CARE HOME REVIEW

A rapid review of factors relevant to the management of COVID-19 in the care home environment in Scotland

A review, commissioned by the Cabinet Secretary for Health and Sport, to make recommendations for systems review and highlight good practice

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EXECUTIVE SUMMARY

Background and summary	The Cabinet Secretary for Health and Sport commissioned this review into the circumstances surrounding the occurrence and transmission of COVID-19 infection within four care homes in Scotland.
	The Terms of Reference required the establishment of high- level recommendations to support quality improvement in the safe management of care for residents within care homes across Scotland.
	The establishment, and process, of this review has taken place within an extraordinary set of circumstances and a timeframe in which events that led to this review are continuous and ongoing; most importantly the context for the review is set against a backdrop of the current world-wide COVID-19 pandemic.
	The context and conditions of measures to limit the spread of the virus in Scotland have been examined in the light of care homes' experiences, to provide meaningful insight into the nature of any systems defects which may have had an impact on the management of infection prevention and control, and to understand the issues and challenges facing Care Homes in this pandemic and beyond.
Description of review team	The review team consisted of three members, all independent of Scottish Government.
	 Professor Jacqui Reilly;(Director of Nursing National Services Scotland (NSS) and Professor of Infection Prevention Control (IPC), Glasgow Caledonian University (GCU) Co-Chair David Crawford; (former Director of Social Work) Co-Chair Professor Donna O'Boyle;(Professional Adviser; regulation Chief Nursing Officers Directorate (CNOD) investigation lead
	Secretariat: Colin McKnight (Scottish Government Policy Manager) Abbie Eddington (Scottish Government Business Manager)
Review timescales	This review was commissioned as a rapid investigation; the parameters of the review included attention to an ongoing pandemic response, therefore in order to apply lessons

learned as soon as was practicable, timescales were truncated.

The review was commissioned on Monday, 12th October, and given the pressing need to identify high level recommendations contained within a report for submission to the Cabinet Secretary for Health, this was expected by Friday, 30th October 2020.

Scope and level of the review

The terms of reference for the review is attached as appendix 1. Key issues to be addressed:

- Understand the characteristics and risk factors of outbreaks in care homes to ensure appropriate clinical and operational guidance can be prepared for the sector.
- Review contributory factors, wider learning, and emerging national and international evidence and make recommendations to inform future practice and local arrangements during phase 2 of this pandemic that will support infection prevention and control across care homes.
- Identify what further actions can be taken at local and national level to support care homes within this context.

A mixed methodology was employed which included a table-top review and analysis of relevant information and data, complemented by interviews with stakeholders using an appreciative inquiry approach.

Sources of information reviewed:

- Care Inspectorate statutory inspection reports
- TURAS Safety Huddle data
- Director of Public Health data returns
- Information and outputs from local Problem Assessment Groups (PAG)/Incident Management Teams (IMT)
- · Lessons learned reports from wave one
- Evidence from peer reviewed published international evidence

Interviews with representatives of:

- Care Home managers and other senior staff
- Care Home Relatives Scotland
- Scottish Care
- Directors of Public Health
- Chair of Oversight Boards
- Chair of Problem Assessment Group
- Executive Nurse Directors
- Health and Social Care Partnerships

- Integrated Joint Boards
- Trades' Unions
- Scottish Government officials
- Scottish Government Professional Advisers
- Care Inspectorate
- Healthcare Improvement Scotland
- Public Health Scotland
- ARHAI Scotland, National Services Scotland
- Scottish Social Services Council (SSSC)

Family and carer involvement

A broad range of stakeholders were identified; principle among these was consideration of how to incorporate the family and resident aspects within the review.

It was recognised that the families who have been directly affected by the events leading to this review may have been very recently bereaved, and it was considered inappropriate to intrude upon their grieving process. The majority of the residents across the four homes were older people, many of whom have dementia. Whilst it is not unusual to involve recently bereaved families in a root cause analysis that affects a single event, the multitude and complexity of affected families in this series of events, and across multiple organisations led the review team to consider how best to engage and hear relatives' views and take account of information relevant to residents in a sensitive manner. Advice was sought from Scottish Care (membership organisation representing 85% of Scottish Care Homes) and this led to engagement with Care Home Relatives Scotland.

The review team was further assisted by the establishment of a Reference Group, membership of which included representation of relevant professional expertise (and is further outlined in appendix 1). The terms of reference for the review (established by the Cabinet Secretary), together with the intended methodology were shared with the Reference Group; their comments further refined the intended approach and list of stakeholders. The Reference Group also agreed to confidentially review the findings and recommendations, prior to submission of the report to the Cabinet Secretary.

Timeline

09/10/20; invitation issued to review team members; review team established

12/10/20 – 13/10/20; review team commence work: establishment of Terms of Reference; documents; data; stakeholders identified. Briefing to Cabinet Secretary

	outlining intended approach. Table-top review of available information commenced. 14/10/20; Cabinet Secretary approval. Organisation of stakeholder interviews. 15/10/20; Initial Reference Group meeting to agree approach and representatives to be interviewed 16/10/20 – 21/10/20; interviews commence, commissioning of further evidence. 26/10/20; interviews concluded 27/10/20; Findings and recommendations shared with Reference Group 30/10/20; report updated and presented to Cabinet Secretary
Contributory system factors	Contributory factors are the influencing and causal factors that contributed to the outcomes which led to the initiation of this review; they are highlighted for their impact on systems, and they include: care home risk factors; leadership; training and education; inspection process; guidance and local adoption; visiting and carer concerns; built environment; and raising concerns.
Assessment and findings	A full commentary of the review team's findings are appended below (from pages 11 to 35)
Review outcome	Contributory factors and root causes are identified and their impact examined in detail within the narrative report. These factors have been found to be present in at least two or more of the care homes included in this review and are summarised as:
	 High community prevalence of COVID-19 in the geographical region Homes which had >20 resident places, were for older adults and had not experienced a COVID-19 outbreak previously and had high occupancy Presence of asymptomatic cases and lack of awareness of the wider spectrum of symptom presentation in older people Delays in testing and reporting of results Slow confirmation of an outbreak Delays to initiation of additional control measures to stop the widespread transmission. Context specific challenges in the care home environment with IPC measures
	Key to this is timely testing and reporting of results, in order that control measures can be put in place. The challenges with testing availability and turnaround times, combined with high community prevalence, occupant density, staff shortage indicators and the built environment risks re

	isolation or cohorting capability, placed care home residents at risk of the swift spread of COVID-19. Wider system factors are also identified as themes from the intelligence received, from system data and interviews, as part of this review. Opportunities for improvement are listed throughout the narrative, in the summary and in the recommendations table
Recommendations	Recommendations have been made and these are summarised in the Table of Recommendations at page 38.
Arrangements for sharing lessons or learning points	The high level messages and list of recommendations have been shared on a confidential basis with the Reference Group. Additionally, relevant portions of the report have been shared with stakeholders for factual accuracy checking. Consideration by the Cabinet Secretary will be given to the dissemination of learning points and date of publication for the report. The report should be shared with the whole system for learning.

Introduction

The COVID-19 pandemic has impacted on all aspects of life and society for people across the world. Evidence has emerged of the higher risk of developing severe illness with coronavirus being greater in people who are older and those who have pre-existing health conditions. There is also evidence, worldwide, of the rapid transmission possible within closed settings. Of particular concern are settings where older people, those with weak immune systems and those with long-term health conditions live in environments of multiple occupancy with shared facilities, hence the adverse impact on those who live in long term care facilities worldwide. Many of Scotland's care homes have already experienced outbreaks of COVID-19, particularly in March / April 2020 at the previous peak of the pandemic in the UK, and around 10% of care homes in Scotland have one or more cases of suspected COVID-19 ¹, mirroring the current rise in community cases.

The Cabinet Secretary for Health and Sport commissioned a rapid review of recent COVID-19 outbreaks in care homes; the primary aim of the review was to ensure that areas for improvement are identified, focussing on systems analysis and opportunities to enhance the support available for the delivery of care in the care home sector.² 'The aim was to collate and evaluate local level experiences and responses to the resurgence of COVID-19 outbreaks within care homes and to support learning and practice across the sector through the sharing of learning identified and approaches to improvement.'

This review focussed on four care homes currently identified with outbreaks involving a high number of positive cases of COVID-19. These care homes may not be representative of the experience of other homes in similar circumstances, those homes who had outbreaks with fewer cases, or those with no outbreaks at all. In order to check if these findings were representative of other care homes and NHS Board experiences at this time, we reviewed safety huddle data and other intelligence in the system beyond these homes, and spoke with national organisations. This triangulation indicated these findings were in line with wider system issues. We also checked the findings with the review reference group, who were drawn from NHS Boards and sector partners beyond those four care homes included in the review, they confirmed these were issues in the wider system being experienced.

Due to the fast-paced environment within which constant evaluation of relevant factors is being undertaken, within a multi-factorial approach involving many agencies, the review team recognise it is possible that work may already be underway to address elements of some of the recommendations we have made. In these circumstances, will serve to reinforce the need for development and progression of these existing work-streams.

¹ https://www.gov.scot/publications/coronavirus-covid-19-daily-data-for-scotland/

² https://www.gov.scot/publications/coronavirus-covid-19---care-home-outbreaks-root-cause-analysis---terms-of-reference/

The review team wish to record our thanks to everyone who has assisted us with this piece of work. From the outset it was clear that the timescales were demanding and we are grateful to everyone who made themselves available for interview, at extremely short notice. Gratitude is also extended to the members of the Reference Group for contributing their thoughts and ideas and to all who responded willingly to our many requests for data and information.

We hope the report does justice to the quality of the contributions we received, and helps to build on the substantial improvements which have been made in recent months, by providing clarity on the key issues and highlighting the next critical steps in improving the safety and well-being of care home residents and staff.

Approach

The terms of reference (Appendix 1) detailed the key roles the review was required to fulfil and these determined the approach undertaken. These key roles were:

- Follow an adverse incident investigation process to identify any common themes and learning from recent care homes outbreaks
- Consider COVID-19 outbreaks from August 2020 in care home settings identified to understand:
 - o the factors that led up to a COVID-19 care home outbreak; and
 - o if there are shared new characteristics across these.
- Understand the characteristics and risk factors of outbreaks in care homes and assess this against learning in the first half of 2020. This approach will ensure appropriate clinical and operational guidance can be prepared for the sector.
- Review feedback and information from local incident management teams and other data sources e.g. safety huddle tool across all KPI's including workforce, DPH weekly returns, care inspectorate data, SSSC data, Scottish Care data. Review timeline of events so far from IMT minutes and documents related to these care homes.
- Undertake interviews with local oversight teams and care homes.
- Explore the hypothesis that care homes that were not affected by COVID-19 to June 2020 are more at risk this winter.

- Review contributory factors, wider learning, and emerging national and international evidence and make recommendations
 to inform future practice and local arrangements during phase 2 of this pandemic that will support infection prevention and
 control across care homes.
- Identify what further actions can be taken at local and national level to support care homes to deliver within this context.

Root cause analysis is a methodology applied to support and add rigour to serious incident investigations by applying a systematic process, whereby the factors that contributed to an incident are identified. The principles in the national adverse event framework approach³ were adapted to address the aim and cover the key roles identified for this review in the TOR. This was to enable the identification of common themes across the four homes reviewed, rather than a specific root cause analysis in each individual home, to be presented. This also enabled a broader perspective of identifying local common experiences and sharing of learning from the four homes and wider parts of the system, to inform national learning in line with the aim of the review.

A desk top evaluation of all the evidence supplied to the review team, as detailed in the TOR, was undertaken to inform a time line of events in each of the homes; detailing the events leading up to the first confirmed case of the outbreak and the events and process which followed thereafter. Emerging issues from that process were used to inform the interview process⁴ and interviewees. An appreciative inquiry approach was adopted for the interviews. The intelligence from all the sources was synthesised using Ishikawa analysis and identifying common themes and root causes.

Recommendations from this review are made at the system level to address the specific factors identified in the evaluation of the events in the four homes collectively and the wider system factors identified in the review.

Background

There are 1080 care homes in Scotland, 815 for older adults and a total of 37,300 places in care homes for older adults.

The majority of the care homes in Scotland are commercial entities, whether established as an individual business, or as part of a larger parent company. All care organisations are required to be registered with the Care Inspectorate (CI)⁵; they are inspected by the CI on a regular basis, and all reports are published in the public domain. The CI has established Memoranda of Agreement, and

³ http://www.healthcareimprovementscotland.org/our work/governance and assurance/learning from adverse events/national framework.aspx

⁴ https://appreciativeinquiry.champlain.edu/learn/appreciative-inquiry-introduction/

⁵ https://www.careinspectorate.com/index.php/about-us

has undertaken joint inspection processes with associated organisations such as Healthcare Improvement Scotland (HIS) for topic-specific inspections.

On 17 May 2020, Cabinet Secretary for Health and Sport wrote to the Executive Nurse Directors of NHS Scotland Boards to vary their roles and responsibilities in order that they may support the multi-professional oversight of care homes by being accountable for the provision of nursing leadership, support and guidance. This variance included the responsibility to review care home safety huddle data and:

- identify where specific nursing support may be required and to develop and implement solutions [to] include clinical input to ensure that there are effective community nursing arrangements in place
- identify where specific infection control and prevention support may be required [to] include recommendations and review re cleaning to prevent transmission and the appropriate use of PPE
- support the development and implementation of testing approaches ...
- identify and support sourcing of staffing ... ⁶

At the date of commission there were four care homes with recently reported outbreaks with high attack rates, wherein a high proportion of staff and residents had tested positive for SARS-CoV-2, and there had been a number of COVID-19 related deaths. The Cabinet Secretary for Health and Sport commissioned a rapid review to ascertain opportunities for learning and quality improvement, with identification of good practice for application across the health and social care spectrum and to support care homes in the effective management of virus transmission.

The continuing COVID-19 pandemic brings an imperative to spread learning and identify areas for systems improvement; this review has been undertaken using root cause analysis methodology, adapting the national adverse incident investigation process⁷ to identify any common themes and learning which can be shared with other care homes, care home providers and oversight groups to help reduce the risk of further outbreaks.

Stakeholders were identified from across a range of NHS, non-NHS, charitable, health and social care organisations, agencies and those directly impacted by the series of events. The client group at the centre of this review consists mainly, but not exclusively, of older people in care homes, many of whom have dementia, or cognitive disabilities. The review team took advice from care home managers and other senior staff as to the ability of their residents to engage with the review; confirmation was given that direct

⁶ Letter 'Executive Nurse Director Role During COVID-19' sent from the Cabinet Secretary for Health and Sport to Executive Nurse Directors on 17 May 2020

⁷ http://www.healthcareimprovementscotland.org/our work/governance and assurance/learning from adverse events.aspx

communication with residents would be inappropriate and upsetting. Similarly, it was considered that a direct approach to families, some of whom were very recently bereaved, would be insensitive; we took advice from Scottish Care⁸ and sought an alternative approach to ensure we listened to the views of carers and families.

The review team was assisted by a Reference Group; membership consisted of professional clinical staff and experts from across the health and social care system. Its role was to review the process, methodology and list of stakeholders intended by the review team, and then to provide a sense-check of the high level findings and recommendations of the review process, prior to final drafting and submission to the Cabinet Secretary.

The following sections provide a narrative in relation to themes identified from the evidence reviewed, information arising from interviews, considerations made, and conclusions and recommendations.

1. Residents and care home risk factors

1.1 Residents

All four of the care homes in this review were in geographical areas (in the central belt of Scotland) with a high community prevalence of COVID-19 at the time of the outbreaks in the homes. This is an important fact to start with for this review as what is seen in care homes and other health and care settings with COVID-19, is a reflection of what is happening in the wider community. Underlying health conditions, the advanced age of many care home residents, and the shared location of residents in one facility; places residents at risk of transmission and severe impact from COVID-19. The homes reviewed in this Root Cause Analysis (RCA) reported high levels of residents with dementia, and many residents receiving end of life care. These factors make control measures, such as isolation, a challenge to manage and the risk of transmission high, when there is a single case of SARS-CoV-2 in a member of staff or a resident.

Managing transmission risk in relation to isolation of those residents with dementia was also reported as constrained by the built environment within the care home and required enhanced monitoring. Some of the IPC advice was also challenging in the context of balancing harms, as keeping an individual's environment familiar to them, in terms of personal belongings, is an important aspect of care in this context.

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⁸ https://scottishcare.org/

Symptom recognition in older people is key to control of COVID-19, SGHSCD issued guidance detailing the wider spectrum of symptoms seen in older people, which should be considered for all care homes with older people (SGHSCD May 2020): 'Many older people may not present with the commonly reported symptoms of COVID-19 (such as a new persistent cough and temperature). Reported symptoms include loss of appetite or smell, vomiting and diarrhoea, shortness of breath, falls, dehydration and increased confusion, delirium or excessive sleepiness.' In some of the homes we reviewed there was a lack of awareness of these broader signs and symptoms and a focus on the three common ones used for the wider population. We heard of situations where primary care and emergency services colleagues had brought this to the attention of care home staff during a review of a deteriorating resident during the current outbreaks.

1.2 Care home size

There is emerging evidence which indicates that the size of a care home may be associated with the rates of infection from COVID-19 and resident deaths. This was referenced in the Care Inspectorate review of role, purpose and learning during COVID-19 report (2020)⁹, and in a review in one region in Scotland which found that homes containing fewer than 20 residents had an outbreak probability of 5%, but in homes with 60 to 80 residents the likelihood increased to between 83% and 100% (Burton et al 2020).

10 Two of the four homes in this review had more than 60 residents and therefore were in the higher risk group in terms of size. The average size of care homes in Scotland is 48 resident places and the recently published PHS report 11 indicated that in the first half of this year the percentage of care homes with an outbreak increased progressively with care home size, from 3.7% of care homes with <20 registered places to 90.2% of care homes with 90+ registered places and that almost all outbreaks (336/348) occurred in care homes for older people. Around 1 in 4 of the care homes in Scotland have <20 registered places, although few of these would be older adult care homes where the risk is higher. The four homes included in this review all had more than 20 registered places and all provided care for older adults, placing them in the higher risk group for likelihood of an outbreak. We may continue to see outbreaks emerge in older adult care homes, those with >20 resident places are the majority, so it is likely we will see outbreaks over the coming months, as cases in the community surge again.

Pre-existing care assurance, derived as a measure of inspection, and size of care homes has been suggested to be a characteristic to be considered as a condition for poorer outcomes ¹²which may include outbreak propensity. The data from the first half of 2020,

⁹ https://www.careinspectorate.com/images/documents/5783/CI%20Role%20Purpose%20Learning%20during%20COVID-19.pdf

¹⁰ https://doi.org/10.1016/S2666-7568(20)30012-X

https://beta.isdscotland.org/media/6224/2020-10-28-discharges-from-nhsscotland-hospitals-to-care-homes-report.pdf#page22

¹² https://www.cgc.org.uk/sites/default/files/20170703 ASC end of programme FINAL2.pdf

presented in the care inspectorate report⁹, indicated that there was no evidence that previous inspection scoring was associated with propensity to have an outbreak in the first wave in Scotland.

Outbreaks in this second wave are reportedly occurring more frequently (80%)¹³ in those care homes not impacted in the first half of the year. None of the four homes included in this review had experienced previous outbreaks of COVID-19. There are therefore a number of alternate hypotheses to size of the home as the main factor for risk of an outbreak. For example, care homes who had not experienced a previous outbreak may be less experienced in early identification and management of the risks, or may have the most vulnerable residents, or were not a focus for IPC preparedness and support from NHS boards, and/or by chance did not experience an outbreak previously, or they may have had some change to demographics of residents, structures, or processes of care that made them more vulnerable to outbreaks.

1.3 Occupancy

In order to be commercially viable, care homes need to have high occupancy rates, and maintain a balance between residents whose care is entirely funded from the public purse and those who contribute to the cost of their care from savings or capital. In all the four homes we looked at, occupancy levels had declined recently. One home told us that they usually had 97% occupancy, but it was currently at 75%. Significantly low levels of occupancy will potentially reduce risk of transmission, however will be a threat to the viability of homes in the longer term.

High occupancy rates in care homes have been associated with higher rates of infection from COVID-19. A UK study of electronic health records from 8,713 residents and daily counts of infection for 9,339 residents and 11,604 staff across 179 UK long term care facilities showed that the adjusted hazard ratio for confirmed infection was 2.5 times greater in homes with 85% to 100% occupancy than homes with 70% to 85% occupancy rates. The occupancy recorded in the data submitted to the review team (TURAS data for the week preceding the outbreak and data from care homes) for the four homes involved in this review ranged from 89% - 100% and in the week of the review was 71%-90%. It should be noted that occupancy is subject to variation on a day to day basis.

Recommendations:

¹³ Figure provided by Scottish Care

¹⁴ Dutey- Magny et al 2020: Pre-print available at: https://www.medrxiv.org/content/10.1101/2020.07.14.20152629v1

- It is important to recognise that any care home, irrespective of size or number of residents, is vulnerable to outbreaks, and prevention strategies at care home level and HSCP level should take account of this
- A campaign of awareness-raising amongst Care Home staff of the particular symptoms in older people should be undertaken

2. Experience in first wave

None of the four homes included in the review had experienced a previous outbreak of COVID-19 in the first wave of the pandemic and one of the key roles for the review was to explore if those homes, not previously affected, were more at risk now. 'Those involved in managing incidents are expected to evaluate and report on the effectiveness and efficiency of their efforts. NHS boards, LAs and national agencies should share information on public health incidents with interested parties, so that the whole service can learn from the experience of others' (PHS 2020)¹⁵

The Incident Management Team (IMT) chair for an investigation of an outbreak is responsible for identifying and following up key learning points. We learned a number of lessons, which had been identified locally through our interviews with the DPHs and with national bodies. We were informed that these were being shared informally at local level and with PHS in twice weekly calls during the pandemic. We found little collation of these for wider system sharing in formalised reports from the first wave or subsequently. Those interviewed, both at local and national level, told us this reporting was hampered by the nature of the pandemic, the number of concurrent outbreaks happening across a variety of settings, competing priorities and resource constraints.

A formal national lessons learned exercise in relation to reducing delayed discharges and hospital admissions was undertaken by COSLA and the H&SC partnerships after the first wave of the pandemic in March and April 2020. The report examined delayed discharges, A&E attendances and hospital admissions, which all reduced significantly during March and April as the COVID-19 pandemic surge progressed in Scotland. The review identified a number of issues which pertain to this current review. The key themes related to the Terms of Reference for this review from the first wave were: distribution of PPE and changing guidelines for its use, confusion over changing testing guidance, impact on care sector staff who have been left feeling unappreciated and fatigued. These themes were also pointed to in the care inspectorate report on learning during the pandemic (2020)⁹. Whilst PPE distribution has clearly improved in the intervening period, as it did not feature as a theme in this review; guidance production,

¹⁵ https://www.hps.scot.nhs.uk/web-resources-container/management-of-public-health-incidents-guidance-on-the-roles-and-responsibilities-of-nhs-led-incident-management-teams/

 $^{{\}color{red}^{16}} \, \underline{\text{https://hscscotland.scot/couch/uploads/file/resources/covid19-reports/lessons-learned-report-final.pdf}$

timing, versions and dissemination continues to be a challenging theme. Care sector staff and their professionalism and wellbeing also feature as a theme in our review, as did the impact of multiple investigations of the care home in the context of outbreaks.

The first wave report noted that mobilisation of NHS staff to support the sector in relation to IPC procedures, PPE use, and translation of guidance had been helpful, however it had 'muddled the oversight, accountabilities and governance and accountabilities and governance and were continuing to be refined in the light of the Cabinet Secretary letter to Executive Nurse Directors⁶. Partnership organisations expressed concern that IPC was making care homes into 'mini hospitals' and that there was a desire to return to recognising care homes are people's homes. This concern also featured in our discussions with the care home managers from the four homes currently experiencing large outbreaks in this second wave, and additionally it was raised by national organisations and by the family representatives. The importance of risk-based and proportionate IPC, inclusive of its application to visiting, is critical to the sector. Care homes need support for local risk assessment, and sharing of what works well, in terms of applying the national guidance in context in other care homes.

The Care Inspectorate report (2020)⁹ pointed to higher rates of suspected cases in larger care homes (comparing those with <10 places to those >60), and higher prevalence of suspected cases in homes which required nursing care, and in urban versus rural settings, mirroring the prevailing community prevalence. The report also highlighted issues in relation to staff shortages during the first peak, with 13% of care homes reporting issues at that time. Recommendations were made in relation to augmenting future inspection frameworks to include IPC measures, recognising the concerns raised by families and wider stakeholders about their concerns with the use of IPC measures during this time. The aspects of IPC being further augmented in future inspection frameworks and staffing shortages also feature in this review.

As mentioned previously, none of the four homes included in the review had experienced a previous outbreak of COVID-19 in the first wave of the pandemic. DPHs informed us that their focus of support had been on those homes with outbreaks, and the larger care homes in terms of wider preparedness, based on evidence from the first wave. It is therefore likely that those homes who previously had experienced an outbreak, also received focussed interventions, training and support and therefore may have been better prepared than those who had not experienced an outbreak to date.

The challenges in the first wave centred on availability of PPE, and this was resolved by system connectedness to receive supplies from the NHS. Other issues included hospital admissions and ensuring testing and quarantine arrangements were in place, as well as ensuring IPC measures were reviewed; these areas have been strengthened with guidance and policies on testing and IPC in the intervening period. The issues being experienced in these four care homes in this second wave are different. New factors

include: the introduction of COVID-19 via care workers who have travelled to areas within and beyond the UK with a high prevalence of COVID-19, better identification of the risk of asymptomatic cases via routine screening and testing, data availability, and testing capacity when needed. In addition to the IPC there is a need to keep care home staff aware of the changing epidemiology and risks; we heard of the first positive case in one home being a returning care home worker from a holiday within the UK. The area was one with a high community prevalence, and care home staff and managers need to be aware of this risk. Raising awareness of the wider spectrum of symptoms in older people, which is the subject of guidance issued after the first wave, should also be helpful in early identification of residents at risk in care homes, to prevent spread.

PHS reported that there were differences in the challenges now, as compared to wave one. In wave one these were structural; there was still preparedness underway as the HPTs mobilised the resources they needed, and joined up HSCP working was strengthened to support the response. The challenges faced by care homes were about staffing, pay and conditions, and availability of PPE. Current challenges with control measures in wave two relate to: symptom vigilance; IPC training; physical distancing; car sharing; and understanding or managing risk that arises outside of the direct care environments in care homes, such as during break times. The DPHs also pointed to challenges with resourcing continuity, as the many staff deployed to create the surge capacity required earlier in the year, had been mobilised from services which had been paused, or from academia and undergraduate students, and those staff had now returned to those services or to their studies.

PHS noted the importance of considering wider lessons learned from other population-level COVID-19 outbreaks, such as shared coach travel and holidays in areas of high prevalence of COVID-19 within and outside of the UK. This learning should translate to development of further guidance and care home managers considering their strategy for care home workers who return from leave in this context carefully, and managing the risk by ensuring uptake of staff testing remains high and is undertaken in a timely manner.

In considering the reasons for the high attack rate in these four homes, PHS suggested that there are a range of relevant hypotheses, including that these homes could be 'virus naïve' as they had not had an outbreak in the first wave and so may not have had the same level of preparedness and vigilance as to be alert to the on-going risk; wider use of PPE and variation in IPC adherence may be impacting transmission in specific homes, especially given the risk of asymptomatic spread. ARHAI Scotland reinforced this point highlighting on-going variation in care homes with respect to glove use, hand hygiene, and cleaning. There is also a theory that foot fall (number of people inclusive of visitors moving in a space) in larger homes may also account for how many of the outbreaks in the first wave occurred in the larger homes.

Outbreak susceptibility and risk is a ubiquitous threat in all care homes during the pandemic. A single case has the propensity to result in a very high attack rate throughout a care home. System vulnerabilities may be addressed by system leadership, safe staffing levels, and IPC adherence in the built environment in all long term care settings. In summary, all the international evidence points to the fact that once COVID-19 has been introduced into a care home, it has the potential to result in high attack rates among residents and staff members, and this is what occurred in each of the homes examined. It is therefore critical that all long-term care facilities (care homes, residential settings and community hospitals) implement active measures to prevent introduction of COVID-19.

Recommendations:

- Board level and national-level lessons learned for care homes are required to be continuously reported and shared in the pandemic with the care homes and the wider system
- All long-term care facilities (care homes, residential settings and community hospitals) need to implement active measures to prevent introduction of COVID-19 and be kept up to date with the emerging epidemiology and IPC issues.
- Additional factors found for consideration of further guidance and support include: travel associated risks in care workers, on-going variation in care homes with respect to glove use, hand hygiene, and cleaning
- IPC, inclusive of its application to visiting, is critical to the sector. Care homes should have access to expert IPC advice to support local risk assessment and a mechanism should be developed to enable sharing of what works well, in terms of applying the national guidance in a local context

3. Data landscape and Digital infrastructure

Data recording and reporting is challenging in care homes and was a common concern in the homes involved in this review. We heard that some care homes had no digital infrastructure and little previous history of reporting in relation to IPC issues to the HPT, other than by fax when outbreaks happened pre COVID-19. Many care homes are now working at pace to adopt new digital systems and they do require support with this. The commitment and enthusiasm to use data to manage the pandemic and the potential for improvement, was apparent from some of the care home managers we spoke with. Care homes which are part of larger groups had more positive experiences; we viewed as good practice that one care home group was using a bespoke App to report COVID-19 measures across the care homes group. The App required reporting of many of the same data items which are now part of the TURAS safety huddle reporting, therefore it had created some duplication of data entry. The challenge for this

group of care homes, operating on a UK-wide basis, is that the TURAS system is exclusive to Scotland. We also heard that the group was integrating the winter planning requirements in relation to norovirus and flu preparedness, inclusive of vaccine uptake, into this App.

There are currently 1067 care homes registered to use the TURAS safety huddle tool and this equates to 98.7% of all adult and older peoples care homes in Scotland. The widespread adoption at pace is a credit to all of those involved in this and is a good start in developing information for improvement. We noted that in some homes there was dependence on an individual in the use of this system, as only the care home manager could submit the data or access the system (or the computer in the care home in some cases). Whilst we heard of circumstances where some care home managers had been working at weekends (on days off, or whilst on annual leave) to submit data, weekend lapses were common in submission of the data. A process that relies on an individual is not indicative of a resilient systematic approach; review of the arrangements is required to ensure that resilience and surge capacity, particularly during an outbreak, is available at individual care home level. There is an opportunity in the use of this system, to move from one of data capture, to using the data to drive improvement. There was some variability between the homes we interviewed in their perceptions about what the purpose of the system was, and there is a risk that it was viewed as a data collection system for analysis and exclusive use by others, rather than data the care home could use to drive local improvement. Support in building capacity and capability for the system to be used in this way by care home staff will be required.

We heard from DPHs that electronic systems at board level for HPT use are not connected and inhibit system oversight. 'HP zone' (which is the case management system used by the HPTs) does not connect to TRACK care (administration system in hospitals) or ICNet (infection prevention and control patient management system) used in the hospitals, meaning that HPTs need to look at data from a variety of sources, with manual management and analysis required to create the whole picture about where care home residents have moved within the system. These data are critical to enable detection of time, place and person in managing COVID-19 outbreaks. It was noted that there is little data sharing between NHS Boards, other than nationally when there is a multi-board outbreak, and that the borders between boards are porous, in terms of staffing for care homes (i.e. staff may live in a different geographical area to the one they work in). This is important because instances of positive cases of care home workers, who are resident in one board, but work in a neighbouring board, require to be shared to enable care home risk to be managed, and this was identified as a contributory factor in one of the homes.

There are some challenges with respect to information governance permissions to share data, which the DPHs we spoke to were keen to see overcome. They also identified a need to have better registration data to enable the linkage to enhance epidemiology capability. Care homes are required to submit a list of all residents and staff members, and their personal information such as GP, CHI numbers, date of birth and address, in order that the laboratories are able to cross-reference and transmit results to the

appropriate location. We noted that much of this information is not routinely available at care home level, and that it caused the homes difficulty in gathering this information at pace, as it had never previously been required, and also that many care home staff are not registered with a General Practitioner and have no CHI number (anecdotally there are a larger percentage of overseas staff who work in care homes). Without the aforementioned information, the system is not able to undertake network analysis to understand the transmission of COVID-19 within the whole system, and delays in reporting results are possible.

We heard from PHS that 'HP zone' has variability in the way it is used by HPTs, as it has been adapted locally. As a result, data on some of the information related to outbreaks are inconsistently reported between Boards, thus the ability to obtain consistent data nationally to clarify the overall situation is challenged. PHS is currently supplementing 'HP zone' data with other national data such as ECOSS (Laboratory results data). The TURAS safety huddle data is also part of the data landscape and PHS now has access to this, however they reported that it is not comprehensive in reporting of cases as yet. ARHAI S cotland stated their need to also access these data and other intelligence from the care inspectorate and HIS in relation to local IPC challenges; this would enable intelligence and outputs to inform national IPC action planning, and thus provide further support for care homes.

Recommendations:

- IMT systems need connected within and between boards to enable outbreak management and network analysis to be further enabled
- Intelligence sharing across the system of national organisations supporting the pandemic needs strengthened to inform national action planning in support of local needs.
- The TURAS safety huddle system should consider wider winter preparedness and broader IPC needs as part of planned future developments and how the system might move to be used for local improvement
- Support in building capacity and capability for data systems to be used by care home staff for quality improvement is required
- Care homes should ensure preparedness for any potential outbreak by maintaining a current register of all required staff and resident data

4. Early warning systems

The current RAG reporting system from the DPHs did not identify process issues deteriorating before the outbreak occurred in each of the four homes in this review. The RCA indicated that identifying an outbreak was dependent upon the care home manager identifying an outbreak as a possibility and acting quickly, or in response to timely reporting of testing data from the HPTs to the care home. In each circumstance there was a delay in the first case being identified and some days between that and an outbreak

being declared, in the most part this was a result of testing turnaround times for confirmation of two or more cases as an outbreak. Once an outbreak was declared control measures were reported as being put in place, however at this point there had been likely widespread transmission.

There was a view expressed that given the DPH report is based on TURAS safety huddle data, which is self-reported by care homes, it can only be as good as the interpretation by the reporter and the content submitted by that individual. Again a process dependant on an individual is not a system and raises issues of resilience. Phone call follow up alone was also identified by the DPHs as insufficient; visiting and observing is key to understanding that effective control measures are in place at care home level. There is a need for early warning indicators to be sensitive to those factors which have impact for IPC. These include: staffing (% of agency use and movement of staff from other homes or the NHS, in addition to ratios of registered and carer staff to residents), sickness absence, increased testing initiated by the care home, PPE and test kit availability or the need to order extra supplies. The RCA also identified the potential of community prevalence (inclusive of neighbouring boards where the staff live) as an early warning indicator.

As already mentioned, recognition by care home staff, of the wider spectrum of COVID-19 symptoms in older people, to ensure there is a high degree of suspicion is also key. One home reported that a general deterioration of residents, such that they required hospitalisation was the first noticeable sign, and as there was no cough, fever or loss of taste and smell reported by those residents, the staff did not suspect COVID-19 as the underlying condition. One of these residents was tested on admission to hospital, however the result was not reported back to the care home, which negated an opportunity to intervene with control measures earlier.

NHS boards reported that in this second wave they are identifying outbreaks earlier and managing more quickly and responsively, however in these outbreaks there was a delay between first known or suspected case, confirmation of cases and declaring an outbreak noted in the safety huddle data. The delays in each of the circumstances were a result of a variety of issues in different parts of the system: delayed recognition of cases because of low index of suspicion (not familiar with broader syndrome of COVID-19 in older people), delayed identification of cases related to limited testing availability at the right time, asymptomatic/presymptomatic residents and staff members, delays to reporting testing results to care homes. This may mean that there were particular conditions, which made these homes different to other care homes, and as a result these homes may not be representative of the wider, current picture across Scotland.

A review of the TURAS safety huddle system data indicated that there were potential early warning indicators in each of these four homes, which could be an opportunity to intervene early. These included sickness absence of staff and indicators of staff

shortages, supplementary staffing, falls, deteriorating residents, IPC indicators. The delay between the first positive case and confirmation of the outbreak noted in the data could also have been a trigger for action. As already mentioned, it is important to note that these data are self-reported by the care home, and whilst these have not been subject to any quality assurance or validation, there is value in pursuing this tool and assessing its merits as an early warning indicator in the care home system. To enable this, these data need to be reviewed internally within the care home on a daily basis by the care home staff themselves, with swift action taken to prevent outbreaks where possible, and to minimise the number of cases involved in outbreaks otherwise. Care home staff may need support and motivation to undertake such action and it would be important that this is done in partnership with the care home oversight group and HSCP. We noted that TURAS returns in relation to staffing elements are not sensitive enough to provide detailed information on staffing levels; whilst overall staffing numbers are reported, they are not defined in terms of shift length and so from the information submitted, assurance in relation to actual staff on duty at any one point in time is not able to be ascertained. Delay, or inability to recognise infection control deficiencies (which in some homes had been self-assessed as 100% compliant before and during the outbreak, despite challenges with staffing), and control measures being put in place after more than two cases were confirmed, were common to all of these outbreaks. Initiation of the escalation process in response to these early indicators or after a single confirmed case may have prevented the high attack rate in these homes.

Recommendations:

- TURAS, and supporting processes for its use in the HSCP and care homes, should continue to be further developed to ensure it can be used as effectively as possible as an early warning system
- Care homes should be supported to use the TURAS data for local improvement
- A further detailed review of staffing rosters and workforce capacity should be considered based on the findings from the TURAS indicator data, it may be helpful for care home oversight groups to work collectively with care homes in the use of workforce tools to enable system level planning and mutual support

5. Testing

Availability of testing in a timely manner to support an outbreak, turnaround time of the test and accurate and timely reporting of results from HPTs to care homes; were common themes across the care homes we reviewed. The local challenges we heard about were based on a number of issues which created bottle necks in the system.

Care homes testing was initially provided through the UK Lighthouse network of labs. Delays were reported by several of the care homes in relation to the receipt of test results. Communication of test results to the care homes were on occasion problematic.

Other challenges included: access to drivers to take specimens from the home to laboratory, availability of staff for couriering and bags to transport samples.

The Lighthouse laboratories have a long turnaround time, which means there is no ability to intervene in a timely manner to prevent further cases based on testing. There is also no return of the specimen to the NHS board and thus an inability to undertake Whole Genome Sequencing (WGS) to better understand the transmission risks. We heard that moving to NHS laboratories recently has been a positive experience, whilst initially this created longer turnaround time in those laboratories, as there was a high volume back log, this has since been resolved.

Two care homes reported there was a delay in reporting positive cases to the home by the Health Protection Teams. The care homes believed this was what resulted in the attack rate being higher. In one home they reported that the Health Protection Team informed them that this was a second case, however they had not been previously been notified of the first case.

One board reported they had an issue with staffing, when staff returned to academic institutions as universities started back, and are actively recruiting in support of the testing process. One DPH noted that if the Lighthouse laboratories worked more in collaboration with the NHS laboratories we would be able to work between the two more easily and focus on those samples and results that are needed urgently; such as routine testing in care homes, given the high risk of a single case and its potential impact in that context and particularly in relation to outbreaks and need for immediacy of testing. This is of particular importance because in one outbreak, it took 7 days to confirm results for staff testing, which meant that staff continued to work whilst unknowingly being subsequently confirmed as testing positive. On another occasion, failure to collect samples from the care home in a timely manner, resulted in positive staff continuing to work unknowingly at risk to others. Another care home reported improvement in accessing tests, but had persistent problems with timescales for results; 3 or 4 days was not uncommon and a risk given asymptomatic staff continue to work, whilst awaiting results in line with national guidance.

Recommendations:

- Urgent action should be taken to ensure parity of access to testing and speed of response for care home and wider NHS and agency staff deployed there
- Urgent action to ensure suspected outbreaks in care homes result in all staff and residents being quickly tested and there are no delays to total turnaround time from sample being taken, to results being reported back

6. IPC knowledge and expertise

The care home managers reported inconsistency in the receipt of IPC advice given to them as part of the visits for assurance and inspection carried out by various parts of the system. They also identified a need for access to expertise to support them in the IPC risk assessment within the care home environment.

Historically in Scotland there were infection prevention and control nurses working in community settings, however the last decade has seen the focus on hospital settings, where estimation of the need was greatest and risk was highest. Some community IPCNs joined hospital IPC teams and others joined HP teams in PH departments. Most of those with IPC backgrounds have since retired and many of the Health Protection Nurses (HPNs) recruited in recent years have no experience, or qualifications, in IPC. It is important to note that the HPN career framework (NES) does not require IPC qualifications for the role as these HPN roles are wider public health roles and the scope of practice is health protection, rather than IPC per se.

HPNs have diploma or degree level general training, some have masters level qualifications such as an MPH, and some are registered as UKPHR practitioners or specialists. We were informed of one HPN in these HPTs with responsibility for IPC in care homes but the expertise for IPC in other homes had been sourced from the acute service. During the COVID-19 pandemic response a number of capacity and capability issues have arisen with respect to specialist IPC advice and roles in all settings, but especially in care homes. The care home managers told us the hospital IPCN experience with their clinical focus, was unhelpful at times, within the context of a care home.

New roles have been developed at pace to support the response, such as the HP associate nurse, Advanced HP practitioner and IPC associate practitioners. These new roles do not feature in extant career frameworks for these specialties. An opportunity therefore exists to review these frameworks, to ensure future career pathways include new roles, widen access and enable care er development and succession planning. This will facilitate future capacity and capability building in the public health system locally, regionally and nationally and system thinking about these roles for workforce planning purposes. Community IPCNs and building IPC capacity in or connected to the HPTs, who know their local care homes and the context, may be a helpful asset for the HPTs to support the response and for future prevention efforts.

Recommendation:

• Local IPC capacity requires to be developed at H&SCP level and with HPTs to support care homes with expert IPC advice which is risk based, proportionate and supports compassionate care in a homely setting

7. IPC indicators

Lack of time, heavy workload, ratio of registered nursing staff, and lack of facilities are frequently indicated as barriers to IPC adherence being optimised in all health and care settings¹⁷. All of these issues were found to be present, to a greater or lesser extent, in each of the four homes. PPE availability had previously been an issue earlier in the year during the first wave, however we did not hear this as a current issue in any of the homes we talked to. There was a local issue in one care home with availability of visors in recent weeks, however this was reported as resolved locally and with the support of Scottish Care.

The pandemic is now illuminating that IPC requires to be embedded in ways of working in a context-specific way in each care home. This means local 'adapt to adopt' approaches to implementation of guidance. The care homes we spoke to recognised that guidance developed nationally, or at board and care home group level, could only give high level principles and that there was 'no one size fits all settings', due to the care context, differences in built environment design and the facilities available. Whilst in the first surge in cases of the pandemic there was little evidence of standard infection control precautions (SICPS) being embedded in day to day practice in care homes, this review heard that the scale up required to transmission based precautions (TBPs) needed in the context of a single case, and at pace is the key challenge currently. This is a key focus needed for those homes with no experience of an outbreak in the first COVID-19 wave, as their preparedness was not previously challenged.

Of particular concern is the reporting in TURAS safety huddle data of high IPC compliance in these homes, in some cases at 100% before and during the outbreak was reported. These data are self-reported by the care home manager and do not reflect the findings from care inspectorate/HIS reviews, which indicated a lack of compliance with IPC during the current outbreak period that inspections had been done within. There is a likely need for training and a greater need for monitoring systems of IPC in care homes.

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¹⁷ https://www.who.int/gpsc/ipc-components/en/

In two of the homes we spoke to, it was very clear that infection control was considered in the context of winter viruses such as norovirus and flu, as these are the most common IPC challenges faced by care homes each winter. One home described this as 'an outbreak box to open when you have norovirus to remind you what to do'. We also heard about the pandemic revealing that 'hand hygiene practice needed to be improved as it was discovered that this was not being done in line with current guidance'; these are indicators that IPC was not already well embedded in these homes. IPC and in particular SICPS, including hand hygiene, are the ten elements that should be employed for every resident, every time – they apply in all care settings and at all times. SICPS are the first line of defence to prevent transmissions of any infection.

Recommendations:

- IPC indicators (such as hand hygiene compliance) should be routinely monitored in care homes and comparative reporting over time developed TURAS should be considered for further development to encompass this
- Monitoring systems for IPC compliance in care homes should be further developed
- Further work is required to develop SICPS as part of day to day practice in care homes settings
- The TURAS dashboard needs to be used by care home managers and by HSCP in order to provide assurance in relation to safe staffing, escalation and IPC

8. Leadership

The leadership role in care homes is complex and, particularly in the current circumstances, highly demanding. This was emphasised to us by all of the care home managers we spoke with. Care home managers, who are registered with SSSC, should be trained to SVQ LEVEL 4 and currently 59% of managers hold the required qualification in Scotland. Over 700 people are currently registered with SSSC as managers of care homes for adults. Homes vary in size and degree of specialisation and the structures around managers vary from single owners, to large corporate organisations. The nature of these structures and the cultures they support, impact directly on the autonomy of managers. In the four care homes we spoke with, we witnessed both positive and negative impacts of the wider organisational structure.

As the visible leaders in their units, care home managers are fundamental to establishing and maintaining standards and to establishing relationships with a range of stakeholders including relatives and families, primary care, Health and Social Care Partnerships, local Health Protection teams, and the Care Inspectorate. In relation to staff management, they could be greatly assisted by the reinforcement of information of the key message that personal behaviours can, and do, influence or bring impact for the professional or work environment. Managers reported an added pressure is the level of vigilance they are required to maintain

to ensure that aspects of staffs' personal or social lives do not have an adverse impact for the care home environment, such as carsharing, socialising with colleagues, holidaying abroad and ensuring appropriate quarantining on return.

Managers are drawn from a diverse range of professional backgrounds, including administration, hospitality and healthcare. With 41% of managers still to achieve the required management qualification and with the current intense levels of scrutiny, it is clear that more needs to be done to support, sustain and develop the management cohort in the care home sector. Managers with professional nursing backgrounds are more likely to be registered with the NMC rather than the SSSC; however, the NMC does not mandate any particular qualities related to management, nor does it require any specific qualification beyond maintaining effective professional registration. Irrespective of professional background, managers need to have the skills and abilities necessary to support the workforce in the most challenging of times. In order to undertake their role successfully they need to be supported by their managing bodies and by the wider care and health network.

Managers and their staff are dealing with bereavement, grief and loss on an unprecedented scale. Managers are often the focal point for the concerns of relatives and families and may also have to handle additional demands including extra inspections, and in a few cases police investigations. It is hard to overstate the level of pressure care home managers are experiencing, and every element of the care and health system needs to work to support a group of staff who are central to maintaining the provision of care.

Whilst in the longer term access to; enhanced leadership training, mentoring and local leadership networks would all be of assistance, in the midst of the current circumstances there is a need for managing organisations to support the emotional wellbeing of their managers, as they grapple with resilience in what is a complex and very high risk managerial role, during a prolonged period of intense activity.

Recommendations:

- Organisations should take steps to ensure the emotional wellbeing of all staff, with a particular focus on care home managers, through providing access to support and signposting to the range of resources currently available
- Consider access to enhanced leadership training, mentoring and leadership networks
- A national information campaign should be considered for care home staff to ensure information is well understood in relation to how personal behaviour can impact on their role whilst at work, to include social distancing, cigarette breaks, car sharing, and remaining vigilant to risks at all times

9. Training and education

The Scottish Social Services Council (SSSC) sets educational standards for care workers. These are attainment at SVQ level 2, 3 or 4, in relation to the seniority of role of the care worker, and a five year period is allowed for the successful completion of the relevant SVQ.

The content of SVQ programmes in relation to infection prevention and control (IPC) is variable. The review team heard some evidence that IPC is included at induction by some organisations, but the requirement for information to be repeatedly reinforced before it becomes routine practice was not evident¹⁶. Additionally, the step-up required of IPC practice in the current pandemic is challenging for some organisations to ensure consistent adherence. Provision of education support is variable and depends on inhouse expertise and also the availability of external assistance. Care Home Education Facilitators are funded and supported by NHS Education for Scotland and employed by NHS Boards to support care homes who host student nurse placements, and this is by no means a large proportion of care homes across Scotland.

SSSC confirmed that of staff registered to work in care homes, 59% of managers, 46% of supervisors, 61% of practitioners and 38% of support workers have attained the relevant SVQ required. We heard that SSSC has worked very successfully with NES in relation to developing educational modules relevant to care home staff. The possible extension of this approach to develop mandatory IPC induction modules, together with the provision of a network of dedicated care home educators for all care homes (irrespective of whether student nurse placements are facilitated) would support the continuation of education in relation to reinforcing required knowledge in practice, and recognises that not all care homes allow access to online educational resources for their staff.

Recommendations:

- Development of a mandatory induction module for IPC, in partnership between SSSC and NES, should be undertaken as soon as is practicably possible
- Consider a supportive education model where care homes educators roles are developed to support every care home in Scotland
- Workforce development needs for IPC requires to be considered for all staff in care homes and those providing IPC support to this sector

10. Relationships

Individual care homes operate in the context of a complex network of relationships. They may have parent companies and other homes within a group. They have to work with health boards, local authorities, health and social care partnerships and the care inspectorate among others. From the homes we looked at it seems clear that where local networks were strong prior to the current emergency this provided a positive platform which could be built upon to provide support and solve problems. We heard very positive accounts of these relationships working well in some areas, as well as accounts of poor working relationships, which were put under additional strain by the demands of responding to the impact of COVID-19.

It is inevitable that larger care home groups with multiple sites will seek consistency in the approach of their homes, however it is also a fact that homes need some latitude to operate as a part of their local network and the wider system. It is therefore important that the benefits that being part of a larger group can bring, do not discourage homes from the kind of positive local engagement that they are likely to have to rely on in times of crisis. Individual unit managers should be encouraged and assisted to develop the local network that they feel is appropriate to their unit and their circumstances. They need to be proactive in ensuring that positive working relationships exist and equally they need to feel supported by the statutory agencies to deliver the highest standards of care.

The strength of local relationships will be put to the test in response to a COVID-19 outbreak and all parties need to take active steps to build strong working partnerships that can be called upon in the event of a significant outbreak. Crucially the local networks are likely to be a route to resources, including advice and guidance, but also tangible supports like access to bank staff. Every care home should be considering whether its networks are robust and taking active steps to remedy deficits. The benefits of doing this before, rather than during, a crisis should be obvious.

Other than acknowledging the importance of continuing to develop these relationships across the system, no specific recommendation is made.

11. Guidance and local adoption

Guidance is complex and changing in light of emerging evidence for COVID-19. Keeping care homes informed, in a context-specific way, requires effective local leadership within the home, access to expertise and an implementation plan across the care homes within respective NHS Boards to support the prevention effort. We heard of a plan led by one HSCP for area-wide improvement for IPC in care homes being developed in support of this objective. We also heard of a good practice example where a home had established a local intranet site for staff with all guidance, and used a specific software work scheduling system as an information

and communication tool for all staff. We heard that access to online systems for learning, emails, or general communication are often not available to care home staff, as the computer is located in the office, which is inaccessible to staff once the manager has completed their working day.

We heard that particular difficulties arise when guidance is issued too close to the weekend. This often results in care home management having to read, understand what is required of them and implement new guidance during, or over, the weekend, when they should be taking time for rest and recuperation. Another problem arises when families expect any announced updates to be implemented immediately and care homes reported the challenges of guidance similarly being issued at weekends. A review of five of the most used pieces of guidance issued by Scottish Government and Public Health Scotland 18, revealed that out of 20 issue dates or updates, six were published on a Friday, Saturday or Sunday. There is a balance to be struck between publishing guidance in a timely manner and managing the dissemination process in a way which is helpful to the user.

Care home managers seek support from the HSCP, the HPTs and the care home group where applicable, to interpret all guidance sources (HPS/ PHS, SG and local HPT and care home group guidance). This approach varies by home, and is dependent upon existing relationships within the system. Not all of these homes were aware of where to go to access IPC expert advice, and not all had any connection to the local HPT, other than to report outbreaks.

Local context is important; the built environment precludes the guidance being applied in some settings and needs adapted in a risk based and proportionate way. Risk of misinterpretations of guidance without access to expert advice is inherent in the system. We heard of examples about visor use, hand hygiene practice, glove use, visiting processes and cleaning products which needed expert input and support. COVID-19 has illuminated a care home system which is not IPC-resilient and needs considerable investment to ensure its future preparedness. The World Health Organisation (WHO)¹⁹ promote a multimodal improvement strategy for IPC in health and care settings. This is commonly being used for standardisation, improvement, monitoring and reporting worldwide and has been used in a variety of care settings to date.

Coronavirus: social care staff support fund guidance

Visiting by Family and Friends – Guidance for Adult Care Homes in Scotland

Implementing the staged approach to enhancing wellbeing activities and visits in care homes, including communal living - Guidance for Clinical and Professional staff

COVID-19: Information and Guidance for Care Home Settings (Adults and Older People)

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¹⁸ National Clinical and Practice Guidance for Adult Care Homes in Scotland during the COVID-19 Pandemic

¹⁹ https://www.who.int/

To date the COVID-19 guidance has had two routes of production. The first is public health guidance via PHS, and the second route is clinical guidance produced via SGHSCD. ARHAI Scotland have led the IPC components of these various guidance documents, so have worked with the existing guidance groups to date. There has been a recognition that the guidance landscape for IPC is challenging from the perspective of the IPCTs, HAI executive leads and wider care home sector. Recently, ARHAI Scotland has undertaken a process to co-produce a national infection prevention and control manual (NIPCM), specifically for care homes with all relevant IPC guidance in one place, and is working collaboratively with the NHS, the care home sector and other relevant stakeholders. This guidance is envisaged as a resource which enables a single source of national IPC guidance for the care home sector. It is due for publication in December 2020.

Recommendations:

- HSCP planning using a multimodal approach to IPC is required; this may be supported by national IPC lead organisations such as ARHAI Scotland
- The new national care home manual for IPC planned for completion in December 2020 should be produced with a multimodal strategy plan for dissemination and implementation
- National organisations should be mindful of the impact of publication of guidance on days towards the end of the week or over weekends, and the availability of senior managers to support interpretation, dissemination planning should be considered as part of the guidance development process
- Most recent versions of guidelines should clearly highlight the additional information or changes from the previous version

12. Inspection arrangements

The statutory duty for inspecting care homes in Scotland lies with the Care Inspectorate. The review team was able to review the most recently published inspection reports for each of the four homes, although further inspections in these homes were ongoing during the period of this review and we have therefore been unable to incorporate any further issues arising from these into the RCA report.

The inspection reports revealed, in the context of these outbreaks, ongoing issues related to the cleaning of the environment, staff IPC practice including correct use of PPE, management of waste and staffing numbers. In addition, concerns about people social distancing, who cannot self-isolate due to living with dementia, and end of life care for individuals; these elements are commented on elsewhere in this report.

The review team heard from representatives of Healthcare Improvement Scotland, the Care Inspectorate, SSSC, and care homes in relation to experience of the inspection process.

Whilst the CI has the statutory function to inspect care homes, it recognised that there are areas where additional expertise is required to ensure that a holistic approach, particularly of the clinical elements of infection prevention and control. We heard that the CI has in place a wide-ranging set of educational measures to support the preparedness of inspectors for their role, as does HIS, however inevitably there will be challenges to ensure that the most relevant clinical expertise in IPC is available to underpin the inspection and assurance processes. A Memorandum of Agreement is in place with HIS to undertake joint inspections with the Care Inspectorate, with HIS staff providing support for IPC and clinical considerations. It was clear to the review team however that the process is not fully integrated, and that the methodologies employed, grading and reporting structures for CI and HIS differ; this brought inconsistency and challenges in agreeing applicable grades for one of the care homes in this review. It also brought difficulties for those being inspected, and we heard of the impact of these inconsistencies of approach during inspection visits, which depended on the knowledge, role and approach of the individual inspector(s) involved in the process, differing advice offered, and treating the care home environment as if it was a clinical environment. These issues resulted in confusion for the care home staff and the intended actions they should implement.

Care homes operate within a wide range of governance structures, which range from single independent homes, to large UK wide corporations. These structures impacted, both positively and negatively, on the capacity of individual unit managers to respond to COVID -19, with a range of support structures for the larger organisations, to the agility of the independent homes to quickly assimilate information.

Care Inspectorate inspects care homes individually, however it may be helpful also to understand the culture, management process and impact of the overarching corporate approach or parent company, and we recommend that it is an area for further consideration.

Recommendations:

- Undertake a thorough review of the joint inspection process to ensure a truly integrated approach to inspection in care homes is in place
- Ensure that relevant professional national IPC expertise is at the centre of the process, to provide a consistent level of expertise and support
- At present the operation of the wider company structure is out with the scope of Care Inspectorate scrutiny, and consideration should be given to extending its remit to corporate entities

13. Carer Perspectives

The review group took the view that given the very recent deaths in these care homes, it was not the appropriate time to directly approach the affected relatives. In order to gain a carers and relatives perspective we were directed to the recently established group 'Care Home Relatives Scotland'. This group have been campaigning for improved visiting arrangements within care homes and the examples they gave of the distress experienced by residents and carers, due to lack of contact since the lockdown in March, were both powerful and moving.

Any consideration of visiting policy must keep in mind the delicate balance between maintaining a safe environment in relation to footfall, as described earlier in this report, with the clear adverse impact on the mental and physical health of residents who are unable to comprehend the rationale in relation to restrictions. This was particularly clearly highlighted by those we spoke with in the stark differences between visiting allowed in care homes, when compared to that facilitated in hospital settings. We heard of the distress of families caused by the variance in local implementation of national visiting guidance by care homes, which was sometimes driven by overall corporate policy rather than local conditions. In our discussions with other stakeholders it was emphasised that the views of this group in seeking substantially enhanced access to care homes are not universally supported by all, and there are many who support a very cautious approach to the lifting of visiting restrictions. This is clearly an issue which is being kept under active review and changes to the visiting guidance, were made in September, create the possibility of enhanced levels of indoor visiting subject to the meeting of a number of criteria. On the day we met with the carers (23/10/20), further changes were announced, which introduced the possibility of COVID-19 testing for relatives, as a mechanism to improve visiting arrangements, as we move into winter and outdoor visiting becomes less viable.

Setting the parameters for visiting involves a balancing of risks and harms. The submission, to DPH by care homes, of local risk assessments for visiting plans are not always timeously authorised, and this is understandable given the pressures on DPH and departments given the pressures on them mentioned elsewhere in this document. The changes already made and those envisaged in the coming months clearly moves closer to the position being advocated by the Care Home Relatives Group. They did however emphasise that changes to the guidance need to be accompanied by active encouragement of care providers to implement the guidance and not to delay or add arbitrary local criteria. An example was given of the 4 week COVID-19 clearance status required to trigger the possibility of indoor visiting, being extended to 6 weeks by some care homes. It is understandable that homes will act with an abundance of caution, however the frustrations of carers will be added to, and the adverse impact for residents potentially amplified, if the national guidance is not consistently applied.

Recommendations:

- Context specific care home level guidance is required locally, in line with national guidance, for visiting and care practices within the individual home that makes it easy for consistency in application of IPC needs in a risk based and proportionate way to enable compassionate care in a homely setting
- Provision of a 'Visiting champion' or other similar arrangement is desirable in ensuring that advice and guidance relevant to specific contexts is readily available and consistently applied

14. Built environment issues

Care homes historically have accommodated frail, older residents, however many residents now have additional and increasingly complex needs, and we heard several times of the challenges associated with this, such as residents with dementia who would 'walk with purpose', and the resulting ability of care staff to ensure contact with surfaces was hygienically managed. Key issues have emerged in the pandemic which indicate considerations for repurposing space and responding to the challenges posed by the need to limit virulent disease transmission within the built environment. The extent to which latent design features impact on the ability to limit disease transmission varies between care homes, however in each care home engaged with throughout this review, environmental factors were an important consideration.

The extent to which homes were able to fully incorporate guidance in relation to social distancing, PPE storage and availability, separation/ isolation and staff cohorting was variable and dependent on the design of the home. Additionally, the key issues of design, ergonomics, communal spaces, corridor width and shared shower and bathing facilities, together with the complex nature of the residents' conditions, made the provision of effective isolation challenging. We heard of some unintended consequences of changes to practices in the built environment, such as kitchen staff delivering meals to resident's rooms because they were in isolation that unwittingly resulted in further transmission risks. We heard of circumstances in care homes where although toilet and hand-washing en-suite facilities were available, there were shared shower and bathing facilities, some of these had no windows for natural ventilation, one relied on electric extraction fans. Small confined spaces with no natural ventilation present a high transmission risk. One care home described that a two hour timeframe between residents using the bath or shower is enforced to reduce the risk of transmission, supplemented by enhanced cleaning regimes.

Ventilation was not considered as a control measure in any of the homes we reviewed and is not a focus in extant UK COVID-19 IPC guidance; only recently has the Centre for Disease Control (CDC) (October 2020)²⁰ and the World health organisation (WHO)

²⁰ https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

(July 2020)²¹ recognised the importance of longer range aerosols as a potential route for transmission, whilst recognising that the main route remains droplet and short range aerosol. Any situation in which people are in close proximity to one another for long periods of time increases the risk of transmission. Indoor locations, especially settings where there is poor or no ventilation, are riskier than outdoor locations. The 3Cs for high risk of transmission outlined by WHO include: Crowded places with many people nearby, Close-contact settings, especially where people have conversations very near each other, Confined and enclosed spaces with poor ventilation. Many care homes are high risk settings in this context, and the built environment is a key infection prevention and control measure is key for mitigating risk of outbreaks and impact of these.

Ventilation may become increasingly important in this context as winter develops, therefore adaptation of spaces and dilution of air is dependent on natural ventilation (window opening). UK SAGE²² has recently developed guidance for consideration of this and this should be used to inform care home best practice principles, such as not recirculating air if it can be avoided and ensuring rooms are adequately ventilated to mitigate the risk of transmission.

Recommendations:

- Infection prevention and control specialist support for individual care homes is required when considering the built environment and risk assessment
- Risk assessment inclusive of advice relating to the built environment covering areas such as fire and falls is required, to ensure that no unintended consequences of changes in the built environment due to IPC measures, are present.
- Ventilation guidance should be considered nationally to share general principles to mitigate transmission risks re aerosols over the winter months in care homes

15. Raising concerns

Complaints about the quality of care in care homes and complaints from staff members are dealt with by the Care Inspectorate. Members of the public can make complaints directly to the CI and generally other agencies, such as SPSO²³, if it receives a complaint, will also signpost complainants to the Care Inspectorate. If SPSO is made aware of significant concerns about a care

²¹ https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions

²² https://www.gov.uk/government/publications/emg-role-of-ventilation-in-controlling-sars-cov-2-transmission-30-september-2020

²³ https://www.spso.org.uk/

home through its casework, it has the power to share information with the Care Inspectorate. Two of the four homes included in this review had a complaint made against them, by families or agency staff, prior to or during the outbreak in relation to IPC, the care environment, or staffing issues. The Care Inspectorate does require organisations to have a 'raising concerns' policy in place, as does Healthcare Improvement Scotland for the NHS in Scotland, however an alternative route of raising concerns has been developed as a 'whistleblowing' function for the NHS, overseen by an independent body (SPSO) Trades' Union representatives informed the review team that there is a low membership amongst care and nursing home staff, and many private employers do not have recognition agreements with Trades' Unions in place.

The SPSO has been given the responsibility of introducing a whistleblowing function by early 2021, however the function will relate only to NHS services, and to all services funded by the NHS. It is likely that most care homes would not, therefore, fall within this remit, unless they receive NHS funding; however, many care homes receive funding via Local Authorities and therefore are financially resourced through public spending. Acknowledging the roles in complaint management by the various agencies, the blurring of professional boundaries, and provision of services which span across NHS and independent sectors makes it likely that concerns raised in relation to one part of the system may have implications for the delivery of care across all sectors. It is unclear to what extent this is a justifiable demarcation, and that intelligence and information relating to concerns about quality of care are equally valuable, whether this originates from the public or from the private domain. An integrated systematic approach across all agencies to the early identification of concerns, triangulation of information, and the sharing of learning would be of great benefit to the overall delivery of care and may support early warning of potential cross-cutting issues.

Recommendation:

• Consider extension of the whistleblowing service to all staff across the health and care sectors.

Summary

The RCA revealed certain factors, or root causes, that directly contributed to the increased vulnerability, in the care homes included in this review, to the spread of COVID-19. These factors have been found to be present in at least two or more of the care home included in this review. These are collectively summarised as including:

- 1) high community prevalence of COVID-19 in the region the care home is based in;
- 2) care home size and occupancy;

- 3) staff members who worked and who were asymptomatic but SARS-CoV-2 positive (unknowingly due to errors and delays to reporting screening results to care homes);
- 4) staff members who worked in more than one place intra- and inter-organisations (staff, inclusive of nurses, carers and kitchen staff) not cohorted to floors/units, and continuing to work across these until outbreaks were confirmed (agency use, wider care home group staff use was high in some homes);
- 5) missed opportunities to identify early warnings in safety huddle data and DPH reports (indicators included staffing data, single positive cases and self-reporting of these not sufficient to identify risk e.g. 100% compliance with IPC and PPE reported, but this was discovered not to be the case when inspected);
- 6) inadequate familiarity and adherence to infection prevention and control measures which may contribute to risk of transmission, delays to introducing additional transmission based precautions when a known case was suspected or identified:
- 7) challenges to implementing infection control practices, including keeping up to date with latest guidance, specific care home built environment aspects and lack of expert advice of guidance in context, e.g. cleaning products
- 8) inadequate staff IPC measures to minimise staff to staff transmission. Situational awareness re risk in changing rooms, break rooms, smoking shelters, car sharing and socialising outside work with respect to social distancing.
- 9) delayed recognition of cases in residents because of a low index of suspicion (not familiar with broader syndrome of COVID-19 in older people,
- 10)delayed identification of cases, related to limited testing availability at the right time and turnaround time of the test, and difficulty identifying persons with COVID-19 based on signs and symptoms alone, asymptomatic/pre-symptomatic residents.
- 11)underlying health conditions and advanced age of many long-term care facility residents and the shared location of residents in one facility places these persons at risk for severe morbidity and death. These homes had high levels of residents with dementia and receiving end of life care
- 12) system relationships to support staffing in crisis. Larger care homes groups did not have well-established relationships with the NHS boards, tended not to use identified capacity and support available. There were indicators that there was high staff absence and fewer staff than the establishment identified as required at times, this warrants further investigation.

In summary, high community prevalence and slow confirmation of an outbreak after the first case was detected was a common cause of the high attack rate identified. Many of the positive cases were not identified quickly because they were asymptomatic or

there was a lack of awareness in those interviewed of the wider spectrum of symptom presentation in older people. This resulted in testing not done in a timely manner. As a result additional control measures were put in place too late to stop the widespread transmission. Key to this is timely testing and reporting of results, in order that control measures can be put in place and so we must consider the system which may have created the optimal conditions for the virus to spread among older people in these care homes. The challenges with high community prevalence in the local areas, testing availability and turnaround times, combined with high occupant density, staff shortage indicators and the built environment risks re isolation or cohorting capability, placed care home residents at risk of the swift spread of COVID-19.

Once COVID-19 has been introduced into a care home, it has the potential to result in high attack rates among residents, staff members, and visitors, and this occurred in each of the homes within this review. It is therefore critical that all long-term care facilities (care homes, residential settings and community hospitals) implement active measures to prevent introduction of COVID-19, and are supported to do so.

Table of Recommendations

No.	Relates to:	Recommendation
1	Care Home risk factors	 It is important to recognise that any care home, irrespective of size or number of residents, is vulnerable to outbreaks, and prevention strategies at care home level and HSCP level should take account of this A campaign of awareness-raising amongst Care Home staff of the particular symptoms in older people should be undertaken
2	First wave	Board level and national-level lessons learned for care homes are required to be
		 continuously reported and shared in the pandemic with the care homes and the wider system. All long-term care facilities (care homes, residential settings and community hospitals) need to implement active measures to prevent introduction of COVID-19 and be kept up to date with the emerging epidemiology and IPC issues. Additional factors found for consideration of further guidance and support include: travel associated risks in care workers, on-going variation in care homes with respect to glove use, hand hygiene, and cleaning IPC, inclusive of its application to visiting, is critical to the sector. Care homes should have access to expert IPC advice to support local risk assessment and a mechanism should be developed to enable sharing of what works well, in terms of applying the national guidance in a local context
3	Data landscape and digital infrastructure	 IMT systems need connected within and between boards to enable outbreak management and network analysis to be further enabled Intelligence sharing across the system of national organisations supporting the pandemic needs strengthened to inform national action planning in support of local needs.

		 The TURAS safety huddle system should consider wider winter preparedness and broader IPC needs as part of planned future developments and how the system might move to be used for local improvement Support in building capacity and capability for data systems to be used by care home staff for quality improvement is required Care homes should ensure preparedness for any potential outbreak by maintaining a current register of all required staff and resident data
4	Early Warning Systems	 TURAS, and supporting processes for its use in the HSCP and care homes, should continue to be further developed to ensure it can be used as effectively as possible as an early warning system Care homes should be supported to use the TURAS data for local improvement A further detailed review of staffing rosters and workforce capacity should be considered based on the findings from the TURAS indicator data, it may be helpful for care home oversight groups to work collectively with care homes in the use of workforce tools to enable system level planning and mutual support
5	Testing	 Urgent action should be taken to ensure parity of access to testing and speed of response for care home and wider NHS and agency staff deployed there Urgent action to ensure suspected outbreaks in care homes result in all staff and residents being quickly tested and there are no delays to total turnaround time from sample being taken, to results being reported back
6	IPC knowledge and expertise	Local IPC capacity requires to be developed at H&SCP level and with HPTs to support care homes with expert IPC advice which is risk based, proportionate and supports compassionate care in a homely setting
7	IPC indicators	 IPC indicators (such as hand hygiene compliance) should be routinely monitored in care homes and comparative reporting over time developed – TURAS should be considered for further development to encompass this

		 Monitoring systems for IPC compliance in care homes should be further developed Further work is required to develop SICPS as part of day to day practice in care
		homes settings
		 The TURAS dashboard needs to be used by care home managers and by HSCP in order to provide assurance in relation to safe staffing, escalation and IPC
8	Leadership	 Organisations should take steps to ensure the emotional wellbeing of all staff, with a particular focus on care home managers, through providing access to support and signposting to the range of resources currently available Consider access to enhanced leadership training, mentoring and leadership networks
		 A national information campaign should be considered for care home staff to ensure information is well understood in relation to how personal behaviour can impact on their role whilst at work, to include social distancing, cigarette breaks, car sharing, and remaining vigilant to risks at all times
9	Training and education	 Development of a mandatory induction module for IPC, in partnership between SSSC and NES, should be undertaken as soon as is practicably possible
		 Consider a supportive education model where care homes educators roles are developed to support every care home in Scotland
		 Workforce development needs for IPC requires to be considered for all staff in care homes and those providing IPC support to this sector
11	Guidance and local adoption	 HSCP planning using a multimodal approach to IPC is required; this may be supported by national IPC lead organisations such as ARHAI Scotland The new national care home manual for IPC planned for completion in December 2020 should be produced with a multimodal strategy plan for dissemination and implementation
		 National organisations should be mindful of the impact of publication of guidance on days towards the end of the week or over weekends, and the availability of senior managers to support interpretation, dissemination planning should be considered as part of the guidance development process

		Most recent versions of guidelines should clearly highlight the additional information or changes from the previous version
12	Inspection arrangements	 Undertake a thorough review of the joint inspection process to ensure a truly integrated approach to inspection in care homes is in place Ensure that relevant professional national IPC expertise is at the centre of the process, to provide a consistent level of expertise and support At present the operation of the wider company structure is outwith the scope of Care Inspectorate scrutiny, and consideration should be given to extending its remit to corporate entities
13	Carer perspectives	 Context specific care home level guidance is required locally, in line with national guidance, for visiting and care practices within the individual home that makes it easy for consistency in application of IPC needs in a risk based and proportionate way to enable compassionate care in a homely setting Provision of a 'Visiting champion' or other similar arrangement is desirable in ensuring that advice and guidance relevant to specific contexts is readily available and consistently applied
14	Built environment	 Infection prevention and control specialist support for individual care homes is required when considering the built environment and risk assessment Risk assessment inclusive of advice relating to the built environment covering areas such as fire and falls is required, to ensure that no unintended consequences of changes in the built environment due to IPC measures, are present. Ventilation guidance should be considered nationally to share general principles to mitigate transmission risks re aerosols over the winter months in care homes
15	Raising Concerns	Consider extension of the whistleblowing service to all staff across the health and care sectors.

APPENDIX 1

TERMS OF REFERENCE

Aim

To collate and evaluate local level experiences and responses to the resurgence of COVID (wave 2) outbreaks within care homes. To support learning and practice across the sector through the sharing of learning identified and approaches to improvement.

Review Group:

The group will comprise nominated individuals who are independent of the care homes, or associated Health Boards or Health and Social Care Partnerships. Members of the team will bring expertise to the analysis and at least one member of the team must be experienced and trained in investigation review and root cause analysis.

Key roles

- follow an adverse incident investigation process to identify any common themes and learning from recent care homes outbreaks
- consider COVID outbreaks from August 2020 in care home settings identified to understand:
 - o the factors that lead up to a COVID care home outbreak; and
 - o if there are shared new characteristics across these.
- understand the characteristics and risk factors of outbreaks in care homes and assess this against learning the first half of 2020. This approach will ensure appropriate clinical and operational guidance can be prepared for the sector
- review feedback and information from local incident management teams and other data sources e.g. safety huddle tool across all KPI's including workforce, DoPH weekly returns, care inspectorate data, SSSC data, Scottish Care data. Review timeline of events so far from IMT minutes and documents related to these care homes.
- undertake interviews with local oversight teams and care homes
- explore the hypothesis that that care homes that were not affected by COVID to June 2020 are more at risk this winter

- review contributory factors, wider learning, and emerging national and international evidence and make recommendations to inform future practice and local arrangements during phase 2 of this pandemic that will support infection prevention and control across care homes
- identify what further actions can be taken at local and national level to support care homes to deliver within this context

Guiding principle

Central to the operation of the Analysis Exercise is a partnership between the sector, agencies and others, dedicated to understanding the issues and challenges from COVID facing the care homes in winter 2020 and beyond. Recommendations will be made for the benefit of residents of care homes, the workforce and families of residents in an independent and objective way.

Membership

The Analysis Exercise will be led by Professor Jacqui Reilly and David Crawford supported by Donna O'Boyle. The Reference Group will comprise of a group of named expert advisers that will not include individuals who have been previously been involved in assessing the IMT for any of these 4 care homes, will provide operational and delivery related guidance as required over the period.

Name	Role
lan Ramsay	CSWO Aberdeenshire Local Authority
Hazel Borland	NHS Board Nurse Director
Jennifer Champion	NHS Board Director of Public Health
Michelle Watt	General Practitioner
Joanna Macdonald	Chief Officer Argyll and Bute

David Marshall	Improvement Officer Care Inspectorate
Gareth Hammond	Regional Inspector, Care Inspectorate
Claire Pugh	Improvement Officer, Health Improvement Scotland
Joan Higgins	Senior Infection Prevention Control Nurse
Sarah Smith NHS	NHS Lothian Chair of HCS Forum
Nicola Dickie COSLA	Partnership Side Rep
Donald MacAskill	Scottish Care
Philip Gillespie	Director of Workforces SSSC

Key roles of the Reference Group

- advise the review group on key data that should be considered as part of the Root Cause Analysis
- advise and support the review group throughout the fact-finding process, helping to formulate appropriate questions
- provide feedback on key aspects of the Scottish Government clinical and practice guidance for care homes during the pandemic
- provide feedback on the Scottish Government's communication strategy

Timeline

The team undertaking the Root and Cause Analysis Exercise will meet as frequently as required from 12 October to deliver conclusions and make recommendations for publication no later than the end of October.

Data/information sources for review:

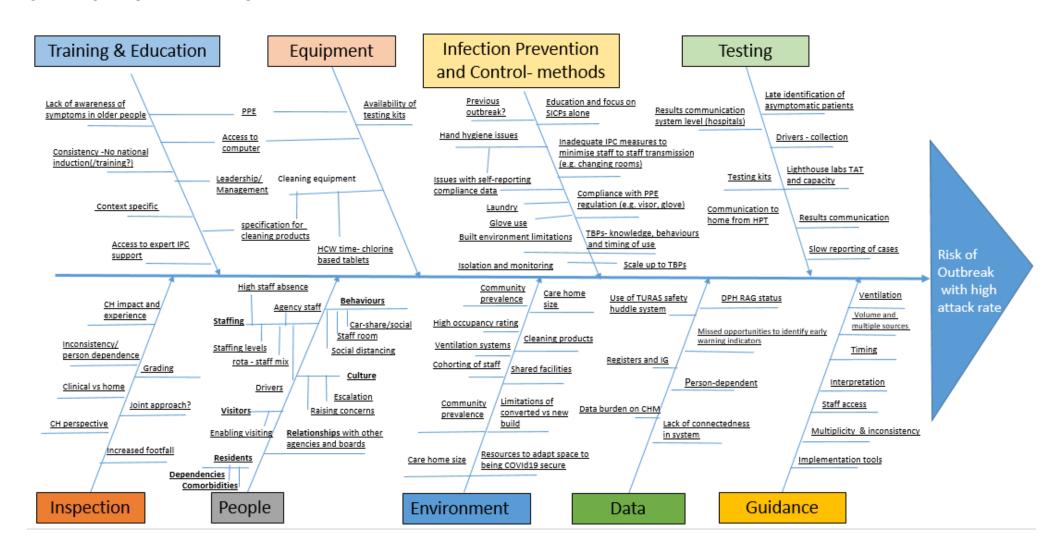
- information and data from Care Inspectorate e.g absence levels reported, dates and findings of last inspection, any reports of incidents (e-forms) or complaints during the previous 4/6 weeks.
- information and outputs form local PAGS/IMT's
- last 4 6 reports from weekly DoPH returns
- trend/KPI information from TURAS Care Management safety huddle tool and compliance, staffing, occupancy, escalation, dependency.
- information from discussion with oversight groups or Sitrep reports locally and SG
- most recent DoN assurance visit findings and any recommendations
- information on testing any delays in returns with testing
- interview information with care home managers and unions

Outputs:

- adverse incident review report to be compiled by review team and shared with Health and Social Care Management Board,
 Directors and Cabinet Secretary; and
- report conclusion and recommendations to be published. However it will be shared with and presented to NHS Boards and Health and Social Care Partnership oversight groups, care home providers, care home managers 1 day in advance of publication to ensure factual accuracy.

APPENDIX 2

CARE HOME ISHIKAWA DIAGRAM



APPENDIX 3

GLOSSARY

Acronym	Meaning
AMR	Antimicrobial Resistance
ARHAI	Antimicrobial Resistance and Healthcare Associated Infection
CDC	Centre for Disease Control
CI	Care Inspectorate
COSLA	Convention of Scottish Local Authorities
DPH	Director of Public Health
ECOSS	Electronic Communication of Surveillance in Scotland
GP	General Practitioner
H&S	Health and Safety
HAI	Healthcare Associated Infections
HIS	Heath Improvement Scotland
HPN	Health Protection Nurse
HPT	Health Protection Team
HSCP	Health and Social Care Partnership
IMT	Incident Management Team
IPC	Infection Prevention Control
IPCN	Infection Prevention Control Nurses
LTCF	Long-term Care Facility
MoA	Memorandum of agreement
NES	NHS Education for Scotland
NHS	National Health Service
NSS	National Services Scotland

PAG	Problem Assessment Group
PHS	Public Health Scotland
PPE	Personal Protective Equipment
RCA	Root Cause Analysis
SAE	Serious Adverse Event
SAGE	Scientific Advisory Group for Emergencies
SAS	Scottish Ambulance Service
SG	Scottish Government
SGHSCD	Scottish Government Health and Social Care Directorates
SICP	Standard Infection Control Precautions
SPSO	Scottish Public Services Ombudsman
SSSC	Scottish Social Services Council
SVQ	Scottish Vocational Qualification
TBP	Transmission Based Precautions
UKPHR	United Kingdom Public Health Register
WHO	World Health Organization



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