difficulty with maintaining social distancing in confined places, no visitor policy, new resident admissions discouraged, care home residents to hospital to be isolated and tested, those discharged to facilities need testing.	AACODS yes	Include
Health Information and Quality Authority. The impact of COVID-19 on	Explored the experiences of care homes in Ireland in the context of the COVID-19 pandemic, including: *how they were impacted	Overview report: monitoring information about services, carrying out inspections and supporting health and social care services	Care homes	*75% of NH fully compliant *7% (13 NH) not compliant with one or more of regulations (of these, 4 were not compliant in 20% of regulations)	Governance and Management: Contingency planning, staffing, public health officials, compartmentalising/zoning, PPE, other vital equipment etc but this regulation had highest level of non-compliance at 5%	AACODS yes to all	Include

care homes in Ireland 2020d Ireland	*how residents and their families experienced the pandemic, and *the efforts of staff and management to keep people safe.	(achieved through regulatory oversight nature of HIQA and provision of support) 2826 assessments of compliance with regulations of which there were 15 done in each care home		*Main regulations associated with were non-compliance were governance and management staffing and infection control	Staffing … but 3% not compliant with this regulation Infection control 98% compliance		
Wang, L., Qi, N., Zhou, Y. and Zhang,H. 2020a Prevention and infection control of COVID-19 in Care homes: experience from China China	Described "Guidelines on the Prevention and Control of the Pneumonia Epidemic caused by a Novel Coronavirus in Eldercare Institutions produced by the Ministry for Civil affairs in China These were based on early experience of what worked in care homes across the country.	The report summarises the main learning points.	Older adult settings	Priority learning: *Establish an epidemic prevention and control work structure and leadership group – led in each NH by a dean. *The Dean supervised a medical team, a material procurement team, a psychological intervention team, an isolation team, and a disinfection team. *Closed management was implemented early in care homes during the epidemic. *Zoning to avoid infection. *Specific attention was paid to highly structured approaches to healthcare (e.g. monitoring vitals, dealing with social isolation)	*The measures care homes have taken achieved some results including dealing with the challenges of a shortage of PPE. *The balance between pandemic management and day to day continuity of services needed to be accommodated *What worked from a preparedness perspective were: ✓ Leadership ✓ National Guidance ✓ Closed management	AACODS yes to all	Include

Department of Health Northern Ireland (2020) The Rapid Learning Initiative into the Transmission of COVID-19 into and within care homes in Northern Ireland UK	To examine: *The experiences of residents, their families and staff in care homes *Symptom monitoring and intervention and care planning *Infection prevention control *Physical distancing of residents Within the context of the transmission of COVID-19 into and within Care Homes during the first surge of the pandemic, and to make recommendations on the way forward prior to further potential surges of infection.	Initiative undertaken by a Task and Finish Group established by the Chief Nursing Officer. Report of Experience survey (residents: 385; relatives:81; staff:112) and Citizen space survey (483 care homes approached with 70 (14.5%) responses from Care home managers)	Residents, relatives, staff including care home managers of Care Homes	Technology: use this to keep people, knowledge and learning connected Information: manage this to and from care homes more effectively and efficiently Medical Support: provide consistent support Health and Wellbeing: enhance this for residents, families and staff Safe and Effective Care: enhance this and include access to training for staff Partnership: enhance partnership working across all organisations.	There was varying access to support and when available, it was mainly through the telephone Varying access to testing Lack of guidance on formulating COVID-19 individual resident risk assessment and care planning Lack of test of patients/residents prior to admission to home.	AACODS yes to all	Include

2.5 Data Analysis

The aim of this review was to look for specific information within the data pertaining to experiences, barriers and facilitators of management and preparedness. Therefore, a deductive approach was used to examine and analyse the data in so far as there were pre-existing objectives and thus pre-existing themes used to guide the analysis. According to Caulfield (2020, no page) "A deductive approach involves coming to the data with some preconceived themes you expect to find reflected there, based on theory or existing knowledge." The papers were read line by line with similarities and differences identified by the two researchers. The data were independently read several times and reviewed by two researchers using the review objectives to organise, collate and order the data. Subsequently, the data were further reviewed, discussed and agreed by the two researchers.

2.6 Findings

Fourteen papers were included in this literature review: six (6) studies from empirical literature and eight (8) reports from grey literature. The empirical studies were undertaken in Australia, Canada, China, Ireland, United Kingdom (UK) and United States of America (US) and participant numbers ranged from 63 to 294 (Miller et al., 2020; Quigley et al., 2020; Rajan and McKee, 2020; Siu et al., Spilsbury et al., 2020a, Spilsbury et al., 2020b). The eight reports were conducted in Australia, China, Ireland, Malaysia, UK and US (Chen, 2020; Department of Health and National Public Health Emergency Team (Ireland) 2020; Department of Health Northern Ireland (2020); Gilbert, 2020; Hasmuk et al*.,* 2020; Health Information Quality Authority (HIQA) 2020d; Kelleher et al*.,* 2020; Wang et al., 2020b). The themes are: 1) Initial experiences of care home management and preparedness, 2) Barriers to management and preparedness and 3) Facilitators of management and preparedness.

2.6.1 Initial experiences of care home management and preparedness

The issue of preparedness for COVID-19 was addressed across all reviewed papers. There is evidence that the initial experience of managers was one of unpreparedness. For example, results of a cross sectional survey by Siu et al., (2020) in Canada exploring clinicians' (n=294) perspectives on preparedness and engagement in the long-term care (LTC) sector, indicate that many felt unsure that they could manage an outbreak of COVID-19 in their facility. 35.7% agreed that their facility was "sufficiently engaged in planning a co-ordinated primary care response to COVID-19 outbreaks" (Siu

et al., 2020:4) and more than half (51.3%) were unsure that their facility could manage a COVID-19 outbreak. A similar lack of preparedness for and managing the COVID-19 pandemic was found in pilot surveys with managers (n= 35) and care home directors (n=42) in the UK by Rajan and McKee (2020). Also, in the UK, Spilsbury et al.'s (2020a) appreciative study of frontline staff (n=35) and operational and quality managers (n=11) in care home settings, identified a lack of knowledge about COVID-19, both in presentation and treatment which adversely affected the initial preparedness and management of home care sites. Furthermore, Spilsbury et al. (2020b) argued that many UK care homes had been in "responsiveness" mode since February 2020, focusing on "doing" rather than detailed planning. Strategizing and associated diagnosing, forecasting and prognosticating had been a lower priority in this human-resource-constrained time (Spilsbury et al., 2020b).

The experience of feeling unprepared was also identified in US studies. Miller et al.'s (2020) US cross-sectional survey of frontline care home social workers' (n=63) experiences (including Directors of Social Services: n = 30, 47.6%) found that most participants (n = 20, 31.7%) reported feeling unprepared for the pandemic. Examples of free text responses included comments such as "we really did not see this coming," "not ready," and "lacking." Participants in this study also reported high levels of stress, anxiety and concern about exposure to the virus, long work hours, lack of contact between residents and families and deaths of residents (Miller et al., 2020). To a lesser degree, this finding was also identified in Quigley et al.'s (2020) survey of 56 care homes in 29 US states where slightly more than half (54%) had specific COVID-19 plans and others included COVID-19 in their current disaster preparedness plan (46%). The unknown or novel nature of the virus also affected preparedness in Ireland. Findings from two Irish reports (Department of Health and National Public Health Emergency Team (DHNPHET), 2020; Kelleher et al., 2020) confirmed some lack of preparedness due to the newness of the virus (Kelleher et al., 2020). However, initial preparation began at the end of January 2020, using the seasonal guidance on influenza as a source of prevention and management of outcomes and a national action plan was developed on the 16th March (DOH, 2020).

Lack of preparedness had an impact on the actual overall national management of the pandemic and uncertainties in how to manage were identified by several studies and reports (Rajan and McKee, 2020; Spilsbury et al., 2020a; Spilsbury et al., 2020b; Chen et al., 2020; Miller et al., 2020; Quigley et al., 2020; Gilbert et al., 2020). In the UK, findings by Rajan and McKee (2020) indicate that many respondents identified a lack of support from local authorities and/or Clinical Commissioning Groups (CCGs) and specifically highlighted changing and conflicting guidance, difficultly accessing financial supports and personal protection equipment (PPE), workforce challenges and difficulties maintaining

infection control. It is important to note that in the UK, care homes are designated as social care facilities, overseen by local authorities and CCGs and not the National Health Service (NHS), which has responsibility for health service provision including hospital care. This may have had a bearing on their ability to access equipment and support. Varying access to support was also reported by Department of Health Northern Ireland's (DOHNI) (2020) rapid learning initiative into the transmission of COVID-19 into and within care homes in Northern Ireland. Access to a general practitioner (GP) was reported as being difficult, particularly in the early days of the pandemic. However, 73% did say that they had timely support when required but that this was mainly via telephone conversation. While more than half (56%) stated they had access to testing at the onset, many others reported major problems with one stating there was no testing for the first 3-4 weeks (DOHNI, 2020). A further reported challenge for care homes was the different and changing routes for staff testing referrals. 14.5% (n= 70) of care home managers of registered nursing and residential homes had responded to the survey and of these, 59% indicated that they did not receive guidance on formulating COVID-19 individual resident risk assessment and care plans (DOHNI, 2020).

Knowledge gaps were also evident in Spilsbury et al.'s (2020a) initial UK study where a lack of knowledge was identified about the presentation and treatment of COVID-19 (e.g., proning, steroid use, subcutaneous administration, zoning) which adversely affected initial preparedness and management of home care sites. This finding was also evident in Spilsbury et al.'s (2020b) later study (an analysis of service evaluation of care home staff (n=250) utilising 'Whatsapp' group data) which indicated lack of preparedness to manage. Most questions and uncertainties related to infection prevention and control (41.5%; n=49) and referred to PPE, isolation of residents and staff, zoning (or cohorting) of residents and/ or staff in the care home, and testing. There was also evidence of lack of knowledge with more than a third (38%) of infection control and prevention questions being "fact-based" questions.

Interestingly, while two of the US studies (Miller et al., 2020; Quigley et al., 2020) reported lack of preparedness, the managers in both had instigated plans for training staff to address COVID-19 (100%), and processes to restrict visitors (100%) based on guidance from Center for Disease Control and Prevention state or local health agencies. Similarly, and also in the US, Chen et al.'s (2020) report on care home regulations, identified that in March 2020, there were both State and Federal policy responses in areas of prevention, expansion of facilities and relaxation of administration requirement. All of these were designed to increase infection control, enhance management and provide increased staff time for patient care. State guidance was also evident in Australia. In their case study report of an outbreak in Australia, Gilbert et al. (2020) stated that the prompt action by management and the

infection control prevention manager in the care home, in conjunction with public health policy and specialist support from the New South Wales (NSW) clinical excellence commission, probably limited the severity of the outbreak.

Learning to adapt and respond to changing guidelines and procedures was an important aspect of initial management. The Irish Health Information and Quality Authority (HIQA) (2020d) reported that there were many revisions of national guidelines in the first three months, and that care home management had to quickly take in and understand these updates and ensure that all staff were aware of the changes. They were also required to enable the implementation of the changes throughout their service. Despite this, HIQA inspectors found a good level of compliance demonstrating the resilience of staff and their effort to protect both staff and residents.

In Malaysia, Hasmuk et al.'s (2020) preliminary report on the impact of COVID-19 on vulnerable older Malaysians residing in long-term care facilities (LTCF) found that many care home operators were acutely aware of the potential risk of transmission in their care homes wiping out their businesses. Their staff members willingly cooperated with their employers' request to move into the care homes and to self-quarantine the entire home throughout the Movement Control Order (MCO)[6]. The compliance of staff members was, however, likely to be influenced by difficulties staff members encountered. In Malaysia, aged care facilities were not considered essential services during the initial phase of the lockdown. In addition, many feared employment difficulties post-MCO (Hasmuk et al., 2020).

2.6.2 Barriers to management and preparedness

The reviewed literature provided insight into the barriers experienced to management and preparedness in residential care settings. These barriers were staffing shortages, problems with availability of equipment / supplies, lack of funding, problems with access to tests and/or delays in results; lack of knowledge and guidance; problems with environmental and physical facilities.

Several studies highlighted difficulties with maintaining staffing levels. In the UK, Rajan and McKee (2020) reported that 70% had staffing concerns and specifically, 43% worried about staff shortages, 30% depended on staff who worked in a number of different sites and this could have an adverse effect on infection control measures because of inter site movement. Similarly, Spilsbury et al. (2020a)

---

[6] Malaysian Government Movement Control Order (*Malaysia*), commonly referred to as the MCO or *PKP*, is a *cordon sanitaire* implemented as a preventive measure by the federal government of Malaysia in response to the COVID-19 pandemic in the country on 18 March 2020.

reported that lack of staff necessitated the employment of agency staff, which caused concern for respondents as they worried about cross infection. Rajan and McKee (2020) argued that the lack of pay parity in the UK between NHS and 'social care setting' staff contributed to these shortages. Agency staff were employed to offset the staff shortage but the cost of agency staff to manage and offset the shortage was a challenge.

In Malaysia, Hasmuk et al. (2020) reported an additional staffing difficulty, which stemmed from a decision of the Malaysian Ministry of Health to cease all new recruitment due to financial difficulties. This adversely affected many care homes. In the US, strategies to manage staff shortages included requesting staff volunteers for extended hours (55%) and the deployment of nonclinical staff to fill different roles (45%) (Quigley et al. 2020). In some instances, in the UK, staff shortages led to a reduction in services with the focus shifting to care delivery and acute care plan focus only (Spilsbury et al., 2020a). A further point for consideration regarding staffing is the model used. In Ireland for example, Kelleher et al. (2020) reports that the staffing model within private care homes is a cost care model and not based upon dependency assessment. The staffing model has an effect on staff/resident ratio, as the model of staffing was pertinent to pre-COVID-19 era when dependency levels were not so acute but would not be appropriate during the pandemic.

In addition to staff shortages, studies reported lack of supplies and of particular concern was the lack of access to PPE and/or lack of funding to purchase it. There were also problems accessing oxygen, accessing tests for COVID-19 as well as delays in results. In their study in Canada, Siu et al. (2020) identified that 30% of respondents were concerned that they did not have sufficient resources onsite to manage an outbreak. Only 31.9% agreed that it would be possible to secure additional resources during an outbreak. This finding highlighted the need to address underlying issues (e.g., chronic under-funding, inadequate staffing, and the physical environment of care homes) that increase the vulnerability of the care home sector to the pandemic. Shortages/lack of access to supplies was also identified in Rajan and Mckee's (2020) study in the UK. Access to supplies, such as PPE while obtainable, was identified as difficult due to a perceived chaotic chain of supply as well as cost. Access to funding varied considerably, with some organisations not receiving any financial support, and for others the process was difficult with monies given begrudgingly (Rajan and McKee, 2020). Similarly, Gilbert et al. (2020) in their case study in Australia, drew attention to the very big financial outlay required of care home not least in terms of PPE equipment and their disposal.

Lack of access to PPE and other equipment were also barriers to management in the US. Many facilities were unable to procure or did not have the necessary supplies of PPE or other equipment to provide the required level of care and/or to minimise spread of infection (Miller et al., 2020; Quigley et al., 2020). Chen et al.'s (2020) report on US federal and state policy responses, stated that initially there was increased mortality and morbidity due to poor access to PPE, poor infection control and staff shortages. Similar resource barriers in Ireland were identified by Department of Health and National Public Health Emergency Team (DOHNPHET) (2020) including lack of supply lines to PPE and oxygen in privately funded care homes. Kelleher et al. (2020) concur and identify cost and availability of PPE being a particular barrier in privately funded care homes. Residential care home care in Ireland is provided through a mix of private and public Health Service Executive (HSE) state funding and as a result, there were different experiences regarding access to equipment, resources and staffing. Hasmuk et al. (2020) also reported barriers to accessing and funding PPE purchase in Malaysia. Malaysian care homeowners were ordered by the district health office to purchase their own PPEs and to organise their own disposal, however most homes were unable to afford enough facemasks and gloves and had little else in terms of PPEs (Hasmuk et al., 2020).

Furthermore, in the UK, Rajan and McKee (2020) reported problems with test results e.g., inaccessible and/or poorly co-ordinated or delayed and not all could access tests for asymptomatic residents. Spilsbury et al., (2020a) also reported sporadic testing and delays in the length of time it took for results to be returned to the unit/institution. An additional constraint identified by the DOHNI (2020) and Hasmuk et al.'s (2020) was lack of testing of patients/residents prior to admission. Care homes in Malaysia, while reluctant to accept hospital discharge patients without a test (hospitals were reported to be reluctant to test pre discharge unless there was clinical indication for same), felt compelled to accept the risk as they were experiencing cash flow problems (Hasmuk, 2020). However, it is acknowledged, that from May 2020, it became mandatory for hospital patients discharged to residential and care home to undergo COVID-19 testing (Hasmuk et al., 2020).

A significant additional barrier to management was lack of knowledge and lack of guidance about management and co-ordination of infection prevention and control in the care of residents with COVID-19. Earlier in the pandemic, studies show that care homes reported a lack of consistent guidance and/or regular changes in instructions (Miller et al., 2020; Rajan and McKee, 2020). DOHNI (2020) also reported that guidance on identification and management of infectious/virus outbreaks were too late. Staff did not initially know very much about the virus due to its newness. In their UK study, Spilsbury et al. (2020b) reported that respondents were asking questions on testing, infection

prevention and control, symptoms and treatment, PPE, resident and staff isolation as well as zoning/cohorting. Other concerns were raised about supporting residents, staff and family, maintaining an effective workforce and effective care for residents and staff, interacting with health care services, promoting working relationships and managing organisational impact (Spilsbury et al., 2020b). Similarly, Gilbert et al. (2020) reported a lack of confidence and competence regarding infection prevention and control amongst workers in Australia with many of the concerns raised by study respondents stemming from lack of and/or conflicting information being provided to them.

Furthermore, the atypical presentation and asymptomatic transmission of COVID-19 in certain cases added to the lack of knowledge about the virus and how to manage it (DOHNPHET, 2020; Kelleher et al., 2020). Spilsbury et al. (2020a) highlighted a further barrier being the novel presentation of the virus (e.g., gastro-intestinal and cognitive symptoms as well as decreased mobility, fatigue, tremors, seizures, bleeding, feeling unwell), as this was at odds with government advice to look for respiratory symptoms. According to study findings, rigid application of government defined symptoms for testing, prevented the recognition of subtle changes as a legitimate COVID-19 presentation (Spilsbury et al., 2020a). This had a knock-on effect, in that patients who were asymptomatic could actually have the virus which adversely affected infection control, containment and prevention. A further barrier to planning and managing care provision was the unpredictable nature of COVID-19 and its trajectory, ranging from sudden and rapid deterioration, 'late dipping' (people who were recovering well suddenly becoming very unwell around day 8-10) and also people developing post COVID-19 syndrome (Spilsbury et al., 2020a).

Lack of knowledge was compounded by lack of communication and local agreement. According to Spilsbury et al. (2020a), respondents believed that a lack of locally agreed protocols and plans regarding patient transfers to care homes were a barrier to maintain infection control and prevention. Furthermore, in Ireland, HIQA (2020d) reported that care homes were ill equipped to manage the challenges presented by COVID-19. Inspectors found examples of poor contingency planning, a failure to identify replacement staff, and a lack of effective communication and supervision between staff and management. HIQA (2020d) also identified insufficient communication and liaison with local public health officials in their respective HSE Community Health Organisation.

Yet, another barrier to management and preparedness was the physical environment of the care homes. This proved to be a significant barrier to containing and preventing the infection as well as providing appropriate care to those living in the care settings. The risk and transmission of infection

was particularly high in care homes because of the vulnerability and frailty of the population who were very susceptible to this highly infectious virus as there is increased contact with residents and carers (DOHNPHET, 2020; Kelleher et al., 2020). The physical structure of care homes could also exacerbate this risk. DOHNI (2020) reported that the size and layout of some homes presented challenges for infection control and prevention.

Similarly, according to the HIQA's (2020d) report in Ireland, there was inadequate access to outdoor spaces, which limited the ability of socially isolated residents to enjoy different environments. The use of multi-occupancy rooms in some care homes created a situation where the spread of infection was difficult to contain. The communal living nature of care homes (Kelleher et al., 2020) and lack of isolation facilities for residents (Hasmuk et al., 2020) was identified as a barrier to infection control. In their UK study, Rajan and McKee (2020) reported challenges in ensuring resident isolation, both in terms of being unable to actually isolate residents (30%) as well as 45% reporting that it was challenging to ensure isolation for residents who walked with purpose. Gilbert et al. (2020) found similar results in Australia, stating that isolation was difficult for both residents and family.

2.6.3 Facilitators of management and preparedness

The review of literature also revealed some facilitators of management and preparedness in care homes and long-term residential care facilities. These included effective communication and support; use of technology to mitigate social isolation and provide a medium for communication and education; training and resources; development and use of protocols regarding infection prevention and control and care provision.

Peer, community and official communication and support were all found to be important in facilitating preparedness and management of COVID-19 virus. A number of studies cited peer support as facilitative of preparedness and integral to coping (Miller et al., 2020; Spilsbury et al., 2020b). Collective experiences shared through social media such as WhatsApp or Facebook groups were cited (Miller et al., 2020; Spilsbury et al., 2020b), along with sharing of virtual resources through professional networks. In the UK, Rajan and McKee's (2020) respondents reported that peer support, community donations and letters of appreciation helped in being prepared and managing a COVID-19 outbreak. Collegial and collective support among staff was evidenced in Ireland by HIQA (2020d), where it was reported that the vast majority of care homes were staffed by people who were committed to keeping residents safe and who were willing to increase their hours. In addition, most care homes had sufficient numbers of registered nurses, care assistants, cleaning and catering staff

on their roster to manage in the event of an outbreak of COVID-19 (HIQA, 2020d). In the UK, it was reported that some residents required end of life care, which was acknowledged as emotionally difficult, but staff were offered support by senior staff, dedicated staff bereavement and counselling support as well as peer support and end of life care support groups (Spilsbury et al., 2020a).

Furthermore, good communication and effective relationships with other agencies especially hospitals were cited as facilitators of preparedness. For example, in an Irish study by Quigley et al. (2020), 68% indicated they had clear lines of communication with a local referral hospital accepting their patients under investigation for COVID-19. The availability of clear national guidelines also helped with preparedness. In Ireland, DOHNPHET (2020) reported enhanced HSE engagement with non-public care homes through a structured support system, which included specific support from COVID-19 response teams, access to supply lines, focused care home guidance as well as access to staff from community and acute care services. In the UK, care homes were supported with daily calls from their local authorities (Rajan and McKee,2020) and in Canada, Siu et al. (2020) also reported that the level of communication and information on COVID-19 received from government, public health personnel and provincial long term care organisations was ample.

Education and training about the virus, prevention and infection control measures and care provision for residents were considered very important. Care homes accessed and were provided with information through a variety of means. In a number of studies, results show that in addition to national/state/federal guidelines, care homes instigated plans for training staff to address COVID-19 (Kelleher et al., 2020; Miller et al., 2020; Quigley, 2020). In Australia, Gilbert, (2020) found evidence that specialist infection prevention and control advice and information was sought and received. Staff education on infection control was reported in Canada (Siu et al., 220) as well as end of life care provision by local palliative care teams and hospice staff education and training from local palliative care teams and hospice staff in the UK (Spilsbury et al., 2020). Access to training for care home staff was important and it was felt that a consistent 'education pack' was needed for care homes to access (DOHNI, 2020). There was evidence that staff shared information via social media e.g., some used Whatsapp groups which provided a forum for information sharing (identification of resources) and answering questions, having these facts alleviated and resolved uncertainty (Spilsbury et al., 2020b). In tandem with adherence to national guidelines, there is evidence that care homes developed and adopted protocols to prepare and manage care. These included strict infection prevention and control procedures such as immediate isolation of a care home wing as well as addressing the following areas within days of the outbreak: expert advice provided, isolation, infection control procedure, PPE, staffing, isolation, cleaning, food delivery, testing, hospital admission, medical rounds, support to

family and residents (Gilbert, 2020). Similarly, respondents in Siu et al.'s (2020) study in Canada, undertook measures to prepare for an outbreak and these included: putting in place respiratory isolation protocols, screening new admissions and encouraging sick staff to take time off from work. Furthermore, a minority of respondents instituted some additional measures such as screening of staff and visitors, cohorting residents and increasing staffing levels (Siu et al., 2020). These measures were also replicated in terms of physical distancing, isolation, measures, testing, staff screening, immunisation, cohorting and zoning in other care homes in Ireland, Malaysia and in the UK (DOHNPHET, 2020; Hasmuk, 2020; Kelleher et al., 2020; Spilsbury et al., 2020a). Wang et al. (2020a) specifically outlines the importance of leadership, adherence to national guidelines and closed management.

Limits to the number of people allowed into care homes is evidenced in a number of the studies and reports. In the US, processes to restrict visitors based on guidance from Center for Disease Control and Prevention state or local health agencies were implemented (Miller et al., 2020; Quigley, 2020). A similar restriction on visitors was put in place in Canada (Siu et al., 2020) and in Ireland (DOHNPHET, 2020). Although, this was seen as a facilitator of management and preparedness, it was noted that as a result, residents were much more socially isolated. To address this, technology was important e.g., video calls with relatives. Spilsbury et al., (2020a) also reported that social isolation was alleviated by window visiting, garden visits and letter writing and socialising amongst residents when safe to do so (Spilsbury et al., 2020a).

Evidence suggests that care homes were more exposed to staffing shortages and increased workload. However, the review also revealed evidence of interventions to alleviating the effects of this. In the US, in the face of increased mortality and morbidity, Chen et al. (2020) reported that the federal response (The Centres for Medicare and Medicaid Services (CMS)), was increased leading to flexibility and easing of regulations in long term care facilities. These related to four specific areas: prevention, increasing facilities, relaxation of administrative requirements and reporting of COVID-19 data on morbidity and mortality (Chen et al., 2020). In periods of staff shortage where the focus was completely on care delivery, respondents identified the importance of having digital care planning systems (not all sites had these) and these were seen as "invaluable in supporting effective and timely record keeping during these highly pressured periods" (Spilsbury et al., 2020:20). Vigilance in patient observation was deemed important and helped in care provision. Spilsbury et al. (2020a) identified having a patient baseline of observations as being useful in helping to monitor for any deterioration

change in condition. The importance of close patient monitoring and staff vigilance in minimising patient risk was also evident in HIQA (2020d) report.

2.7 Discussion

This review illustrates a similar picture across countries in that there was a lack of preparedness for a global pandemic, lack of education on infection control, difficulties in zoning and cohorting due to the physical infrastructure and the nature of some residents' ability to understand due to underlying cognitive impairment but also due to shared agency staff across sites as well as understaffing staff within sites (exacerbated by staff being on sick leave themselves). The findings also illustrate the determination and efforts made by many of the sites to care for their residents, relatives and staff through working overtime, explaining, educating and supporting each other often in the absence of adequate support in terms of equipment, staff, access to services and organisations outside of the nursing and care homes.

Similar to challenges in various institutions in health systems, findings on the initial experiences of care home management and preparedness illustrate that in the early days of the pandemic, care homes and long term residential care management were unprepared and lacked knowledge, lacked access to support and resources and were hampered by environment and structural issues as well as lack of staff either through sick leave and /or increased staff: resident care ratio needs (DOHNPHET, 2020; Kelleher et al., 2020; Miller et al., 2020; Quigley et al., 2020; Rajan and McKee, 2020; Siu et al., 2020; Spilsbury et al., 2020a; Spilsbury et al., 2020b). This lack of preparedness was illustrated by respondents' expressions of uncertainly and anxiety. This sense of uncertainly was compounded by lack of knowledge, changing guidelines, lack of access to supplies, lack of staff, structural and environmental issues within the care homes, all of these affected and had an impact on how the situation was managed in terms of infection control, containment and care provision. This had an initial adverse impact on the management of the response to COVID-19 (Chen et al., 2020; DOHNI, 2020; 2020; Gilbert et al., 2020; Miller et al., 2020; Quigley et al., 2020; Rajan and McKee, 2020; Spilsbury et al., 2020a; Spilsbury et al., 2020b). However, national/state/federal guidelines were adapted and developed which provided a map for management to follow, albeit with several iterations which challenged care homes on how to keep up and respond to changing advice and guidelines.

Care homes were hampered in the ability to care for older presidents by several barriers. Specifically, barriers to management and preparedness for COVID-19 were staffing shortages, access and

availability of equipment/supplies, lack of knowledge and guidance as well as the physical environment. All of which adversely affected the ability to manage and prepare for infection control and prevention as well as deliver and co-ordinate care (Chen et al., 2020; DOHNPHET, 2020; DOHNI, 2020; Gilbert, 2020; Hasmuk et al., 2020; Kelleher *et al.,* 2020; Miller et al., 2020; Quigley et al., 2020; Rajan and McKee, 2020; Siu et al., 2020; Spilsbury et al., 2020a; Spilsbury et al*.,* 2020b). However, the nursing and care homes' determination to care for and support their residents, relatives and staff is illustrated by how management and preparedness was facilitated in care homes. These included having effective channels of communication and providing support both within the care homes, from outside agencies, as well as education and training was important, and was provided both formally and informally. There was evidence of the adaptation and implementation of protocols and guidelines through infection prevention and control measures, close monitoring of residents and minimisation of risk, while at the same time, evidence of endeavours to mitigate social isolation through a variety of initiatives (Chen et al., 2020; DOHNI, 2020; Gilbert, 2020; Hasmuk et al., 2020; HIQA, 2020d; Kelleher et al., 2020; Miller et al., 2020; Quigley et al., 2020; Rajan and McKee, 2020; Siu et al., 2020; Spilsbury et al., 2020a; Spilsbury *et al.,* 2020b).

2.8 Implications of this Review

The findings of this review demonstrate that there is much to consider in terms of how care homes are managed, resources, staffed, supported and how staff are educated and trained. In many ways, it has cast a light how societies care for their older residents and in this sense, it has implications for practice, education, management, policy and research.

2.8.1 Implications for Practice

Person centred care is fundamental to providing holistic care and even more so in a time of isolation, zoning, cohorting and use of PPE. Such care must be provided by staff with appropriate qualification levels, supported by adequate staffing levels within a suitable physical environment.

2.8.2 Implications for Education

Older person nursing care is complex and requires a high level of education and understanding thus there is need for continuous staff education and education not only in infection control and prevention but also in how COVID-19 and other similar conditions present and should be managed in older people.

Thus, specific person centred gerontological focused education should be provided to staff of all levels working within care homes.

2.8.3 Implications for Management

The role of the manager is crucial to the safe and appropriate care as well as the wellbeing of residents, relatives and staff. Not only do managers need to have leadership, organisational, communication and managerial skills but also a deep understanding of the requirements of gerontological care. The development of supportive networks with statutory and non-statutory organisations such as health services provider organisations, governmental agencies as well as with local providers and similar care home networks is crucial.

2.8.4 Implications for Research

As the global pandemic is well into its second year and there have been a number of waves of the pandemic, there are several areas for research and include:

- Examine how residents, families and staff are being supported by care homes during the ongoing pandemic
- Examine what changes have been made to the management and organisation of care
- Examine the education and training currently provided for care home staff
- Explore how care homes are preparing for similar situations in future

- Explore the experiences of care homes during the COVID-19 pandemic.
- Explore the challenges experienced by care homes during the COVID-19 pandemic in the context of support within a national response.
- Examine how individual care homes managed care delivery.
- Identify areas of learning that may impact on policy, service planning, resourcing and care delivery in the future.

2.9 Summary

- This review aimed to determine managers' experiences of preparing and managing COVID-19 in care homes/residential settings.
- The review sought evidence from empirical and grey literature reports focused on the context of residential care and management and preparedness for the pandemic. Results from

international research revealed that there was an initial period of unpreparedness experienced by care home managers, and barriers to management and preparedness for COVID-19, all of which adversely affected the ability to manage and prepare for infection control and prevention as well as deliver and co-ordinate care.

- The lack of knowledge about the virus and changes in guidance caused a great deal of confusion and anxiety. However, there is also evidence of facilitators such as peer support, effective channels of communication and education.

- Evidence is limited, and results of the review show that much is yet to be learned from these experiences.

- Further research is critical for our understanding of the extent to which current evidence is relevant in preparing for similar situations in future and to inform the current direction for policy and practice in residential care.

Chapter 3 Methodology

3.1 Introduction

This research project explored the experiences of DoNs of care homes during the COVID-19 pandemic. This chapter overviews the research approach employed in the conduct of the study with reference to the study aim, objectives and methodology.

3.2 Overall aim and objectives

This study aimed to explore the experience of DoNs/managers[7] in residential care in their preparedness, co-ordination, and management during the pandemic so that better supports can be identified for similar health crisis in the future.

The objectives of the study were to:

i) examine the level of preparedness of care homes for COVID-19 in Ireland;

ii) identify the most significant challenges faced by care homes during COVID-19;

iii) identify the preventative and 'COVID-19 outbreak' management strategies used;

iv) identify staffing, resource and education needs of care homes in relation to responding to the pandemic;

v) examine the impact of the COVID-19 experience on the physical and psychological well-being of the DoN;

vi) examine the uptake and impact of government intervention schemes to support care homes;

vii) identify areas of learning that may impact on future practice, education and policy in relation to COVID-19 in the residential care setting.

3.3 Research Question

The study research question was "What were the experiences of DoNs in Care homes during COVID-19?"

---

[7] For this study, the term DoN will denote a Director of Nursing or a Person in Charge.

3.4 Research Design

The research used a mixed methods approach. A mixed methods approach is considered a good strategy to address the complexity of healthcare research questions (Sandelowski, 2014; Reed et al. 2021). Given the complexity of the research phenomenon in this study, it was therefore considered an appropriate fit with the research aim. Mixed methods research involves combining both quantitative and qualitative data in terms of data collection, analysis, and integration. This research approach is used when an integrated approach may provide a better understanding of the research problem than either quantitative or qualitative methods alone. The research aim of the present study was to capture the experience of DoNs in response to the COVID-19 pandemic. This experience is complex and includes information that is objective and quantifiable and information that is based on personal experience and perception. For this reason, a mixed methods approach was deemed appropriate to inform the conduct of the study reported herein. This enables a consideration of the research question from different perspectives and enhances the ability to understand the phenomenon of interest (Burke-Johnson and Onwuegbuzie, 2004; Shorten and Smith, 2017). More specifically, a sequential exploratory design was selected to address the research question. This consisted of an on-line survey followed by semi-structured interviews.

3.5 Study inclusion and exclusion criteria

3.5.1 Inclusion criteria:

The inclusion criteria were:

- A DoN/Assistant DoN in a private or voluntary care home in the Republic of Ireland.
- DoN was in position from March 1st, 2020.
- If there was no current DoN, the Person in Charge could complete the survey[8]

Survey respondents were invited to self-select for the semi-structured interviews.

3.5.2 Exclusion criteria:

The exclusion criteria were:

- A DoN in public residential care facilities
- A DoN not in post during the pandemic.

---

[8] For the purposes of the study, respondents in the survey and participants in the interviews are referred to as Directors of Nursing (DoNs).

3.6 Ethics approval

Ethics permission to complete the study was granted by the School of Nursing and Midwifery Research Ethics Committee in Trinity College Dublin (TCD). The ethics application was also subject to a Data Protection Impact Assessment by the Data Protection Officer in TCD.

For both the survey and the semi-structured interviews, bespoke participant information sheets were provided. For the survey, an e-mail containing the survey link was circulated by NHI which included a participant information sheet tailored to the quantitative phase of the study. Prior to commencing the survey, respondents were required to actively click on a consent to participate tab before progressing to the survey questions.

For the participants in the semi-structured interviews, a copy of the consent form and qualitative based participant information sheet was emailed to those who expressed an interest in participating. A seven-day period was provided to enable potential participants to review the information and make an informed and voluntary decision to participate. All ethics requirements were complied with including the General Data Protection Regulations (2018), which comprised recruitment of participants in addition to the management and storage of data. At all times, the welfare of participants was placed above the interests of the study and a process approach to ensure ongoing consent was employed during each interview. In addition, a protocol was agreed within the research team to ensure the welfare of a participant should an individual become upset during an interview. This protocol did not require enactment. However, the participant information leaflets also contained information on relevant support services in the case that a participant wished to avail of such support post-interview.

3.7 Data collection

3.7.1 Data collection survey

A bespoke survey was developed by the research team to examine the experience of the DoNs in managing care in care homes in Ireland during the pandemic period. The survey drew on existing literature and the primary areas of relevance to the research question which included the recommendations from the National Expert Panel on Care Homes (Kelleher et al., 2020). It consisted

of 25 main questions with a further 5-10 individual questions or response statements structured under the following themes:

- Care home profile
- Care Home COVID-19 Preparedness
- Impact of COVID-19 recommendations on care home viability
- Care Home Staffing during COVID-19
- Experiences of living with COVID-19 Recommendations
- Experience of managing COVID-19 Outbreak
- Impact of pandemic on care home manager/director of nursing
- "The Perceived Stress Scale (PSS) (Cohen and Williamson, 1988) was used to measure levels of stress in participants.

Many question items were bespoke and reflected the specific infection control measures recommended by the Expert Panel on Care Homes (Kelleher et al., 2020) and public health recommendations (https://www.hpsc.ie/). The majority of questions were structured as statements and respondents indicated their level of agreement using a 5/4-point Likert scale. Respondent stress was measured using the Perceived Stress Scale (PSS) (Cohen and Williamson, 1988). The PSS is a widely used and validated instrument with good psychometric properties (Bail et al., 2019; Taylor 2015).

The questionnaire was reviewed and tested by the panel members for face validity; it was further tested by five care home managers using cognitive interviewing principles (Drennan, 2003) to test the clarity of the questions, ease of completion, the relevance of the questions and ability to capture the care home managers experience. The questionnaire was modified based on feedback.

An online survey was generated using Qualtrics software (Qualtrics©, 2020). All data transmitted using the Qualtrics platform is encrypted using the industry-standard Transport Layer Security protocol and all response data is downloaded in industry-standard formats for data portability to comply with general data protection regulation (GDPR) (Qualtrics©, 2020). The survey was developed to identify key issues arising from the COVID-19 pandemic from the perspective of the DoNs. NHI agreed to act as the study gatekeeper and circulated the link to the survey by email through its membership lists and contact lists. In total, the survey link was sent to 415 NHI members and 43 non-members. The email of invitation was sent to participants on March 1st 2021 and contained a link to the survey and participant information leaflet. The survey was originally open from 1st March 2021 for three weeks with two reminders, however, due to a slow response rate, it remained open until April

15th with two further reminders. The Qualtrics survey was set up so that respondents were anonymised with no record of IP addresses.

3.7.2 Data Collection: Semi-structured interviews

Data collection was aided by an interview schedule. This contained four demographic questions and eleven questions to probe the DoNs' experience of managing care in the pandemic. The answers to the demographic questions were recorded anonymously for the purposes of describing the sample. The interview questions were generated from the research question, through a review of the pertinent literature and a preliminary review of the findings from the survey data. Prior to undertaking the interviews, the questions were reviewed by six DoNs in residential care of older people who worked either within the public health service or in Northern Ireland.

DoNs who completed the online survey were invited to participate in a follow up interview. Twenty such potential participants contacted the Principal Investigator (PI) who discussed the project with them and forwarded a separate participant information leaflet (developed for the qualitative phase of the study) and e-consent form to each of the potential participants. Any expressions of interest were followed up after one week. The participants were then asked to return the consent forms with e-signatures and consent was confirmed orally again prior to each interview. The twenty semi-structured interviews were conducted by three members of the project team between 25th March 2021 and 23rd April 2021.

3.8 Data analysis

3.8.1 Quantitative analysis of the survey data

The dataset was cleaned and questionnaires with >50% missing data were excluded (51 questionnaires were excluded). Data analysis used descriptive statistics; proportion and percentages were reported for categorical data and means and standard deviation were reported for continuous data. The experience of care homes with COVID-19 outbreaks was compared with care homes with no outbreak. Inferential statistics using chi-squared and t-test was used for comparison. The statistical software package SPSS-version 24 was used for analysis (2016 IBM Corp. Armonk, NY USA).

3.8.2 Qualitative analysis of the interview data

Following the completion of each interview, the PI forwarded the audio files securely to a professional transcriber (who had signed a confidentiality agreement) with each interview being given a numerical code. On return, transcripts were checked for accuracy against the audio recordings and the recordings were then destroyed by the transcription service and by the researchers. Transcripts were then reviewed by members of the research team to remove any identifying details (names, places etc) and imported into a password protected folder on a secure research drive for analysis with access restricted to members of the research team. The transcripts were imported into NVIVO©, a computerised data management programme. Two participants asked to review their typed transcript, but no changes were requested following this review. Primary analysis was undertaken by one team member with weekly meetings held with two other team members to discuss and review firstly the data in the earlier phase of analysis and then the emergent coding and thematic structure as the analysis proceeded.

Data analysis was undertaken using the reflexive thematic analysis approach described by Braun and Clarke (2006; 2012; 2022). This approach facilitates the uncovering of patterned meaning across a qualitative dataset to address the research purpose (Terry et al*.,* 2017; Braun and Clarke, 2021). According to Clark and Braun (2018:108), employing this approach to analysis, thematic findings are "*active creations* of the researcher (rather than just passively 'emerging' fully formed from the data) that unite data that at first sight might appear disparate, and often capture implicit meaning beneath the data surface". These writers further explain that in using this approach, each theme has an identified essence that both underpins and brings together its content in the process of interpreting the data. Therein, the process of analysis as meaning-making is understood to occur at the point of intersection between researcher, dataset and analysis, and data contexts (Braun and Clarke 2022). As such, using a reflexive thematic analysis approach, a rich analysis of participants' data can be achieved in terms of describing the "so what" of the data (Clark and Braun, 2018). Table 3.1 outlines the six-phase iterative thematic analytical process employed.

Table 3.1 Approach to data analysis (Braun and Clarke, 2022)

Phase		Process
1.	*Familiarisation with the data set*	Following transcription, full transcripts were reviewed for accuracy. Following this, a repeated reading of each transcript was undertaken to enable immersion in the data. Preliminary notes were recorded and cross checking with fieldnotes.
2.	*Coding*	Building on step 1, codes were developed and collated.
3.	*Searching for themes*	Codes were analysed to generate overarching themes. This involved a discrimination of the codes and a review of interconnections between codes themes and analytic levels.
4.	*Developing and reviewing the themes*	Themes were reviewed and refined at code level, theme level and whole data level for coherency and representation of the DoNs' perspectives.
5.	*Refining, defining and naming themes*	In this step, the themes were reviewed for completeness in the context of fully illuminating the essence of the theme. This involved a horizontal review of the total 'story' the themes told, and a vertical consideration of the constituent sub-themes and a refining of theme titles.
6.	*Writing up*	Writing the report involved an authentic presentation of the finding of the data analysis, with a clear audit trail of the theme development and supporting data.

3.9 Rigour

Face and content validity for the bespoke survey and the interview schedule was evaluated firstly by members of the research team and then through circulation to a panel of experts consisting of six DoNs in the public health (HSE) system and within Northern Ireland. Amendments to the survey were made where appropriate after feedback. The Perceived Stress Scale (PSS) (Cohen and Williamson, 1988) was used to measure levels of stress in participants. The PSS is a widely used psychological instrument for measuring the perception of stress and has an adequate measure of internal consistency reliability ($\alpha > .70$).

For the qualitative phase of the study, general standards of rigour such as credibility, transferability, dependability, and confirmability were adhered to in order to ensure the trustworthiness of the research process and outcome (Lincoln and Guba, 1985). Each transcript was initially reviewed by one researcher and regular research team meetings served to support the development of the open coding system followed by the themes. Constant cross checking of the emergent thematic structure occurred with the primary data. Themes were therefore reviewed and refined by the research team over the

course of the qualitative analysis process to ensure that an analytical level of coding was achieved from interpretation and reflection on meanings (Richards, 2021).

3.10 Summary

- The aim of the study was to examine the experience of DoNs in residential care in their preparedness, co-ordination, and management during the pandemic so that better supports can be identified for similar health crisis in the future.
- The study employed a mixed-methods approach to achieve the research aim.
- Data collection involved a purpose designed survey tool and semi-structured individual interviews.
- Descriptive and inferential statistical analyses were applied to the survey data as appropriate.
- Interview data were analysed using the thematic analysis approach of Braun and Clarke (2006; 2012).
- Ethical committee and Data Protection Officer approvals were obtained in advance of the conduct of the study.
- Standards of ethical conduct were adhered to in relation to the collection, storage and processing of data, and in relation to participant recruitment and welfare.
- The following two chapters will present the study findings with reference to each of the data sets collected.

Chapter 4 Results: Survey Data

4.1 Introduction

This chapter presents the findings from the survey phase of the study. The survey represents the perceptions of care home DoNs who were in a position to comment on the management of the care home as well as residents during the first three waves of COVID-19.

The survey was distributed on Monday March 1st, 2021 and was initially open for 3 weeks with two reminders (5/3/21 and 10/3/21) and was extended for a further three weeks to boost response rate. The survey collected data from care homes approximately twelve months from the time the first infections were reported in Ireland. Overall, 173 respondents returned questionnaires, of which 122 questionnaires (who completed Q5 preparedness as a minimum) were included in the analysis.

4.2 Care Home profile

In total, the questionnaire was distributed to 458 DoNs/ care home manages, 173 (37%) consented to participate in the survey and started to complete the questionnaire. Following removal of minimally completed questionnaires, the analysis was based on 122 questionnaires giving a final response rate of 27%.

The majority (81%) of respondents were DoNs (n=99/122), 11% Care Home Managers (13/122), and 7% were classified as 'Other' (9/12), such as Assistant DoN. The average facility bed capacity was 60 beds (min: 9 beds, max: 184 beds, IQR:35-70 beds), and the average occupancy was 50 beds (83%). The care homes were spread across nine Community Healthcare Organisations (CHO) (Table 4.1). CHO 5 had the highest number of facilities (N=25, 20.5%), while CHO 8 had the least (N=6, 4.9%).

Table 4.1 Community Health Care Organisation (CH0)

CHO Location	N	%
CHO 1	13	10.7%
CHO 2	16	13.1%
CHO 3	15	12.3%
CHO 4	13	10.7%
CHO 5	25	20.5%
CHO 6	12	9.8%
CHO 7	8	6.6%
CHO 8	6	4.9%
CHO 9	13	10.7%
Missing	1	0.8%

The majority of the care homes were privately owned (N=98, 80.3%), with Voluntary and 'Other' care homes accounting for 19.7% of responses. The most common services offered by care homes were residential and respite services (96.7% and 79.5%, respectively), while just over one third (35%) offered specific dementia services (Table 4.2).

Table 4.2 Type of service offered

Services	N	%
Residential	118	96.7%
Respite	97	79.5%
Rehabilitation	38	31.1%
Palliative care	86	70.5%
Convalescence	86	70.5%
Dementia Specific	43	35.2%
Other please specify	7	5.7%

More than 40% of care homes reported having either single rooms with communal bathrooms or shared rooms with communal bathrooms (Table 4.3).

Table 4.3 Type of accommodation offered

Accommodation Type	N	%
Single room ensuite bathroom	118	96.7%
Shared room ensuite bathroom	70	57.4%
Single room communal bathroom	54	44.3%
Shared rooms communal bathrooms	50	41%

4.3 Care Home COVID-19 Preparedness

In July 2020, The DoH Expert Panel Care home review (Kelleher et al., 2020) made over 80 recommendations for care home management and daily operational practice to reduce the risk of COVID-19 outbreak and transmission. Aspects of the recommendations were incorporated into the survey.

In this study, respondents indicated their current (March-April 2021) level of preparedness using a Likert scale "Not at all prepared" to "Fully Prepared" under 10 themes: source of information, infection control and prevention, preparation to manage a COVID-19 outbreak, surveillance and supportive therapies, care home daily operational practices, governance and leadership, staffing level, palliative care, education plans, overall level of preparedness and future priorities.

4.3.1 Source of information

The main source of information for respondents were the Health Protection and Surveillance Centre (HPSC) and HSE (respectively 93.4% and 96.7%). A variety of other sources were also accessed on a regular basis, including NHI (24%) (Table 4.4).

Table 4.4 Sources of knowledge and communication around procedures for preparing for COVID-19

COVID-19 Knowledge Source	N	%
HPSC	114	93.4%
HSE	118	96.7%
DoH	69	56.6%
HIQA	92	75.4%
CDC	30	24.6%
WHO	65	53.3%
DoH Expert Panel	65	53.5%
Other, (e.g., NHI)	38	31.1%

In the event of an outbreak, care homes all sought advice from their Local Public Health Office in the CHO, with other sources such as GPs, HSE Care Home Response team and Public Health Nursing also likely to be contacted for advice (Table 4.5). Of the 26 responses to "Other, please specify", 7 included HIQA, 5 included NHI, 5 included HSE, and 3 included CHO in their response.

Table 4.5 Source of guidance sought if COVID-19 outbreak occurred

Outbreak Guidance	N	%
GP	60	49.2%
Local Public Health Office	97	79.5%
HSE Care Home Response Team	68	55.7%
Public Health Nursing	65	53.3%
HSE Community Service	38	31.1%
HSE National Office	14	11.5%
Other (e.g., HIQA, NHI, CHO)	26	21.3%

4.3.2 Infection control and prevention

Respondents rated the level of preparation in relation to infection control strategy and preparedness plan using a five-point Likert scale (Table 4.6). The data indicated a high level of preparedness with mean score 4.5 and above across 8 of the 9 items. The lowest scoring items were 'access to an onsite trained infection control lead on each shift' and 'influenza vaccination for direct care staff and support staff (catering, cleaners)'.

Table 4.6 Infection control and prevention

	Mean	Std. Dev.
1. The Care Home has a clear Infection prevention and control (IPC) strategy, including deep clean protocols.	4.62	0.61
2. The Care Home has a COVID-19 Infection Control Preparedness Plan.	4.73	0.63
3. The Care Home has managed entry and exit points, so different entrances/exits can be used for different parts of the home.	4.58	0.73
4. All Care Home staff are fully trained as per HSE infection control programme (donning and doffing PPE, patient isolation, environmental cleaning).	4.83	0.38
5. The Care Home has onsite access to a trained infection control lead on each shift to ensure IPC protocols are implemented.	4.12	1.10
6. The Care Home has an emergency (three-month supply) of PPE (mask, gloves, gowns, N95 face-masks, eye-shields) in the event of a cluster outbreak.	4.76	0.62
7. The Care Home is participating in the programme of periodic testing for healthcare workers in care homes.	4.93	0.40
8. The Care Home has achieved 100% influenza vaccination for all eligible residents.	4.55	0.56
9. The Care Home has achieved 100% influenza vaccination for all eligible direct and indirect care Staff.	3.77	0.84

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.3 Preparation to manage a COVID-19 outbreak

Preparation to manage COVID-19 (8 items) was rated on a four-point Likert scale, thus a score of three and above indicates a high degree of preparation. Overall, 95.6% of respondents reported that they were prepared to a good extent in relation to COVID-19 outbreak protocols for self-isolation, quarantine and cohorting, zoning and mapping of care home to create space for isolation, access to safe staffing levels during an outbreak and screening (Table 4.7). The main issue reported by respondents was the lack of consultation with them in developing infection control strategies in response to COVID-19.

Table 4.7 Preparation to manage a COVID-19 outbreak

	Mean	Std. Dev.
1. The Care Home has protocols for self-isolation, quarantine, cohorting and referral to GP Lead to managing individual residents with suspected and confirmed COVID-19.	3.98	0.13
2. There is zoning and mapping of care home areas to ensure adequate space to isolate and cohort residents with confirmed/suspected COVID-19 including new admissions.	3.88	0.36
3. The Care Home has access to safe staffing levels with the required skills sets on every shift.	3.75	0.47
4. You can arrange rapid COVID-19 testing (within 24 hours) for residents.	3.93	0.37
5. There are available in-house staff who can undertake sample swabbing and reliable labelling and timely sample transfer to laboratory.	3.93	0.41
6. The Care Home has defined pathways to contact Community COVID-19 Response Teams and regional Public Health department.	3.96	0.20
7. My Care Home has received sufficient and timely communication and information from government and public health sources to prepare for managing a potential COVID19 outbreak.	3.74	0.51
8. The LTC sector was sufficiently consulted in planning a coordinated primary care response to a COVID19 outbreak in the community.	2.75	1.04

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent.

4.3.4 Surveillance and Supportive Therapies

Resident surveillance is vital for early detection of COVID-19 and other infections. The HSPC states that 'The RCF should ensure that there is twice daily active monitoring of residents for signs and symptoms of respiratory illness or changes in their baseline condition (e.g., increased confusion, falls, and loss of appetite or sudden deterioration in chronic respiratory disease);' (2021:26).

Almost three quarters of respondents (74.6%) indicated that they monitored residents' vital signs daily, while 21% monitored twice daily (n=26) (Table 4.8). There was not a standardised observation chart used across care homes. A small number (3.3%) indicated they used the 'National Early Warning Score' charts to record vital sign information; 40% recorded information in the nursing record and more than half of respondents (56.6%) reported using a combination of 'Other' recording methods which included electronic records, paper notes, and Epicare (digital system). There was also variation in the type of vital signs regularly monitored with temperature being the most likely (94%) followed by pulse oximetry (70%). Interestingly, 'Respiratory rate', 'Pulse' and 'Blood pressure' were not a standard part of vital sign monitoring with just over half of care homes recording these regularly. Very few homes were using a standardised tool for delirium screening.

Table 4.8 Routinely recorded vital signs

	Vital signs	N	%
1.	Temperature	115	94.3%
2.	Pulse	70	57.4%
3.	Respiratory rate	64	52.5%
4.	Pulse Oximetry	86	70.5%
5.	Blood pressure	52	42.6%
6.	Level of consciousness	25	20.5%
7.	Delirium screening using 4-AT/CAM	9	7.4%

The majority of respondents indicated their care home had the capacity to offer some supportive therapies. This was mainly 'Oxygen therapy' and 'Nebulisers', followed by 'subcutaneous fluids (SCF). Less than half had access to 'Infusion pumps' and less than 5% could offer 'IV administration of fluids' or 'IV antibiotics' (Table 4.9). Thus, any patient requiring this level of care required transfer to hospital.

Table 4.9 Supportive therapy Interventions offered

Therapy Interventions	N	%
1. Oxygen therapy	115	94.3%
2. Nebulizers	113	92.6%
3. IV Fluids administration	6	4.9%
4. SC fluid administration	98	80.3%
5. IV antibiotics	6	4.9%
6. Use of infusion pumps	40	32.8%
7. Other, please specify	15	12.3%

The availability of supportive therapies was reflected in staff training. Training in 'Oxygen administration', 'Palliative care drug administration', 'SC fluid's and 'Monitoring vital signs' were most frequently reported (Table 4.10). Over 50% of care homes reported staff training in 'Delirium screening' and 'Delirium non-pharmacological management'.

Table 4.10 Nursing staff training and competence

Nursing staff training	N	%
1. Oxygen admin	112	91.8%
2. Respiratory exercises and positioning	67	54.9%
3. IV fluids admin	5	4.1%
4. SC fluids admin	98	80.3%
5. Delirium screening	73	59.8%
6. Delirium non-pharm management	72	59.0%
7. IV antibiotics	6	4.9%
8. Palliative care drug admin	101	82.8%
9. Training in documenting Care Plans	95	77.9%
10. Monitoring vital signs	112	91.8%
11. Other please specify	7	5.7%

4.3.5 Care Home daily operational practices

On a daily operational level, respondents reported strict infection control practice including COVID-19 screening and isolation for all new resident admissions, maintaining a log of visitors as well as establishing a policy on family visiting and infrastructure to allow visitors entry. The main deficit was a lack of electronic care plan records, with care homes in this study reporting being still largely paper based (Table 4.11).

Table 4.11 Daily Care home operating practices

	Mean	Std. Dev.
1.The Care Home maintains a log of all persons/staff entering.	4.95	0.22
2. Ensures all new residents tested for COVID-19 prior to admission.	4.98	0.16
3. New Residents are isolated according to HPSC protocols	5.00	0.00
4. The Care Home has a policy on visitor restrictions in place including End-of-Life visiting on compassionate grounds	4.94	0.24
5.The Care Home has infrastructural adaptations including visiting rooms that can facilitate visits from friends and family.	4.69	0.75
6. The Care Home has Digital or electronic care planning systems to maintain care records during an outbreak	3.97	1.60

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

The majority of respondents reported maintaining regular connection with families and had assigned a dedicated staff member to this role. Care homes had developed communication strategies with families and the majority provided access to Zoom/Facetime to enable connection between residents and their families (Table 4.12).

Table 4.12 Communication strategies developed with families

	Mean	Std. Dev.
1. There are regular communications with residents and families in relation to visiting protocols, changes in processes and explanations relating to same.	4.83	0.37
2. The Care Home offers IT solutions (facetime/Zoom) for use by individual residents to assist with family and friends' communication.	4.88	0.39
3. There is dedicated staff assigned to communicate with families especially during an outbreak.	4.83	0.42

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.6 Governance and leadership

On a daily level, respondents felt confident they had appropriate shift leaders in place with contingency plan for absence. In contrast, there was lower compliance with clinical governance oversight committees and a number of care homes continued to struggle with appointing a local GP lead (Table 4.13).

Table 4.13 Care home governance

	Mean	Std. Dev.
1.The Care Homes has a clear leadership presence and documented contingency plan for when leaders are absent.	4.89	0.31
2.The Care Home has a clinical governance oversight committee.	4.25	1.16
3.The Care Home has appointed a local GP to the role of lead GP for the CH.	3.89	1.53

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.7 Staffing Level

The care homes had engaged in detailed planning to maintain safe staffing levels through contingency planning including single-site employment contracts, policy regarding return-to-work following illness and active monitoring for COVID-19 illness. Although care homes had back-up plans for staff who could not work or staff who failed to turn up for work, they were cautious about how well the plans would work in the event of an outbreak. Fewer care homes had access to 'Occupational Health' and 'HR support'. In relation to staffing, 12.3% of respondents felt their care home was 'Not prepared at all' or 'A little prepared', while access to staff psychological support services was also variable.

Table 4.14 Staff preparation and support

	Mean	Std. Dev.
1. The Care Home has readily available details of staffing levels (nursing and care assistant) and qualifications	4.77	0.54
2. Staff employed by a care home are precluded from working across multiple sites and adequate single-site employment contracts are in place.	4.80	0.51
3. The Care Homes has a written back-up plan when regular staff cannot work or fail to turn up for work.	4.62	0.58
4. The Care Home has a policy regarding ill employees returning to work and staff testing	4.81	0.52
5. Care Home actively monitors staff daily with temperature check	4.95	0.22
6. Care homes actively monitors staff with a self-report symptom checker	4.67	0.92
7.The Care Home has Occupational health and HR support	3.82	1.22
8. The Care Home has access to psychological support services for staff.	4.25	1.08

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.8 Palliative care

Due to the higher mortality rate associated with COVID-19 in an older population, palliative care received particular attention in the Expert Panel recommendations (Kelleher et al*., *2020). There were good links with 'Community Palliative Care Teams' and the care plans of residents with 'Do Not Resuscitate' (DNR) orders were reviewed and updated. Documentary evidence of discussions with families, in the event of COVID-19 infection of a resident, scored a mean of 4.64 (Table 4.15). However, documentation of formal 'Advanced Care Plans / Anticipatory Care Plans' was variable with only 41.8% reporting being fully prepared (Table 4.15). Data indicates a need for better training in this area for all care home staff and GPs. Frailty screening using a validated tool was not routine practice; the use of such information can help monitor physical functional capability (either stability and deterioration over time) and thus support decision making on DNR and prompt 'Advanced Care Plans/ 'Anticipatory Care Plan' discussions.

Table 4.15 Palliative care preparation

	Mean	Std. Dev.
1. The Care Home is linked with the Community Palliative Care Team in your area.	4.86	0.49
2. The Care Home has implemented advanced healthcare directives (AHDs) with education programmes.	3.91	1.21
3. Care Home staff with GPs or geriatricians work to develop and review Advanced Care Plans / Anticipatory Care Plan with residents.	4.01	1.23
4. The Care Home maintains written records of discussions with residents and family on how COVID-19 may cause residents to become critically unwell and what they and their families would wish if their health deteriorates.	4.64	0.68
5. DO NOT Resuscitate Orders (DNR) have been reviewed and updated.	4.74	0.67
6. The Care Home has introduced frailty screening using Clinical Frailty Scale	3.12	1.62

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.9 Education plans

Data regarding education plans for all staff demonstrated the highest preparation (mean response 4.63) with 70.5% reporting being fully prepared (Table 4.16). Senior nurses having 'Gerontological post graduate training' had a mean response of 3.09, with only 22.1% reporting being fully prepared. In care homes, the majority of direct patient care was provided by health care assistants and data indicated the need for mandatory standardised training (NVQ Level 5).

Table 4.16 Staff education plans preparation

	Mean	Std. Dev.
1. There is an education plan in place for all staff.	4.63	0.70
2. Senior nurses have completed gerontological post graduate training.	3.09	1.42
3. There is continuous professional development for all staff (infection control, dementia competencies, palliative care).	4.56	0.62
4. All Health Care Assistants (HCAs) should have a relevant NVQ Level 5.	4.29	0.84

Note: Responses on Likert Scale: 1) Not prepared at all; (2) A little prepared; (3) Somewhat prepared; (4) Prepared to a good extent; (5) Fully prepared (no further action required).

4.3.10 Overall level of preparedness and future priorities

Overall, 97% of respondents felt confident in their level of COVID-19 preparedness and capability to manage an outbreak (Table 4.17).

Table 4.17 COVID-19 Preparedness rating

	N	%
Somewhat prepared	1	0.8%
Prepared to a good extent	92	75.4%
Fully prepared (no further action required)	26	21.3%
Missing	3	2.5%

Given their current level of preparation, respondents were asked to identify their current priorities. Over 70% of respondents required support with 'Surge staffing' (access to additional staff during an outbreak), 'financial support', and 'accurate information on patients transferred from hospital' including 'recent COVID swab test', and 'support from the HSE' (Table 4.18).

There was also strong consensus (>60%) on the need for better 'Co-ordinated regional responses', more 'Direct clinical support', access to 'Staff psychological support' and on-going training. Additionally, eight respondents made references to staffing levels; four highlighted the need for more support from HIQA and three highlighted the need for GP support.

Table 4.18 Areas needing urgent help

	N	%
More training	80	65.6%
Support with surge staffing	101	82.8%
PPE supply	65	53.3%
Financial uplift	92	75.4%
Support from HSE	87	71.3%
Co-ordinated regional response between organisations	85	69.7%
Access to psychological support for staff	84	68.9%
Direct clinical support	82	67.2%
Accurate clinical information on patients on transfer from acute hospital	89	73.0%
All patients transferred from hospital have a recent (24-48hrs) COVID-19 swab result	78	63.9%
Other (e.g., HIQA, GP support)	22	18.0%

4.4 Impact of COVID-19 recommendations on care home viability

The financial concerns of care home respondents were prominent. Over 35% of respondents were experiencing significant financial challenges (Table 4.19). Recruiting and retaining qualified staff was a significant challenge for 41% of care homes with a further 33% required additional financial support for staffing. Not all participants answered this question (n=15 declined to answer); it is possible this is sensitive information or the person completing the question may not have insight to this information.

Table 4.19 Financial situation of care homes

	Institution is not viable at all	Institution will require considerable external financial help	Institution will require minimal external financial assistance	Institution does not require any external financial support
1. Given the infra-structure changes in your care home	2 (1.6%)	41 (33.6%)	44 (36.1%)	21(17.2%)
2. The costs of meeting COVID-19 regulations	1 (0.8%)	46 (37.7%)	43 (35.2%)	17 (13.9%)
3. The cost of recruiting and retaining suitably qualified staff	1 (0.8%)	49 (40.2%)	40 (32.8%)	17 13.9%)

4.5 Care Home Staffing during COVID-19

Across care homes, there was wide variation in staffing levels based on care home size (Table 4.20). There was an average of 12.3 (SD 11.1) registered nurses (full time equivalent (FTE)) and 31.92 (22.3) healthcare assistants (HCA) or multitask assistants (MTA). On average there were 0.2 (SD 0.07) nurses per care home bed compared with an average 0.7 HCA (SD 0.19) per bed. There was a strong positive correlation between the number of FTE nurses and HCA/MTAs and care home bed capacity (Spearman's rho .74 and .77 ($p<0.001$), respectively).

There was also wide variation in the number of staff vacancies. There were an average 0.84 (SD 1.3) nurse vacancies with one care home reporting a maximum of 9 nurse vacancies. Vacancy rates were higher for HCA/MTA with an average 2.02 (SD 2.5); one care home reported a maximum of 12 vacancies. The number of vacancies for nursing, HCA, and other positions were significantly correlated with care home bed capacity ($p<0.001$) (i.e., larger homes had a higher number of vacancies).

Table 4.20 Care home staffing

	Mean	Std. Dev.	*Correlation Coefficient	p
1. Currently how many registered nurse FTE are employed?	12.27	11.23	.74	<0.001
2. How many Health Care Assistants (HCA) or Multitask Assistants (MTA) are employed?	31.92	22.57	.77	<0.001
3. How many Nurse vacancies are there at present?	.83	1.29	.33	<0.001
4. How many Health Care Assistant (HCA) vacancies are there at present?	1.97	2.53	.44	<0.001
5. How many other vacancies (catering, cleaning staff)	.71	1.23	.37	<0.001

*Correlation Coefficients (Spearman's Rho) are calculated based on Care Home capacity.

4.5.1 Staffing turnover

The majority of care homes (81%, n=99) experienced staff leaving their employment over the previous six months (Table 4.21). Only 6% (n=8) reported no staff turnover. The most common reasons were staff being recruited by a HSE acute hospital position (59%) or HSE community hospitals (Table 4.21). Over 30% of staff left because they were afraid to continue working or due to retirement. Other reasons for leaving were taking up employment outside the care home sector altogether or joining recruitment agencies.

Table 4.21 Reason for leaving employment

	N	%
Don't know	1	0.8%
Afraid to continue working in care home	24	19.7%
Left for promotion in a similar organization	6	4.9%
Left for job (same role) in a similar care home	16	13.1%
Left for job in HSE community hospital	34	27.9%
Left for job in HSE acute hospital	72	59.0%
Left for Job in primary or community care	18	14.8%
Retirement	13	10.7%
Long-term sick leave	19	15.6%
Other please specify	29	23.8%

4.5.2 Staff shortages and retention

Staff shortages were experienced by 63.1% (n=77) of care homes due to absences, illness or self-isolation or COVID-19 outbreak (Table 4.22). The main mechanism for managing staff shortages were 'Staff volunteering to work extended hours' (61.5%), followed by 'Agency staff' (30%), while 10% of

respondents reported 'Staff re-deployment from HSE community or public hospitals' (Table 4.22), 3% of care homes received staff support from acute care hospitals.

Table 4.22 Care home staff shortages

	Yes	No
Has your Care Home experienced staff shortages due to absences, illness or self-isolation due to COVID-19 outbreak?"	77 (63.1%)	31 (25.4%)

Table 4.23 Sources of staff shortage relief

	N	%
Staff volunteered to work extended hours	75	61.5%
Non-clinical staff filled different roles	18	14.8%
Remaining staff mandated to work extended hours	18	14.8%
Agency/contracted staff	38	31.1%
Volunteers (non-clinical) from the community	4	3.3%
HSE Nurses/HCA redeployed from acute hospital(s)	4	3.3%
Nurse/HCA redeployed from HSE community services	11	9%
Nurses/HCA re-deployed from private hospital or other private services	2	1.6%
Allied Health professionals (physiotherapists, dieticians, speech and language therapists were redeployed to support care home	5	4.1%
No significant staff issues encountered	7	5.7%
Other, please specify	8	6.6%

Forty-five per cent of respondents were 'moderately' to 'very concerned' about staffing (Table 4.24).

Table 4.24 Level of concern over staff turnover

	N	%
Not concerned at all	8	6.6%
Somewhat concerned	30	24.6%
Moderate concern	34	27.9%
Very concerned	22	18.0%

The most important incentives to help retain staff included 'Pay increase/bonus' (72.1%), 'Acknowledgement from the organisation' (38.5%) and 'Access to (continuous professional development) CPD funding' (30%) (Table 4.25). The other responses referred to financial-related incentives such as pension contribution and paid sick leave, recognition, and working conditions.

Table 4.25 Staff retention incentives found to be most important

	N	%
Access to funded CPD opportunities	37	30.3%
Pay increase/bonus	88	72.1%
Government acknowledgement of their contribution	34	27.9%
Acknowledgements from the public -	14	11.5%
Acknowledgment from the organisation	47	38.5%
Support with childcare	34	27.9%
Access to health supports e.g., medical card/GP card	26	21.3%
Other please specify	16	13.1%

4.6 Experiences of living with COVID-19 Recommendations

Respondents were asked to reflect on their experiences of living with COVID-19 recommendations and infection control policies when there was no active outbreak, using a 10-point scale (mean scores >5 indicated moderate challenges).

4.6.1 Managing infection control

The survey was conducted at approximately 12 months from the start of the pandemic and the answers reflected the experience gained over that time. For example, issues related to 'access to PPE', staff training and compliance with infection control were no longer rated as challenging (Table 2.26). Areas that continued to pose difficulties were keeping on top of policy/guideline changes and access to finance support to cover COVID-19 related costs; there were also some challenges in maintaining resident compliance with infection control guidance.

Table 4.26 Experience of infection control issues over the past six months

	Mean	Std. Dev.
1. Access to standard PPE (Surgical Face masks, gloves, aprons).	2.4	2.95
2. Access to Enhanced/Full PPE (FFP 2/3/ N95 Face masks, Visors/goggles, gowns).	3.13	2.97
3. Accessing hand hygiene, other cleaning products.	2.59	2.96
4. Updating staff on infection control/ isolation precautions.	3.2	2.76
5. Staff compliance with hand hygiene and PPE.	2.53	2.52
6. Staff compliance with resident isolation precautions.	2.33	2.62
7. Resident compliance with isolation precautions, social distancing.	4.71	2.71
8. Compliance with increase environmental cleaning protocols.	2.87	2.67
9. Keeping on top of policy changes from HIQA HSE/ HPSC guidelines.	6.04	3.02
10. Access to HSE Financial Support.	5.4	3.41
11. Infra-structure and physical layout of Care Home to meet infection control standards.	4.2	3.20
12. Other[1]	2.95	2.95

Note: Responses on a 10-point scale (0=Not difficult to 10=Extremely difficult).

Other[1] responses' included references to: GP access, testing, funding, regulatory inspections, residents with dementia, workload, stress, PPE, and visiting restrictions.

4.6.2 Managing resident physical and psychological well-being

Respondents were also asked to reflect on the challenges in maintaining residents' physical and psychological well-being. The most significant challenges were in obtaining face-to-face visits from GPs and allied health professionals and to deliver rehabilitation programmes (Table 4.27). Maintaining resident psychological well-being and supporting family visits were also challenging.

Table 4.27 Maintaining resident physical and psychological well-being

Reflections on COVID-19 Restrictions	Mean	Std. Dev.
1. Monitoring residents for typical/atypical signs of COVID-19.	3.01	2.57
2. Updating staff on supportive care and symptom management of COVID-19 in case of an outbreak (delirium, oxygen therapy, fluid resuscitation), advanced care planning.	3.64	2.52
3. Obtaining medical advice via telephone/Zoom on patient management for Non-COVID-19 health issues.	4.02	3.15
4. Obtaining resident face-to-face visits with GPS.	5.18	3.79
5. Obtaining face-to-face visits from Allied Health Professionals (e.g., physiotherapy, dieticians, SLT).	5.31	3.38
6. Developing or updating Advanced/anticipatory care plans.	3.93	2.89
7. Keeping residence motivated/ reducing emotional distress, depression.	5.71	2.97
8. Maintaining residents' physical function/ (preventing muscle deconditioning).	4.86	2.82
9. Ability to offer structured rehabilitation programme to reduce functional/cognitive decline.	5.18	2.96
10. Maintaining good relations and communication with families.	3.76	3.25
11. Facilitating family visits with residents.	5.10	3.03
12. Other[1]	5.17	4.49

Note: Responses on a 10-point scale (0=Not Difficult (same as normal); 10= Extremely Difficult).

Other[1] responses' included references to: Ensuring families comply with visiting restrictions, and COVID-19 fatigue.

4.6.3 Vaccination

The survey was on-going in the early stages of the national vaccination programme roll out and data does not reflect current vaccination levels. The data indicated high levels of vaccination of residents as nearly 70% of care homes had completed resident vaccination (Table 4.28). In contrast, 37% of staff were fully vaccinated at the time of the survey, this is likely to reflect the strategy of vaccinating residents first.

Table 4.28 Level of resident and staff vaccination

	N	%
Up to 50% of residents are vaccinated	1	0.8%
Up to 75% of residents are vaccinated	18	14.8%
All (100%) eligible residents are vaccinated	84	68.9%
Missing System (Residents)	19	15.6%
Up to 25% of staff vaccination	1	0.8%
Up to 50% of staff are vaccinated	2	1.6%
Up to 75% of staff are vaccinated	56	45.9%
All (100%) eligible staff are vaccinated	45	36.9%
Missing System (Staff)	18	14.8%

Generally, care homes reported few challenges in rolling out the national COVID-19 vaccination program (scores <3) (Table 4.29). There was some vaccine hesitancy among staff (3.33), but again this was relatively low. Data should be regarded with caution as it captures a point in time in the early roll out of the vaccination programme.

Table 4.29 Challenges encountered during vaccination roll out

	Mean	Std Dev
1. Obtaining consent in people who lacked cognitive capacity	2.45	2.52
2. Vaccine hesitancy among residents	1.00	1.73
3. Vaccine hesitancy among family members	1.07	1.59
4. Vaccine hesitancy among staff	3.33	2.07
5. Cold storage of vaccine	1.00	1.99
6. Managing vaccine electronic database	1.89	2.71
7. Shortage of vaccine doses	1.58	2.61
8. Moderate side-effects from vaccine	2.36	1.88
9. Severe side-effects from vaccine	0.85	1.44
10. Other[1]	4.08	3.90

Note: Responses on a 10-point scale (0=Not Difficult (same as normal); 10= Extremely Difficult).

Other[1] responses' included references to: Additional workload involved, planning challenges, and increased level of sick leave following vaccine administration.

'Other, please specify responses' included references to: additional workload involved, increased sick leave as a result of vaccine-related symptoms, issues with vaccine rollout (such as with the electronic database).

4.7 Experience of managing COVID-19 Outbreak

Over half (54.1%, n=66) of care homes surveyed experienced a COVID-19 outbreak (defined as 2 or more suspected or confirmed cases of COVID-19 in either staff or residents). Thirty-two per cent (n=39) had no outbreak and 14% did not complete this question. A separate outbreak was defined as more than three weeks between the last case and new outbreak case[9]. Of the care homes that did experience an outbreak, 57.6% (n=38) experienced one outbreak and 25.8% (n=17) experienced two outbreaks. There was a minority of care homes (9.1%) that experienced more than 2 outbreaks of COVID-19 and the average number of outbreaks was 1.45 (SD.87).

4.7.1 Resident outcomes from COVID-19 infection

Of the 64 care homes that provided data, 1426 residents tested positive or were treated as COVID-19 suspected cases (Table 4.30). Of these, at least 76% (n=1093) survived and were still alive at the time of the survey (three care homes did not return data). In total, 377 residents died directly related to COVID-19 infection. The majority of residents with COVID-19 infection were managed in the care home, with 8% (110) transferred to acute care hospital, 50% of whom survived.

Table 4.30 Resident outcomes from COVID-19

	N	Mean	Std. Dev.
Number of residents tested positive for COVID-19 or suspected cases (treated as COVID-19) (n=64 CH)	1426	22.3	(20.8)
Number of residents have recovered and are still alive having been treated for COVID-19 (n=61 CH)	1093	17.9	(17.4)
Number of residents who died in care home (n=64 CH)	323	5.1	(5.9)
Number of residents transferred to hospital due to COVID-19 ((n=64 CH)	110	1.72	(2.34)
Number of residents died in hospital due to COVID-19 (n=64 CH)	54	0.84	(1.4)

4.7.2 Staff experience of COVID-19

In total, 1341 staff tested positive or were symptomatic for COVID-19 (Table 4.31). As the largest group of staff employed in care homes, it was not surprising that health care assistants and multi-task

---

[9] At the time of this survey, there was no formal Irish definition of separate outbreaks. In the US this was considered a break of two weeks (United States Government Accountability Office, 2021). A decision of 21 days was taken for the purposes of this study. Publications by the HPSC indicate 28 days from the last new infection case (HPSC, 2022d).

attendants had the highest number infections, followed by nurses. The percentage of 'Nursing and HCA staff' that tested positive/symptomatic was 25.11% and 25.64%, respectively.

Table 4.31 Staff experience of COVID-19

	N	Mean	Std. Dev.
Total Number of staff tested positive/ symptomatic for COVID-19 (n=69)	1341	19.43	19.0
Number of nurses tested positive/ symptomatic for COVID-19 (n=68)	305	4.49	5.13
Number of Health Care assistants/multitask assistants have tested positive/symptomatic for COVID-19 (n=68)	802	11.79	13.29
Number of other staff catering/cleaning (n=66)	186	2.82	3.29
Highest number of staff absent from work at a single point in time (n=65)	370	5.69	6.58

4.7.3 Experience of infection control issues during the most recent outbreak

Respondents were asked to reflect on the most significant challenges (rated on a 10-point Likert scale) in managing the outbreak from an infection control perspective. In general, there was a low level of difficulty reported (Table 4.32). The three most difficult issues were 'Preventing residents from wandering into non-COVID-19 Zones/rooms' (4.34), 'Having sufficient staff to allocate to COVID-19 and non-COVID-19 Zones/patients (staff not mixing)' (4.27), and 'Infra-structure and physical layout of Care Home to contain outbreak' (3.44).

Table 4.32 Challenges managing the outbreak from an infection control perspective

	Mean	Std. Dev.
1. Access to standard PPE (Surgical Face masks, gloves aprons)	1.66	3.03
2. Access to Enhanced PPE (FFP2/3/N95 Face masks, Visors/goggles, gowns)	2.17	3.26
3. Accessing hand hygiene, other cleaning products	1.46	2.58
4. Staff compliance with hand hygiene and PPE	1.67	2.13
5. Updating staff on infection control/ isolation precautions	2.08	2.55
6. Staff compliance with resident isolation precautions	1.57	2.06
7. Resident compliance with isolation precautions	3.52	2.97
8. Re-zoning care home into risk areas	3.20	2.95
9. Preventing residents from wandering into non- COVID-19 Zones/rooms	4.34	3.44
10. Having sufficient staff to allocate to COVID-19 and non-COVID-19 Zones/patients (staff not mixing)	4.27	3.60
11. Infra-structure and physical layout of Care Home to contain outbreak	3.44	3.06
12. Other please specify	1.67	4.08

Note: Responses are made on a on a 10-point scale (1=Not difficult to 10=Extremely difficult)

4.7.4 Managing patients with COVID-19 infection

Overall, participants reported low levels of difficulty in managing care for patients who were COVID-19 positive during an outbreak. Table 4.33 shows the three most difficult issues reported were 'Maintaining physical function (preventing deconditioning, muscle weakness)', 'Access to resident rehabilitation (physiotherapy, dietician) post the outbreak', and 'Managing nutrition (patients not eating)'.

Table 4.33 Providing care for residents who contracted COVID-19

	Mean	Std. Dev.
1. Active monitoring of resident vital signs to detect deterioration	2.10	2.61
2. Managing respiratory symptoms (breathlessness, difficulty breathing, cough)	2.60	2.99
3. Managing GI symptoms (diarrhoea/vomiting)	1.56	2.27
4. Managing pain	1.32	2.28
5. Managing fever/high temperature	1.69	2.49
6. Managing dehydration (patients not drinking)	3.08	2.94
7. Managing nutrition (patients not eating)	3.44	3.27
8. Managing delirium	2.50	3.00
9. Maintaining physical function (preventing deconditioning, muscle weakness)	3.85	3.48
10. End-of-life care planning and access to palliative care expertise	1.63	2.78
11. Facilitating compassionate visiting for residents with COVID-19 who were seriously ill or end of life	2.20	2.77
12. Access to GP advice on resident management	2.31	3.65
13. Access to COVID-19 emergency response team on resident management	1.71	3.09
14. Access to resident rehabilitation (physiotherapy, dietician) post the outbreak	3.66	4.30
15. Other please specify	5.22	6.00

'Other[1] (n=8) included access to medical professional outside office hours, access to services such as occupational therapy and dentist, and difficulties due to diminished staff levels.

4.7.5 Managing non-infected residents

In terms of providing care for residents who did not contract COVID-19, the three most difficult issues reported were 'Keeping residents motivated/reducing emotional distress, depression' (5.04), 'Maintaining residents physical function (preventing muscle deconditioning)' (4.62), and 'Balancing residents' rights with safety concerns' (4.61) (Table 4.34). Other issues (n=4) included 'Access to mental health services', 'Issues around testing', and the 'Impact of residents having to cocoon'.

Table 4.34 Most significant challenges during the outbreak(s)

	Mean	Std. Dev
1. Monitoring patients for atypical signs of COVID-19 (delirium, slight change from baseline)	2.08	2.40
2. Initiating /Updating Advanced/anticipatory care plans	2.20	2.39
3. Obtaining medical advice on patient management for non- COVID-19 health issues	2.44	3.02
4. Keeping residents motivated/reducing emotional distress, depression	5.04	2.94
5. Maintaining residents' physical function (preventing muscle deconditioning)	4.62	2.97
6. Managing care of residents with responsive behaviours	4.19	3.18
7. Maintaining good relations and communication with families	2.96	2.76
8. Facilitating compassionate visiting for residents who were seriously ill or- End-of-life not related to COVID-19	2.16	2.79
9. Balancing residents' rights with safety concerns	4.61	3.08
10. Other please specify	4.14	4.91

In relation to providing support for staff during the COVID-19 outbreak(s), the three most difficult issues reported were 'Ability to obtain additional staff to replace staff who were isolating/sick' (5.26), 'Maintaining staff morale and resilience (5.20), achieving adequate staffing levels on all shifts to deliver safe resident care during the outbreak' (4.95) (Table 4.35). Other issues (n=7) included: adequate staff levels, and issues around using agency staff.

Table 4.35 Providing support for staff during the COVID-19 outbreak(s)

	Mean	Std. Dev
1. Maintaining staff morale and resilience	5.20	3.09
2. Access to accommodation for staff living in multi-occupancy households	3.27	3.50
3. Staff absenteeism /Quitting role during the outbreak	4.09	3.20
4. Accessing psychological support for staff	4.02	3.16
5. Actively monitoring staff for symptoms (daily temperature checks, symptom checker)	1.79	2.38
6. Achieving adequate staffing levels on all shifts to deliver safe resident are during the outbreak	4.95	3.34
7. Ability to obtain additional staff to replace your Care Home staff who were isolating/sick	5.26	3.60
8. Other please specify	4.63	4.34

4.7.6 Lessons learnt

Participants were asked to reflect on the key learning from their experiences 'what are the key learning points to help you to prepare for potential future COVID-19 outbreaks (what advice would you give to another care home manager?'

From the 45 responses to this question, the most prominent learning points were the importance of learning from previous outbreaks. This included the importance of maintaining a clear contingency preparation plan for future outbreaks and the importance of communicating this plan to staff, residents, and families. Other key learning points were the importance of maintaining adequate staffing levels and avoiding shortfalls during outbreaks. The importance of staff training and practical lessons on infection management also featured in the responses. Maintaining adequate levels of PPE, ensuring that it is utilised and the importance of upholding isolating and cohorting practices were also referenced.

Comments on areas to improve included: the need for strong leadership and clear communication, staff stress management, and cross-agency cooperation. The medialisation of residential setting was noted by respondents who stressed the need to preserve the social care ethos of these settings. There were also references to the need for adequate funding to support facilities in such crisis situations.

4.8 Perceptions of Preparedness in care homes with COVID-19 outbreaks compared to outbreak

In a comparative analysis on care homes preparedness between care homes with no COVID-19 outbreak versus care homes that experienced at least one outbreak, there were no significant differences across the main concepts: infection control, preparation to manage a COVID-19 outbreak prevention, future admissions to care home prevention, care home management prevention, General Practitioner lead roles prevention, care home staffing and workforce prevention, palliative care prevention, education prevention, and communication prevention. Only staff's preparation for visitors was significantly different (p=.016).

There was a slightly higher median perception of preparedness across the different areas from care homes that had no outbreak compared to care homes that had managed an outbreak. This difference was not significant, and any difference may reflect the lived experience and insight into exactly what is involved in managing an outbreak (Table 4.36).

Table 4.36 Preparedness Comparative Analysis

	No outbreak (n=39)		Outbreak (n=66)		Mann Whitney U, p value
	Median	**IQR**	**Median**	**IQR**	
1. Infection control and prevention (max score = 45)	42	40-43	41	40-43	.130
2. Preparation to manage a COVID-19 outbreak (max score = 32)	31	29-32	30	29-31	.321
3. Future admissions to care home (max score = 10)	10	10-10	10	10-10	.179
4. Care home management (max score = 20	19	17-20	19	16.75-20	.596
5. General practitioner lead roles (max score = 15	12	9-14	11.5	9-13.25	.465
6. Care home staffing and workforce (max score = 35	34	31-35	33	30-34	.059
7. Palliative care (max score = 25)	23	20-25	23	21-25	.941
8. Visitors to Care Homes (max score = 10)	10	10-10	10	9-10	.016
9. Education prevention (max score = 20)	17	16-19	16	15-18	.076
10. Communication prevention (max score = 15)	15	15-15	15	14-15	.496

4.9 Impact of pandemic on care home manager/director of nursing

In a survey of 173 respondents, 98 completed the question on perceived stress. The analysis is confined to this sample.

4.9.1 Respondent profile

In the survey, 84% of respondents were DoNs, a further 10% were care home managers and 3% were registered owners (Table 4.37). The majority of respondents worked within private care homes (81%), 11% were in voluntary care homes, 5% were a charity or not for profit care homes and there were two respondents from the public sector[10].

The average sized care home was a 56.5 bed unit and average occupancy was 49 beds. The majority (61%) of care homes had experienced at least one COVID-19 outbreak.

---

[10] Although the criteria excluded public facilities, two surveys self-identified as public care homes. A decision was made to include these in the analysis.

Table 4.37 Characteristics of care homes

		%	N
Role	Director of Nursing/Care	84	83
	Care Home manager	10	10
	Registered provider	3	3
	Quality and risk	1	1
Type of Ownership	Private	81	81
	Voluntary	11	11
	Charity/Not for profit	5	5
	Public	2	2
Size of LTRS Mean (SD)	Mean (SD)	56.5 (SD 33)	Mn 18, Max 184
Number of beds occupied	Mean (SD)	49 (27.6)	Min 16, Max 130
COVID -19 outbreak	Yes	61	
	No	38	
Number of outbreaks	Mean (SD)	1.38 (SD 0.92)	Min 1, max 5) note this max can refer to more than one home)

4.9.2 Perceived stress scale

Stress was measured using a validated tool the 'Perceived Stress Scale' (Cohen and Williamson, 1988) with 10-items measured on a five-point Likert scale (0 never to 4 nearly all the time). The instrument can be used as a single component measure of stress or a two component, negative stress (6 items) and resilience (4 items). In this analysis, we used it as a single item measure with a maximum score of 40, where higher scores indicated higher perceived stress. The Cronbach's alpha was 0.87, indicating good internal validity.

In this population, the average score was 21.6 (SD 6.82), indicating a moderate level of stress among respondents. The highest scoring items in terms of negative stress were feeling nervous and stressed, being upset, or feeling angry. Equally, this group showed high levels of resilience especially in their personal lives.

Table 4.38 Perceived stress scale

	Negative Stress (Cronbach alpha .88)	N=98 Mean	SD
1	In the last month, how often have you been upset because of something that happened unexpectedly?	2.7	0.94
2	In the last month, how often have you felt that you were unable to control the important things in your life?	2.55	1.16
3	In the last month, how often have you felt nervous and stressed?	2.99	0.94
6	In the last month, how often have you found that you could not cope with all the things that you had to do?	2.37	1.13
9	In the last month, how often have you been angered because of things that happened that were outside of your control?	2.56	1.01
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	2.4	1.10
	Resilience (Cronbach alpha 0.64)		
4	In the last month, how often have you felt confident about your ability to handle your personal problems? (REV)	2.74	0.99
5	In the last month, how often have you felt that things were going your way? (REV)	2.39	0.83
7	In the last month, how often have you been able to control irritations in your life? (REV)	2.48	0.83
8	In the last month, how often have you felt that you were on top of things? (REV)	2.35	0.98

4.9.3 Intention to leave

Overall, 19% of DoNs were actively planning on leaving their current role and a further 28% had thought about leaving about half the time in the past month (Table 4.39). Of those actively planning to leave, only 4% were considering a post in another LTC setting. Twenty percent of respondents considered leaving the sector. Intention to leave was strongly correlated with higher levels of perceived stress. Among respondents, there was a significant correlation with higher perceived stress and higher intension to leave current employment, Spearman Rho 0.46, p=<0.001.

Higher levels of perceived stress were not strongly associated with care home size (stress (Spearman's rho correlation Coefficient .01, p=.92) or having experienced a COVID-19 outbreak. There was no significant difference in managers perceived stress in care homes that experienced a COVID-19 outbreak (n=61, mean 22.3 (SD 6.68) compared with those with no outbreaks (n=37, mean 20.4 (SD 6.97)., t= 1.35 (df=73) p=0.17.

Table 4.39 Intention to leave current role

		% (n)
Intention to leave in last month	Not at all	29 (29)
	Once or twice	22 (22)
	Half the time	28 (28%)
	Actively planning to leave	12 (12%)
	Have applied for new post	5 (5%)
	Have taken up a new post in past 6 months	2 (2%)
New post	In LTRS	4 (4%)
	Outside of LTRS	20 (20%)

4.9.4 Additional qualitative comments

The survey invited respondents to provide any additional information on their experience of the pandemic and stress management. Eighty-seven comments were received.

Qualitative comments on stress management strategies were categorised based on whether they were adaptive, maladaptive, or an absence of any active stress management, i.e., ways of coping with stress that can either help or prolong the experience of stress in the long term. Most respondents (n=77) engaged in some sort of adaptive coping strategy, the most popular of which was social support. This social support was either personal, i.e., from family and/or friends, or from work colleagues. Other adaptive coping activities included self-care behaviours, such as exercise or hobbies and interests. To a lesser extent, respondents also reported engaging in maintaining a positive outlook, seeking counselling, and spiritual support.

A minority of respondents (n=7) reported not engaging in stress management or managing their stress levels. One respondent referred to using alcohol to cope with stress, which could be considered a maladaptive coping strategy.

4.10 Summary

- The survey data provides a comprehensive overview of how 122 care homes were impacted by the COVID-19 from the perspective of the care home management.
- The survey examined home preparedness in general and particularly in accordance with the recommendations from the DoH Expert Panel Report (Kelleher et al., 2020).

- At the time of the survey (12 months after the first wave of COVID-19), the vast majority of care homes (97%) felt confident in their overall level of preparedness and ability to prevent or manage COVID-19 infections.

- The data indicated that the vast majority of care homes were managing to comply HPSC and Expert Panel recommendations; their main challenges were keeping up to date with new guidance, accessing rehabilitation support (AHPs), compliance with care home governance including the appointment of a GP lead.

- There were financial consequences for care homes and over 35% of care homes experienced significant financial challenges that may impact future viability.

- The survey highlighted issues around care home staffing during the pandemic and the experiences of managing a COVID-19 outbreak. The majority of care homes (81%) experienced staff leaving their employment in the six months prior to the survey.

- There was wide variation in staff vacancy among the respondents with larger homes tending to report higher numbers of vacancies especially in the lower paid health care or multitask attendant grades.

- Fifty-four percent of care homes experienced at least one COVID-19 outbreak. The most significant challenges were maintaining the mental and physical health of residents, facilitating contact with families, and maintaining staffing levels during the outbreak and staff well-being

- In a comparison of perceptions of preparedness and ability to manage COVID-19 outbreaks there was no significant difference between care homes that experienced or had not experienced an outbreak

- Finally, the survey examined the experience of stress for the care home management. There was moderate level of stress among respondents with 19% actively planning on leaving their current role and a further 28% had thought about leaving.

Chapter 5 Qualitative findings

5.1 Introduction

This chapter presents the qualitative thematic findings from the current study. Interviews focused on the experiences of DoNs in care homes during the COVID-19 pandemic.

5.2 Interview sample overview

The twenty semi-structured interviews were conducted by three members of the project team between 25th March 2021 and 23rd April 2021. Characteristics of the care homes are presented in table 5.1.

Table 5.1 Characteristics of DoNs participating in the semi-structured interviews

Characteristic	Description
Gender	16 (F), 4 (M)
Years of experience in care homes	5 years-35 years
Years of experience as DoN	13 month-31 years
Care Home type	17 Privately run 3 charity based
Independently run or voluntary	17 independent 3 voluntary
Bed capacity	26-170
Geographical location	10 urban 10 rural

Interviews were conducted via telephone and recorded with permission. Interviews lasted between 28 to 84 minutes.

5.3 Thematic findings

As described in Chapter 3 (section 3.8), an inductive reflexive thematic analysis (Braun and Clarke 2022) was conducted to support the interpretation of the data from the qualitative interviews. This

iterative analysis process led to the identification of four themes with associated sub-themes, which together capture the experiences of the DoNs during the COVID-19 pandemic:

- **Theme 1:** The approaching storm - preparedness
- **Theme 2:** In the eye of the storm - impact on work and life within the care home
- **Theme 3:** Weathering the storm - information flow and interaction with stakeholders and services
- **Theme 4:** Rising above the storm - managing the personal impact

While each of the thematic components are explicated in turn below, two overarching points are important to the interpretation of the qualitative interview findings. Firstly, participants spoke about the total experience in terms of its reach into all aspects of life and work in the residential settings and beyond into their external, personal lives. This encompassing nature of the pandemic experience was the case whether a particular setting experienced a COVID-19 breakout or not. Secondly, proactivity, engaged planning, ongoing adaptation and collaborative networking in the light of internal and external circumstances were cardinal features of the experience at the point of the pandemic breakout and throughout its subsequent unfolding. Thus, while presented as discrete thematic components, the lived reality of the overall experience involved the mosaic of experiences and their inter-articulations.

5.3.1 Theme 1: The approaching storm - preparedness

All the participants described their preparation for the pandemic as they had realised COVID-19 was an approaching reality. This theme is constituted by the three sub-themes illustrated in figure 5.1.
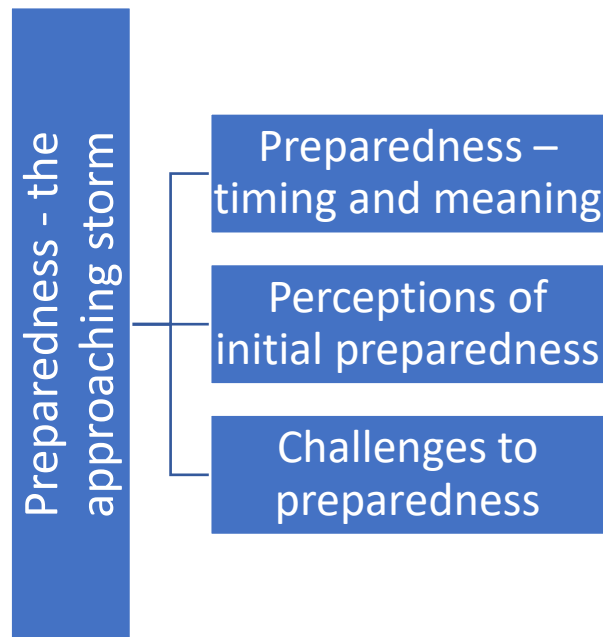
Figure 5.1. Theme 1: Preparedness – the approaching storm

5.3.1.1 Preparedness – timing and meaning

The evolution of the pandemic led to the necessity to be prepared. However, there were differences in terms of how this realisation was arrived at. For some, early indicators of emergent COVID-19 (e.g. reports from China or emergent yet still sporadic references in the media and professional literature) led to pre-emptive early-stage planning:

> *"On the [date] of February I convened a meeting here of members of the management team because we were hearing some things were happening …"* (Participant 14)

> *"…there was something in the literature that I wasn't familiar with. That he [a patient] was being tested for different things and I thought "oh god that is something I have heard out in China" you know so I thought wow and then I was watching it on the news and I thought it was getting very close. I see it hitting Italy and coming across I said we better start getting ready for this so I kind of started getting prepared quite soon."* (Participant 17)

In other cases, preparedness planning began at the point of increasing case numbers and the declaration of the pandemic. Then, as time went on, the meaning of preparedness changed. Initially, it was linked to the potential for COVID-19 to become a pandemic and the growing reality that it would then most likely reach Ireland. Post the declaration of the pandemic, preparedness was viewed as an

imminent and unfolding imperative, with the lived reality of preparedness planning experienced as dynamic, ongoing, formalised, systematic, and impacting on the day-to-day operation of the care home. This was both in terms of actions to resist the infiltration of COVID-19 and planned actions to contain it should an outbreak occur:

> *"So yeah, and in that time, I suppose, preparing kind of the record keeping, you know, having kind of logs for daily temperatures, you know, regular temperature checks for staff, for residents. So there was a huge amount of preparation put into place in a very short space of time. And then obviously from the HIQA guidance in terms or working on a preparedness plan. We put together a sort of an outbreak management team."* (Participant 4)

5.3.1.2 Perceptions of initial preparedness

There were mixed responses to how well-prepared participants felt they were initially. Approximately half of the participants felt well prepared. Where this was the case, it was spoken about in terms of supporting evidence for this perception. Participants spoke about tangible affirmative actions including strategic planning initiatives, getting preparations in place early, material and human resource planning and early instigation of staff education:

> *"So we were very well prepared. I felt we were anyway, you know, we had our own systems in place, we had contingency plans, we had a good stock of PPE in the beginning. We got in early and we had an adequate stock, you know I suppose"* (Participant 1)

> *"So we were personally quite organised. And we were training as well, that was the other thing. We were kind of getting ready, you know, getting the staff trained up for, you know, how to put on PPE."* (Participant 16)

For some, preparedness planning sometimes involved taking actions that were, at that point, not required or advised and were therefore not externally supported but then later became fundamental good practice. Where this was the case, such decisions were perceived as difficult but the right thing to do. For example, the early wearing of masks and ceasing external visitations to the care home were some actions implemented, as described here:

> *"When it broke initially the first case arose not too far away from where our home is so straight away, all our visitors, we met with them at the door and we asked them to phone rather than coming in to meet them because up to that, they were coming in visiting, up to early March.*

So straight away we kind of stopped that and we were quite, we were knocked back a bit for it. You know, the HSE were kind of saying to us, like don't do that, you know" (Participant 15)

For others, the experience differed and there was a perception of not being as prepared as might have been desired. The reasons given for this were frequently outside of the direct control of a care home as shown in the following sub-theme.

5.3.1.3 Challenges to preparedness

Participants illuminated a number of factors that were experienced as challenging in terms of achieving desired levels of preparedness early on. As one participant put it:

"I don't think that you know anyone was prepared because it was the beginning."
(Participant 17)

Understandably, there was reference to the initial emergent nature of the virus and the consequent early dearth of knowledge on COVID-19, what virus specific adaptations might be needed in terms of preparedness and how to approach clinical care beyond already existing plans for potential seasonal outbreaks such as influenza:

"But I don't think nobody really knew a great deal about COVID-19 and when it came in,.."
(Participant 3)

"We hadn't enough information I suppose that it was actually coming our way …" (Participant 12)

This led to understandable challenges to the ability to be prepared across the care home sector in general and there was also reference to care homes being somewhat disconnected from the mainstream healthcare community (for example acute care settings) by one participant:

"But anyway, so we tried to prepare but we realised there were many shortcomings, we were disconnected from the healthcare community generally, like in the hospitals the system of provision [was more connected]." (Participant 7).

This was particularly vivid where participants referred to challenges in locating PPE as a component of preparedness. This was referred to as a significant challenge by 12 of the participants in the early part

of the pandemic. There were references to difficulties in accessing supplies from usual providers due to limited supply and higher demand from other purchasers, in particular the HSE, for the acute hospital setting:

> *"First wave, wasn't as prepared as we should have been or could have been. That was down to I suppose a number of factors. We just started ringing around to our suppliers trying to get extra masks in and extra PPE in and the HSE then had put an embargo basically on any supplies that were coming into the country, all our suppliers had to give it to them. We were kind of left in a precarious position that we were aware of our suppliers we normally deal with, were saying to us that we're very sorry but we can't give you masks, we can't give you anything."* (Participant 5).

> *"…we had spoken about it and we were aware that it was a very serious situation coming down the road. But we were finding a lot of difficulties trying to source PPE, you know, to have a stock for ourselves. The HSE had bought up everything and we didn't have any access. We had no communication with our local CHO office or anybody in the HSE."* (Participant 10).

Where this challenge was encountered, some participants referred to having to go beyond their usual supply chains and source PPE supplies by unconventional means, such as via hardware shops, supermarkets or making their own:

> *"So we were initially going from hardware store to hardware store picking up, you know, goggles and eye shields and overalls and anything we could get our hands on at that stage."* (Participant 16).

In summary, while there were initial variations in terms of the perception of level of preparedness among those interviewed, as time went on, experiential and evidence-based knowledge on the virus and related clinical practices expanded, and systems and procedures became more bedded down nationally, regionally and locally. The supply of PPE became regularised and a national supply chain inclusive of the care home sector became established.

> *"… once they got the PPE in order, it has been just wonderful since."* (Participant 15)

> *"Absolutely oxygen you know you just had to contact them send an email the oxygen was there it was just an amazing experience to know where to find all of those people and to have access to them just made me feel so much supported."* (Participant 20)

As these and other developments occurred, participant data suggested that perceptions of levels of preparedness increased across the care home settings in this study leading to informed and prepared care homes with continual review and updating of preparedness plans. Thus, the process of preparation moved from the initial getting ready to then being ready, followed by ongoing maintenance of preparedness in co-existence with the everyday reality of life within the care home settings. Having addressed the concept of preparedness, the theme below will explicate the findings in relation to day-to-day life within the care home settings as described by participants.

5.3.2 Theme 2: In the eye of the storm - work and life within the care home

This theme incorporates a number of sub-themes relating to the experience of the organisation of care within the care homes as well as the experience of life within the care home settings for staff, residents and family members as reported by the DoNs interviewed. The impacts on the DoNs themselves will be explored in section 5.3.4 below. In the eye of the storm – work and life within the care home is constituted by the three sub-themes illustrated in figure 5.2, one of which is further subdivided as shown.
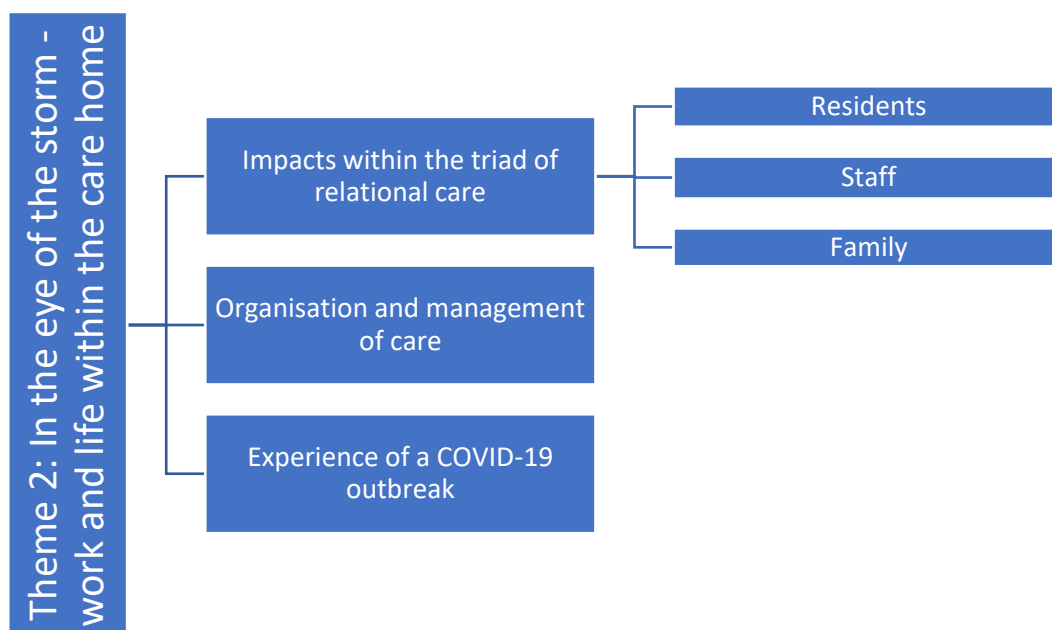

Figure 5.2 Theme 2: In the eye of the storm – work and life within the care home

When speaking about the human impacts of the pandemic within their care home settings, participants did so with reference to residents, staff and family members consistent with a relational approach to the care and wellbeing of all involved.

5.3.2.1.1 Residents

When discussing their perceptions of the impact of the pandemic on residents, participants referred to both positive and challenging perspectives. Thus, from the DoN perspective, the resident experience was mixed and in one instance it was considered that there was little or no impact on residents (Participant 11). Where impacts were considered to be challenging, a variety of such impacts were indicated. Psychosocial impacts were identified as a particular concern for some. There was acknowledgement of some residents' fear and anxiety witnessed by the DoNs. This was identified by some participants as being linked to exposure to information relating to COVID-19 and as the pandemic unfolded, its growing societal and public health impacts publicised in the media. Another example cited as a rationale for fear and anxiety, was where a resident knew or had lost someone who had COVID-19, for example another resident, or the resident was worried when there were cases in the care home:

> *"Well I think in the initial stages they* [residents] *were very interested in the information coming through, but those residents that could understand, very worried because it was getting closer and closer to us."* (Participant 7)

> *"We had another lady who lost a friend, just another resident that lived here, you know, they became friends when they came to the care home. She told me that she lay awake every night wondering if this was the night she was going to die."* (Participant 13)

There was a suggestion that as time went on, this fear waned for some and that at the time of interview one participant suggested a sense of COVID-19 fatigue was becoming evident due to the protracted impact on life within the care home setting. A further psychosocial impact highlighted by a number of participants was resident loneliness due to changes to aspects of life within the care home and to the impediments to visitation as a result of restrictions. This was particularly noted in the context of residents living with dementia where the rationale for change to visiting or the use of alternate modes of communication with family may not have been clear:

"*I suppose the isolation and loneliness and you know, missing their families, missing out on celebrating milestones and all that.*" (Participant 6)

"*But some* [residents] *have found it very difficult, particularly I would say residents with dementia because they would still have the capacity to recognise their family and to interact with their family when they come in but they're not coming in. So, it's been very difficult from that perspective.*" (Participant 13)

There were several qualifications to this perspective however, demonstrating the mitigation measures employed to counter loneliness and isolation. For example, participants spoke of the use of technology to support interpersonal communication between residents and loved ones:

"*Oh yeah, absolutely, we couldn't have, you know, the communication piece is so important and we wouldn't have been able to do it without our technology, you know.*" (Participant 6)

"*Well, I think, I don't know, I'm not very tech minded but I'm very happy with the path that we are using. Like there are residents that have their own iPads in their room now and they're able to answer them themselves.*" (Participant 12)

There were many references to having received donations of technology such as tablet computers from members of the public, various companies and others. There were also references to increased possession and use of mobile phones by residents, while other participants referred to the regular use of technology by residents prior to the pandemic but that the degree of such usage had increased. While there were challenges encountered by some participants in technology use, e.g., wi-fi signal strength (participants 5 and 10) and the need to ensure resident mobile phones were kept charged (participant 4), the use of technology was perceived by participants as an asset to supporting resident well-being. In some instances, technology requirements due to the pandemic led to infrastructure upgrades in the care homes including enhanced wi-fi (participant 10), telephone system renewal (participant 17) and use of smart televisions (participant 14). Another technology enhanced innovation to support residents highlighted by one participant included the use of a variety of a communication platform to support continued community connection facilitated by recreational staff:

"*…a lot of zoom kind of interactions as well with say even with the children from the schools you know any gathering of four or five kids would do some kind of a like a zoom thing for the residents.*" (Participant 17)

When explicating examples of how impactful the use of technology had been to support communication and social connection, there was inference to the benefits being sustained beyond the pandemic:

"…so I do think its [technology] part of, it has become part of the, I suppose a part of communication now" (Participant 5)

"So yeah, it's [technology] definitely the way forward I think" (Participant 16)

In addition to technology use to maintain connection, there were also references to the facilitation of window visits and compassionate visits at times such as end-of-life and on a case-by-case basis which were accommodated based on a person-centred assessment and public health advice at various phases of the pandemic's progression. These were viewed as important to the well-being of both the particular resident receiving a visit and family members:

"… and we always did window visiting, you know, before window visiting was a thing, we had people coming." (Participant 12)

In a few instances, although staff identified the challenges of physical face to face visiting, there was a suggestion of unanticipated positive impacts of reduced visitors. For example, this included enhanced resident-resident relationship building and less footfall within the care home public areas enabling residents to have uninterrupted use of environmental space and activity engagement as shown below:

"…their [residents] days weren't occupied with visitors, that they've kind of turned to each other for … and support." (Participant 1)

"People actually found it was a pleasant experience because… some of the people told us because there was no visitors coming in, they could actually go, they could go to bingo, they could go to flower arranging, they could go to whatever was happening in peace of mind." (Participant 14)

In relation to occupation and meaningful activity, while there was acknowledgement that activities facilitated by personnel external to the care homes had to be discontinued in the majority of cases, a focus on ensuring activity engagement, physical activity and movement during the pandemic was evident. Descriptions of actions to support these were linked to the prioritisation of enjoyment,

stimulation, engagement, activity to counter loneliness and mitigation of risks of physical inactivity including frailty. To this end, participants provided examples of the types of activities made available, redeployment of staff to support activities and new ways of engaging in activities that complied with IPC guidance:

> "*No we probably increased our activities. We increased them and put in an expert activity co-ordinator and we did a lot of kind of different activities I suppose.*" (Participant 1)

> "*But yeah, the frailty thing like, we did a lot of, because we lost obviously, you know, our physio input, our* [name of external company providing one type of activity], *all the external activity, people coming in, you know, our hairdresser. So we had to do everything… we adapted I suppose and improvised as much as we could. We did, we've done exercise classes every day to try and keep the mobility up and try and make sure, you know, that people didn't get as frail as they would should they not be moving.*" (Participant 16)

Support of activity and engagement in activities of living such as dining were also identified to counter the loneliness and isolation that was identified above as a risk stemming from restrictions to visitation and the need to ensure social distancing, creation of resident pods and compliance with infection prevention and control (IPC) guidance:

> "*I told them* [staff] *that they need to… they still do one [to one] activities in their rooms and they need things like hand massage because it's tactile they just so they are not isolated. Because that does impact on mood and if somebody is coming in and talking to them but also giving them hand massages maybe you know they have to be hygienic but I think that still has to continue. Because if people don't have contact it definitely has a negative effect so that is very it's vital I think and that is what we are doing.*" (Participant 8)

As such, the findings demonstrated strong support for the valuing of relationships and communication by participants as pivotal to life within the care homes and efforts to nurture relationships through activity, for example, were consciously pursued. Participants also described their targeted actions to support communication to keep abreast of resident well-being and morale, and to support it as well as to keep residents abreast of pandemic related impacts on care and routines within the care home:

> "*But they* [residents] *felt that they were safe, you know, that they were secure and that there was enough. Every resident council meeting we had, they were like "now don't start opening*

the doors yet" you know that kind of way. So early on, we had a great camaraderie."
(Participant 16)

However, despite participants' efforts to keep residents informed, impediments to communication, for example, PPE were also acknowledged to be a reality of life in the context of the overall experience:

"They [residents] were very happy with reassurance from the staff, from the assistance from the staff. They were quite happy to do whatever we asked of them and they were very understanding of us starting to wear masks so early, we started wearing them in March last year, and they got used to that and they've been used to that ever since, even though it is, that's quite challenging for them because they really don't know whose behind the mask, even the most agile of them don't know who's behind the mask." (Participant 7)

A few participants acknowledged particular challenges or concerns in relation to life in the care setting for those living with dementia. For such residents, cognisance of the pandemic and the related restrictions and changes to everyday life within the care home setting may have only been partially or for some not understood. Understandably, this sometimes created challenges for DoNs and other staff to support freedom of movement where there was a need to isolate parts of a particular care home. In other instances where this was the case, maintaining physical health and ensuring sufficient physical activity to support the need for sleep, for example, were identified as very important. However, other participants highlighted an oppositional view suggesting that those living with dementia fared well and, in some cases, evidenced less responsive behaviours as the differing perspectives shown here demonstrate:

"… trying to keep people who walked a lot, you know, trying to keep them confined to their rooms and we were trying to keep everyone well in their room" (Participant 16)

"It was actually sometimes less responsive behaviours because there was less noise. So actually our dementia residents did better for our residents that would have had an insight into what was going on…." (Participant 5)

Despite the challenging aspects of the pandemic on life within the care home, a number of participants identified the resilience of residents as an important feature of the overall experience. References to

resilience suggested admiration and respect for the personhood of residents and how as individuals and collectively they faced the impacts of the pandemic on life during the pandemic:

> *"And I think residents throughout the … pandemic were a very resilient group of people."* (Participant 3)

> *"But you know, they're so resilient, like they've coped so well and you know, you have to admire them really."* (Participant 6)

5.3.2.1.2 Staff

A further demonstration of the adoption of a relational care approach by the DoNs involved their working with and concern for the staff within the care home settings. Findings here related to the participants' understanding of the emotional impact they witnessed for staff, the degree of workload increase, staff responses to this, and efforts to support staff. In relation to the emotional impacts on staff, there were references to a variety of staff emotions. These included anxiety, fear and grief particularly where a COVID-19 breakout occurred within the care home. Where this was the case, interviewees highlighted staff fears linked to residents' health and well-being as well as risks to their own families and loved ones some of whom could have been in medically high-risk groups:

> *"I think like, for staff, you know, in the beginning… I can see some staff, you know, a lot of anxiety and like, anxiety about bringing COVID home, like worried about maybe a sick father or a sick mother or a sick husband. They worried about that and like when our outbreak broke last week or two weeks ago, like they were worried for the residents"* (Participant 1)

> *"…they saw people die, you know ... And you could see the fear and the anxiousness in the staff…"* (Participant 10)

Staff frustration was also referred to on several occasions in relation to the impact of the virus on working and home life, and its ongoing and unrelenting nature such that some DoNs referred to their experiences of impacts on staff morale, particularly as the pandemic continued:

> *"And I remember having a conversation with someone and I said you know, there's not a member of staff in this house that's had… and I remember calling it a COVID break* [from the COVID-19 associated workload]. *Because that was the sense last year as well, and that was a sense of frustration"* (Participant 4)

"I think staff now are frustrated. I think now staff are frustrated. They're angry, they're angry that they can't go home to their own countries, they're angry they can't take their holidays, they're angry with the schools… and they haven't seen their families, no more than myself." (Participant 18)

The resultant stress was referred to by two DoNs (Participants 17 and 19), while two others referred to having lost staff due to the emotional sequelae of the experience (Participants 4 and 10). The experience differed for other DoNs and there were references to growth in positive relationships among staff and an enhanced sense of camaraderie and care home community:

"…funnily enough the outbreak helped us because everybody worked together. Like there was you know, everyone was standing side by side, everyone was wearing the PPE you know. Everybody went through it I suppose, it was kind of a natural bonding do you know what I mean." (Participant 5)

"Well, this is a small unit and the staff actually get on very well which is a good thing." (Participant 11)

However, the increase in workload for staff was recognised by participants and this was noted to be a significant experience for all concerned. Not only was there an increase in workload but as time went on there was a need for some staff to assume new role components, which although necessary and improved efficiencies within the care home, added to already increased work requirements:

"But like the workload has been huge, it's definitely increased their workload." (Participant 1)

"But we had to upskill our staff into taking swabs then, you know there was a whole process running alongside, from the education, training the staff, to being self-reliant to do our own testing and swabs, you know." (Participant 3)

"But they [staff] *worked like trojans"* (Participant 10)

The consequent importance of providing staff support as an aspect of the DoN role and responsibility was highlighted by a number of those interviewed. Related references were both implicit and explicit. For example, participants outlined some of the actions they undertook to support staff and a variety of supports were described. These were education and skills oriented, psychosocial and practical in

nature. Education and skills support were referred to in relation to aspects of infection prevention and control and policy updates:

> *"Whereas now, we're a year into it, we're doing PPE demos, we're doing them every day now but like we were doing them every month. Hand hygiene. Like the PPE was something that they* [staff] *weren't used to."* (Participant 1)

> *"…we did training on you know, masks and every single staff member got DVDs out to their homes to watch and putting on, you know, donning and doffing. And we sent two of our staff went to* [name of educational institution] *to do GP training for donning and doffing and they came back and trained the staff."* (Participant 19)

Examples of the provision of psychosocial supports to staff included regular communication to ensure staff were kept updated and the highlighting of mental health supports. Thus, efforts to ensure open two-way communication were prioritised to support staff well-being so that DoNs were up to date and informed of staff concerns. This was accomplished in a variety of ways including the use of existing and new technologies including virtual platforms, video calls, internal email systems and WhatsApp groups. Such support could focus on increasing competencies for care in pandemic times:

> *"I suppose I would say at the beginning communication and information is, was power and it was great for them* [staff] *because it allayed their fears"* (Participant 17)

> *"And I found that we had to support staff, particularly more so through the pandemic with the end of life and bereavement, you know."* (Participant 3)

Support could also focus to alleviate staff's distress due to working in COVID-19, aiming to provide coping mechanisms:

> *"… they* [staff] *got all the mental health links and support. There was a lot of support offered for mental health which came via the* [name of organisation] *or came via* [name of organisation]*… so any links that we got, they were sent out to all the staff. And they all individually got an email."* (Participant 19)

There were also references to efforts to remain both accessible and available to staff whenever needed so as to provide leadership and practical support as and when required:

"and they (staff) gave it everything and they were on the phone to me, you know, and we were discussing end of life care, you know, and anything I could do to help them I did" (Participant 10)

Support was further spoken about by some participants as having been experienced in a bi-directional way. For example, interviewees provided examples of how supported they were by staff in terms of demonstrations of dedication to their professional role, stepping up where for example a participant became ill or increasing hours at particularly difficult times:

"Well I suppose myself … got sick, I got sick the first day, …. So we had two of the key kind of nurses [on sick leave]*, but I had other nurses there who had a lot of experience and I have to say, they were invaluable, you know. They really stepped up to the plate…"* (Participant 10)

"So we had a group who went over and above and said "look, I'm off next Saturday, if you're stuck I can come in, I'll get a day off some other time for it" (Participant 14)

While recognising the increase in workload and emotional sequelae for staff, a couple of participants referred to their having come to understand the importance of work during the pandemic for staff in terms of the value of having work to go to. This was considered particularly meaningful in the context of the national lockdown and restrictions to social life within Irish society:

"In a way it was better for people to be working than not working because you didn't suffer from isolation at home, you know. So people actually looked forward to coming to work which is a very good thing. But at times it was a bit difficult for people because I think at one time or another it had an effect on, you know, the younger people with no social life and stuff like that." (Participant 11)

5.3.2.1.3 Family

Families of residents were spoken about frequently by DoNs. Narratives around family suggested that they were viewed as an integral consideration in day-to-day life within the care home setting and there was clear recognition of the perspective of families and the particular difficulties encountered by them as acknowledged by this participant:

"Well I think it must be very difficult. It's alright to say "oh my mother is alive and well and she didn't get COVID" but it's not much fun if you haven't seen her for months, you know what I mean?" (Participant 11)

There were consequently a number of references to the centrality of supporting positive and ongoing relationships with families. Where this was the case, participants stressed the importance of their roles during the pandemic in nurturing communication and actively working with families to support them and ensure they were informed:

> *"Those kind of things…but I mean the majority of families were hugely, hugely supportive and even during the outbreak now. Like when we contacted families everyday telling them about their relative and they were just so supportive and you know, so grateful for the work and so grateful for making sure that they were well and that they got through this, you know, really supportive."* (Participant 1)

> *"The families, well my families were okay. The big thing was keeping communication with them and I suppose…we had a very good communication with families from the word go, and that continued. So it was mainly me in bed at night texting or ringing. I wasn't inundated with people phoning the home, you know, they knew I was here, and they were trusting me. But they were absolutely very upset."* (Participant 12)

Ensuring regular contact between families and residents during times when visiting was not possible required creative and innovating thinking. Related actions involved staff-family and resident-family communication. To this end, participants outlined the range of actions described in subsection 5.3.2.1.1 (some of which were new to a number of the settings involved) taken to enhance inter-personal connections between loved ones. There was recognition that these were not always the ideal solution and, in some instances, could be a risk of causing additional confusion for some residents with cognitive impairment for example. However, participants demonstrated the measures their homes took to maintain relationships, support reassurance through contact for family members and residents, and to maximise the potential for enhanced social connection and well-being for residents and their families in addition to the nurturance of the relationships between the care homes and families:

> *"And then obviously as the year went on and things weren't changing, it just became more difficult and we had to be, what's the word, inventive with how we could facilitate communication. So there was lots of WhatsApp video calls, obviously all the window visits but I mean for some that was more distressing because for someone with dementia, even just looking through a pane of glass, they can't really see, you know. They can't hear."* (Participant 4)

"I had other families and we kept in contact with them all the time, you know, it was like we would ring them, for sick people, three to four times a day." (Participant 10)

Some participants' reported challenges around frustration or unrealistic expectations from families. This was experienced mainly in relation to visiting and aspects of life within the care homes given what was possible due to the labile public health restrictions or infection and prevention control requirements where a suspected or actual COVID-19 breakout was confirmed:

"Look, in the main, the families were absolutely so supportive throughout this whole process. Of course, along the way people were getting frustrated, of course they were like." (Participant 5)

"You know, so, like unrealistic, I suppose, expectations and unrealistic views of how things should be managed in the care home at times. But that was a minute percentage of them [families]." (Participant 1)

Participant responses in the interviews demonstrated a recognition and appreciation of families' concerns for the wellbeing and safeguarding of loved ones. Where this was the case, there was an acknowledgement of the perspective of families and the emotional aspect of the overall experience for them. There were references to encountering family guilt and the emotions that could accompany separation from residents. One participant also referred to the realisation of the degree of trust placed in the care home by family and the value of this:

"Yeah, I suppose I think they feel a huge amount of guilt as well. To their family [member] maybe who might have dementia, and who doesn't have the comprehension to realise that, you know, my daughter can't come in to see me, and they feel guilty because they think, maybe they think I don't care about them anymore. And trying to reassure people and I don't know how they've coped but, you know, they've done so well, the families, you know. Because it must be really hard to watch your family member, maybe deteriorate in front of you and not really be able to connect with them, like in a meaningful way. … But you kind of don't really understand how much they [families] trust you until they can't come in and they can't see for themselves that things are okay, you know. But they do, they have great faith and trust and you know, it's a big thing." (Participant 6)

A few participants referred to having continued contact with families of those who had lost loved ones during the pandemic and who were seeking information or were experiencing ongoing upset or distress for varied reasons. An example given included instances where family was not present at the moment of a loved one dying despite compassionate visits being supported (Participants 1 and 10).

5.3.2.2 Organisation and management of care

While pandemic related considerations linked to individual resident care were addressed by participants (see sub-section 5.3.2.1.1), this section addresses experiences encountered by interviewees that were identified as standing out at organisational management level. To this end, a number of facets of the organisation and management of specific aspects of care in the care homes in the context of the pandemic were addressed by interviewees. These included resident transfers, end-of-life care, staffing and COVID-19 testing and financial considerations.[11]

There was some frustration expressed particularly in relation to early on in the pandemic where care homes were working hard to protect residents and staff, and resist potential for an outbreak of COVID-19 but where a transfer in from a hospital was later found to be COVID-19 positive:

> *"Yes and then the second one was recently and that following the first dose of vaccinations so one person just you know transferred from hospital was tested positive on the fifth day."* (Participant 9)

> *"So she was our first COVID resident who had come to us from a hospital, a local hospital … So with that, we then had, obviously we were contacted by the public health. We had fantastic support from public health."* (Participant 19)

Linked to this were illustrations of the participants' actions in terms of advocacy in relation to protecting those in the care home from the risk of a discharge from hospital introducing COVID-19 and also advocating to ensure residents did not have to be transferred to an acute care setting where at all possible. In some instances, those interviewed described having to make a pronounced stand in relation to requiring evidence to demonstrate a patient being discharged to a care home was COVID-19 negative as demonstrated below. Thus, the role of the DoN as an advocate at the level of individual residents and staff collectively in relation to infection prevention within the care home community was demonstrated:

---

[11] Early issues relating to the provision of PPE were addressed in subsection 5.3.1.3.

"Oh we had huge issues about testing. Most particularly, people were coming to us from hospital because it didn't meet the criteria to be testing patients before they were discharged. And I mean I did have an instance where [I said] *"I cannot accept that lady without having a test, I can't", and I did get quite an email from the professor that sent her, against the criteria but you know. I did my best to show them our weaknesses and where really you know, it could put the, potential threat to the care home. So they did test the lady and she was positive …"* (Participant 7)

Another aspect of care that was spoken about by several participants was palliative and end-of-life care considerations within the care homes. Given the care home population, this aspect of care was a pre-pandemic facet of care within the setting and there were a number of references to a focus on quality end-of-life care as an integral part of ongoing practice and palliative and end-of-life care being done very well as an aspect of care. However, related issues were more complex for some during the pandemic, particularly where COVID-19 was present:

"It was different and whilst we did everything to ensure that their end of life was, you know, with the staff that knew them, you know, we still had the candles and the music and all of that. But we were, you know, head to toe PPE and that changed everything. So we found that very, very difficult. And then on the removal of the remains, that was the most heart-breaking thing …" (Participant 4)

Participant responses provide evidence of having adopted a person focused and values-based orientation to end-of-life support for the person and for family members. Mindful of restrictions, as much accommodation as was possible was aimed for and participants spoke of their consideration of some family members fear of visiting and conversely, others who wished to be present as much as possible. Participants were cognisance of long-standing relationships between residents, families and staff and they frequently demonstrated efforts to sustain these during COVID-19, particularly at end of life:

"… we'd be talking to husbands and wives that had been married 40 or 50 years, so it was quite emotional and stressful for them as well." (Participant 10)

"And just the fear then of having people in around the rooms to see their loved ones and yet, trying to work with your own values that people need to be with their loved ones when they're dying, that's a very constant thing it was very challenging…" (Participant 7)

"they [family] were facilitated to sit in the room with them [those who were dying]. And that had to happen but it did happen in lesser numbers. They were all upset all the families were traumatised by the relative dying in this climate." (Participant 8)

In addition to efforts to support relational aspects of families' being present during residents' final days, the DoNs described comprehensive work to ensure end-of-life care plans had been reviewed. They also referenced excellent support received from local and regional palliative care services and general practitioners as required, and conversations with and support of families over the trajectory of the end-of-life experience. The general perspective conveyed was that preparedness for and support of end-of-life care was prioritised and promoted, and the level of preparedness achieved, supported the maintenance of quality of end-of-life care as indicated here:

"We could. I mean we've always had very, very good links with our community palliative care nurses, so we've always had that. And you know, that was never an issue." (Participant 4)

"Look we were prepared anyway, palliative care here in this facility is done very well and always has been. So there was no new learning really." (Participant 5)

However, while preparedness and clinical aspects of end of life were deemed satisfactory, processes at time of death and requirements around same were highlighted by a few participants as challenging for DoNs and staff, particularly where a resident may have had COVID-19. Infection prevention and control requirements led to changes to how those who had died were cared for and prepared for transfer for funeral arrangements for example, and this was spoken about as distressing. Adapting such processes demonstrated concern about maintaining person centredness after the death of the resident:

"Whenever a person passed away, that whole… body bag, a person put into the body bag, not dressed in the appropriate clothes" (Participant 3)

"Yeah, that was horrible, absolutely horrible. I mean, you know, I remember one undertaker putting a mask on, you know, it just was horrific. It was horrible. We did struggle with that." (Participant 4)

There were also references to the impacts of the loss of social mores around end of life and the 'normal' rituals valued in Irish society that were not possible to have, for example, attendance in

numbers at funerals and for a time during the pandemic even the holding of what would be considered a traditional Irish funeral. These were also portrayed as emotional and distressing aspects of the end-of-life experience during the pandemic for all involved:

> *"I suppose the experience for us was that a number, you know, some of the residents, in terms of their end-of-life experience, whilst we did what could, it was not as it should have been, as it would have been for anybody else."* (Participant 4)

> *"… the Irish do death very well do you know. I suppose the ceremony and the support that families get and that experience, that definitely is gone now. It will come back. But like it just can't be at the moment you know, that's the reality."* (Participant 5)

In relation to staffing considerations, participants highlighted mixed experiences. Some interviewees reported no particular issues in relation to staffing, indicating that they had sufficient staff resources up to the point of interview. For others however, staffing was a particular challenge. The reasons for this were varied. In some instances, staff contracted COVID-19 and where this was the case, in addition to the pragmatic realities for managing resident care in the context of reduced staff availability, there were some references to the need to manage the emotional impact of this on other staff and themselves:

> *"I think my biggest challenge were my staff. One of them got COVID. At the time they were all very well but I think the fear and worry in the staff I found absolutely insurmountable. As a result, I felt it insurmountable myself really."* (Participant 18)

For some participants, they experienced challenges of staff leaving in response to the HSE acute hospital recruitment drive. This was spoken about as a particularly emotive and challenging aspect of the overall experience. Some of the reasons for this were that staff who left to pursue a new post may have been particularly experienced with specialist knowledge of caring for older adults or knew the individual residents in the care home very well, both which were viewed as fundamental to the delivery of person-centred care:

> *"The other thing is a challenge, and it's been a challenge particularly at some stages of the pandemic was the recruitment of staff by the HSE."* (Participant 3)

> *"I've lost three in the last two weeks to the HSE."* (Participant 15)

"… it was absolutely vital and vital to the health and welfare and the good health of the residents going forward that the people who were caring for them knew them very, very well because you know if you don't have staff who know the residents how are you going to know from one day to the next. Because these residents presenting with COVID-19 older people presenting with COVID-19 don't come up with the usual typical symptoms of a high temperature and a cough and a shortness of breath but it would just be not the same today as they usually they would be off colour they will be some little thing." (Participant 20)

There was some acknowledgement, however, that assistance from the HSE in relation to the provision of staff was provided also (Participant 6).

The final aspect of the organisation and management of care referred to by participants related to COVID-19 testing. A majority of participants (n=12) spoke about this in their interviews. In the early phase of the pandemic, participants highlighted challenges in terms of issues including authorisation of tests, turnaround times for results and the need for external facilitation of testing. The impact of these was explained as involving the need to maintain a resident in isolation while awaiting results and the impacts on the resident and staffing resources to support this:

"The testing was very sporadic. It was difficult to access, difficult to get results, so you could be waiting maybe seven or eight or nine days before you'd get a result." (Participant 10)

"…we were in an outbreak mode because we had a lady who was symptomatic but we couldn't get her tested. So we actually had a full experience of a month of outbreak without, you know, because there was no testing at that stage." (Participant 16)

Having noted such challenges, participants also identified how the testing systems had greatly improved and the standardisation of processes surrounding same in addition to the benefits of serial testing. The efficiencies of the current systems of testing were praised in terms of turnaround times and minimisation of the need for residents to be away from other residents for protracted lengths of time unless required by a positive COVID-19 result or latest guidance in relation to close contacts. There was also an appreciation of the recognition of the competency of care home staff trained to conduct testing and the autonomy given to DoNs to authorise tests with the introduction of training on in-house swabbing:

"…now we'll test someone this morning and we'll have results this evening." (Participant 1)

"And every [day of the week] *now, ours are collected on* [day of the week] *so we do most of them on the* [day of the week] *or every second* [day of the week] *I should say. We do most of them on the* [day of the week] *and they* [staff] *will say, it's so reassuring to know that everybody is clear."* (Participant 15)

There were some references to the invasive nature of the swabbing process and, in one instance, challenges in some cases in gaining consent for and conducting swabbing with residents with cognitive impairment. Where these were raised, participants highlighted the potential emotional impacts on themselves, staff and residents and respect for staff commitment in participating in ongoing serial swabbing in place at the time of interview:

"I mean I would say I must have been tested, up to now, about 60 times since last year. And again people don't have an understanding of how bloody uncomfortable that testing is." (Participant 4)

"In the beginning the staff dreaded it, they hated it, they were giving out about it but I always had a hundred percent presentation for swabs. Not one baulked at it." (Participant 15)

The final consideration pertinent to the organisation and management of care related to financial considerations linked to the impacts of COVID-19 care. To this end, some interviewees referred to experiencing financial impacts while acknowledging the assistance of emergency funding. Examples cited included financial losses due to the need to keep beds vacant to have space for isolation should it be required (Participants 7 and 15) and the cost of staffing and PPE (Participants 5 and 7):

"Oh look the price of everything jumped. I mean the price of gloves, the prices of aprons, like you know, the cost implications are absolutely massive…" (Participant 5)

"…there are many in financial difficulties between the cost of PPE and the agencies and the requirements, even just the care home only looking at how they would segregate areas and what you would do and most of us have, I have retained six vacant beds for an entire year so that I could run an isolation unit …" (Participant 7)

5.3.2.3 Experience of a COVID-19 outbreak

Six of those interviewed had experience of a COVID-19 outbreak or outbreaks within their care home setting. Where this was the case, participants spoke vividly and with a depth of explicit detail indicating the immense significance of an outbreak. There was reference to dates, numbers impacted upon (patients and staff), the unfolding trajectory of outbreaks and so on. These occurred at different time points over the course of the pandemic both before and after vaccination roll-out. When describing the related experiences, for those very early on in the pandemic, there was reference to challenges in accessing testing and delays along the continuum of receiving results and the impacts of such delays:

> *"At that stage it was very difficult to get COVID tests for residents and staff. There wasn't a whole lot of testing happening, you know, staff weren't trained in testing so in order to get a test, the GP had to refer to the HSE and somebody came out from the ambulance service and carried out the swab. So when we got our positive results, we had actually referred residents that we were suspecting had COVID, maybe ten days before, we had referred them for a test."* (Participant 6)

> *"So on the Friday a lady developed a temperature and even though we requested from the GP to get her tested, it took two to three days…"* (Participant 10)

As empirical evidence was being formulated on the virus at the point of pandemic declaration, the experience of a breakout at this time was described in terms of practice being based on what was recommended early on by public health and changes as preparedness plans were evolving and guidance emergent. Those interviewed referred to the particular importance of their early experiential knowledge of indicators of COVID-19 gained from practice settings; this encompassed current guidance, and a resultant recognition that indicative symptoms for older adults could include aspects not widely referred to at that time. Thus, prior to the introduction of regular testing, DoNs adopted a proactive and high index of suspicion, and described acting immediately where a resident indicated any change from their personal baseline. This was grounded in the experience of residents who were asymptomatic but polymerase chain reaction (PCR) positive, developed gastrointestinal symptoms or who were diagnosed as COVID-19 positive but in the absence of raised temperature. This high index of suspicion extended to staff also:

> *"So we had a very low tolerance so if somebody coughed… if somebody even had one of the symptoms then we swabbed them…"* (Participant 14)

"Even any symptoms we just we didn't just go with temperature, cough, shortness of breath they were just they are kind of symptoms you would not see any way in a resident of that age but any of the staff they presented differently. They [staff] would sometimes get an all-day vomiting, headaches any kind of symptom that they don't normally have in their base line we were like no stay out please go get tested and sure enough they would get tested and would show positive even show no temperature, no cough you know just had a headache had nausea or whatever. So we were kind of very careful of that in that respect." (Participant 17)

When suspicion of or a confirmed outbreak occurred, there were references by some to environment challenges due to the layout of a setting. For others, this was less so and the ability to zone cohorts of patients was less challenging. When discussing an outbreak, there was also reference to the implementation of preparedness plans in terms of organisation and allocation of staff and designating areas of the care home to care for those diagnosed with COVID-19 or close contacts in accordance with such plans. As such, participant responses suggested that the maintenance of preparedness plans as live documents (5.3.1.2) and a high level of familiarity with them were pivotal as it led to readiness to act in response to COVID-19 suspicion or detection within a particular setting:

"*But unfortunately, 17 residents on one unit got it, so we literally shut that unit off from the rest of the building, sealed up the doors with plastic and I went down there now and we had another group of people down there and we just got through it …*" (Participant 5)

"So again, we assigned extra staff into it. We had an affected unit and a not affected unit within the one unit." (Participant 14)

The crucial importance of continuing to focus on essential care that was individualised to the needs of the resident with COVID-19 was also commented on by some participants. Thus, interviewees demonstrated a person-focused orientation that indicated their depth of knowledge of individual residents and cognisance of the prioritisation of high quality skilled essential care skills coupled with infection prevention and control measures and COVID-19 specific guidance:

"We had a very high recovery rate and I put that down to basically our, walking the floor, that hands on, walking the floor with each resident, you know and giving them good nursing care, you know." (Participant 3)

"And really it required you to go into a situation with really top class, quality nursing care on a case-by-case basis. We had to go back to basics as regards nursing care." (Participant 13)

Where an outbreak occurred, it sometimes impacted on high numbers of residents and staff simultaneously. Where this was the case, there was an increase in care demands sometimes accompanied by reduced availability of staff who might be self-isolating or have a positive test result for COVID-19. Participants referred to the worry for staff who were unwell and the impact on those staff not diagnosed but caring for residents with large numbers of colleagues diagnosed with COVID-19. As such, the experience of DoNs demonstrated that a COVID-19 outbreak left no stone untouched in a setting in terms of its reach of impact and that a person-centred orientation extended to staff members in addition to residents. For residents who became aware of an outbreak in the care home or who experienced COVID-19 in an outbreak, DoNs described various resident reactions such as *'absolute fear'* (Participant 4)

Finally, having experienced a COVID-19 outbreak, there were some references to the learnings from the experience and some of the consequent innovations and implications identified at local level that could be useful should a further outbreak occur. Thus, it was evident that while efforts to prevent COVID-19 were extensive and ongoing, where an outbreak occurred, there was active reflection in and on action coupled with an orientation to ensuring timely, experiential, and empirical evidence informed responses should a future incident occur:

"The second time was a lot easier than the first time because we knew, we cohorted and our staff." (Participant 19)

Having explored life within the care homes as outlined in the data, the following theme will explore the findings relating to participants' experiences of interactions beyond this setting.

5.3.3 Theme 3: Weathering the storm – information flow and interaction with stakeholders and services

Information flow and interaction with external stakeholders and services was a pivotal aspect of the experience of care home DoNs and was spoken about widely in interview. Findings pertinent to this theme are organised with reference to the three sub-themes outlined in figure 5.3.
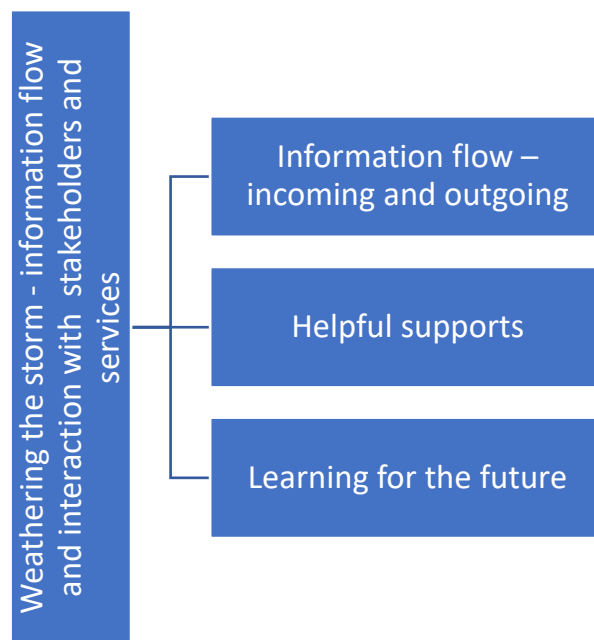
Figure 5.3 Theme 3: Weathering the storm – information flow and interaction with stakeholders and services

5.3.3.1 Information flow – incoming and outgoing

Many participants referred to the volume, management and implications of information flow during the pandemic. There was a majority agreement that the volume of communication and information incoming to participants in addition to requests to provide information was constant and in some instances overwhelming and this was particularly so early in the course of the pandemic. In relation to incoming information and guidance documents, there were references to multiple versions of the same documents with updates issued in close proximity and repetition of information coming through different sources, such that once these had been read and implications assessed, another version had frequently arrived. There was also reference to the implications of the information contained within such documents for those interviewed in terms of the need for the frequent updating of local policies and practices within the care homes:

> *"I found that really difficult in the beginning, you know, because you were swamped with you know, the care home was closed so you were dealing with relatives. You were dealing with staff and then you had all these emails and all these guidance coming in. You read one and then tomorrow it would be changed and then you'd have printed that off and you'd have it all in the lovely folder and the next thing there'd be another one out and you'd be… confusing at*

times, you know… So my job at that stage… I know I worked 23 long days on the trot, just I was… in bed at night, isolating in my attic to keep away from my family, and during my rest time overnight, I was reading up on stuff." (Participant 1)

"That [information] *was a nightmare, that was an absolute nightmare. It felt you were sinking under a kind of like sea of information because it was coming from a number of sources."* (Participant 4)

While there was understanding of why guidance was changing as more evidence was emerging and as systems and procedures became established nationally and locally, this did not lessen the impacts and challenges for those who had to manage and disseminate the incoming information within the care homes:

"But having said that, I can understand if you are… I suppose everyone just wanted to get it out there, you know, and on the one hand I can understand that the concern was... But then there was, as I said, in having it come from multiple points it was, you know, it was too overwhelming at times." (Participant 4)

"And it changed so often, so look it was a challenge. I'd say it would be a challenge if it happened again as well, to be honest with you." (Participant 12)

This was also complicated by variances in information reported by some participants as occurring early in the pandemic, for example, in relation to PPE usage:

"I think there was mixed messages by different people about how you use, on when to use PPE. And I think there was mixed messages about cohorting patients who are positive. I think there was some people had different views on how you manage an outbreak and I think looking back on it, it was too much communication sometimes which was contradictory in the early days. "Yes, there was elements similar but you had to decipher which would be the most relevant..." (Participant 3).

In order to manage the incoming information and process it, participants referred to a number of ways they approached the task. A number of participants referred to working late into the night to keep up. A couple of participants delegated some of the related work to appropriate others within the care

homes so as to share this aspect of their overall workload but regardless of this, the processing of incoming information was onerous:

> *"Literally during those two weeks, I printed, or maybe two months I would say, I printed that guidance. It went like from 50 pages to 70 pages to 100 pages and I had them all here. I was literally at night when I'd go home from here, I would try to flick through them and see what's new."* (Participant 12)

> *"Well there was a lot I can tell you working here during the day till maybe eight o'clock at night I was only getting a chance to get at my emails between eight and ten o'clock at night or eleven o'clock at night and that is when I would be sending out all the information."* (Participant 17)

There was also some frustration expressed in terms of information relating to and the timing of the introduction of some measures. One example of this was the introduction of mask wearing, which some participants felt should have come sooner after the declaration of the pandemic:

> *"There was no sure… look it was about 2 months of debate and like look, if you looked at the countries that lets say went through you know the SARS outbreak, I think there was 6 countries there, like they all had masks on straight away. These are the experts. These people have had the learning that we now have. We should have been looking at them …"* (Participant 5)

Other sources of frustration were also expressed by some participants. For example, in relation to receipts of requests for the same information from multiple sources or queries around arrangements for staffing (for example agency use, later identified as a risk):

> *"So there was an awful lot of time wasted on the phone. People ringing duplicating information"* (Participant 12)

5.3.3.2 Helpful supports

While acknowledging the challenges encountered in terms of information flow, participants also identified the supports that they had access to, and the significant benefits accrued as a result. Some of these supports were available early on, while others became established as time moved on. The supports identified were of various types and at various system levels from national to regional and crossed healthcare sectors as will now be demonstrated. At national level there were references to the Health Protection Surveillance Centre resources and guidance and the HSE. While there were also

some challenges identified in relation to the HSE for example in relation to early PPE supply (see subsection 5.3.1.3) and staffing (see sub-section 5.3.2.2), several participants spoke about the HSE supports experienced. Examples of related supports referred to included staff provision, the management of vaccine roll-out, regional clinical supports, material resources and COVID-19 out-break assistance:

> *"I don't know where I would have been if I hadn't had the HSE because they were amazing."* (Participant 20)

The majority of participants also referred to excellent support from and collegiality with GPs. For many, this was on a basis of the already existing pre-COVID-19 positive working relationships being in place. Participants provided examples of GPs maintaining very frequent and ongoing contact, in some cases on a daily basis, providing guidance, resident case and medication reviews, communicating with other GPs where there was more than one GP working with an individual care home, speaking with families if needed and increased telephone and in some cases virtual communication availability as required:

> *"And then our GPs were excellent, you know, they did… you know, when the numbers were very high, they did minimise the amount of time they came in. But if there was ever an emergency or a time when they really needed to come in, they did come in, you know."* (Participant 6)

> *"Our GP is very supportive of us and we had constant access to the GP with phone calls and they came in when we really needed somebody. So I was lucky in that way."* (Participant 11)

A number of interviewees also referred to supports they had received from Public Health and CHOs as excellent in terms of general advice, infection prevention and control and specific advice to individual resident related queries. Local community response teams who proactively initiated regular check-ins and the initiation of regular regional supports were also identified as particularly beneficial as was their accessibility when active support was required for particular issues related to infection prevention and control:

> *"CHO and public health, they were very accessible, always available at the end of a phone or an email or whatever. I had no issues with any of that. They were very easy to get hold of, very free with their advice or whatever."* (Participant 13)

"But we've forged such great links with them now and they were just fantastic. Like I mean they rang everyday couple of times and they were there, you know, offering help, getting PPE to people who needed it." (Participant 16)

"CHO we had two individuals CHO that contacted us every single day and they had I had their mobile numbers I had the mobile numbers for the testing centre they set up such an amazing network out there it was fantastic." (Participant 20)

In addition to information flow, participants referred to the requirements for and the volume of training that was required to ensure competency and concordance with guidance information. The training supports and opportunities available were identified as assistive to care homes although time consuming. For example, the number of HSeLanD[12] courses and information on infection prevention and control available via webinars from a variety of sources were highlighted:

"… the HSE, they also opened all their information, all their documents to us. HSeLanD, we were already, most of us were already using HSeLanD for training but obviously we really ramped it up with this because a lot of our external training was now no longer possible…So the training access was fantastic and [name of infection control specialist] webinars and everybody, all the different. Do you know what was brilliant was all the different cohorts of people coming together and speaking like [name of person] … you know, fantastic and they were great. The only problem with it was, I suppose, things were so busy on the ground that it was very, very tough to also get the time to do that, but it was so essential that we needed it." (Participant 16)

The support from representative organisations such as NHI were also identified as noteworthy. Interviewees referred to NHI's sharing of template documents and synopses of guidance and other documents as examples of invaluable assistance, which for some was assistive in coping with the volumes of information that was received. This support enabled time saving and standardisation of documentation and importantly a sense of collegiality in a time of uncertainty:

" So like you didn't have time to prepare plans and preparedness plans and NHI was amazing really to be honest because they opened their information centre to everybody. They kind of

---

[12] The Health Service's e-learning and development portal. At the time of finalising this report in January 2020, this resource remains available to staff outside the public health system

set it, every care home regardless of whether they were members or not, public, private,
voluntary, no matter who they were, and that was a really good, I think that was a really good
camaraderie. I think it shows this, you know, the importance of camaraderie and the
importance of sharing, collaboration, because we really wouldn't have managed." (Participant
16)

"… giving information I mean god bless Care home Ireland I have to say Care home Ireland
were absolutely fantastic because they just sending us emails and I would pass it along to staff
immediately." (Participant 17)

The benefits of the range of available supports, many of which were new, were suggested to extend
wider than COVID-19 related considerations. This included support of residents to remain in a care
home where there may have been a pre-COVID-19 need to transfer to access gerontological expertise
and, where transfer is needed, a more seamless means of access to the appropriate services. To this
end, there were references to direct communication with medical consultants in later life care and
Advanced Nurse Practitioners in Older Adult care through in-reach to and out-reach from acute and
community care settings:

"I was able to ring back the advanced nurse practitioner in the hospital. Like I would never
have known her pre-COVID. You know, I wouldn't have had a reason to, but we've established
a good relationship. During our outbreak here now, like I've been onto the [INAUDIBLE]
geriatrician. Every morning he rings to see how they all are. Just even that relationship … it
definitely has built relationships and I think I feel happier if I was concerned about someone at
discharge, I could pick up the phone and ring the geriatrician, I could ring the Advanced Nurse
Practitioner …" (Participant 1)

"So yeah, the ANPs in the hospitals just, oh my God, fantastic," (Participant 16)

From the array of supports established, some participants conveyed experiencing a sense of coming
together, community building and establishing networks that can be sustained into the future. Thus,
productive channels of communication that facilitated direct access to the expertise needed to
support resident health and wellbeing and specialist advice to DoNs when needed were identified as
being in place at the time of interview, although some regional variance was acknowledged
(Participant 16). On a wider level, the recognition of the role and place of the residential care sector
in the context of the health care system and the community was identified by one participant as

something that is required (Participant 10). However, two participants referred to their perception of progress to this end as an important outcome of the overall experience and it was suggested this would have lasting impact:

"… we feel part of the health service now, you know…" (Participant 15)

5.3.3.3 Learning for the future

A number of recommendations to enhance preparedness for future similar situations and to enhance the efficiency and effectiveness of safe quality care delivery were offered based on participant experiences and reflections thereon. These included recommendations to optimise circumstances within the care home setting and systems and supports external to but inter-articulating with this setting as will be illustrated in the findings below. The importance of an agile, efficient and timely response was highlighted in which optimisation of professional competencies was considered. The example of authorisation of COVID-19 testing early on was provided as an example to support this:

"Like I suppose again, that took the HSE so long to get sorted, you know, and waiting so long and like ambulance men testing and then like staff, and the GP had always to authorise a test. That was really slow like whereas we're … competent nurses working, we were able to authorise influenza swabs at any time, we could send anything to the lab, you know. And we weren't going to be testing our residents every day. Like you know, I think if the autonomy had been given to the person in charge to authorise the tests." (Participant 1)

One interviewee highlighted the need to be inclusive of all sectors of the healthcare system in responding to a pandemic citing the focus on the acute care setting early on in the pandemic as problematic:

"Going forward I think, that would be definitely, they would need to… and they also, I suppose, they also didn't really listen to us. I think that's… maybe now I feel that. I don't mean me as a Director of nursing, I mean just generally, this sector… yeah I think if we were to learn anything from this, I think we need to realise that it has to be a one system, you know, this medical system, the health system for older people is a one system and it should be the same for everybody to be honest. And if we can do that out of this, or even get close to it, I think that would be worth, you know, the losses that people have had." (Participant 16)

As identified earlier, the volume of information flow and processing was referred to as a particular challenge. Within the care home settings, there was reference to the potential benefit of appropriate delegation as an option, while beyond the care home, there were multiple references to appreciation for the information and guidance received but the need to streamline and establish a single point of information dissemination to care homes with efficient co-ordination of the flow of information and this was highlighted repeatedly:

> *"I kind of did a review of what we'd do differently, I'd kind of appoint a senior nurse, you know, to filter through the emails coming through"* (Participant 1)

> *"Like a one stop shop I suppose, you know, where we weren't receiving the information from a load of different places."* (Participant 12)

> *"So yes, there was absolutely huge amounts of information out there, but I suppose my advice, if I were to give advice on it, would be to have a better system for it, to be more co-ordinated so that there aren't five people sending you the same email"* (Participant 13)

Also referring to the infrastructure beyond the care home, the need to ensure standardisation of approach and systems across regions was identified as some participants referred to knowledge or experience of regional variability in terms of service and personnel availability:

> *"Some of the information in each region, you know, CHO region was different, you know, from others and that's again where I feel that one person could have pulled all of that together, you know…"* (Participant 3)

> *"I think that would be the one wish list, or one thing on my wish list that there would be, you know, that things would be equal in every region. Even like you said, in the hospital and in the CHOs …"* (Participant 16)

The benefits from the education engaged in and the need to ensure continued availability of and access to such education were further highlighted:

> *"Yeah, I think if you were to have, you know, another pandemic of…right, something about the preparedness of the teams as regards education and being able to do certain things, or what's coming, you know. I think that was missing from the creation in the early days, you know, the amount of training you would have to do with staff, you know?"* (Participant 3)

"So I suppose going forward, if we can get anything from a learning kind of from it, is that it [education] needs to continue and there nearly should be a one stop shop, you know, for older person… there is obviously but maybe a little bit clearer guidance towards it so that people can just go there and click into a webinar that they need to have access to for their staff at any stage, or training that they need and everything." (Participant 16)

Based on staff resourcing experiences during COVID-19, a few participants referred to the need to review staffing within the residential sector and the need for a realistic and sustainable staff resourcing plan to meet sectoral need.

Finally, the potential benefit of a communal medium in which to reflect on sectoral learning was indicated by one participant, while two others highlighted the need for efforts to enhance understanding of the care home sector and the experience of the pandemic within it:

"I suppose like every care home that's been through an outbreak, every care home's going to have different things that they've learned and I think, you know, it would be really good if everyone could share that with somebody who could pass it on to other care homes." (Participant 6)

"I just think none of the ministers [understand] the care home sector and they don't understand the fair deal system, and they don't understand the disconnect between the community provisions and the care home. And the disconnect between the entire system, its like a computerised system isn't it. I mean within the HSE there are so many different communication, computerised systems and they're not linked up. Well it's the same with healthcare in Ireland, we're not a joined up healthcare system so I suppose with COVID has shown the fragmentation of the healthcare system in Ireland." (Participant 7)

"So I think that, yeah, we probably, well something like this survey, this research in itself I would hope would help, you know, so that people can see what the experiences. I don't think people actually realise the lived experience to be honest. I know from ours even though we didn't have COVID, we've been under siege since last March, we haven't had a minute let up" (Participant 16)

Having presented the findings exploring preparedness for, life within the care home settings and information and interactions with stakeholders and services from the participants' perspectives, the final theme explicates the findings pertinent to the impact of the overall experience on interviewees themselves.

5.3.4 Theme 4: Rising above the storm - managing the personal impact

Almost all of the participants referred to experiences of the personal impacts of the pandemic on their role. When explicating such impacts, those interviewed also referred to the ways in which they countered the experienced impacts by drawing on supports and employing coping strategies. This theme is constituted by the two subthemes illustrated in figure 5.4.
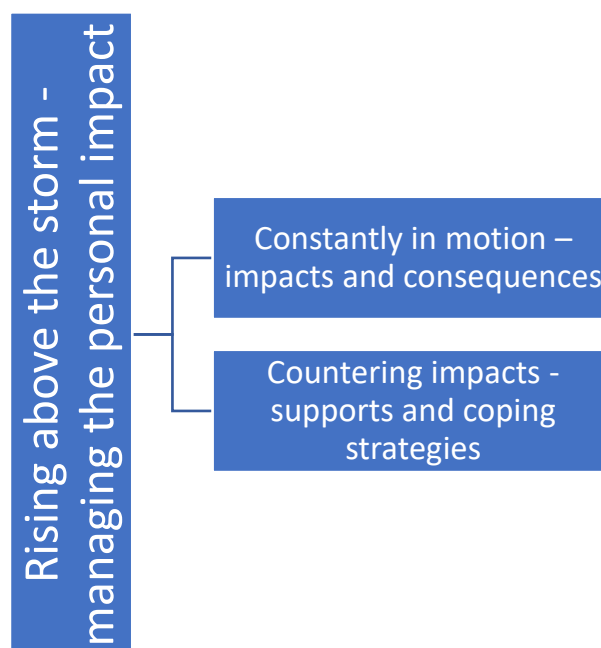
Figure 5.4 Theme 4: Rising above the storm – managing the personal impact

5.3.4.1 Constantly in motion – impacts and consequences

The data supported two overarching domains of impact experienced by participants – impacts within working life and impacts on life outside of work. However, there was a clear relationship between the two in that when speaking of pandemic impacts on life outside of work, participants clearly illustrated that the impacts they were referring to were not those being experienced by people in society (although these were also experienced). Instead, it was clear that there was a spill-over of work into home and social life and that this was constant. Data indicated that this constancy was related to the level of responsibility and the dramatic increase in both roles and workload experienced by the DoNs.

In relation to the experience of responsibility, participants spoke of feeling a heightened level of accountability in many regards, some of which included: resident and staff safety, welfare and morale; constant review and updating of policy, procedures, responses to requests for information; communication with families and ensuring sufficient human and material resources:

> *"Huge responsibility, absolutely huge responsibility."* (Participant 1)

> *"…one thing I do remember last year as well, not only just about the overwhelming amount of information, but the different roles that we were having to take on…"* (Participant 4)

> *"I just felt it was all on me. I know that sounds ridiculous, but I really did. I felt like oh my God, if anything goes wrong, it is all on me…"* (Participant 16)

Participants also vividly referred to needing to stay strong for everyone and to keep morale up. This sense of needing to be and staying strong on a continual basis was linked to the point above in that with the heightened sense of responsibility, was the sense of leadership that needed to be displayed to inspire and support others to keep going:

> *"And the morale absolutely. And you know its trying to keep everybody, there's no doubt about it you won't have everybody singing from the same hymn sheet al.l the time, you'll have little wobbles and little ripples here and there."* (Participant 7)

> *"And you have to be so strong in work and you can't be upset and you can't be agitated and you can't be… you have to be the one who knows everything and the one who has all the answers and the one who is calm."* (Participant 18)

The role workload was experienced as a dramatic increase from pre-COVID-19 work life and was unceasing. There were references to exhaustion, *"running on empty"* (Participant 12) and working non-stop, and for some, they worked continuously without leave. This extended round the clock in many instances with examples given of working day and night to meet response deadlines for external requests for information and to keep up with required changes as well as to be available to staff no matter the time. As such, participants illustrated that they were never switched off as they were constantly attuned to work mode:

"I really didn't think about it but the day I went back to work, up until, I'd say three or four weeks ago, I'd say I worked every day. I haven't taken days off, I never went on a holiday" (Participant 10)

"…like at the beginning I just stayed in work, I didn't come home at all for the first couple of weeks …" (Participant 16)

"Oh, we have been on call for 15 months. You know you don't go home, when you go home, you're never home. You're never not on call for COVID …" (Participant 17)

When recounting experiences of the personal impacts of the above and managing through the pandemic, there were frequent references to emotional sequalae experienced by those interviewed. A range of emotions were identified. For example, there were vivid illustrations of fear, frustration, worry, loneliness, guilt and stress. For some these were described as constantly present with little respite over the prolonged period:

''On days like you're just worried, worried all the time I think. That was, you know, you never really settled. I took a week's holidays and went down to [name of holiday destination] but I don't think I ever switched off'' (Participant 1).

"I think the loneliness. I think the desperate loneliness and fear for the directors of nursing who had COVID in their homes. I think that has been absolutely desperate and I think support, I am hoping they got support after they dealt with their outbreaks, and that they felt support during it because I know that for many of them, they were completely overwhelmed emotionally. Many of them felt very guilty and I suppose the media presentation of care homes didn't assist at all in that regard" (Participant 17)

There were numerous references to the impact of negative imagery of care homes portrayed in the media and its impacts on participants and perceptions of the sector. Participants' narratives on this issue illustrated frustration and upset in terms of a perceived lack of balance in reporting linked to numbers of cases in care homes and limited reference to settings where there had been no COVID-19 breakouts:

"Awfully. I think the media, well we see the media anyway now. Even still they won't let up. But there was this, what's the word I'm trying to use. Basically, there was this perception and it was driven by people in the media and even politicians that we didn't know what we were

doing and that we were private enterprises that had no idea about infection control. And that was really a misrepresentation of us. Like I think the care homes in the end did excellently and we were the first ones to battle it. While we were all battling it back in March, there was very few people in hospitals. The hospitals were really, really quiet. But we were at the coal face and we were given awful treatment." (Participant 12)

Where breakouts occurred, there was a sense of a lack of empathy for the work that had been put in to try to resist COVID-19 entry into a particular setting or the level of intervention to try to contain a breakout, protect those not infected and care for those who were:

"*I think very poorly in the beginning* [media representation]*, definitely very poorly. You know, the care homes were being blamed, like you know. … Like it spread so freely, it's so highly transmissible, like you know I think the care homes got a poor… they definitely didn't come out glowing in the initial stages of the media. They really focussed on us. Yeah, I felt really sorry for colleagues like. I know people who worked in some of the care homes … the media really zoned in on them at a time when they are like at their worst, trying to cope with a pandemic and trying to cope with losing so many residents. I think it was very distressing for the care home."* (Participant 1)

The participants also described a sense of relentlessness in terms of generalised media and sometimes political references to the numbers of outbreaks and deaths in the care home; understandably the impact of this was weighty in terms of amplification of the emotional sequelae (referred to previously in this subtheme) and on morale as time went on. This was very evident in interviews. In contrast, participants could also portray an informed and nuanced understanding of the context of individual circumstances in care homes during the pandemic and pronounced frustration at media and public or representational portrayal that spoke in terms of singular portrayal of substandard care within the sector without recognition of variance. For some, negative media portrayal was also perceived to be historical and therefore representations of the sector during COVID-19 were not surprising. There was also reference to an inability of those not familiar with or not working within the sector to understand the context and situation being encountered by staff and residents during the pandemic:

"*It is a challenging one. Unfortunately, unless anyone has actually worked in a residential care setting, they have absolutely no concept of what actually goes on. And yes, there will always be different levels of care though centres and there will always be those that are suboptimal.*

That's life, that's, you know. But I don't think the image of kind of congregated living, of care home and all of that, you know, it's never been truly promoted in the media as a positive. And you know, one has to recognise that long terms care absolutely is not where you or I would want to be. That's not our plan but it's appropriate for a percentage of the population" (Participant 4)

"No, I don't think we were given any kudos for doing anything right. And now the worry that I feel that there's a blame, definitely a blame. And at a lot of stages actually I felt that we were blamed, even friends and stuff, I felt that we were nearly blamed for keeping this bloody, all the vulnerable people and the care homes are keeping everybody locked up…So that was very hard, yeah, so I think we're seen definitely as not worthy and kind of nearly a second thought, you know." (Participant 16)

Understandably, given the personal impacts experienced within the context of work and the constancy of the role, for some, there was a blurring between work and home or family life. A few participants provided examples of segregating from family within their homes for prolonged periods in case of bringing COVID-19 home (Participant 16), being unable to sleep (Participant 5) and keeping the extent of what was going on from family so as not to worry them (Participant 16). Finally, in a few instances, some participants signalled a definite intention to leave the role due to impacts of the experience and the toll it had taken:

"I see people running out of the care home system, you know, just leaving it because of the way we were treated. We were treated like we were foolish and stupid and you know, as if we're all in it for money because it's private, which is far from the case." (Participant 10)

"I am, I am, I just can't do it anymore. I love my residents, I love my staff, I love where I work but I can't do this anymore. I really can't." (Participant 13)

"I think for the first time I am [age] and I think for the first time in my life I decided that it's time to go." (Participant 20)

5.3.4.2 Countering impacts – supports and coping strategies

In counterbalance to the consequences of the challenging impacts on participants, there were also some references to less negative aspects of their experience. For example, references to a sense of achievement when gains were made or a steady state was reached, wherein things were working well, as shown here:

"Yeah, it affected me but I also had a great sense of whatever, achievement, you know, every time I crossed another hurdle I was like "yes, we're getting there, yes we're getting there…"" (Participant 12)

"And then, actually when we got the mass testing and we had an all-clear result, that was just amazing because then we felt, you know what, we have handle on this and now we have an ability to test, so we'll know what's coming. That was the game changer …." (Participant 16)

A sense of collegiality was also identified and portrayed as pivotal in supporting coping. Collegiality was referred to in several guises and at a number of system levels throughout the interviews, including: intra and inter care home or via other DoN contacts, and as time went on at local, national and representative organisation levels. Within the participants' workplaces, growth in the sense of community within the care home setting was an important aspect of the experience. This translated to mutuality in the experience as everyone was working towards a shared goal. A positive sense of community was an important support to assist in day-to-day coping. For some, this led to either personal and/or shared learning and a strengthening of relationships within the care setting:

"And I think, you know, it's brought us closer together as a team and everything so it's brilliant.… But I think it's a good opportunity to… I enrolled in an infection control course there. I started it last, oh, October. So, it's a good opportunity to learn and I suppose develop new skills." (Participant 6)

"And everybody has to be maintained at a level that we're all working together, so that was challenging but I learned a lot about myself in doing that and about our ability to work with others and our ability to communicate with others …" (Participant 7)

There was also reference to support received from other DoNs of care homes. This support differed somewhat from that described above within the direct setting that participants worked in. The peer-to-peer collegiate support from similar others appeared to be productive in that it afforded shared understanding of the lived experience of the DoN, the particular impact of the pandemic on the management role and the accompanying managerial challenges outlined in 5.3.4.1. This was experienced in various ways such as through personal relationships with other DoNs, through contact with DoNs via representative organisations such as NHI and through a communication group that was established early on in the pandemic. A second form of support operational within this nexus was that

of the sharing of information, resources and experiential knowledge. This was particularly important in the preparatory and early component of the pandemic evolution where knowledge and time were limited, and resources were sometimes challenging to locate as outlined in 5.3.1.3:

> *"And then there was that kind of informal network amongst PICs* [Person in Charge] *themselves and Directors of other places saying "how are you coping with this? How are you coping with that?" One of the other things that we did as well, we set up… we had a WhatsApp group"* (Participant 14)

> *"…the Directors of Nursing came together and we did some of the, you know, kind of pathways, you know…"* (Participant 16)

As time progressed and local and national policies, procedures, protocols and guidance (PPPG's) became bedded in and related systems and processes operational, participants referred to the support derived from those within pre-existing and newly established networks. While the positive impacts of this conduit of supports in terms of clinical care within the care homes was elucidated in 5.3.3.2, here the positive impact related to the inter-relational support that the DoNs felt at the personal level:

> *"Very helpful, I have to commend them on once they got up and running… Yeah so but I found the HSE with CHO meetings very helpful, very informative yeah."* (Participant 7)

> *"Yes I have to say overall I felt that and when you did get an answer from Public Health they were very nice and very helpful."* (Participant 18)

Some participants also identified supports from outside of their work-related lives that were particularly meaningful to them and which sustained them to keep going. In some instances, these supports were pragmatic and in others psychosocial. Whatever the type, they were appreciated by participants and were an important form of recognition of their lived experience:

> *"A lot of my good friends would drop dinners to the door, like literally to the door. They were unbelievable. So yeah, we had a lot of support from our friends and family outside you know?"* (Participant 16)

The arrival of the COVID-19 vaccine roll-out was identified as offering relief and hope to interview participants and they reported that this extended to staff, residents and family members in the care home settings also. This was spoken about with a sense of realism, however, in that the vaccination programme was perceived as an additional layer of protection to add to those already in place and not a reason to alter other evidence-based processes and protocols, particularly in light of emergent variants and the potential for vaccine efficacy to wane:

> *"…we're all still very aware that, you know, you can still get it and it can still come in and visitors are coming in now. So it hasn't changed it that much".* (Participant 11)

> *"… once we had all that done, which was very simple, I had it done in a few hours literally because everyone was so anxious to get the vaccine, both staff and residents. Like it was a fantastic feeling. All the families like were thrilled as well."* (Participant 18)

Finally, resilience was identified as a particularly assistive attribute by some participants. References to resilience were evident in narratives linking the ability to cope during the pandemic to personal abilities and coping strengths:

> *"I'm the type to put up with it and get on with it. We're from the country, you know, when you were growing up you had to just put up with things and get on with it. That's the way I was brought up..."* (Participant 10).

> *"…I am a very strong person so I haven't any post-traumatic stress. I was very stressed in the early days, I mean the first few days. But I got a handle on it very quickly, I have to say".* (Participant 12).

5.4 Summary

- The findings from the qualitative interviews were organised with reference to four inter-articulating themes which together reflect participants' experiences during the COVID-19 pandemic. These were:
    - Preparedness – the approaching storm.
    - In the eye of the storm – work and life within the care home.
    - Weathering the storm - information flow and interaction with stakeholders and services.

- Rising above the storm – balancing the personal impact.

- *'Preparedness – the approaching storm'* demonstrated that:

  - Although there were early and initial variations in terms of the perception of level of preparedness among those interviewed, this increased quickly as the pandemic unfolded and knowledge of the virus and related clinical practices expanded.

  - Thus, preparedness moved from an early preparatory phase to an ongoing maintenance of preparedness within in-built responsiveness to updated guidance.

- '**In the eye of the storm – work and life within the care home'** addressed findings pertinent to day-to-day experiences of life within the care home from the perspective of those interviewed. Findings herein related to three overarching components, which again, while explicated separately for the purposes of reporting, were indivisible from each other in terms of the lived experience of participants. The aspects of work and life explicated related to:

  - Impacts within the triad of relational care on residents, staff and family.

  - The organisation and management of care.

  - Experience of a COVID-19 outbreak.

- Findings within **'Weathering the storm - information flow and interaction with stakeholders and services'** were conceptualised with reference to:

  - The volume and management of information flow into and out from care homes and the challenges related to same.

  - An explication of the beneficial supports external to the care homes that were identified by participants.

  - Recommendations for future similar situations based on participant reflections on the learnings from their experiences.

- The theme '*Rising above the storm – balancing the personal impact'* enabled:

  - An illumination of the various impacts (intra and extra professional) that those interviewed experienced as a result of changes to their working role and circumstances over the course of the pandemic.

  - And delineated aspects of the experience that served to counterbalance the challenges experienced and which sustained participants over the protracted and ongoing course of the pandemic.

- In the next chapter, Chapter 6, the findings from the survey and interviews will be discussed.

Chapter 6 Discussion

6.1 Introduction

COVID-19 represented a major global challenge to health and social care systems. Although pandemics are not unprecedented, the scale, impact and duration of COVID-19 has not been experienced since the Spanish flu in 1918-1920. Older people were identified in various public health guidance (i.e. DoH, the HSE and the HPSC), as having a higher risk status (Comas-Herrera et al., 2020; Thompson et al., 2020; Gray-Miceli et al., 2021). In Ireland, Hennelly and Cahill (2020) identify that 93.4% of deaths have been in the over 65 years age groups. In the more recent HPSC (2022a) weekly report (12/1/22), deaths in the over 65 age group from COVID-19 were 89.6% of total numbers.

For those living in care homes, many countries reported a crisis in both morbidity and mortality rates due to COVID-19 (Ouslander and Grabowski, 2020; ECDC, 2020; España et al., 2021). The greater risk from COVIID-19 in this population was attributed to higher levels of multi-morbidity, advanced age associated with higher levels of frailty, reduced physiological reserves including a less efficient immune response to infection (Schram et al., 2008; Mueller et al., 2020). Moreover, the congregated nature of care homes, limited facilities for quarantine and the intimacy and complexity of care in this setting has contributed to COVID-19 deaths (HIQA, 2020; Wang et al., 2020b; Suñer et al., 2021; Usher et al., 2021; Giri et al., 2021), while staff moving between multiple work settings has also been problematic (Szczerbińska, 2020; Ladhani et al., 2020). Within the Irish health care setting, a lack of a formal relationship between private care homes and the HSE contributed to difficulties in staffing and clinical governance that negatively impacted in delivering an efficient and coordinated response in the early phase of the pandemic (HIQA, 2020; Kelleher et al., 2020). This was demonstrated in a disconnect in preparedness and early responses between the public health system and private care homes. Globally, outbreaks were experienced by all provider types (public, private, voluntary), with geographical location (Suñer et al., 2021; Brown et al., 2021; HIQA, 2020), and the size of the care home influencing infection patterns. However, the most significant factor in predicting care home infection outbreaks was the underlying prevalence of the virus in the wider community (Abrams et al., 2020).

Care homes are based on a person centred, social care model which creates a flourishing and supportive environment for older people. While health care is a fundamental component, the focus is

not medicalised care, but the creation of supportive, home like environments based on a social care model (Gallagher and Kennedy, 2003). Care homes faced a mammoth task in navigating pandemic preparation, management of care and protection of residents. Moreover, despite different funding structures in various countries, COVID-19 has exposed issues in the care home system of care such as a lack of fiscal investment, safe staffing levels, skills mix and access to training (Bakerjian et al., 2021). Combined, these factors have highlighted the unique risk in care homes which led to the DoH examining issues related to COVID-19 in residential care and NPHET recommending the establishment of the COVID-19 Care homes Expert Panel in 2020 (Kelleher et al., 2020; DoH, 2020; 2021). Acknowledging these challenges, this study explored the experiences of DoNs in the care home setting during the pandemic using a mixed method approach comprising of an online survey (n=122) followed by 20 semi-structured interviews. Data were collected in all CHO areas in the Republic of Ireland with the majority of respondents and participants providing both residential and respite care. The findings of the study (presented in Chapters 4 and 5) will now be discussed with reference to the extant literature. The discussion areas are presented under the headings: COVID-19 preparedness, living with COVID-19, stress and resilience, managing COVID-19 outbreaks, vaccinations and the way forward.

6.2 COVID-19 Preparedness

Usher et al. (2021:11) describes pandemic preparedness 'as actions or intended actions that ensure the availability of resources necessary to carry out an effective response that aims at stopping the spread of viral respiratory infection in the future.' This incorporates a focus on contingency planning in anticipation of the threat due to COVID-19. On a wider scale, the United Nations (UN) (2019) and WHO (2017) indicate that preparedness includes government, professional organisations, communities, and individuals' effective and co-ordinated anticipation of and response to threats or hazards. Essentially, for the COVID-19 pandemic, this comprises an assessment of individual sites' risks to ensure skills are appropriate, training is available, recommendations are implemented, appropriate resources deployed, and communication pathways are effective to address the risk (Siu et al., 2020; DOHNI, 2020; Gugliotta et al., 2021).

The impact of the level of preparedness for the pandemic has been demonstrated as a factor in care home death rates (Mills et al., 2020; Siu et al., 2020; Suñer et al., 2021; Brown, 2021). Significant correlations have been noted between the level of infection control support and staff training with a reduction of infections, but constant vigilance and support is needed (Lipsitz et al., 2020; Abe and Kawachi, 2021). In this study, preparedness was examined in both the survey and the interviews. In

the survey, the concept of preparedness was based on over 30 questions that were developed from the recommendations from the National Expert Panel on Care Homes report (Kelleher et al., 2020). Respondents indicated high or very high levels of perceived preparedness across all domains. Issues that remained challenging related to staffing during an outbreak, appointing a lead GP as part of care home governance, on-site GP and allied healthcare professional (AHP) visits, and keeping on top of rapidly changing guidance. The data demonstrated that there was a trend to a slightly lower level of perceived preparedness in care homes that experienced an outbreak compared to those with no outbreak. The difference was not statistically significant and is likely to reflect that care home managers that have successful contained outbreaks have a real-world insight in the challenges and despite extensive preparation and planning for an outbreak, there are impacting issues, especially related to access to staffing, that are very difficult to manage. It was also demonstrated in a HIQA and HPSC report that outbreaks in nursing homes (regardless public, private or voluntary status) are correlated to community levels of infection (HIQA and HPSC, 2021).

The interview data enabled an exploration of how preparedness had changed from the beginning of the pandemic (i.e. March 2020) to the end of wave two. At the beginning of the pandemic, being in the eye of the storm translated to the need to both prevent and limit transmission of COVID-19. For many, this meant responding to the current situation with little time for contingency planning (Spillsbury et al., 2020b; Brito Fernandes et al., 2021). The DoH and NPHET (2020) and Brito Fernandes et al. (2021) note care homes were generally unprepared for the tsunami of devastation that COVID-19 unleashed. Consequently, a central element in crises such as pandemics is the ability for future anticipatory planning (Kelleher et al., 2020) and confident decision-making structures (Brito Fernandes et al., 2021). Yet, supporting the data in this study, HIQA (2020) has pointed to challenges in care homes' governance and management related to a lack of whole system co-ordination in coping during the first and second wave of the pandemic.

In anticipation of the potential devastation COVID-19 caused in care homes, and with some NPHET comment on its prematurity, NHI advised its members to introduce visiting restrictions on March 6th, 2020. The first notification of a COVID-19 case was received by the Chief Inspector (HIQA) on 13th March 2020 and in July 2020, over 50% of care homes had experienced a COVID-19 case with an additional 9% having suspected cases (HIQA, 2020). Although, seasonal guidance on influenza and a national action plan were issued by the DoH in March 2020, experience from previous viral infections (ie norovirus, influenzas) and the nature of COVID-19 was not sufficient to stem the tide of the

pandemic spread in care homes (HIQA, 2020; Spilsbury et al., 2020a; Spilsbury et al., 2020b; Lipsitz et al., 2021; Abe and Kawachi, 2021). Consequently, the scale and novel characteristics of COVID-19 impacted preparedness (DoH-NPHET, 2020; Kelleher et al., 2020; Spillsbury et al., 2020a). While HIQA noted that 94% of care homes inspected between 29 April and 26 May 2020 (n=189) were compliant with and an additional 4% substantially compliant with infection prevention and control regulations, the demands of COVID-19 needed additional regulation to appropriately respond (Dunnion, 2020). However, subsequently, in inspections of 44 care homes (with a prioritization of those who experienced COVID-19 cases), between 27th May to July 2020, there was a 50% non-compliance in terms of infection and prevention measures required to manage care in a pandemic (HIQA, 2020c), with a reliance on public health support and HSE resources. In addition, 58% were not compliant with governance and management requirements, while 32% of premises were not compliant with expected standards (ie shared bathrooms/bedrooms, inadequate outdoor spaces or storage space). Staffing non-compliance was observed in just over one fifth of the care homes (HIQA, 2020c). The report described care homes as 'ill-equipped to manage the challenges presented by COVID-19" (HIQA 2020a:28), with challenges in routine infection control and prevention practices, for example, leaving a bedroom door open when the resident was COVID-19 positive, non-use of surgical masks, incomplete documentation and gaps in sanitary standards and audits. This emphasises the substantial higher and more complex level of infection control responses needed in pandemic times, which was also reflected in other health and social care settings as well as in society itself. Nevertheless, at the point of data collection in the current study, some months following the HIQA report, the DoNs reported a higher level of competency in managing infection prevention and control for COVID-19 outbreaks.

The DoNs reported that early challenges were evidenced in multiple areas. For example, both nationally and globally, a significant element of preparedness was the ability of care homes to secure PPE. This was compounded by factors such as high demand and limited supply and the fact that many of the care home participants in this study, as independent care providers, struggled in initial pandemic times, to successfully compete to secure appropriate and sufficient supplies of PPE as larger entities, such as the HSE and other global health systems, bulk bought PPE. The gravity of this crisis was reported to the Oireachtas in various communications from NHI (NHI, 2020; Houses of the Oireachtas, 2020) and noted by the DoH and NPHET (2020). Similar experiences were apparent in the US (Cohen and Rodgers 2020; McGarry et al., 2020; Spilsbury et al., 2020b) with some evidence in the UK that this contributed to the spread of the virus in care homes (Brainard et al., 2021). As the pandemic continued, free access to PPE was facilitated by the HSE on both a precautionary and

outbreak basis (DoH, 2021). The findings of the current study demonstrated that this greatly relieved the burden on DoNs to compete in a market where demand was high and, at the time of data collection, it was not viewed as a persistent challenge.

In terms of information sources, most DoNs reported using national bodies, such as the DoH, HSE, HIQA and the HPSC as sources of guidance, with links with local CHO public health leads, public health nurses and GPs. Some DoNs also spoke of liaising with local hospitals. It is noted that early in the pandemic, access to specialist expertise and support was also a concern (HIQA, 2020) however, at the point of data collection, these local arrangements had strengthened with the welcome creation of 23 multi-disciplinary COVID-19 Response Teams (DoH, 2021) and HIQA's (2020) establishment of an on-line 'Infection Prevention and Control Hub'. This experience was similar to findings from other countries (Chen et al. 2020; Rajan and McKee, 2020; Miller et al., 2020; DOHNI, 2020; Gray-Miceli et al., 2021), many of whom considered the mobilisation of rapid response teams a key support for care homes (Spillsbury 2020a; Chang, 2020).

In both data sets in this study, it was evident that the first wave of the COVID-19 pandemic was challenging, and this experience significantly impacted on subsequent levels of preparedness. Additional increased support such as the provision of PPE, HSE temporary accommodation scheme, serial testing, COVID-19 Temporary Assistance Payment Scheme for Care homes and regulatory supports (DoH, 2021) did enable DoNs to access assistance which was initially lacking. Evidence of greater resilience, linked to experiential learning and support, was found in a reduced likelihood of an outbreak in the second wave and these subsequent outbreaks were smaller in volume and more quickly contained (HIQA and HPSC, 2021; DoH, 2021). Thus, the increased collaborative focus represented a turning point to a co-ordinated whole health system COVID-19 approach which incorporated care homes and was considered essential in combatting the virus (Brito Fernandes et al., 2021).

The survey data, which focused on DoNs' perspectives a year into the pandemic, identified the current general experience of high preparedness related to infection control and prevention, managing COVID-19 outbreaks, surveillance and supportive therapies, daily care home operating practices, governance and leadership, staffing levels, palliative care, and education. The associated steep learning curve was assisted by the growth of and access to e-learning during the pandemic, where

webinars provided supplemental guidance on COVID-19 care management. Becoming more familiar with managing care in the pandemic through experience, accessing supports, adherence to guidelines and additional supportive education opportunities (i.e. access to training via HSeLand) and NHI guidance reduced the challenges in care related to prevention, intervention and general care management. However, within the survey data (see chapter 4), there were individual items that demonstrated lower levels of preparation, and these domains should receive greater attention at both a local care home level and with regional and national support. The disconnect in private care homes with the wider health system related to clinical governance persists and includes the recommendation to appoint a GP clinical lead in all care homes, although such relationships need standardisation. The need for more robust GP access and connections was also evidenced in Northern Ireland (DOHNI, 2020).

One area of significant variation in practice was vital sign monitoring as part of active infection surveillance. There are no national standardised vital signs monitoring in Irish care homes in terms of the frequency type or location of recording (e.g. the National Early Warning Scores in acute care). In addition, only a few DoNs reported the use of formal methods of delirium screening, despite delirium being recognised as an early sign of acute infection (Morichi et al., 2018). Similarly, there was no recording of clinical frailty using a validated tool such as the clinical frailty scale (CFS) which can support decisions on escalation of treatment such as transfers to acute care or advanced care planning (BGS, 2020). Despite this, comments within the qualitative interviews demonstrate a general care vigilance and the use of tacit knowledge of the DoNs and staff to pick up small deviations in the resident, which could represent atypical presentations of COVID-19. Coupled with this, there was a sharp focus on optimum nursing care to potentiate recovery for residents who were COVID-19 positive. Going forward, there is likely to be a benefit in standardising vital signs monitoring, especially where agency or external staff may be delivering care and are less familiar with residents, one potential option is the RESTORE2 tool (https://www.hampshiresouthamptonandisleofwightccg.nhs.uk/your-health/restore-official).

Another area of preparedness relates to the physical environment of care homes. Shared facilities within the premises increase risk, with care homes in Canada experiencing high outbreak incidences due to this factor (Brown et al., 2021). Other studies have also identified this infection risk during COVID-19 (i.e. multi-occupancy rooms/facilities) (Kimball et al., 2020; HIQA, 2020; DOHNI, 2020; Brown et al., 2021). In Ireland, premises layout has been identified as a regulatory standard in relation

to infection control (Dunnion, 2020). Respondents did report incidences of shared rooms, shared en-suites, single rooms with communal bathrooms or shared rooms with communal bathrooms. In addition, standard space in multi-occupancy bedrooms will be required in all care homes. HIQA (personal communication to Phelan, 2021) indicates that an amendment to the Care and Welfare Regulations (2007), minimum required bedroom floor space that a public provider must provide for each resident by 1 January 2022. Amendments required by the regulations also include the provisions related to recreational space and availability of toilets. The impact of having appropriate environmental design was also observed in the US with calls to redesign building capacity and infrastructure to accommodate isolation of residents and visitation in pandemics and other similar crisis (Gray-Miceli et al., 2021).

6.3 Living with COVID-19

The study data demonstrates that the DoNs had largely succeeded in adapting to living with COVID-19 infection control and management guidelines, and there was a sense of it becoming more normalised as time went on. The qualitative data supports this temporal acclimatisation to managing care in the pandemic, while the survey data, collected a year into the pandemic, demonstrates how the infection control and prevention actions have been implemented in relation to COVID-19 and in relation to other infection prevention and control measures such as the roll out of the influenza and COVID-19 vaccine. Other issues with regard to developing robust policy related to environment and infection prevention and control have been noted by HIQA (2020) and the publication and implementation of the forthcoming Infection and Control Strategy National Action Plan on Antimicrobial Resistance 2021 – 2025 will further bolster responses (DoH, 2021).

One area of concern in the report, is the financial strain the pandemic has placed on private and voluntary care homes related to meeting regulations, recruiting and retaining staff, and establishing isolation zones which can reduce overall bed capacity and increase demand for staff (Bowblis and Applebaum, 2021). Over one-third of care home respondents report significant financial challenges that threaten longer term financial viability, while 1.9% described immediate financial concerns. In April 2020, a Temporary Assistance Scheme was announced by Government to assist with cost of outbreak management. Similar to other countries (Siu et al., 2020), the Irish care home sector identified the need for such fiscal support. The financial cost of COVID-19 for care homes has been noted in the literature with Quigley et al. (2020) observing that costs for supplies had increased and other expenditures such as increased employee hours, need for ongoing recruitment and training

while fewer admissions to the care home has reduced income. Sustainability of care homes, especially small-scale providers, has been highlighted as revenue has decreased due to the increased need for isolation spaces, lower occupancy levels, and other pandemic related expenditure (Rajan and Mckee, 2020; Gadbois et al., 2021; Gray-Miceli et al., 2021).

COVID-19 has exacerbated long-standing issues on adequate staffing levels in the care home sector (Brito Fernandes et al., 2021; Bakerjian et al., 2021) and was the main concern of DoNs in the context of requiring urgent help. Almost half of respondents in the survey were moderately to very concerned about staffing issues. Baseline staffing did not change and when additional staffing resources were enabled by supporting external agencies (ie HSE) for outbreak management, these were removed at the earliest opportunity (HIQA, 2020). Thus, unsurprisingly, the data demonstrated that maintaining safe staffing levels, especially during outbreaks, was a major challenge. Over 80% of care home respondents had experienced staff turnover in the COVID-19 period and as supported in the qualitative data, in a number of cases care home staff had left for employment in the HSE hospitals or community services. To try to stem the exodus, pay increases were the most common incentive to stay, while acknowledging the valuable work staff did was also considered important.

Exacerbating the challenge in staffing and in addition to staff turnover, many homes experienced staff absences related to illness or isolation due to COVID-19. The main ways to address this was through requesting already tired staff to work overtime or to employ agency staff to cover absences, however the availability of agency staff was limited due to employment opportunities in vaccination and swabbing centres. Similar challenges and responses have been identified in other countries (Quigley et al., 2020; Barnett and Grabowski, 2020; Rajan and Mckee, 2020). The imperative to have robust staffing plans to replace absences has been observed by commentators (Ouslander and Grabowski 2020; Quigley et al., 2020; Kelleher et al., 2020) who argue for maximising communication, resource sharing and collaboration within the wider health sectors (hospitals and health systems).

Despite such challenges, by and large, participants felt that outbreaks were managed efficiently. However, there was some anxiety in relation to the capacity of HSE services within the region to respond to staff crisis in care homes during the peak of infections when large numbers of staff could be isolating or out sick. Care homes did their best to be self-sufficient with staff, but during peeks in outbreaks some homes were operating with very diminished nurse and health care assistant numbers

for resident safety. HSE community services provided some staffing support, but the acute hospital sector provided minimal numbers of nurses or health care assistants (this could be because hospitals were supporting HSE community hospitals, who were also coping with outbreaks). Overall, there needed to be better systems of support including regional monitoring and co-ordination to respond to crises in staffing (Kelleher et al., 2020; Department of Health Northern Ireland, 2020; Montoya et al., 2021). Giri et al. (2020) noted that staff shortages due to self-isolation put additional strain on service delivery and despite detailed pre-planning exercises, inadequate staffing was a common feature in the experience of care homes during the pandemic (Siu et al.,2020; Quigley et al., 2020). Consequently, workforce planning and staffing adequacy has been key in pandemic responses in the care home environment (Usher et al., 2021) and work is currently in progress to examine these areas in the context of Irish care homes.

Concerns linked to staffing levels in COVID-19 related not only to care quality and delivery but to infection control management. Nurse staff levels have been shown to impact the spread of infections within care homes with low numbers increasing the probability of infection (Harrington et al., 2020; Li et al., 2020; Loomer et al., 2021; Gray-Miceli et al., 2021). Moreover, access to external clinical support from individual professionals, such as GPs and allied health professionals (physiotherapy, dieticians, speech and language therapist) was reported as being variable, with some sites experiencing a lot of difficulty in obtaining face-to-face consultations.

The symptoms of COVID-19 were not always typical in older people, thus many countries rolled out universal testing programmes in care homes (Giri et al., 2021). As a preventative strategy, testing has been shown to be an important response strategy for infection control (Hasmuk et al., 2020; See et al., 2021). Birgand et al. (2020) suggest up to 50% of resident positive cases may have been missed when such programmes were absent. Care homes were considered a priority group for COVID-19 testing (Pierce, 2020) yet similar to other jurisdictions (DOHNI, 2020; Rajan and Mckee, 2020), the DoNs reported challenges in the early stages of the pandemic in terms of access, authorisation of tests and the turnaround of results. Particular concerns in terms of confirming testing and results could relate to resident transfer and new admissions (Spilsbury et al. 2020a). Serial testing in care homes commenced in June 2020 and at the point of data collection, this process was viewed as being much more efficient.[13]

---

[13] Serial testing was phased out from May 2021

6.4 Stress and Resilience

Staff morale, on-going fear and stress were other significant concerns within the data in this study. The DoNs experienced stress in trying to navigate care in the pandemic and strove to maintain a focus on person centred care for all stakeholders; they recognised the stress on and of residents, families and staff in the care home. For example, the DoNs were concerned about the impact of the restrictions, particularly a lack of face to face visiting on residents and their families. Such concerns have been reported as common in care homes during the pandemic (Brito Fernandes et al., 2021). Additionally, the prolonged and intensive vigilance coupled with coping with general societal restrictions pointed to the urgent need to access psychological support for staff (Brady et al., 2021).

6.4.1 Burden on self

Work overload was common for the DoNs, and this could relate to shortage in staffing and similar to other studies (Riello et al., 2020; Fritch, 2021; White et al., 2021), there was a constant effort to keep up with rapidly changing information, regulatory demands and implementation of revised guidance. This translated to a blurring of work-personal times and spaces in order to 'catch up' with policy updates. E-mails and reporting care home data, (often the same data requested by multiple sources) was frequently undertaken when official work hours concluded and occurred in the DoNs' own homes. Within the survey data, it was evident that the DONs experienced moderate stress. The vast majority used positive coping strategies and relied on family, friends, work colleagues, physical exercise, yoga to help manage personal anxiety. In particular, DoNs spoke of team cohesion and 'bonding' together to protect residents. A few DoNs reported ongoing high stress levels or had used maladaptive coping mechanisms, but while the majority remained committed to a career in the sector, one fifth stated they intended to leave their role, and almost 30% thought about leaving within the previous month. This has significant implications for leadership and continuity of care in the sector and requires intervention to avoid an exacerbation of challenges as a result of COVID-19. Those experiencing higher stress levels were significantly more likely to express an intention to leave. The reality and impact of this stress is explored in more depth in the interview data, where DoNs described, in many cases emotionally, the constant fear, frustration and burden of managing the care home in the pandemic.

As noted in the extant literature on staff experiences of COVID-19 in care homes (Brito Fernandes et al., 2021), the interviews in this study found stress as a constant with the DoNs expressing concerns over the health and welfare of staff and residents, their own health, staffing and delivering care quality. As previously discussed, stress was particularly evident in the early days of the pandemic, as

struggles with accessing PPE, identifying ongoing supply chains and managing outbreaks could be overwhelming (Gibson and Greene, 2020; White et al., 2021). In addition, there were also concerns regarding hospital transfers, information sharing and keeping on top of sometimes conflicting guidance from different national organisations (HSE 2020; Kelleher et al., 2020). In the latter part of the pandemic, the DoNs noted staff frustration related to the continuing pressure of pandemic working and, for staff from other countries, upset at not being able to travel home to visit family.

The data demonstrates that keeping the care home operational was challenging and good leadership was fundamental. This included supporting staff with their fears of catching the virus, losing residents, infecting their own family members and working within outbreaks. This delicate balance requires a dual focus on pandemic preparedness and responses and routine care continuity (Wang et al., 2020a; Wang et al., 2020b). One study warned that staff could exhibit secondary traumatic stress due to the ongoing pressure of coping and emotional distress of human suffering in the residents they cared for (Blanco-Donoso et al., 2020). Another study of staff in care homes in Italy has demonstrated post-traumatic stress disorder with/without anxiety symptoms in all staff, but particularly females and those who had recent COVID-19 contact (Riello et al., 2020). Burnout (6.4%), emotional exhaustion (53.8%), depersonalisation (35.1%) and low levels of personal development (15.1%) were identified in staff working in the pandemic in Murcia, Spain (Martínez-López et al., 2021). Similarly, in an Irish study on mental health impacts of the pandemic on care home staff during the third wave of the pandemic, an online survey (n=390) identified that 45% of respondents reported a one-week prevalence of moderate to severe symptoms of PTSD (Brady et al., 2021). Thirty-nine percent reported depressive symptoms with moral injury and suicidal ideation (Brady et al., 2021). In particular, moral injury was higher in HCAs and although nurses appeared to have higher resilience, negative mental health impacts were also reported by this cohort (Brady et al. 2021). As residents generally live-in care homes for a substantial amount of time (Health in Aging Foundation, 2020), staff build strong relationships with these service users (Gharibian Adra et al., 2019), and are often regarded an extended family, thus the high mortality and morbidity among residents can have a very personal emotional impact.

Stress was exacerbated by negative political and media coverage of the pandemic impact in care homes with a tendency to apportion blame and unhelpful and sensationalised comparisons of mortality rates between various environmental settings. In particular, this related to a lack of insight to the reality of care homes and the great efforts made by DoN to protect staff and residents. Similar perceptions were noted in the literature. For example, the volume of newspaper reports on care

homes during the pandemic increased and as media is highly influential in positioning public opinion, the negative coverage has been shown to worsen general perceptions of care quality in these settings (Miller et al., 2021). Care homes could be portrayed as delivering poor quality care which resulted in rampant infection, yet care quality was shown not to impact infection spread when facilities with outbreaks were compared to those without cases (Bowblis and Applebaum, 2021). Similar to other findings, (White et al., 2021), the DoNs experienced despair in the contrasting media coverage between themselves and hospital (heroic) workers.

In essence, the DoNs did not have an opportunity to 'switch off' with some forgoing annual leave and feeling responsibility to link in to the care home on days off. Studies which have examined the impact of COVID-19 on staff in care homes have echoed similar findings and the emotional exhaustion of staff is a recurring theme (Rajan and Mckee, 2020; Chen et al., 2020; Szczerbińska, 2020; Bready et al., 2021). Moreover, the impact on staff in this sector is likely to have a long-term effect in cumulative burnout, challenges in the retention of staff and recruitment of new staff, further exacerbating staff shortages (White et al., 2020). Consequently, it is recognised that staff need support (Miller et al., 2021) and managers have a role in supporting staff (Spillsbury et al., 2020a) through what has been termed as psychological PPE (Institute of Healthcare Improvement, 2020), while there have also been calls to develop both academic programmes and practice-based supports for coping and managing stress (Martínez-López et al., 2021). To date, the psychological needs of DoNs and care home managers has been under-recognised with very little targeted interventions or resources for this group.

6.4.2 Concern for residents and family

The complex nature of COVID-19 transmission translated to significant revisions of internal care and social practices as well as visiting restrictions. While the resilience of residents was noted, the DoNs identified issues related to residents' physical health such as deterioration in physical function, challenges in accessing rehabilitation, as well as ensuring residents' adequate nutrition and hydration. Physical activity has a positive impact on health and contributes to functional ability and optimal ageing (Sepúleveda-Loyola et al., 2020), while a reduction in physical activity accelerates muscle wastage, functional decline, delirium and multi-morbidity risk (Roschel et al., 2020; Gray-Miceli et al., 2021). The promotion of physical activity in the daily lives of residents is fundamental to good health and contingency plans, such as a determined focus on promoting pulmonary health and general mobility, are advocated in the context of crises such as COVID-19 (Frahsa et al., 2020; Gray-Miceli et

al., 2021). DoNs reported various creative initiatives to counter physical inactivity such as increasing exercise classes and promoting mobility.

Concern also focused on the psychological wellbeing of residents and keeping residents motivated (Wang et al., 2020b). This was twofold in managing the local restrictions to usual and familiar daily life in the care home. Firstly, there were limitations in engaging with other residents, partaking in communal activities (including dining) and general spatial restrictions. Secondly, residents had to cope with the lack of face-to-face visits from significant others. This proved difficult and contributed to objective and subjective loneliness (Riello et al., 2020; Dunnion, 2020; Sepúleveda-Loyola et al., 2020; Shenjiang and Junqi, 2020; Gray-Miceli et al., 2021). As COVID-19 mortality rates were most pronounced in the care home environment, with restrictions limiting/suspending visitors, loneliness increased for residents (Dunnion, 2020). Although some small advantages were identified in the qualitative data from the suspension of visiting, older people benefit from having visitors in terms of positive mental health, emotional support and combatting loneliness (Lao et al., 2019; Giri et al., 2021; Usher et al., 2021; Bakerjian et al., 2021) as well as promoting physical health and general quality of life (Verbeek et al., 2020; Gerst-Emerson and Jayawardhana, 2020; Lipsitz et al., 2021). Loneliness due to such restriction in COVID-19 can accelerate symptoms of dementia and heighten anxiety and depression (Abbasi, 2020).

As movement restrictions within the care home were implemented, the DoNs attempted to ensure resident concordance with infection control guidance. The constant revision of policy rendered keeping up to date difficult; for example, HIQA (2020) notes 11 different HPSC policy changes between March 30th to July 3rd, 2020. Compliance with restrictions can prove particularly difficult in the care of residents living with dementia. In the UK, it is estimated the 69% of care home residents are living with dementia (Prince et al., 2014), while an Irish figure of 72% was suggested by Pierce et al. (2019) based on the work of Matthews et al. (2016). As dementia impacts on cognitive functioning, memory, language and understanding, symptoms may include responsive behaviours which can present as walking with purpose that can pose additional challenges in staff's attempts to maintain isolation procedures and public health guidance. Equally, as reported in this and other studies, staff donning PPE could be confusing and frightening for older residents living with dementia (Ouslander and Grabowski, 2020; Shenjiang and Junqi, 2020; Ryoo et al., 2020; Giri et al., 2021; Lipsitz et al., 2021). Equally, some DoNs noted the need to create spaces to enable walking with purpose and enable free movement within the environmental constraints of the pandemiic. However, it is also acknowledged that rearranging confined spaces in care homes can pose difficulties (Hasmuk et al., 2020).

The DoNs struggled to balance the rights of residents' and families with implementing infection control measures. Infection control measures to manage COVID-19 risk have been proposed as impinging on residents' rights (Fallon et al., 2020; Abbasi, 2020; Hennelly and Cahill, 2020; Iaboni et al., 2021). Consequently, it can be difficult for DoNs to resign themselves to public health guidance that challenges fundamental dimensions of personhood and the psychosocial rather than a medical care home model. Iaboni et al. (2020) argues that what is needed is moral courage and resilience which focuses on prioritising population level protections and balancing safety with individual rights. To address this, DoNs carefully sought to use virtual means for residents and families to stay connected such as the purchase of iPads and use of audio-visual technology such as Facetime and zoom. A number of DoNs commented that access to these virtual platforms was often through donations from local communities and commercial entities, representing social capital within communities. This is similar to actions identified in the literature, such as the increased use of video conferencing with family and iPads etc for stimulation, using telemedicine approaches and addressing psychological distress (Canevilli et al.,2020; DOHNI, 2020; Abbasi, 2020; Veronese and Barbagallo, 2021; Giri et al., 2021).

Respondents were keenly aware of the impact of visitor restrictions on residents' families and friends. DoNs tried to promote virtual methods of staying connected both in keeping families informed and supporting alternative communication methods between families and residents. Some DoNs enabled window visiting as a way of maintaining connection between residents and families, while also continuing telephone access, however, there were significant limitations with these alternative approaches including lack of familiarity and access to information and communications' technology (Bolcato et al., 2021). The DoNs described creative approaches to enable safe contact with families within the context of public health guidelines including visitor rooms with perspex dividers, garden visits and visiting rotas to ensure all residents had an opportunity to receive visitors. Such approaches to facilitate visiting were also described by Quigley et al.'s, (2020) study. In addition to emotional distress due to restricted access, families of residents in Irish care homes also raised concerns around quality of care and the lack of advocacy for residents (O'Caoimh et al., 2020). The prolonged absence and restrictions on face-to-face contact has contributed to reducing well-being for both resident and families as well as persistent negative impacts for residents, family and staff (O'Caoimh et al., 2020, Backhaus et al., 2021). It has been noted that crises such as pandemics requires a rights-based approach with Wildbore et al. (2022) advocating the application of an "Essential CareGiver" approach where residents can nominate a visitor who can visit in all circumstances to support the resident's social and psychological wellbeing. The implementation of such a process would provide residents

with fundamental support. While the impact of the pandemic led to severe restrictions on visiting, it is noted that guidance from the HPSE (2022b, 2022c), has led to a substantial return to visiting, with access for all visitors from February 8th 2022, providing this is monitored to avoid large numbers at the same time and having other precautions followed.

Compassionate provision of palliative care was significantly impacted during the pandemic. Palliative care was delivered under stressful situations reflecting Kelleher et al.'s (2020) observations. Other studies have pointed to ethical dilemmas experienced by staff when delivering palliative care during COVID-19 times (Szczerbińska, 2020; Mills et al.,2020). DoNs in the current study noted that there were enhanced links with and supports from community palliative care teams, however, the survey demonstrates that the initiation of advanced care plans and family discussions related to palliative care in the context of a resident acquiring COVID-19 requires improvement. Despite the relevance of this process in care homes, staff education and implementation of advanced care planning as a standard care component for residents remains low (Harrison et al., 2016; Gilissen et al., 2019; Andreasen et al., 2019; Szczerbińska, 2020). Yet, in the qualitative interviews, DoNs reported there was some increase in advanced care plans within COVID-19 times. DoNs also spoke of continued support of families after the resident's death, particularly in the context of the restrictions to usual access during end-of-life care and the impact of the pandemic on the familiar rituals of death and funerals in Irish society.

In relation to specific gerontological education, the survey data indicates that approximately one fifth of senior nurses had specific gerontological education, pointing to the need to increase specialty education related to caring for an older population. Findings also point to a need for further competency related training for HCAs, who provide most of the direct care. Other commentators have called for distinct staff training and education in the care home setting which may include mandatory regular updates (Cooper et al., 2017; Fallon et al., 2020; Szczerbińska, 2020; Gilbert, 2020). The need to have a distinct gerontological lens in care home care was also articulated in relation to Dáil debates on COVID-19, with Mary Dunnion (Chief Inspector of Social Services, HIQA) stating that the legislative term of 'Person in Charge' would benefit from replacement with 'Director of Nursing with gerontology [qualification]' (Dunnion, 2020). This is echoed in the Expert Panel Report which argues for both a gerontological qualification and more defined roles (Kelleher et al., 2020) as well as the wider literature examining COVID-19 and care homes (Bakerjian et al., 2021).

6.5 Managing COVID-19 outbreaks

Care homes management of COVID-19 outbreaks at the beginning of the pandemic reflected the fragility of this sector and lack of co-ordination with the general health system according to Brito Fernandes et al., (2021). The narrative accounts of the DoNs in the current study conveyed the stress and challenges in coping with outbreaks in the early pandemic months, while 12 months later over 95% of respondents in the survey reported being confident in their ability to implement appropriate strategies to contain and manage an outbreak. Over half (54.1%, n=66) of care homes surveyed experienced a COVID-19 outbreak. Participants estimated 1426 residents tested positive or were treated as COVID-19 suspected cases. Of these, at least 76% (n=1093) survived and were still alive at the time of the survey (three care homes did not return data). The deaths of residents (both COVID-19 and non-COVID-19) were felt deeply by managers and staff. The distress of staff and families was compounded by the disruption to normal end-of-life care and spiritual rituals as outlined above.

As identified previously, managing COVID-19 outbreaks was significantly hampered by asymptomatic spread and the delayed onset of symptoms in some residents which impacted on the implementation of additional control measures (Kimball et al., 2020). An early point prevalence study in a care home in King County, Washington demonstrated 57% of residents who tested positive were asymptomatic (n=13), with 10 of these residents developing symptoms within 7 days (Kimball et al., 2020). Other studies have also demonstrated the asymptomatic spread of COVID-19 in care homes (Arons et al., 2020; Borras-Bermejo et al., 2020), with detection of the first case simply being a marker that other residents have been infected (Szczerbińska, 2020; Montoya et al., 2021; España et al., 2021). DoNs recognised that that older people may present with atypical symptoms of COVID-19, potentially masking the infection (Solanki, 2020; España et al., 2021), thus knowing the resident and identifying subtle changes were key skills (Spillsbury et al., 2020a) and were identified as fundamental in case finding.

6.6 Vaccinations

The vaccination of residents was being rolled out during data collection in this study. While at that point in time, 70% of DoNs reported residents being vaccinated, national figures suggest 100% vaccination uptake in the those aged 70 years and over with boosters being administered from October 2021 (Government of Ireland, 2021). In care homes, the main motivation for vaccine acceptance was the desire to return to 'normal life' (Craig et al., 2021). However, challenges in

vaccination roll out were observed by DoNs in terms of consent for people who had decision making capacity challenges as well as some vaccine hesitancy in staff uptake. Staff hesitancy was also noted in other countries (Reber and Kosar, 2021; Harrison et al., 2021; Tullock et al., 2021). In Northern Ireland, a recent study indicated that vaccine hesitancy could be somewhat mitigated by management encouragement and support and staff were ultimately motivated by job demands and protection of residents (Craig et al., 2021).

6.7 The way forward

DoNs reflected on ways that future crises could be managed. These reflections drew heavily on their temporal experience and mirrors much of the extant literature regarding pandemic management in care homes. As discussed, the initial period of the pandemic was highly stressful and impacted severely on the higher risk of care home settings. Previous experience of managing contagious infections was inadequate to address the needs and demands of a major pandemic and although HIQA (2020d) recorded a high level of infection control compliance in its regulatory records (94% fully and 4% substantially compliant), the pandemic amplified the level of expertise and prevention and control methods required. The DoNs, reflecting on their experiences, summarised the key actions, which have also being identified in the literature, as maintaining a clear contingency preparation plan for future outbreaks (Gray-Miceli et al., 2021; Usher et al., 2021); clear communication with a universal understanding of context, roles and responsibilities (McGarry et al., 2020; Spilsbury et al., 2020b); reassurance for staff, residents and families and asserting the primary goal of protecting residents and responding in an appropriate and timely way. While an absolute focus remains on preventing COVID-19 from entering the facility, it has been shown that incidence and outbreaks correlated to local community prevalence (HIQA and HPSC, 2021) and are not reflective of care quality (Bowblis and Applebaum, 2021).

Leadership was considered by the DoNs as key in both managing responses and supporting staff and residents. If an outbreak was experienced, then staff needed to rapidly implement 'isolating and cohorting' practices. Issues related to supply and demand in terms of resources and staff were fundamental to fostering a safe environment. This encompassed four central foci. Firstly, access to supplies such as PPE needs to be facilitated at a national and integrated level. Secondly, maintaining adequate staffing, including the ability to access replacement staff during peak activity, is essential to delivering fundamental care and minimising disruption to services and care quality. Thirdly, competencies and access to ongoing continuous professional development opportunities for all

grades of staff is essential in ensuring the right people with the right skills to meet these ongoing challenges. Fourthly, access to professional expertise; the supports from CHO Public Health and the HPSC have been invaluable in the context of guidance such as infection prevention and control, management of outbreaks and visitors' policy. Successful COVID-19 management requires competencies at the micro-level of the care home combined with access to external expert assistance in managing care and emerging challenges. This concurs with recommendations articulated by the Expert Panel (Kelleher et al., 2020) and gives weight to the argument (both nationally and globally) that care homes need to be integrated into the main health system with governance, co-operation and co-ordination supported through partnership approaches.

The historical disconnect of care homes with the public health systems is described in the data of this study, with pandemic response initially being observed as targeting the acute care environment. The need to have expert advice is evident as the usual infection control measures familiar to care home staff, were not sufficient to tackle the pandemic (Dunnion, 2020); thus expert infection prevention and control guidance is imperative (Gilbert, 2020). There is now strong evidence that traditional efforts to improve infection control through regulatory oversight with surveys and fines alone tend to be reactive and punitive, rather than enabling and supportive (Lipsitz et al., 2020). In contrast, strong leadership and collaboration, as demonstrated in the Massachusetts regional response to improve infection control (Baughman et al., 2021), proved to be more immediately effective. This multifaceted response was unique in offering early expert guidance, on-site and video consultation, resources for the acquisition of PPE, backup staff, SARS-CoV-2 testing, and additional payments to enable facilities to contain and prevent the spread of COVID-19 infection (Lipsitz et al., 2020). In the Irish context, such supports should be accessible and regularised so DoNs can have ready access when required. In addition, strategies used in Japan, which had very low COVID-19 deaths, merit consideration. These include early robust infection prevention and control policy, local public authorities exclusively devoted to the oversight of infection prevention and control in care homes and effective communication networks within all sectors (Estévez-Abe and Ide, 2021).

6.8 Summary

- The DoNs experiences demonstrate a temporal journey from early under-preparedness and fear to full preparedness and expertise in infection control and outbreak management.

- At the beginning of the pandemic, multiple challenges presented as care homes worked to provide care and barriers to accessing equipment, staffing, education, testing, and connection to the public health systems proved problematic for some.

- As the pandemic progressed, both care at the care home level and within the health system became more effective as synergies for management were established, enhanced and consolidated.

- DoNs held an enormous sense of responsibility for residents, staff, relatives, care quality, finances and sustainability with some speaking of the potential for care home closures

- DoNs demonstrated personal resilience and fortitude in their role, however, the sustained stress has prompted some to consider leaving this sector.

- DoNs expressed disappointment at the lack of understanding in political and media narratives on the reality and context of care home care, particularly as much of the narrative supported negative perceptions, fuelling, in the main, spurious concerns of care quality and inaccurate information.

- While vaccinations provided some relief, the continued unpredictability of the pandemic translated to a state of constant alert to ensure early responses were implemented and care quality maintained.

Chapter 7 Conclusion and recommendations

7.1 Introduction

This chapter will present the study's recommendations arising from the research conducted. As with all studies, the findings of the current study should be considered in the light of its strengths and limitations. Therefore, related considerations will also be outlined. Concluding comments are presented to summarise the study.

7.2 Strengths and limitations of the study

- This is the only study in Ireland to examine the experiences of DoNs in voluntary and private care homes (who constitute the majority of care homes in Ireland). It provides a detailed overview of perceptions of preparedness against national published recommendations and best practice in infection control prevention and management. The study also captured organisational issues on governance, staffing and education as well the psychological impact on senior managers.

- The use of a mixed methods design supported the surfacing and gathering of the voice of participants using the different methods employed.

- The general complementarity of the survey and interview data supported consistency and dependability within the data, with the qualitative data providing opportunity to explore particular aspects of the DoNs experiences in greater depth.

- In addition, the use of mixed methods enabled the strengths and weaknesses of the survey and qualitative approaches to complement each other (Regnault et al., 2018).

- The study enabled a counter discourse to the dominant negative media and political narratives and allowed an 'insider' perspective to the reality of care in care homes during COVID-19.

- A particular limitation of the study was that the respondents[14] and participants were only from the private and voluntary sector. The experience of DoNs in the public sector, albeit representing a lesser proportion of care home provision, may have been different. Moreover, the DoNs in this study may have been biased in their reporting by virtue of their positions in the homes.

---

[14] We acknowledge 2 DoNs from the public sector completed the survey.

- The rapidly changing public health guidance means the data represents experiences until the time of data collection (early 2021). As the situation continues to evolve, it is to be expected that additional experiences will unfold also.

- The survey captures a point in time so data must be interpreted in that context, for example the data on vaccination reflects the early stage of the vaccination programme. The overall response rate of 27% while small, is in line with response rates for on-line surveys and given the considerable pressure care home management were under at this time, it is better than expected.

- The survey questions were developed based on Expert Panel recommendations (Kelleher et al., 2020), formulated in August 2020, and may not represent current guidance from HPSC.

- There was an error in the Likert scale for question 2.8.5 'Preparation to manage COVID-19', there was a four rather than five-point scale used, thus a score >3 indicates good level of preparedness. This did not impact on the overall pattern of the responses.

- The restrictions of the pandemic demanded that data were collected for the qualitative phase via telephone. While this yielded rich data, face to face interviews may have offered a more nuanced method of data collection, as body language and expressions cannot be observed, and interviews tend to be shorter.

- It is difficult to isolate the experiences of the pandemic as separate to the pre-existing challenges that individual care homes may have (e.g. staffing, burnout). Therefore, a repeat of this study, post-pandemic, may offer comparative data.

7.3 Recommendations

7.3.1 General Recommendations

Public health guidance

While the unprecedented nature of COVID-19 impacted the response actions, the knowledge gained from the current study should be harvested to inform guidance for care homes within the context of further cross system public health responses. A review of findings from this study, national experience and the understandings from other countries would also enable the development of an evidence based robust response plan.

Long term care

It is recognised that long term care for older people needs to be reformed (community and residential care). The positioning of care homes requires more status and greater connectivity within the health

and social system, while public and private facilities should have more integration and governance within the health system. In particular, the inclusion of care homes in national level response teams is fundamental to response agendas.

Serial testing

As community prevalence is identified as an important indicator for care home outbreaks, serial testing should be available when prevalence rises. This is particularly important in the context of face to face visiting so early identification of infection is optimised.

Recruitment and retention

High staff turnover in the sector is a threat to resident safety and quality of care especially among the senior nursing team. There is a need for a co-ordinated national strategy to stabilise the age care workforce especially in the care home sector. Considering the high proportion of DoNs' intention to leave or thinking of leaving the position, it is important for continuity of care and leadership that these posts and post holders are supported as required.

Political and media reports

Political and media reports should avoid sensationalism. While it is important to report sub-standard care practices, a balanced reportage is required which does not tacitly homogenise and polarise the commendable efforts in acute care as opposed to accounts of sub-standard and neglectful care in care home sector as a generalisable issue.

7.3.2 Specific Recommendations-pandemic

Resident well-being and rehabilitation

The prolonged shielding and restrictions in physical and social activity and reduced allied health professional input has resulted in a number of residents experiencing de-conditioning, social isolation and loneliness. Programmes and funding to support care homes to deliver exercise and well-being activities should be considered both within and following pandemics. For example, post-pandemic, older people should be able to access reablement programmes with the input of inter-disciplinary teams to support a restoration of function if possible. Such reablement programmes could be supported by virtual means through pre-recorded or live programmes.

Careful consideration of the welfare of residents should fundamentally be underpinned by a rights-based approach to decision making. Policy guidelines should be cognisant of the FREDA (fairness, respect, equality, dignity and autonomy) principles as detailed by Safeguarding Ireland and the Health

Information and Quality Authority's Guidance on a Human Rights-based Approach in Health and Social Care Services (2019). Decisions should balance rights to ensure there is a consideration of the unintended consequences of pandemic restrictions. In this context, having a policy to enable residents to nominate "Essential Caregivers" (Wildbore et al., 2022) is key to addressing the loneliness and isolation experienced in care homes during COVID-19.

Staff psychological well-being

All staff including senior managers have experienced enormous stress, and distress in some cases, over a prolonged period with ongoing risks of COVID-19 infection and outbreaks. Readily accessible and individually tailored psychological supports are required to reduce workforce attrition and burnout. As post-traumatic stress has been noted for crises such as pandemics (d'Ettorre et al., 2021), continued support for staff is recommended. This is particularly important in the context of those DoNs intending to leave or contemplating exiting the sector.

Family support

Supporting families who have been anxious about relatives in care homes is fundamental. Families have been concerned about the general quality of care, the risk of infection of a loved one, worry and anxiety when outbreaks have occurred and the lack of physical connection. In addition, the pandemic has severely impacted end-of-life care where being with the resident has been restricted. This is compounded by restrictions related to funeral practices which may prolong the psychological trauma of grief or be a catalyst to complicated grief. Alleviating practices could include further enhancement of virtual communication methods, having a nominated relative communications' staff member and post bereavement support as well as the "Essential Caregiver" (Wildbore et al., 2022) process identified in the recommendation on *Resident well-being and rehabilitation*.

Safe staffing

During the peak of the pandemic, as care demand rose in all sectors, there was active staff recruitment by the HSE, destabilising already vulnerable care home workforce capacity. This needs to be better regulated and managed during an active pandemic phase to support safe and sufficient staffing across the continuum of care with appropriate educational preparation for such crisis situations.

Despite contingency plans, some care homes experienced significant staff shortages for periods during outbreaks. According to some participants in the current study, initially there was limited support available from external sources. There is therefore a need for regional monitoring and intervention with the capacity to contemporaneously deploy workforce to alleviate acute staff shortages during peaks or prolonged infection outbreaks. In pandemic times, replacement staff should include

consideration of staff leave and a unified regional health systems-based strategy where the DoN can work with colleagues to identify skill mix required and have access to appropriate staff for the duration of stabilisation of workload and quality assurance in care provision.

Financial support and viability

The private care home sector has faced financial challenges due to extra cost of PPE and infection control measures, staff recruitment and training, and reduced bed capacity. As such, the financial welfare and viability of care homes needs to be actively monitored and supported to avoid a crisis in the closure of care homes and withdrawal of beds from the system.

Staff training and preparation

Key to the success of managing the COVID-19 pandemic is the training and preparation of all staff especially the HCA workforce as the largest group of care providers. Education needs to move beyond correct PPE wearing and handwashing to regular real-world simulation of outbreak management, testing of contingency plans and palliative care including advance care planning. Cost of training needs to be factored into protected education budgets for healthcare staff. A welcome action was the open access of education within HSELand and consideration should be given to continuing this beyond the pandemic with potential collaboration in content development with private and voluntary sectors.

All care homes need gerontological nurses who are competent in infection control, advanced physical assessment and diagnosis, screening and management of frailty, dementia care competency and management of distressed behaviour, anticipatory and advance care planning, family support, and leadership and inter-disciplinary working. A review of the landscape of educational preparation in the private care home sector should include a needs analysis and mapping of a framework of education inputs would ensure appropriate competencies and skill mix are available[15]. This should include a specific focus on safe staffing ratios, the needs of DoNs and those in leadership roles in addition to other nursing and staff roles.

Access to medical support

While DoNs did report support from GPs, advanced nurse practitioners, consultants and others, care homes have experienced difficulties in obtaining face-to-face consultations for residents with COVID-19 and non-COVID-19 medical conditions, while appointing a GP care home lead has also proved challenging for some facilities. Investment in community or dedicated Advanced Practice Nurse posts should be considered to augment the capacity of primary care to continue and better support

---

[15] This is being undertaken in the publicly funded care facilities for older people.

residents and reduce the need for acute hospital transfer. In addition, the investment in e-health in the environment of care homes can improve assessment and care planning for older people in care homes. These supports are relevant for non-pandemic times and would assist in integrating care homes into the wider health system.

7.3 Concluding comments

COVID-19 presented a major challenge to global health systems. First identified in Wuhan, China, its rapid spread around the world necessitated significant public health measures to be implemented in society and across health systems including in congregated residential care settings, such as care homes. Older people were identified as a particular high-risk group and consequently, care homes were significant risk environments for infection prevention and control. This translated to unprecedented demands on DoNs to respond to the requirement to protect and care for residents, staff and relatives in pandemic times. The data in this study provides unique and important 'insider' understandings of the experiences of DoNS and in many ways provides s a counter narrative to the dominant negative political and media foci on COVID-19 in care homes.

What is apparent in the data is that the normal and familiar standards of infection prevention and control, similar to other healthcare environments, were inadequate to meet the tsunami that was the lived experience of COVID-19. For example, HIQA (2020a) notes high infection prevention and control compliance in care homes which met the 'usual' requirements, yet, there were challenges in inspections noted during COVID-19 (HIQA, 2020c). This suggests that familiar experiences with contagious diseases proved inadequate to meet the magnitude of infection in the pandemic and enhanced standards are therefore required in such situations. Other countries who have experienced epidemics have learned important response strategies which should be considered for the Irish context. For example, having an infection control lead and regular simulated drills has been noted to enhance responses (Lipsitz et al., 2021). In Hong Kong, lessons were learned from the SARS epidemic in 2003 in relation to early detection, early diagnosis, early quarantine, and early treatment (Liu et al., 2020). Early population responses (social distancing, masks) were considered to protect older people in care homes, and hospital transfer and doctors' visits were restricted with early implementation of financial support for equipment and staffing provided. Strict visitation rules and hygiene practices were quickly implemented which surpassed the routine infection control guidelines. Staff monitoring for infection was also introduced early (Lam et al., 2020). These rapid and comprehensive responses led to a significant lessening of negative impacts of the pandemic in both the general society (in terms

of the public restrictions implemented) and care homes (Lum et al., 2020). In the US, having disaster preparedness plans tested, developed and in place was considered fundamental, indicating the importance of preparedness (Mills et al., 2020). However, restrictions such as lockdown of care homes need to be balanced with the unintended consequences, such as loneliness and space limitation for mobilisation (Chow et al., 2020), thus careful reviews of appropriateness of guidance are required. Therefore, these lessons have transferability to the Irish context and map to the findings in this study in terms of challenges experienced by the DoNs.

COVID-19 brought to the fore the necessity of reviewing care of older people in Ireland and the general need for a revised model of long-term care (Kelleher et al., 2020; Brown 2021; Citizens Assembly, 2017). This relates to long term care as delivered in the community setting and the care home setting. It is noted that historically there has been a low policy priority for care homes (Werner et al., 2020) with weak interlinking structures with public health systems (Bakerjian et al., 2021). Significantly, the positioning of private and voluntary care homes as outside the public health system proved stressful in the context of initial coping within the pandemic related to preparedness and management. This is echoed in both the early national public health responses to COVID-19 and in the experiences of the DoNs. While Ireland is not the only country to observe such disconnect (Dykgraaf et al., 2021; Brito Fernandes et al., 2021), lessons pointing to the need to engage in an all-sector response to such crises are evident. This fundamentally includes the need to have firm connections and collaborations with private and voluntary sectors being integrated as key stakeholders in population health, with co-ordinated support (expert advice, serial testing, fiscal support, staffing) and governance systems strengthened (Dykgraaf et al., 2021).

In tandem with the organisation of responses was the DoNs ability to demonstrate leadership in pandemic management. However, leadership was stressful within the context of unfamiliar care challenges where increased morbidity and mortality were stark realities of COVID-19. Reflecting on their management, the DoNs spoke of stress levels in many ways. For example, stress related to negotiating with external agencies and reassuring relatives, demonstrating continued leadership within chaotic times, and managing the internal day to day running of the home within the context of rapidly changing public health guidance, stewarding outbreaks, staff attrition and absences. There were numerous observations of the impact of the pandemic on residents, staff, relatives and self, and the data is replete with examples of the blurring of DoNs' professional and personal life. While the introduction of serial testing and the roll out of the COVID-19 vaccination and booster campaigns gave

some solace in terms of enhancing immunity against the virus, it is progressively recognised that immunity is not absolute, that infection is still a reality and new variants may impact on vaccine efficacy. Consequently, although COVID-19 persists in Ireland and other countries, and some of the initial challenges (i.e. PPE, external support) have dissipated, a level of constant alertness persists even though COVID-19 precautions have been normalised into routine care and Ireland has relaxed many of the more severe restrictions.

In conclusion, some commentators have suggested that COVID-19 will not be the last pandemic (Roy et al., 2020; Smithham and Glassman, 2021), thus learning from experience is fundamental to maximise preparedness and agile future responses as and when needed. Consequently, recommendations from this study relate both to the learning from the impacts of COVID-19 as well as enhancing responses for future pandemics.

References

Abbasi, J. (2020) "Abandoned" Nursing Homes Continue to Face Critical Supply and Staff Shortages as COVID-19 Toll Has Mounted. *Journal of the American Medical Association,* 324(2),123–125. doi:10.1001/jama.2020.10419

Abe, K. and Kawachi, I. (2021) Deaths in Nursing Homes During the COVID-19 Pandemic—Lessons from Japan. *JAMA Health Forum,* 2(2). e210054. doi:10.1001/jamahealthforum.2021.0054

Abrams, H.R., Loomer, L., Gandhi, A. and Grabowski, D.C. (2020) Characteristics of U.S. Nursing Homes with COVID-19 Cases. *Journal of the American Geriatric Society,* 68, 1653-1656. doi.org/10.1111/jgs.16661

Andreasen, P., Finne-Soveri, U.H., Deliens, L., Van den Block, L., Payne, S., Gambassi, G., Onwuteaka-Philipsen, B.D., Smets, T., Lilja, E., Kijowska, V., Szczerbińska, K. and PACE consortium (2019) Advance directives in European long-term care facilities: a cross-sectional survey. *British Medical Journal Supportive and Palliative Care*, 21: bmjspcare-2018-001743. doi: 10.1136/bmjspcare-2018-001743. Epub ahead of print. PMID: 31113800.

Arons, M.M., Hatfield, K.M., Reddy, S.C., Kimball, A., James, A., Jacobs, J.R., Taylor, J., Spicer, K., Bardossy, A.C., Oakley, L.P., Tanwar, S., Dyal, J.W., Harney, J., Chisty, Z., Bell, J.M., Methner, M., Paul, P., Carlson, C.M., McLaughlin, H.P., Thornburg, N., Tong, S., Tamin, A., Tao, Y., Uehara, A., Harcourt, J., Clark, S., Brostrom-Smith, C., Page, L.C., Kay, M., Lewis, J.,B., Montgomery, P., Stone, N.D., Clark, T.A., Honein, M.A., Duchin, J.S., and Jernigan, J.A. for the Public Health–Seattle and King County and CDC COVID-19 Investigation Team (2020) Presymptomatic SARS-CoV-2 infections and transmission in a skilled nursing facility. *New England Journal of Medicine.* 382(22), 2081–2090. doi.org/10.1056/NEJMoa2008457

Backhaus, R., Verbeek, H., de Boer, B., Urlings, J.H.J., Gerritsen, D.L., Kooopmans, R.T.C.M. and Hamers, P.H. (2021) From wave to wave: a Dutch national study on the long-term impact of COVID-19 on well-being and family visitation in nursing homes. *BMC Geriatrics,* 21, 588. doi.org/10.1186/s12877-021-02530-1

Baik, S.H., Fox, R.S., Mills, S.D., Roesch, S.C., Sadler, G.R., Klonoff, E.A., Malcarne, V.L. (2019) Reliability and validity of the Perceived Stress Scale-10 in Hispanic Americans with English or Spanish language preference. *Journal of Health Psychology*, 24(5),628-639. doi: 10.1177/1359105316684938.

Bakerjian, D., Boltz, M., Bowers, B., Gray-Miceli, D., Harrington, C., Kolanowski, A. and Mueller, C.A. (2021) Expert nurse response to workforce recommendations made by The Coronavirus Commission For Safety And Quality In Nursing Homes. *Nursing Outlook,* 69(5), 735-743.

Barnett, M.L., and Grabowski, D.C. (2020) Nursing homes are ground zero for COVID-19 pandemic. *Paper presented at the JAMA Health Forum,* 1(3). e200369. doi:10.1001/jamahealthforum.2020.0369

Baughman, A.W., Renton, M., Wehbi, N.K., Sheehan, E.J., Gregorio, T.M., Yurkofsky, M., Levine, S., Jackson, V., Pu, C.T. and Lipsitz, L.A. (2021) Building community and resilience in Massachusetts nursing homes during the COVID-19 pandemic. *Journal of the American Geriatric Society, 69*(10), 2716-2721. doi: 10.1111/jgs.17389.

Bethany-Saltikov, J. and McSherry, R. (2016) *How to do a Systematic Literature Review in Nursing Aa step by step guide*. (2nd edition). Open University Press, London.

Birgand, G., Blanckaert, K., Deschanvres, C., Vaudron, A., Loury, P. and King, L. (2021) Testing strategies for the control of COVID-19 in nursing homes: Universal or targeted screening? *Journal of Infection,* 82, 159–198. doi:10.1016/j.jinf.2020.08.002

Blanco-Donoso, L.M., Moreno-Jiménez, J., Amutio, A., Gallego-Alberto, L., Moreno-Jiménez, B. and Garrosa, E. (2021) Stressors, Job Resources, Fear of Contagion, and Secondary Traumatic Stress Among Nursing Home Workers in Face of the COVID-19: The Case of Spain. *Journal of Applied Gerontology*, 40(3), 244-256. doi: 10.1177/0733464820964153.

Bolcato, M., Trabucco Aurilio, M., Di Mizio, G., Piccioni, A., Feola, A., Bonsignore, A., Tettamanti, C., Ciliberti, R., Rodriguez, D. and Aprile, A. (2021) The Difficult Balance between Ensuring the Right of Nursing Home Residents to Communication and Their Safety. *International Journal of Environmental Research and Public Health*, 18, 2484. doi.org/10.3390/ijerph18052484

Borras-Bermejo, B., Martínez-Gómez, X., San Miguel, M., Esperalba, J., Antón, A., Martin, E., Selvi., M., Abadías, M.J., Román, A., Pumarola, T., Campins, M. and Almirante, B. (2020) Asymptomatic SARS-CoV-2 Infection in Nursing Homes, Barcelona, Spain, April 2020. *Emerging Infectious Diseases,* 26(9), 2281-2283. doi.org/10.3201/eid2609.202603

Bowblis, J. and Applebaum, R. (2021) Prevalence of COVID-19 in Ohio Nursing Homes: What's Quality Got to Do with It? *Journal of Aging and Social Policy,* 33, 4-5, 414-430. doi:10.1080/08959420.2020.1824542

Brady, C., Fenton, C., Loughran, O., Hayes, B., Hennessy, M., Higgins, A., Leroi, I., Shanagher, D. and McLoughlin, D.M. (2021) Nursing home staff mental health during the COVID-19 pandemic in the Republic of Ireland. *International Journal of Geriatric Psychiatry,* 37(1), doi: 10.1002/gps.5648. Epub ahead of print. PMID: 34729818.

Brainard, J., Rushton, S., Winters, T. and Hunter, P.R. (2021) Introduction to and spread of COVID-19-like illness in care homes in Norfolk, UK. *Journal of Public Health (Oxf),* 43(2), 228-235. doi: 10.1093/pubmed/fdaa218. PMID: 33367852; PMCID: PMC7798982.

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3 (2), 77-101.

Braun, V. and Clarke, V. (2021) *Thematic Analysis: a Reflexive Approach.* Accessed on April 20th 2021 via https://www.psych.auckland.ac.nz/en/about/thematic-analysis.html

Braun, V. and Clarke, V. (2022) *Thematic Analysis A Practical Guide*. Sage, Los Angeles.

British Gerontological Society (2020) *COVID-19: Managing the COVID-19 pandemic in care homes for older people.* Accessed 21st December 2021 via: https://www.bgs.org.uk/resources/covid-19-managing-the-covid-19-pandemic-in-care-homes

Brito Fernandes, Ó., Lobo Julião, P., Klazinga, N., Kringos, D. and Marques, N. (2021) COVID-19 Preparedness and Perceived Safety in Nursing Homes in Southern Portugal: A Cross-Sectional Survey-Based Study in the Initial Phases of the Pandemic. *International Journal of Environmental Research and Public Health*, 18, 7983.

Brown, K.A., Jones, A., Daneman, N., Chan, A.K., Schwartz, K.L., Garber, G.E., Costa, A.P. and Stall, N.M. (2021) Association Between Nursing Home Crowding and COVID-19 Infection and Mortality in Ontario, Canada. *JAMA Internal Medicine.* 181, 229. doi:10.1001/jamainternmed.2020.6466

Burke-Johnson., R and Onwuegbuzie, A.J. (2004) Mixed Methods Research: A Research Paradigm Whose Time Has Come. *American Educational Research Association*. Accessed August 12th 2021 via https://www.researchgate.net/profile/R-Johnson-10/publication/225083749_Mixed_Methods_Research_A_Research_Paradigm_Whose_Time_Has_Come/links/5740a51f08aea45ee847c3f7/Mixed-Methods-Research-A-Research-Paradigm-Whose-Time-Has-Come.pdf

Canevelli, M., Bruno, G., and Cesari, M. (2020) Providing Simultaneous COVID-19-sensitive and Dementia-Sensitive Care as We Transition from Crisis Care to Ongoing Care. *Journal of the American Medical Directors Association,* 21(7), 968–969. doi.org/10.1016/j.jamda.2020.05.025

Caulfield, J. (2020) *How to do thematic analysis.* Accessed 15th April 2021 via https://www.scribbr.com/methodology/thematic-analysis/

Central Statistics Office (CSO) (2016) *Census of Population 2016 - Profile 3 An Age Profile of Ireland.* CSO, Dublin.

Central Statistics Office (CSO) (2021a) *COVID-19 Deaths and Cases, Series 38*. Accessed Jan 14th 2021 via https://www.cso.ie/en/releasesandpublications/br/b-cdc/covid-19deathsandcasesseries38/

Central Statistics Office (CSO) (2021) *COVID Deaths and Cases, Series 27.* Accessed April 2nd 2021 via https://www.cso.ie/en/releasesandpublications/br/b-cdc/COVID-19deathsandcasesseries27/

Chang, R. (2020) Govt To Send 'Rapid Response Teams' To COVIDHit Nursing Homes. *TBSeFM News.* http:// tbs.seoul.kr/eFm/newsView.do?typ_800=Pandidx_800=34171 10andseq_800=

Chen, A.T., Ryskina, K.L., Jung, H.Y. (2020) Long-Term Care, Residential Facilities, and COVID-19: An Overview of Federal and State Policy Responses. *Journal of the American Medical Directors Association (JAMDA),* 21(9), 1186-1190

Chow, L. (2021) Care homes and COVID-19 in Hong Kong: how the lessons from SARS were used to good effect. *Age and Ageing,* 50(1), 21-24. doi: 10.1093/ageing/afaa234. PMID: 33035300; PMCID: PMC7665295.

Clarke, V. and Braun, V. (2018) Using thematic analysis in counselling and psychotherapy research: A critical reflection, *Counselling and Psychotherapy Research,* 18, 107-110. https://doi.org/10.1002/capr.12165

Cohen, J., and Rodgers, Y. (2020) Contributing factors to personal protective equipment shortages during the COVID-19 pandemic. *Preventive Medicine,* 141, 106263. doi.org/10.1016/j.ypmed.2020.106263

Comas-Herrera, A., Zalakaín, J., Lemmon, E., Henderson, D., Litwin, C., Hsu, A.T., Schmidt, A.E., Arling, G., Kruse, F. and Fernández, J-L. (2020) Mortality associated with COVID-19 in care homes: international evidence. Article in LTCCOVID.org, *International Long-Term Care Policy Network,* CPEC-LSE, 1st February 2021

Comas-Herrera, A., Zalakaín, J., Litwin, C., Hsu, A.T., Lane, N., and Fernández, J.L. (2020) Mortality associated with COVID-19 outbreaks in care homes: early international evidence. *LtcCOVID. Org. International Long-Term Care Policy Network,* 1–6. Access 21st January 2021 via https://ltccovid.org/wp-content/uploads/2020/06/Mortality-associated -with-COVID-21-May-3.pdf

Cooper, E., Spilsbury, K., McCaughan, D., Thompson, C., Butterworth, T. and Hanratty, B. (2017) Priorities for the professional development of registered nurses in nursing homes: a Delphi study, *Age and Ageing,* 46(1), 39-45. doi.org/10.1093/ageing/afw160

COVIDence (n.d) Available at https://www.COVIDence.org/

Craig, L., Haloub, R., Reid, H., Masson, D., Mccalmont, H., Fodey, K., Conway, B.R., Lattyak, W.J., Lattyak, E.A., Bain, A., Al-Azzam, S. and Aldeyab, M.A. (2021) Exploration of the Experience of Care Home Managers of COVID-19 Vaccination Programme Implementation and Uptake by Residents and Staff in Care Homes in Northern Ireland. *Vaccines,* 9, 1160. doi:10.3390/vaccines9101160

Crowe, M. (2013) Crowe Critical Appraisal Tool (CCAT) User Guide Version 1.4 Accessed 12th May 2021 via https://conchra.com.au/wp-content/uploads/2015/12/CCAT-user-guide-v1.4.pdf

Davidson, P.M., Szanton, S.L., (2020) Nursing homes and COVID-19: We can and should do better. *Journal of Clinical Nursing,* 29, 2758–2759. doi:10.1111/jocn.15297

Department of Health (2020) *Overview of the Health System Response to date Long-term residential healthcare settings.* DoH, Dublin.

Department of Health (2021) *COVID-19 Nursing Homes Expert Panel Recommendations Third Progress Report.* Houses of the Oireachtas, Dublin.

Department of Health (DoH) and National Public Health Emergency Team (NPHET) (2020) *Overview of the Health System Response to date: Long-term residential healthcare setting.* Department of Health Accessed May 5th 2021 via http://hdl.handle.net/10147/627723

Department of Health Northern Ireland (2020) The Rapid Learning Initiative into the Transmission of COVID- into and within Care Home in Northern Ireland Report of the Task and Finish Group. Accessed May 15th 2021 via https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-rli-task-finish-group.pdf

d'Ettorre, G., Ceccarelli, G., Santinelli, L., Vassalini, P., Innocenti, G. P., Alessandri, F., Koukopoulos, A. E., Russo, A., d'Ettorre, G., and Tarsitani, L. (2021) Post-Traumatic Stress Symptoms in Healthcare Workers Dealing with the COVID-19 Pandemic: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18(2), 601. https://doi.org/10.3390/ijerph18020601

Dykgraaf, S.H., Matenge, S., Desborough, J., Sturgiss, E., Dut, G., Roberts, L., McMillan, A., and Kidd, M. (2021). Protecting Nursing Homes and Long-Term Care Facilities From COVID-19: A Rapid Review of International Evidence. *Journal of the American Medical Directors Association,* 22(10), 1969–1988. https://doi.org/10.1016/j.jamda.2021.07.027

Drennan, J. (2003) Cognitive interviewing: verbal data in the design and pretesting of questionnaires. *Journal of Advanced Nursing,* 42(1),57-63. doi: 10.1046/j.1365-2648.2003.02579.x. PMID: 12641812

Dunnion, M. (2020) *Special Committee on COVID-19 Response debate -Tuesday, 26 May 2020.* Accessed September 12th 2021 via https://www.oireachtas.ie/en/debates/debate/special_committee_on_COVID-19_response/2020-05-26/4/

Endnote (n.d) Available at https://endnote.com/

España, P.P., Bilbao, A., García-Gutiérrez, S., Lafuente, I., Anton-Ladislao, A., Villanueva, A., Uranga, A., Legarreta, M.J., Aguirre, U. and Quintana, J.M. (2021) COVID-19-Osakidetza Working group. Predictors

of mortality of COVID-19 in the general population and nursing homes. *Internal and Emergency Medicine,* 16(6), 1487-1496. doi: 10.1007/s11739-020-02594-8. Epub 2021 Jan 5. PMID: 33400164; PMCID: PMC7783294.

Estévez-Abe, M. and Ide, H. (2021) *COVID-19 and Japan's Long-Term Care System. LTCCOVID.org, International Long-Term Care Policy Network, CPEC-LSE, February 27, 2021.* Accessed December 5th 2021 via https://ltcCOVID.org/2021/03/12/new-report-COVID-19-and-the-long-term-care-system-in-japan/#:~:text=Key%20findings%3A,Europe%20and%20the%20United%20States.

European Centred for Disease Prevention and Control (ECDC) (2020) *Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK.* Accessed 12th May 2021 via https://www.ecdc.europa.eu/sites/default/files/documents/Increase-fatal-cases-of-COVID-19-among-long-term-care-facility-residents.pdf

Fallon, A., Dukelow, S.P., Kennelly S.P. and O'Neill, D. (2020) COVID-19 in nursing homes. *QJM: An International Journal of Medicine,* 113(6), 391-392.

Frahsa, A., Altmeier, D., John, J.M., Gropper, H., Granz, H., Pomiersky, R., Haigis, D., Eschweiler, G. W., Nieß, A.M., Sudeck, G., and Thiel, A. (2020) "I Trust in Staff's Creativity"-The Impact of COVID-19 Lockdowns on Physical Activity Promotion in Nursing Homes Through the Lenses of Organizational Sociology. *Frontiers in Sports and Active Living,* 2, 589214. Doi.org/10.3389/fspor.2020.589214

Frazer, K., Mitchell, L., Stokes, D., Lacey, E., Crowley, E., Kelleher, C. (2020) A rapid systematic review of measures to protect older people in long term care facilities from COVID-19. medRxiv *BMJ* (preprint), doi: https://doi.org/10.1101/2020.10.29.20222182.

Fritch, W.M., Agnew, J., Rosman, L., Cadorette, M.A. and Barnett, D.J. (2021) Application of the Haddon matrix to COVID-19 prevention and containment in nursing homes. *Journal of the American Geriatric Society,* 69(10), 2708- 2715. doi.org/10.1111/jgs.17358

Gadbois, E.A., Brazier, J.F., Meehan, A., Grabowski, D.C., and Shield, R.R. (2021). "I don't know how many nursing homes will survive 2021": Financial sustainability during COVID-19. *Journal of the American Geriatrics Society,* 69(10), 2785–2788. doi.org/10.1111/jgs.17380

Gallagher, C. and Kennedy, K. (2003) The Training Implications of a Social Care Approach to Working with Older People. *Irish Journal of Applied Social Studies,* 4(1), 21-36. doi:10.21427/D7B43T

General Data Protection Regulations (2018) Accessed September 12th, 2020 via https://gdpr-info.eu/

Gerst-Emerson K. and Jayawardhana J. (2015) Loneliness as a public health issue: The impact of loneliness on health care utilization among older adults. *American Journal of Public Health,* 105, 1013-1019.

Gharibian Adra, M., Aharonian, Z., Sibai, A.M. (2019) Exploring resident-staff relationships in nursing homes in Lebanon. *International Journal of Qualitative Studies on Health and Well-being,* 14(1), 1688605. doi: 10.1080/17482631.2019.1688605. PMID: 31713467; PMCID: PMC6853206.

Gibson, D.M. and Greene, J. (2020) State Actions and Shortages of Personal Protective Equipment and Staff in U.S. *Nursing Homes. Journal of the American Geriatric Society,* 68, 2721-2726. doi.org/10.1111/jgs.16883

Gilbert, G.L. (2020) COVID-19 in a Sydney nursing home: a case study and lessons learnt. *Medical Journal of Australia,* 213(9), 393-396 e1

Gilissen, J., Pivodic, L., Wendrich-van Dael, A., Gastmans, C., Vander Stichele, R., Van Humbeeck, L., Deliens, L. and Van den Block, L. (2019) Implementing advance care planning in routine nursing home care: The development of the theory-based ACP+ program. *PloS one,* 14(10), e0223586. doi.org/10.1371/journal.pone.0223586

Giri, L.M. Chenn and Romero-Ortuno, R. (2021) Nursing homes during the COVID-19 pandemic: a scoping review of challenges and responses. *European Geriatric Medicine.* doi: 10.1007/s41999-021-00531-2

Government of Ireland (2007) *Health Act (as amended). Irish Statute Book.* Accessed October 20 2021 via https://www.irishstatutebook.ie/eli/2007/act/23/enacted/en/html

Government of Ireland (2021) *Vaccinations.* Accessed September 12th 2021 via https://COVID-19.geohive.ie/pages/vaccinations

Gray-Miceli, D., Rogowski, J., de Cordova, P. and Boltz, M. (2021) *A framework for delivering nursing care to older adults with COVID-19 in nursing homes. Public Health Nursing,* 38. 10.1111/phn.12885.

Gugliotta, C., Gentili, D., Marras, S., Dettori, M., Muglia, P.P., Desole, M.G., Acciaro, M., Bellu, S., Azara, A., Castiglia, P. (2021) SARS-CoV-2 Epidemics in Retirement and Nursing Homes in Italy: A New Preparedness Assessment Model after the First Epidemic Wave. *International Journal of Environmental Research and Public Health,* 18, 5712. doi.org/10.3390/ijerph18115712

Harrington, C., Ross, L., Chapman, S., Halifax, E., Spurlock B. and Bakerjian D. (2020) Nurse Staffing and Coronavirus Infections in California Nursing Homes. *Policy, Politics, and Nursing Practice,* 21(3), 174-186. doi:10.1177/1527154420938707

Harrison, K.L., Adrion, E.R., Ritchie, C.S., Sudore, R.L. and Smith, A.K. (2016) Low Completion and Disparities in Advance Care Planning Activities Among Older Medicare Beneficiaries. *JAMA Internal Medicine,* 176(12), 1872-1875. doi: 10.1001/jamainternmed.2016.6751. PMID: 27802496; PMCID: PMC5304942.

Harrison, J., Berry, S., Mor, V., and Gifford, D. (2021) "Somebody Like Me": Understanding COVID-19 Vaccine Hesitancy among Staff in Skilled Nursing Facilities. *Journal of the American Medical Directors Association,* 22(6), 1133–1137. doi.org/10.1016/j.jamda.2021.03.012

Hasmuk K, Sallehuddin H, Tan MP, Cheah WK, Rahimah I, Chai ST (2020) The Long-Term Care COVID-19 Situation in Malaysia. LTCCOVID.org, *International Long-Term Care Policy Network,* CPEC-LSE, 5 July.

Health and Safety Authority (2021) *Reporting of Covid-19 cases.* Accessed 14th January 2021 via https://www.hsa.ie/eng/topics/covid-19_coronavirus_information_and_resources/covid-19_guidance_and_advice/guidance_and_advice/covid_19_%E2%80%93_faq_s_and_advice_for_employers_and_employees/reporting_of_covid-19_cases.html

Health in Aging Foundation (2020) *Nursing Homes*. Access: https://www.healthinaging.org/age-friendly-healthcare-you/care-settings/nursing-homes#:~:text=Length%20of%20Stayandtext=About%20half%20of%20residents%20spend,stay%20for%20a%20longer%20time.

Health Information and Quality Authority (HIQA) (2020a) Overview report on the regulation of designated centres for older persons – 2019. HIQA, Dublin.

Health Information and Quality Authority (2020b) *Regulatory response by HIQA and the Chief Inspector of Social Services to COVID-19 (2).* Accessed October 20th 2021 via https://www.hiqa.ie/hiqa-news-updates/regulatory-response-hiqa-and-chief-inspector-social-services-COVID-19-2

Health Information and Quality Authority (2020c) *The impact of COVID-19 on nursing homes in Ireland.* HIQA, Dublin.

Health Information Quality Authority (2020d) *Rapid review of public health guidance for residential care facilities in the context of COVID-19. Health Information and Quality Authority.* Accessed 2nd May 2021 via https://www.hiqa.ie/sites/default/files/2021-03/Rapid-review-of-public-health-guidance-for-residential-care-facilities-in-the-context-of-COVID-19.pdf

Health Information Quality Authority and Health Protection Surveillance Centre (HPSC) (2021) *Analysis of factors associated with outbreaks of SARS-CoV-2 in nursing homes in Ireland.* Accessed October 21st 2021 via https://www.hiqa.ie/reports-and-publications/health-technology-assessment/factors-associatedoutbreaks-sars-cov-2

Health Protection Surveillance Centre (2020) *Interim Public Health, Infection Prevention and Control Guidelines on the Prevention and Management of COVID-19 Cases and Outbreaks in Residential Care Facilities.* Accessed October 12 2021 via: https://www.hpsc.ie/az/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolg uidance/residentialcarefacilities/.

Health Protection Surveillance Centre (2021) *Public Health and Infection Control Guidelines on the Prevention and Management of Cases and Outbreaks of COVID-19, Influenza and other Respiratory Infections in Residential Care Facilities.* Accessed November 12th 2021 via: https://www.hpsc.ie/a-

Health Protection Surveillance Centre (2022a) *Weekly report on COVID-19 death reported in Ireland.* Accessed 17th January 2022 via: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/surveillance/weeklyreportoncovid-19deathsreportedinireland/COVID-19_Weekly_Death_Report_Website_v1.6_v0.2.pdf

Health Protection Surveillance Centre (2022b) *COVID-19: Normalising Visiting in Long Term Residential Care Facilities (LTRCFs) V 1.3 04.01.2022 For implementation January 10th 2022.* Accessed 17th January 2022 via: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/resid entialcarefacilities/Normalising%20visiting%20in%20LTRCF.pdf

Health Protection Surveillance Centre (2022c) *COVID-19: Normalising Access in Long Term Residential Care Facilities (LTRCFs) For implementation on 8th February.* 2022. Accessed February 4th 2022 via: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/resid entialcarefacilities/Normalising%20visiting%20in%20LTRCF.pdf

Health Protection Surveillance Centre (2022d) *COVID-19: Interim Public Health guidance for the management of COVID-19 outbreaks.* Accessed 17th January 2022 via https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/outbreakmanagementguidance/COVID%20HP %20Outbreak%20Plan.pdf

Health Service Executive (2021) *COVID-19: Normalising Visiting in Long Term Residential Care Facilities (LTRCFs).* HSE, Dublin.

Health Service Executive (2020) *Guidance on Transfer of Hospitalised Patients from an Acute Hospital to a Residential Care Facility in the Context of COVID-19*. HSE, Dublin.

Heid, A. R., Cartwright, F., Wilson-Genderson, M., and Pruchno, R. (2021) Challenges Experienced by Older People During the Initial Months of the COVID-19 Pandemic, *Gerontologist*, 61(1), 48-58. DOI: https://doi.org/10.1093/geront/gnaa138

Hennelly, N. and Cahill, S. (2020) *The impact of COVID-19 on people living with dementia in Ireland. Report available at LTCCOVID.org, International Long-Term Care Policy Network, CPEC-LSE, 2 June 2020.* Accessed August 20th 2020 via https://ltcCOVID.org/wp-content/uploads/2020/08/International-report-on-the-impact-of-COVID-19-on-people-living-with-dementia-19-August-2020.pdf

Houses of the Oireachtas (2020) *Interim Report on COVID-19 in Nursing Homes Special Committee on COVID-19 Response.* Accessed August 29th 2021 via https://data.oireachtas.ie/ie/oireachtas/committee/dail/33/special_committee_on_COVID_19_resp onse/reports/2020/2020-07-31_interim-report-on-COVID-19-in-nursing-homes_en.pdf

Iaboni, A., Cockburn, A., Marcil, M., Rodrigues, K., Marshall, C., Garcia, M. A., Quirt, H., Reynolds, K. B., Keren, R., and Flint, A. J. (2020) Achieving Safe, Effective, and Compassionate Quarantine or Isolation of Older Adults with Dementia in Nursing Homes. *The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry,* 28(8), 835-838. doi.org/10.1016/j.jagp.2020.04.025

Institute for Healthcare Improvement (2020) *"Psychological PPE": Promote health care workforce mental health and well-being.* Accessed November 12th 2021 via http://www.ihi.org/resources/Pages/Tools/psychological-PPE-promote-health-care-workforce-mental-health-and-well-being.aspx.

Irish Human Rights and Equality Commission (2020) *The Impact of COVID-19 on People with Disabilities Submission by the Irish Human Rights and Equality Commission to the Oireachtas Special Committee on COVID-19 Response.* IHREC, Dublin.

John Hopkins University Coronavirus Resource Centre (20212) *COVID data in motion.* Accessed January 4th 2022 via https://coronavirus.jhu.edu/

Jones, K. M., Mantey, J., Mills, JP., Montoya, A., Min, L., Gibson, K., Mody, L. (2020) Research COVID-19 Preparedness in Michigan Nursing Homes. *Journal of the American Geriatrics Society*, 68 (5), 937-939. doi: 10.1111/jgs.16490.

Kucharski, A. (2020) *The Rules of Contagion.* Profile Books, London.

Kelleher, C., Doherty, B., Donnelly, P and Twomey, C. l. (2020) *COVID-19 Nursing Homes Expert Panel Examination of Measures to 2021, Report to the Minister for Health Dublin.* Department of Health, Dublin.

Kimball, A., Hatfield, K.M., Arons, M., James, A., Taylor, J., Spicer, K., Bardossy, A.C., Oakley, L.P., Tanwar, S., Chisty, Z., Bell, J.M., Methner, M., Harney, J., Jacobs, J.R., Carlson, C.M., McLaughlin, H.P., Stone, N., Clark, S., Brostrom-Smith, C., Page, L.C., Kay, M., Lewis, J., Russell, D., Hiatt, B., Gant, J., Duchin, J.S., Clark, T.A., Honein, M.A., Reddy, S.C., Jerigan, J.A. (2020) Public Health–Seattle and King County and CDC COVID-19 Investigation Team (2020) Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility- King County, Washington. *MMWR Morbidity and Mortal Weekly Reports,* 69, 377–381. doi.org/10.15585/mmwr.mm6913e1

Ladhani, S. N., Chow, J. Y., Janarthanan, R., Fok, J., Crawley-Boevey, E., Vusirikala, A., Fernandez, E., Perez, M. S., Tang, S., Dun-Campbell, K., Wynne-Evans, E., Bell, A., Patel, B., Amin-Chowdhury, Z., Aiano, F., Paranthaman, K., Ma, T., Saavedra-Campos, M., Myers, R., Ellis, J., Lackenby, A., Gopal, R., Patel, M., Chand, M., Brown, K., Hopkins, S., CoG Consortium, Shetty, N., Zambon, M., Ramsey, M.E. and the London Care Home Investigation Team (2020) Increased risk of SARS-CoV-2 infection in staff working across different care homes: enhanced COVID-19 outbreak investigations in London care Homes. *The Journal of Infection,* 81(4), 621–624. https://doi.org/10.1016/j.jinf.2020.07.027

Lao, S.S.W., Low, L.P.L. and Wong, K.K.Y. (2019) Older residents' perceptions of family involvement in residential care. *International Journal of Qualitative Studies in Health and Wellbeing,* 14, 1611298. doi: 10.1080/17482631.2019.1611298

Li, Y., Temkin-Greener, H., Shan, G. and Cai, X. (2020) COVID-19 infections and deaths among Connecticut nursing home residents: facility correlates. *Journal of the American Geriatric Society*, 68(9), 1899–1906. doi. org/10. 1111/ jgs. 16689

Liu, Q., Xu, K., Wang, X., and Wang, W. (2020) From SARS to COVID-19: What lessons have we learned? *Journal of Infection and Public Health,* 13(11), 1611–1618. https://doi.org/10.1016/j.jiph.2020.08.001

Lincoln, Y.S., and Guba, E.G. (1985) *Naturalistic inquiry.* Sage Publications, California.

Lipsitz, L.A., Lujan, A.M., Dufour, A., Abrahams, G., Magliozzi, H., Herndon, L. and Dar, M. (2020) Stemming the Tide of COVID -19 Infections in Massachusetts Nursing Homes. *Journal of the American Geriatrics Society,* 68, 2447–2453. doi:10.1111/jgs.16832

Loomer, L., Grabowski, D.C., Huizi, Y. and Gandhi, A. (2021) Association between nursing home staff turnover and infection control citation, *Health Services Research,* doi.org/10.1111/1475-6773.13877

Lum, T., Shi, C., Wong, G. and Wong, K. (2020) COVID-19 and Long-Term Care Policy for Older People in Hong Kong. *Journal of Aging and Social Policy,* 32, 4-5,373-379, doi: 10.1080/08959420.2020.1773192

Martínez-López, J.Á., Lázaro-Pérez, C. and Gómez-Galán, J. (2021) Burnout among Direct-Care Workers in Nursing Homes during the COVID-19 Pandemic in Spain: A Preventive and Educational Focus for Sustainable Workplaces. *Sustainability,* 13, 2782. doi.org/10.3390/su13052782

Matthews, F.E., Bennett, H, Wittenberg, R., Jagger, C., Dening, T., Brayne, C. (2016). Who lives where and does it matter? Changes in the health profiles of older people living in long term care and the community over two decades in a high-income country. *PLoS One,* 11, e0161705.

McGarry, B.E., Grabowski, D.C. and Barnett, M.L. (2020) Severe staffing and personal protective equipment shortages faced by nursing homes during the COVID-19 pandemic. *Health Affairs,* 39(10). doi. org/ 10. 1377/ hltha ff. 2020. 01269

Miller, V.J., Fields, N.L., Anderson, K.A., Kusmaul, N. and Maxwell, C. (2020) Nursing Home Social Workers Perceptions of Preparedness and Coping for COVID-19, *Journal of Gerontology B Psychological Science and Social Science,* 1–6   doi:10.1093/geronb/gbaa143

Miller, E.A., Simpson, E., Nadash, P. and Gusmano, M. (2021) Thrust into the Spotlight: COVID-19 Focuses Media Attention on Nursing Homes. *The Journals of Gerontology: Series B,* 76(4), e213–e218. doi.org/10.1093/geronb/gbaa103

Mills, J.P., Kaye, K.S. and Mody, L. (2020) COVID-19 in older adults: clinical, psychosocial, and public health considerations. *JCI Insight,* 5. doi: 10.1172/jci.insight.139292

Mo, S. and Shi, J. (2020) The Psychological Consequences of the COVID-19 on Residents and Staff in Nursing Homes. *Work, Aging and Retirement,* 6 (4), 254–259. doi:10.1093/workar/waaa02.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. (2009) Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *British Medical Journal,* 339: b2535 doi: https://doi.org/10.1136/bmj.b2535

Montoya, A., Jenq, G., Mills, J.P., Beal, J., Diviney-Chun, E., Newton, D., Gibson, K., Mantey, J., Hurst, K., Jones, K. and Mody, L. (2021) Partnering with Local Hospitals and Public Health to Manage COVID-19 Outbreaks in Nursing Homes. *Journal of the American Geriatrics Society,* 69, 30-36.

Morichi, V., Fedecostante, M., Morandi, A., Di Santo, S.G., Mazzone, A., Mossello, E., Bo, M., Bianchetti, A., Rozzini, R., Zanetti, E., Musicco, M., Ferrari, A., Ferrara, N., Trabucchi, M., Cherubini, A., Bellelli, G. (2018) Italian Study Group on Delirium. A Point Prevalence Study of Delirium in Italian Nursing Homes. *Dementia and Geriatric Cognitive Disorders,* 46(1-2), 27-41. doi: 10.1159/000490722. Epub 2018 Aug 9. PMID: 30092581.

Mueller, A.L., McNamara, M.S., Sinclair, D.A. (2020) Why does COVID-19 disproportionately affect older people? *Aging (Albany NY),* 12(10), 9959-9981. doi: 10.18632/aging.103344.

NHI (2020) *Oireachtas Special Committee on COVID-19 Response NHI response to request for submission 15th June.* Accessed March 21st 2021 via https://data.oireachtas.ie/ie/oireachtas/committee/dail/33/special_committee_on_COVID_19_response/submissions/2020/2020-07-27_submission-nursing-homes-ireland-scc19r-r-0354d_en.pdf

National Centre for Health Statistics (2021) *Weekly Updates by Select Demographic and Geographic Characteristics.* Accessed 20th October 2021 via https://www.cdc.gov/nchs/nvss/vsrr/COVID_weekly/index.htm#SexAndAge

Nyashanu, M., Pfende, F., Ekpenyong, M. (2020) Exploring the challenges faced by frontline workers in health and social care amid the COVID-19 pandemic: experiences of frontline workers in the English Midlands region, UK. *Journal of Interprofessional Care,* 34(5), 655-661. doi: 10.1080/13561820.2020.1792425.

O'Caoimh, R., O'Donovan, M.R., Monahan. M.P., Dalton O'Connor, C., Buckley, C., Kilty, C., Fitzgerald, S., Hartigan, I. and Cornally, N. (2020) Psychosocial Impact of COVID-19 Nursing Home Restrictions on Visitors of Residents With Cognitive Impairment: A Cross-Sectional Study as Part of the Engaging Remotely in Care (ERiC) Project. *Frontiers in Psychiatry,* 11, 1-9.

Office for National Statistics (2020) *Deaths Registered Weekly in England and Wales.* Accessed 3th April 2021 via https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales

Oppenheim, B. and Stephenson S. (2021) *The Next Pandemic Could Come Soon and Be Deadlier.* Accessed 30th November via https://www.cgdev.org/blog/the-next-pandemic-could-come-soon-and-be-deadlier

Ombudsman (2021) *Wasted lives*. Office of the Ombudsman, Dublin.

Ouslander, J.G. and Grabowski, D.C., 2020. COVID -19 in Nursing Homes: Calming the Perfect Storm. *Journal of the American Geriatrics Society*, 68, 2153-2162. doi:10.1111/jgs.16784.

Perrotta, F., Corbi, G., Mazzeo, G., Boccia, M., Aronne, L., D'Agnano, V., Komici, K., Mazzarella, G., Parrella, R., Bianco, A. (2020) COVID-19 and the elderly: insights into pathogenesis and clinical decision-making. *Aging Clinical and Experimental Research,* 32 (8), 1599-1608, doi: 10.1007/s40520-020-01631-y.

Phelan, A. (2021) *Email regarding physical infrastructure in nursing homes from Carol Grogan.* HIQA. 18/11/21.

Phelan, A., Daly L., and Keogh B. (2021) *Exploring Older People's Experiences of Shielding During the COVID-19 Pandemic.* School of Nursing and Midwifery Trinity College Dublin, Dublin.

Pierce, M. and Pierse, T. (2017) Prevalence of dementia. In Cahill, S. and Pierce, M. (eds.) *Developing and Implementing Dementia Policy in Ireland.* National University of Ireland Galway, Galway.

Pierce, M., O'Shea, E. and Carney, P. (2019) Estimates of the prevalence, incidence and severity of dementia in Ireland. *Irish Journal of Psychological Medicine*, 36, 129-137.

Prince, M., Knapp, M., Guerchet, M., McCrone, P., Prina, M., Comas-Herrera, A., Wittenberg, R., Adelaja, B., Hu, B., King, D., Rehill, A. and Salimkumar, D. (2014) *Dementia UK: Update Second Edition report.* King's College London and the London School of Economics for the Alzheimer's Society, London.

Quigley, D.D., Dick, A., Agarwal, M., Jones, K.M., Mody, L., and Stone, P.W. (2020) COVID-19 Preparedness in Nursing Homes in the Midst of the Pandemic. *Journal of the American Geriatrics Society,* 68(6), 1164–1166. doi.org/10.1111/jgs.16520

Quigley, D.D., Dick, A., Jones, K.M., Mody, L., Stone, P.W. (2020) COVID-19 Preparedness in Nursing Homes in the Midst of the Pandemic. *Journal of the American Geriatrics Society,* 68(6), 1164-1166.

Qualtrics (2020) *Provo, UT. Version: January-February 2020.* Available online at: https://www.qualtrics.com

Rajan, S. and Mckee, M. (2020) *Learning from the impacts of COVID-19 on care homes: a pilot survey*. L LTCCOVID, International Long-Term Care Policy Network, CPEC-LSE, London.

Reber, S. and Kosar, C. (2021) *Vaccine hesitancy in nursing homes isn't all politics.* Accessed November 1st 2021 via https://www.brookings.edu/research/vaccine-hesitancy-in-nursing-homes-isnt-all-politics/

Regnault, A., Willgoss, T., Barbic, S. on behalf of the International Society for Quality of Life Research Mixed Methods Special Interest Group. (2018) Towards the use of mixed methods inquiry as best practice in health outcomes research. *Journal of Patient Reported Outcomes,* 2, 19 https://doi.org/10.1186/s41687-018-0043-8

Richards, L. (2021) *Handling Qualitative Data. A Practical Guide.* Sage, Los Angeles.

Riello, M., Purgato, M., Bove, C., MacTaggart, D. and Rusconi, E. (2020) Prevalence of post-traumatic symptomatology and anxiety among residential nursing and care home workers following the first COVID-19 outbreak in Northern Italy. *Royal Society Open Science*, 7, 200880. doi.org/10.1098/rsos.200880

Rocca, W.A., Grossardt, B.R., Boyd, C.M., Chamberlain, A.M., Bobo, W.V., St Sauver, J.L., (2021) Multimorbidity, ageing and mortality: normative data and cohort study in an American population. *British Medical Journal Open,* 11, e042633.. doi:10.1136/bmjopen-2020-042633

Romero-Ortuño, R. and Kennelly, S. (2020) *COVID-19 deaths in Irish Nursing Homes: exploring variation and association with the adherence to national regulatory quality standards.* LTCCOVID.org, International Long-Term Care Policy Network, CPEC-LSE, 1 June 2020

Roschel, H., Artioli, G.G., and Gualano, B. (2020) Risk of Increased Physical Inactivity During COVID-19 Outbreak in Older People: A Call for Actions. *Journal of the American Geriatric Society,* 68, 1126-1128.

Roy, J., Jain, R., Golamari, R., Vunnam, R., and Sahu, N. (2020) COVID-19 in the Geriatric Population, *International Journal of Geriatric Psychiatry*, 35(12), 1437-1441. DOI: https://doi.org/10.1002/gps.5389

Ryoo, N., Pyun, J. M., Baek, M. J., Suh, J., Kang, M. J., Wang, M. J., Youn, Y. C., Yang, D. W., Kim, S. Y., Park, Y. H., and Kim, S. (2020) Coping with Dementia in the Middle of the COVID-19 Pandemic. *Journal of Korean Medical Science,* 35(42), e383. https://doi.org/10.3346/jkms.2020.35.e383

Safeguarding Ireland and the Health Information and Quality Authority (2019) *Guidance on a Human Rights-based Approach in Health and Social Care Services.* HIQA, Dublin.

Schram, M.T., Frijters, D., Lisdonk, E.H. van de, Ploemacher, J., Craen, A.J.M. de, Waal, M.W.M. de, Rooij, F.J. van, Heeringa, J., Hofman, A., Deeg, D.J.H., Schellevis, F.G. (2008) Setting and registry characteristics affect the prevalence and nature of multimorbidity in the elderly. *Journal of Clinical Epidemiology,* 2008, 61(11), 1104-1112.

Scopetti, M., Santurro, A., Tartaglia, R. , Frati , P. Fineschi , V. (2021) Expanding frontiers of risk management: care safety in nursing home during COVID-19 pandemic. *International Journal of Quality in Health Care,* 33(1), mzaa085. doi: 10.1093/intqhc/mzaa085. PMID: 32720688; PMCID: PMC7454587.

See I, Paul P, Slayton RB, Steele MK, Stuckey MJ, Duca L, Srinivasan A, Stone N, Jernigan JA, Reddy SC. Modeling Effectiveness of Testing Strategies to Prevent Coronavirus Disease 2019 (COVID-19) in Nursing Homes-United States, 2020. *Clinical Infectious Diseases,* 73(3):e792-e798. doi: 10.1093/cid/ciab110. PMID: 33564862; PMCID: PMC7929046.

Sepúlveda-Loyola, W., Rodríguez-Sánchez, I., Pérez- Rodríguez, F., Ganz, F., Torrable, R., Oliveira, D.V. and Rodríguez-Manas (2020) Impact of Social Isolation due to COVID-19 on Health in Older People: Mental and Physical Effects and Recommendations, *Journal of Nutrition, Health and Ageing,* 24(9), 938-947. doi.10.1007/s12603-020-1469-2

Shenjiang, M. and Junqi, S. (2020) The Psychological Consequences of the COVID-19 on Residents and Staff in Nursing Homes. *Work, Aging and Retirement,* 6(4), 254-259. doi.org/10.1093/workar/waaa021

Shorten, A., Smith J. (2017) Mixed methods research: expanding the evidence base. *Evidence-Based Nursing*, 20, 74-75.

Siu, H.YH., Kristof, L., Elston, D., Hafid, A. and Mather, F. (2020) A cross-sectional survey assessing the preparedness of the long-term care sector to respond to the COVID-19 pandemic in Ontario, Canada. *BMC Geriatrics,* 20(421), 1-9. doi.org/10.1186/s12877-020-01828-w

Solanki, T. (2020) Atypical COVID-19 Presentations in Older People – The Need for Continued Vigilance, British Geriatric Society, Accessed February 12th 2021 via https://www.bgs.org.uk/blog/atypical-COVID-19-presentations-in-older-people-%E2%80%93-the-need-for-continued-vigilance

Spilsbury, K., Devi, R., Daffu-O'Reilly, A., Griffiths, A., Haunch, K., Jones, L. and Meyer, J. (2020a) *LESS COVID-19: Learning by Experience and Supporting the Care Home Sector during the COVID-19*

pandemic: Key lessons learnt, so far, by frontline care home and NHS staff. University of Leeds, Leeds. Access: https://ltcCOVID.org/project/less-COVID-19-learning-by-experience-and-supporting-the-care-home-sector-during-the-COVID-19-pandemic-key-lessons-learnt-so-far-by-frontline-care-home-and-nhs-staff-uk/

Spilsbury, K., Devi, R., Griffiths, A. Akrill, C. Anita Astle, A. Goodman, C. Gordon, A. Hanratty, B. Hodkinson, P. Marshall, F., Meyer, J., Thompson, C. (2020b) *SEeking AnsweRs for Care Homes during the COVID-19 pandemic (COVID SEARCH)* Published by Oxford University Press on behalf of the British Geriatrics Society.

Suárez-González, A., Livingston, G., Low, L.F., Cahill, S., Hennelly, N., Dawson, W.D., Weidner, W., Bocchetta, M., Ferri, C.P., Matias-Guiu, J.A., Alladi, S., Musyimi, C.W., Comas-Herrera, A. (2020) *Impact and mortality of COVID-19 on people living with dementia: cross-country report.* LTCCOVID.org, International Long-Term Care Policy Network, CPECLSE, 19 August 2020.

Suñer, C., Ouchi, D., Mas, M.À., Lopez-Alarcon, R., Mesquida, M.M., Prat, N., Bonet-Simó, Izquierdo, I.G., Noguerola, S.R., Colet, M.T., Puigvendrelló, J.V., Henríquez, N., Miralles, R., Negredo, E., Noguera-Julian, M., Marks, M., Estrada, O., Ara, J. and Mitjá, O. (2021) A retrospective cohort study of risk factors for mortality among nursing homes exposed to COVID-19 in Spain. *Nature Aging,* 1, 579–584. https://doi.org/10.1038/s43587-021-00079-7

Szczerbińska, K. (2020) Could we have done better with COVID-19 in nursing homes? *European Geriatric Medicine,* 11, 639-643. https://doi.org/10.1007/s41999-020-00362-7

Taylor, J.M. (2015) Psychometric analysis of the Ten-Item Perceived Stress Scale. *Psychological Assessment,* 27(1), 90-101. doi: 10.1037/a0038100. Epub 2014 Oct 27. PMID: 25346996

Telford , C.T., Onwubiko, U., Holland, D.P., Turner, K., Prieto, J.. Smith, S., Yoon, J., Brown, W., Chamberlain, A., Gandhi, N., Williams, S., Khan, F., Shah, S. (2020) Preventing COVID-19 outbreaks in long-term care facilities through preemptive testing of residents and staff members - Fulton County, Georgia. *Morbidity and Mortality Weekly Report,* 69 (37), 1296-1299. doi: :10.15585/mmwr.mm6937a3.

Terry, G., Hayfield, N., Clarke, V., and Braun, V. (2017) Thematic analysis. In W. Stainton Rogers, and C. Willig (Eds.), *The SAGE Handbook of Qualitative Research in Psychology,* (2nd ed). SAGE Publications, London, pp 17-37.

Thompson, D.C., Barbu, M.G., Beiu, C., Popa, L.G., Mihai, M.M., Berteanu, M., and Popescu, M.N. (2020) The impact of COVID-19 pandemic on long-term care facilities worldwide: An overview on international issues. *BioMed Research International,* 1–7. doi.org/10.1155/2020/8870249

Tulloch, J.S.P., Lawrenson, K., Gordon, A.L., Ghebrehewet, S., Ashton, M., Peddie, S. and Parvulescu, P. (2021) *COVID-19 vaccine hesitancy in care home staff: a survey of Liverpool care homes.* medRxiv. doi:10.1101/2021.03.07.21252972

Tyndall, J (2010) *AACODS Checklist.* Accessed March 15th 2021 via https://dspace.flinders.edu.au/xmlui/bitstream/handle/2328/3326/AACODS_Checklist.pdf?sequence=4

United Nations Office for the Coordination of Humanitarian Affairs (2019) *What is Preparedness?* Accessed 12th April 2021 via https: //www.humanitarianresponse.info/en/coordination/preparedness/what-preparedness

United States Government Accountability Office (2021) *COVID-19 in nursing homes.* Accessed 18th January 2022 via: https://www.gao.gov/assets/gao-21-367.pdf

Usher, K., Durkin, J., Gyamfi, N., Warsini, S. and Jackson, D. (2021) Preparedness for viral respiratory infection pandemic in residential aged care facilities: A review of the literature to inform post-COVID-19 response. *Journal of Clinical Nursing.* doi:10.1111/jocn.15863

Verbeek, H., Gerritsen, D.L., Backhaus, R., de Boer, B.S., Koopmans, R., and Hamers, J. (2020) Allowing Visitors Back in the Nursing Home During the COVID-19 Crisis: A Dutch national study into first experiences and impact on well-being. *Journal of the American Medical Directors Association,* 21(7), 900-904. doi.org/10.1016/j.jamda.2020.06.020

Verity, R., Okell, L.C., Dorigatti, I., Winskill, P., Whittaker, C., Imai, N., Cuomo-Dannenburg, G., Thompson, H., Walker, P.G.T., Fu, H., Dighe, A., Griffin, J. T., Baguelin, M., Bhatia, S., Boonyasiri, A., Cori, A., Cucunubá, Z., FitzJohn, R., Gaythorpe, K., Green, W., Hamlet, A., Hinsley, W., Laydon, D., Nedjati-Gilani, G., Riley, S., van Elsland, S., Volz, E., Wang, H., Wang, Y., Xi, X., Donnelly, C. A., Ghani, A. C., and Ferguson, N.M. (2020) Estimates of the severity of coronavirus disease 2019: A model-based analysis. *The Lancet Infectious Diseases,* 20(6), 669-677. DOI: https://doi.org/10.1016/s1473-3099(20)30243-7

Veronese, N., and Barbagallo, M. (2021) Specific approaches to patients affected by dementia and COVID-19 in nursing homes: the role of the geriatrician. *Ageing Research Reviews*, 69, 101373. doi.org/10.1016/j.arr.2021.101373

Wakefield A (2015) Synthesising the literature as part of a literature review. *Nursing Standard,* 29 (29) 44-51.

Wang, J., Yang, W., Pan, L., Ji, J. S., Shen, J., Zhao, K., Ying, B., Wang, X., Zhang, L., Wang, L., and Shi, X. (2020a) Prevention and control of COVID-19 in nursing homes, orphanages, and prisons. *Environmental Pollution* (Barking, Essex: 1987), 266 (Pt 1), 115161. doi.org/10.1016/j.envpol.2020.115161

Wang, L., Qi, N. Zhou, Y. Zhang, H (2020b) *Prevention and infection control of COVID-19 in Nursing Homes: experience from China.* Published by Oxford University Press for British Geriatrics Society.

Werner, R.M., Hoffman, A.K. and Coe, N.B. (2020) Long-term care policy after COVID-19—solving the nursing home crisis. *New England Journal of Medicine,* 383, 903-905. doi. org/ 10. 1056/ NEJMp 20148 11

West, A., Czypionka, T., Steffen, M., Ettelt, S., Ghislandi, S. and Mateus, C. (2020) Reporting of COVID-19 deaths in Austria, France, Germany, Italy, Portugal and the UK. *Social Policy Working Paper 10-20,* LSE Department of Social Policy, London.

White, E.M., Wetle, T.F., Reddy, A., and Baier, R.R. (2021) Front-line Nursing Home Staff Experiences During the COVID-19 Pandemic. *Journal of the American Medical Directors Association,* 22(1), 199-203. doi.org/10.1016/j.jamda.2020.11.022

Whittemore, R. and Knafl, K. (2005) The integrative review: updated methodology. J*ournal of Advanced Nursing*, 52(5), 546–553.

Wildbore,H., Morrison, D. , Mayhew, D., Emmer De Albuqerque Green, C., McCann, C., Jones, J., Gerrard, N., Rayner, V., Green, M., Parry, C., Purnell, A. Scott, J. Barber, R and Eastman, M. (2022) *Letter to Directors of Public Health, Directors of Adult Social Services, Local Authority Public Health*

Teams, and UKHSA Health Protection Teams. (5th Jan, 2022). Accessed 4th February, 2022 via https://www.shropshirestar.com/news/uk-news/2022/01/05/human-rights-of-elderly-and-disabled-people-not-fairweather-luxuries/

World Health Organization (2017) *A Strategic Framework for Emergency Preparedness.* Accessed October 12th 2021 via http://apps.who.int/ iris/bitstream/10665/254883/1/9789241511827-eng.pdf