RAPID RISK ASSESSMENT

Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK

19 November 2020

Summary

Observed all-cause mortality among older people underlines the severe impact of COVID-19 in this population group. Residents in long-term care facilities (LTCFs) are one of the most vulnerable populations, and particular focus should be given to the prevention of SARS-CoV-2 introduction and to outbreak control in LTCFs.

Given the increased vulnerability and other underlying health problems of LTCF residents, COVID-19 outbreaks in this setting can have devastating effects. Social vulnerability in LTCF residents may also be exacerbated if non-pharmaceutical interventions are in place that limit physical personal interactions or impact access to health services.

This risk assessment details the latest epidemiological data in the European Union/European Economic Area (EU/EEA) and the United Kingdom (UK) with a focus on older age groups and national reports of outbreaks among residents of LTCFs. All EU/EEA countries and the UK have experienced outbreaks among LTCF residents since August 2020.

What risk is being assessed?

In light of the current increase in COVID-19 notification rates observed within the general population in the EU/EEA and the UK, this document assesses the risk related to COVID-19 infection among residents in LTCFs in the EU/EEA and the UK.

The probability of COVID-19 introduction into an LTCF depends on the level of SARS-CoV-2 circulation in the community, with a higher risk associated with higher incidence rates in the community. Following introduction, the likelihood of nosocomial transmission of COVID-19 is high, as observed in many facilities. According to the latest data available to ECDC [week 45/2020], all but one of the EU/EEA countries and the UK fall within the category of 'serious concern', as they have high or increasing case notification rates and/or test positivity ≥3%, as well as high notification rates in the older age groups and/or high mortality rates.

The overall probability of infection for LTCF residents in these countries is assessed as very high in light of the current epidemiological situation in the EU/EEA and the UK. Given the congregate nature of LTCF, the probability of further spread of the virus within these settings is also very high.

Increased morbidity and mortality have been reported in LTCFs across the EU/EEA and the UK despite the implementation of specific control measures in these settings. Hospital and ICU admissions and occupancy have been increasing and some sub-national areas are experiencing significant pressure on their healthcare services. As a result, the overall impact of infection for LTCF residents is assessed as very high.

For residents of LTCFs, who have a very high probability of infection and a very high impact of disease, the overall risk related to COVID-19 infection is assessed as being very high.

Suggested citation: European Centre for Disease Prevention and Control. Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK. 19 November 2020. ECDC: Stockholm; 2020.

Options for response

This rapid risk assessment offers options for response in the areas of management, SARS-CoV-2 testing, prevention and control of SARS-CoV-2 transmission and vaccination, all within the context of LTCFs.

Within the area of LTCF management, the following options should be considered:

- Ensuring access to information and resources in the form of guidelines, guidance and procedures on the prevention and control of COVID-19, as well as access to appropriate equipment, which will support and ensure all facilities establish safe routines for care.
- Ensuring the designation of lead persons within each LTCF who will lead and support the implementation of measures within the facility.
- Ensuring adequate registration and access to external consultation services for healthcare, in order to safeguard continuity of care.

With regard to SARS-CoV-2 testing within LTCFs:

- ECDC guidance recommends regularly testing all staff at LTCFs located in areas with community transmission, to isolate and test possible cases as soon as possible and to comprehensively test all residents and LTCF workers upon identification of a confirmed case among residents or LTCF workers.
- While Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) remains the gold standard for all SARS-CoV-2 confirmatory testing, within LTCFs it is suggested to consider favourably the use of Rapid Antigen Tests as they may; support the early identification of infected individuals; they can support outbreak investigations and contact tracing; and as they can be used for regular screening staff or people in high-risk settings such as LTCFs.

To minimise the risk of COVID-19 introduction into LTCFs, the following options should be considered:

- Reinforcing messages on the essential measures for minimising the introduction of COVID-19 infection into to LTCFs by those working there.
- Establishing procedures for the (re)-admission of LTCF residents recuperating from COVID-19 related symptoms to further prevent the introduction of infection to a facility.
- Establishing risk-based and proportionate infection prevention and control measures that will allow safe visits to residents. Recognising that the social vulnerability in LTCF residents may be exacerbated when non-pharmaceutical interventions are in place that limit physical personal interactions, allowing external visitors, should be strongly considered.
- Establishing procedures that ensure rapid access and mobilisation of personal protective equipment to and within LTCFs.

To minimise the risk of COVID-19 transmission within LTCFs, the following options should be considered:

- Establishing rigorous procedures and practices for managing residents with symptoms of COVID-19, including but not only limited to: access to testing, isolation of patients, awareness by all personnel of the common COVID-19 symptoms, application of infection prevention and control practices and use of personal protective equipment.
- Minimising forms of personal contact that are known to be a risk for COVID-19 transmission, by for example ensuring physical distancing, universal masking, adequate ventilation, hand-washing facilities, as well as adapting how different activities are organised within the facilities.
- Regular cleaning followed by disinfection is recommended for common areas and resident rooms, especially for frequently touched surfaces. In addition, ventilation plays a key role for the prevention of respiratory infections in healthcare settings. The minimum number of air exchanges per hour should be ensured at all times, in accordance with the applicable regulations.

Considerations for pneumococcal and influenza vaccination as well as for a future COVID-19 vaccine should be made for the following reasons:

- The vaccination of people aged 65 years and older against pneumococcus and influenza may mitigate the impact of COVID-19 diseases in this population as it may help reduce the occurrence of these infections and their known associated complications, and further also as it may reduce the number of related hospitalisations.
- Given their direct contact with medically vulnerable people, healthcare workers and staff working in health care facilities should be offered appropriate vaccination against influenza to reduce the risk of infecting vulnerable groups, in addition to protecting themselves.
- Among the priority groups to be vaccinated against COVID-19 when vaccines become available, we indicate the following groups: people aged 60 years and above should be prioritised and especially those who are residents in LTCFs, healthcare workers providing direct care to LTCFs residents, and LTCFs staff in order to minimise the risk of infection to vulnerable persons. National vaccination deployment plans should also have a section on groups to be prioritised for vaccination, under the assumption that the initial supply will be limited.

Public health issue

Given the current increase in COVID-19 notification rates observed within the general population in the EU/EEA and the UK, what is the risk related to COVID-19 infection among residents in long-term care facility (LTCF) residents in the EU/EEA and the UK?

COVID-19 outbreaks in LTCFs, which are a relatively closed and high-occupancy setting, can have devastating effects given the increased vulnerability and other underlying health problems of residents, resulting in a high likelihood of unfavourable outcomes to infection. Increasing reports of COVID-19 outbreaks in LTCFs are being reported in all countries in the EU/EEA and the UK, both in national reports and in the media.

Disease and virus background

For information on the latest scientific evidence on COVID-19, please visit ECDC's website: https://www.ecdc.europa.eu/en/2019-ncov-background-disease

Event background

Facility types considered in this risk assessment

LTCFs encompass a broad range of institution types, from those that are purposefully home-like to those providing specialised medical care. There are substantial differences in the organisation of long-term care between and within European countries, and these are likely to affect infectious disease preparedness and response in LTCFs [1,2].

This document primarily considers LTCFs for older people, which includes most LTCFs in the EU/EEA and the UK [3], due to the medical vulnerability of older people to COVID-19. These include institutions such as nursing homes, skilled nursing facilities, retirement homes, assisted-living facilities, and residential care homes among other facilities [3]. There are an estimated 3.5 million residents in 62,000 of these LTCF types in the EU/EEA and UK [4]. LTCF residents represent approximately 0.7% of the total population. These facilities take care of people requiring support, who find it difficult to live independently in the community due to the interaction between barriers in the environment and physical, mental, intellectual or sensory impairments, possibly as a result of old age or chronic medical conditions. They may have residents in different medical states, including those who need constant supervision (24 hours a day), those who need 'high-skilled nursing care' (i.e. more than 'basic' nursing care and assistance for daily living activities), and those receiving end-of life-care; while others may be medically stable, do not need constant 'specialised medical care' (i.e. care administered by specialised physicians), and do not need invasive medical procedures (e.g. ventilation).

Epidemiological overview: COVID-19 in the EU/EEA and UK

Age-specific trends in COVID-19 cases, hospitalisation and deaths in the EU/EEA and the UK

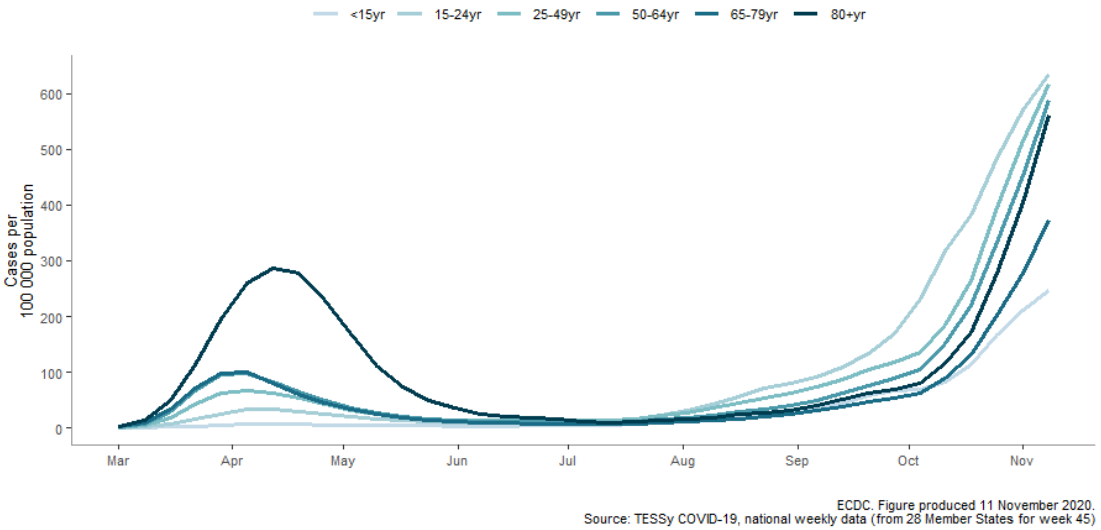
As of 8 November 2020, all EU/EEA Member States and the UK except Finland reported 14-day notification rates greater than 100 per 100 000 people, and five countries reported notification rates higher than 1 000 per 100 000 (Belgium, Czechia, Liechtenstein, Luxembourg, and Slovenia).

The 14-day death rates were above 10 per million people in 26 out of 31 countries with the highest rates reported in Czechia (245) and Belgium (202). All EU/EEA countries and the UK except Finland were assessed as being countries of serious concern as of 8 November as per the ECDC classification (Annex 1).

Notification rates started increasing overall in the EU/EEA and the UK in July after a period of low notification rates in the late spring to early summer. All countries have reached a level above those observed during the first wave of infections (Figure 1), with the higher rates most likely related to more widespread testing across the region since the spring, but nonetheless indicating high levels of transmission in most countries.

As of 9 November 2020, high notification rates among older people (defined as rates >60 per 100 000 people among those aged 65 years or over) have been observed in 24 out of 27 countries where data were available (Figure 1, Annex 2). Notably, age-specific notification rates since July 2020 have had a different pattern compared to March-May 2020. In spring 2020, the highest rates were observed among older people. Since July 2020, rates have been highest among younger age groups, particularly 15-24-year-olds and 25-49-year-olds, with the increases in younger age groups preceding the increases observed in people aged 65 years or over (Figure 1). These changing patterns are also likely to be driven by changes in testing practices over time. During the spring, very few countries had the capacity for widespread testing of mild or asymptomatic cases, and as a result most testing was concentrated in hospitals and among more severe cases, which tended to be among older age groups [5].

Figure 1. 14-day age-specific COVID-19 case notification rate in the EU/EEA and UK



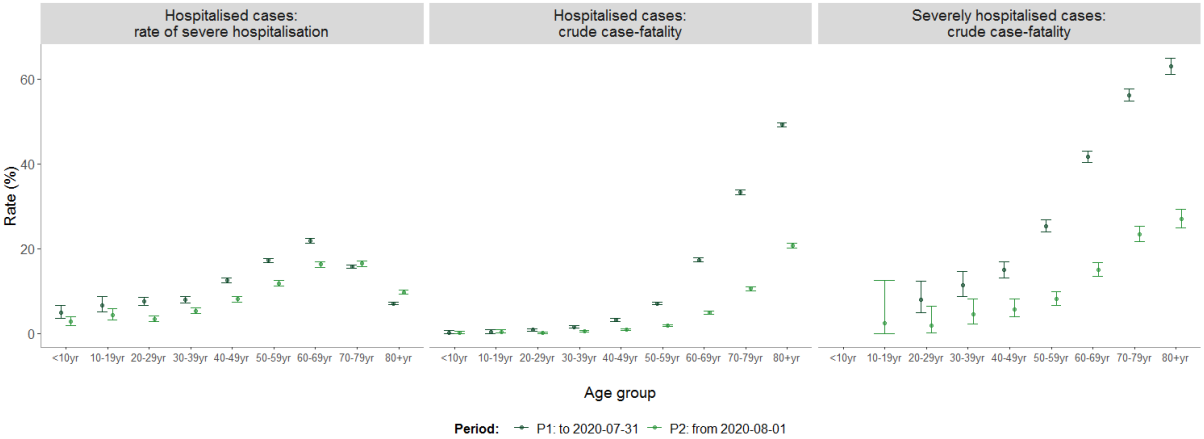
In the surveillance data reported to ECDC, the case fatality rate in several EU/EEA countries is currently lower than that seen in March and April 2020. This is partly attributable to a higher case identification capacity, which detected more younger and asymptomatic cases. However, decreases in case fatality can also be seen among cases in older age groups, in hospitalised patients and in patients admitted to intensive care (Figures 2 and 3).

In logistic regression analysis of cases with complete outcome information, case fatality in COVID-19 cases admitted to intensive care (N=25 094, Figure 3) remained significantly lower during the second wave (Aug—Nov) after adjustment for age, gender, country and the number of comorbidities reported in case-based surveillance data to TESSy (adjusted Odds Ratio$_{Aug-Nov}$ 0.23 [0.22-0.25]).

This improved outcome may be attributable to improvements in the clinical management of severe cases. These include the introduction of treatments such as corticosteroids; improvements in the management of adult respiratory distress syndrome (ARDS), such as optimising the use of high-flow nasal oxygen and non-invasive ventilation; and the recognition of the role of hypercoagulability and endothelial injury in the disease pathogenesis, allowing prevention of thrombotic complications through administration of anticoagulants (e.g. heparin).

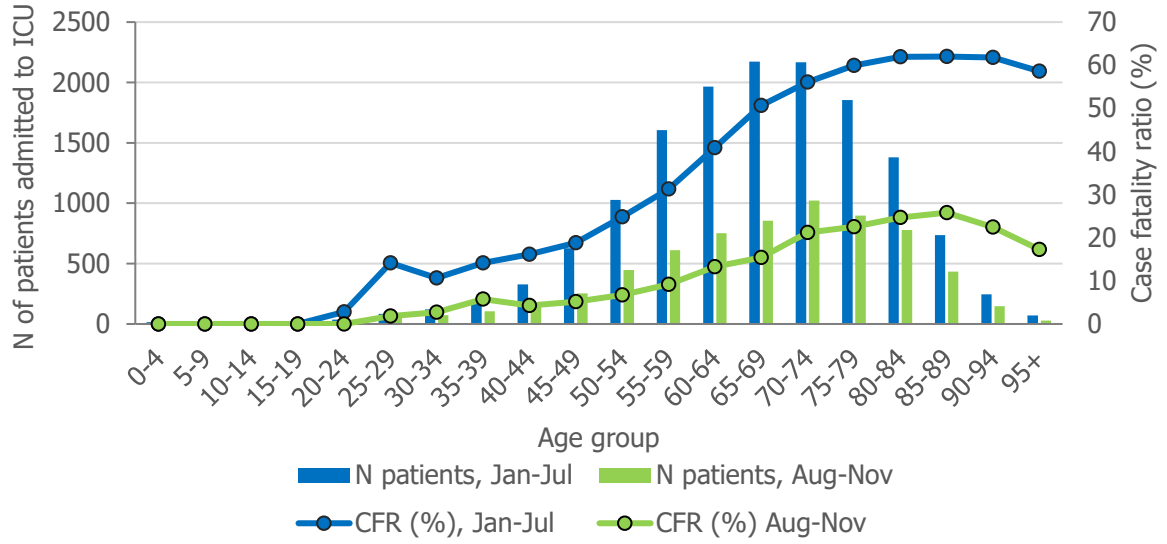
The rates of severe hospitalisation (defined as admission to intensive care units and/or need of respiratory support) have decreased significantly among hospitalised cases aged 20-69 years, remained stable among people aged 70-79 years, and increased among people aged 80 years and older (Figure 2). This may be because more ICU beds have become available, and/or due to improved awareness of the spectrum of symptoms presented by older people, changes to healthcare referral policies and practices and additional teams of specialised professionals.

Figure 2. Age-specific rates of severe hospitalisation and case-fatality among hospitalised and severely hospitalised cases in the EU/EEA and UK by two time periods



Note: some age groups have missing values for severely hospitalised cases as no deaths were reported in these groups

Figure 3. Age-specific case-fatality among patients admitted to intensive care units, in countries that reported* case-based data, 1 January — 31 July and 1 August— 10 November 2020, EU/EEA and UK (N=25 094 patients)



*Source: TESSy; CFR — case fatality ratio; * Austria, Czech Republic, Germany, Estonia, Finland, Ireland, Iceland, Italy, Lithuania, Latvia, Norway, Poland, Portugal, Sweden, Slovakia*

All-cause excess mortality

The first wave of COVID-19 in the spring mainly impacted older people. This contributed to all-cause mortality rates that exceeded those for previous years, most prominently in older age groups [6]. Data reported to the European monitoring of excess mortality for public health action (EuroMOMO) network by 22 participating European countries showed a substantial all-cause excess mortality in pooled estimates, and most particularly in Belgium, France, Ireland, Italy, the Netherlands, Spain, Sweden, Switzerland and the UK [6]. In the second wave of COVID-19, as of week 45 (data still being consolidated at the time of this report), excess mortality was observed in Belgium, France, Italy, the Netherlands, Slovenia, Spain and Switzerland, while other countries (Austria, Portugal, the UK) also reported increasing excess mortality at already moderate or low levels. This excess, all-cause mortality was attributed mostly to people age 65 years and older, but also observed in younger age groups (45-64 years), with the largest excess observed in those age 75-84 years and 85 years and older.

Epidemiological overview: Determinants of the epidemiology of COVID-19 in LTCFs

COVID-19 outbreaks in LTCFs in the EU/EEA and the UK

As of June 2020, EU/EEA countries that have established surveillance systems in LTCFs reported that in recent months up to 5% (Belgium) to 6% (Spain) of all LTCF residents died of COVID-19. Deaths in LTCF residents represented up to 63% (Ireland) or 64% (Belgium) of all COVID-19 related deaths [7-9]. The prevalence of fatal cases among LTCF population appears to be associated with the prevalence in the community, at national and subnational level [10,11].

Dynamics of COVID-19 outbreaks in LTCFs in the EU/EEA and the UK

Factors that facilitate outbreaks of COVID-19 in LTCFs and hamper the response, plus options for response, are described in the ECDC guidelines for non-pharmaceutical interventions to reduce the impact of COVID-19 in the EU/EEA and the UK (24 September 2020) [12] and the ECDC Infection prevention and control and preparedness for COVID-19 in healthcare settings - fifth update (6 October 2020) [13]. Subsequently, a root cause analysis of LTCF outbreaks in UK-Scotland has identified factors that directly contributed to increased likelihood of spread of COVID-19 to and within LTCFs [11]. These were:

(1) A high community prevalence of COVID-19 in the same sub-national region;

(2) Larger care home size (>20 beds) and higher occupancy;

(3) Staff who unknowingly worked while asymptomatic, due to delays/errors in reporting screening test results;

(4) Staff members (including nurses, carers and kitchen staff) who worked in more than one LTCF, or who were not cohorted to floors/units, who continued to work across these until outbreaks were confirmed;

(5) Missed opportunities to identify early warnings in safety data (e.g. staffing absence data, single positive cases);

(6) Insufficient training and adherence of staff to IPC measures and delays introducing additional transmission-based precautions when a case was suspected or identified;

(7) Challenges in implementing the most effective infection control practices (e.g. keeping up to date with the latest guidance and lack of expert advice or specific guidance such as for cleaning products);

(8) Inadequate staff IPC measures to minimise staff-to-staff transmission (e.g. situational awareness regarding the risk in changing rooms, break rooms, smoking shelters, car sharing and while socialising outside of work);

(9) Delayed recognition of cases in residents because of a low index of suspicion, i.e. being unfamiliar with the broader syndrome of COVID-19 in older people;

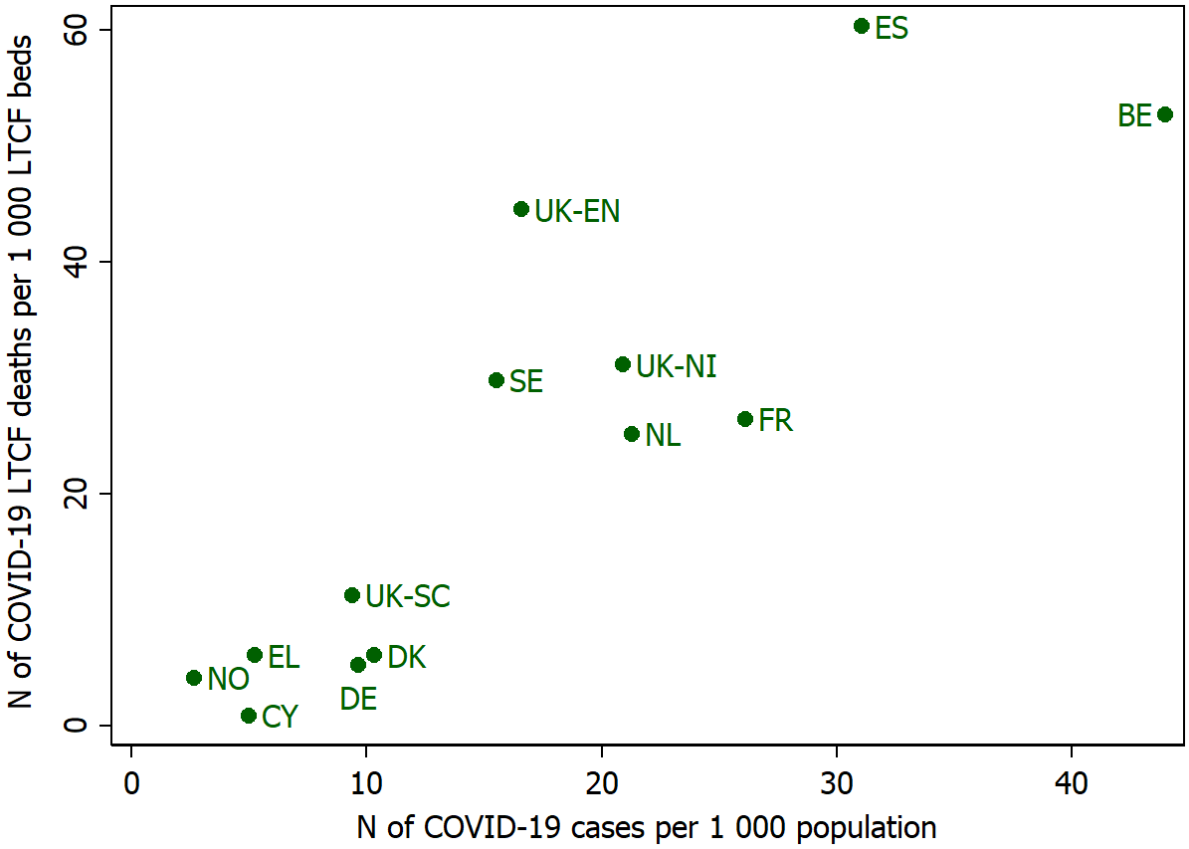
(10) Delayed identification of cases (e.g. limited availability of punctual testing or test reporting; asymptomatic/pre-symptomatic residents);

(11) LTCF residents at risk for severe morbidity and death sharing a location, e.g. LTCFs with high proportions of residents with dementia and receiving end-of-life care;

(12) Health system arrangements to support staffing in crisis, e.g. for staff absenteeism. For example, larger care homes groups tended to have less well-established relationships with national health services, and had less utilisation of the available and identified support [11].

High community prevalence of COVID-19 increases the risk of importation of the virus into an LTCF by possibly asymptomatic COVID-19 positive visitors and LTCF staff. Figure 4 shows the correlation between the incidence in the total population per 1 000 population and the number of deaths in LTCFs per 1 000 LTCF beds for selected countries and subnational regions (Spearman's rho 0.86, p=0.0002).

Figure 4. Correlation between COVID-19 cumulative incidence in the community and the number of deaths in LTCFs in selected countries and regions in the EU/EEA and United Kingdom, 1 January–17 November 2020



Total number of COVID-19 cases in the country (cumulative incidence) calculated from ECDC Epidemic Intelligence data for the same period for which LTCF data were available. Sources and covered periods: Belgium (BE) from 1/3 to 8/11 [14]; Cyprus (CY) from 1/9 to 8/11 [source: Ministry of Health of Cyprus, personal communication]; Denmark (DK) from 1/3 to 14/11 [15]; France (FR) from 1/3 to 8/11 [16]; Germany (DE) from 1/3 to 16/11 [17]; Greece (EL) from 1/8 to 11/11 [source: National Public Health Organization of Greece, personal communication]; the Netherlands (NL) from 1/3 to 3/11 [18]; Norway (NO) from 1/3 to 8/11 [19]; Spain (ES) from 1/3 to 15/11 [20]; Sweden (SE) from 1/3 to 9/11 [21]; the UK: England (UK-EN) from 17/4 to 13/11 [22]; Northern Ireland (UK-NI) from 1/3 to 6/11 [23]; Scotland (UK-SC) from 25/5 to 8/11[24].

Caveats: In some countries (e.g. DE, NO), LTCF data include deaths from LTCF types other than care homes for the elderly. In addition, COVID-19-related deaths in some countries include deaths in non-confirmed (suspected and probable) cases, especially during the first wave. Denominator data: mid-2019 population from Eurostat, number of LTCF beds from HALT-3 point prevalence survey.

Larger facilities have greater footfall, as they have more residents, more staff and more visitors (e.g. healthcare professionals and families), increasing the possibility of the introduction of COVID-19 to the facility and their residents. In the EU/EEA and the UK, staff often work in more than one facility [2], with the result that outbreaks have the potential to affect the regular operation of several LTCFs through increasing staff absenteeism. An analysis of clusters in community centres in Cuyahoga County, Ohio (US) identified 88% of index cases as healthcare workers [25,26].

In a review of 618/623 (99%) LTCFs in Ontario, Canada, 63 (10%) 86% of all cases reported were from LTCFs. The size of outbreaks was associated with the proportion of residents in 'crowded' rooms (those with two to four beds), with the risk of introduction observed to be equal in crowded and less crowded LTCFs. The authors estimate that converting all multi-occupancy rooms to single-occupancy may have averted 31.4% cases and 30.1% fatal cases [27]. In the ECDC point prevalence survey of healthcare-associated infection and antimicrobial resistance in European LTCFs, 2016–2017 (HALT-3), the median national percentage of single bedrooms among all bedrooms in LTCFs was 80.2% [28]. Shared washroom locations also represent a potential transmission risk area [11]. The percentage of bedrooms that were single bedrooms with their own toilet and washing facilities, among countries with a good national representativeness of their LTCF sample, ranged from <8% (Hungary, Italy, Lithuania, Slovakia and Spain) to 100% (Denmark, Norway, Sweden and UK-Scotland)) [28-30].

Several reported outbreaks document the rapidity with which COVID-19 outbreaks spread through LTCFs and the importance of LTCF workers and symptomless cases of introducing and transmitting infection [31]. For example, at a skilled nursing facility outbreak in King County, Washington State (US), the index case was postulated to be a healthcare worker. Within 23 days of the first SARS-CoV-2 positive test result, 64% (n=57/89) of LTCF residents

had tested positive. As of 3 April 2020, 15/57 (26%) of the SARS-CoV-2-positive residents at this facility had died [26]. In its response, the facility initiated two comprehensive point prevalence surveys (PPS), one week apart. Between these two PPSs, 24/27 (89%) 'asymptomatic' cases had developed compatible symptoms (i.e. they had been pre-symptomatic) [26].

Dementia and COVID-19

People living with dementia have a higher direct and indirect risk related to COVID-19. They are at risk of acquiring COVID-19, for reasons that may include a reduced capacity to adhere to public health recommendations and IPC measures, including isolation; and also experience poorer outcomes [32-34]. LTCF residents with dementia also face a risk from adverse events resulting from disruption of regular care, including from disruption of social support services [35]. An ECDC PPS in 2016—2017 (HALT-3) included 3 052 general nursing homes, residential homes and mixed facilities in 24 countries in the EU/EEA and the UK. Within these, 57% (mean national percentage) of LTCF residents had cognitive impairment (disorientation in time and/or place), ranging from 26% in Croatia and Malta to 78% in Finland [36].

The proportion of fatal cases of COVID-19 among LTCF residents in the EU/EEA and UK who were living with dementia ranged from 29% in Ireland to 61-75% in Spain, similar to the prevalence of dementia in that population (Spain: 61%—76% LTCF residents). Compared to all national fatal cases, the proportion of fatal cases that were LTCF residents with dementia ranged from an estimated 19% of fatal cases in Italy to 31% in UK-Scotland [37,38].

In UK-England and Wales, among 19 394 'care home resident deaths involving COVID-19', 90.4% had at least one pre-existing condition with dementia and Alzheimer disease being the most common (49.5%)[22].

Reports of outbreaks and fatal cases of COVID-19 among LTCF residents in EU/EEA countries and the UK

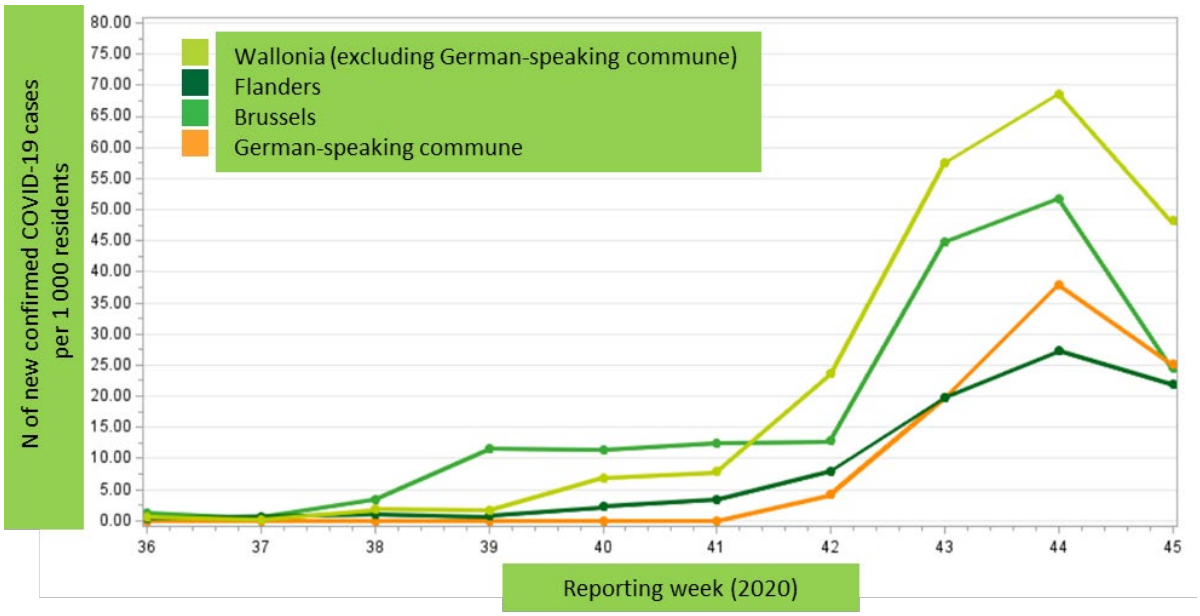
Increasing reports of COVID-19 outbreaks in LTCFs have been detected in all countries in the EU/EEA and the UK, both through the review of national reports and from reports in the media.

Based on national surveillance data in countries that publish national surveillance reports that include longitudinal data on COVID-19 in LTCFs, seven countries (Belgium, Denmark, Ireland, France, the Netherlands, Sweden and the UK) have reported an increase since July 2020, in both cases and deaths among LTCF residents. Below follows a summary of the national reports for these seven countries, and personal communications on the situation for two additional countries (Cyprus and Greece), followed by a summary of the main measures implemented in LTCFs during this time period for the seven countries. A detailed description of the measures for each of the countries can also be found in Annex 4.

Public national surveillance reports in the EU/EEA and the UK

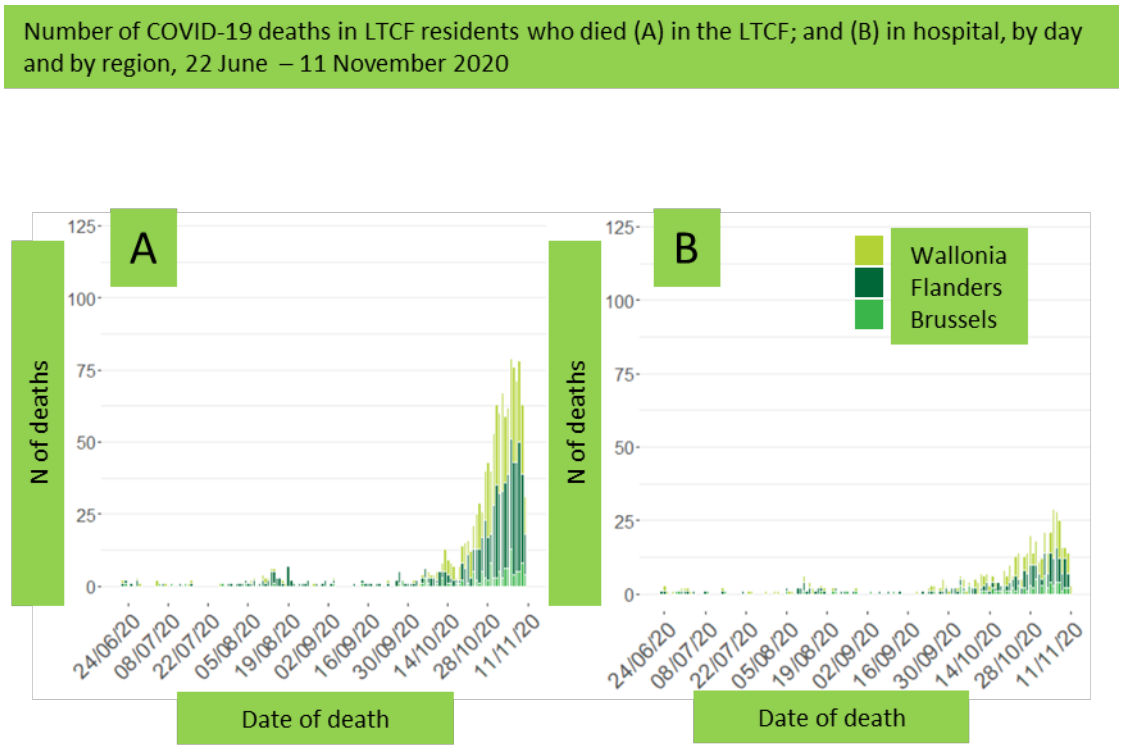
In Belgium, between 31 August and 8 November, a total of 1 488 COVID-19 related deaths were registered among residents of LTCFs, which represents 42.5% of the total number of all COVID-19 deaths reported in Belgium since 31 August. Of those, 72% died in LTCFs and 28% in hospitals, compared to respectively 78% and 22% before 21 June, and respectively 56% and 44% in the period between the two waves of COVID-19 (22 Jun-30 August). The latest national surveillance report shows the incidence in LTCFs started to increase from mid-October 2020 in all regions (Figure 5). From 31 August to 10 November 2020, 54% (833/1542) of LTCFs in Belgium reported outbreaks with≥2 confirmed cases and 29% (444/1542) with ≥10 confirmed cases. The sub-national regions with the highest incidence of cases and fatal cases were also the regions with the highest prevalence in the community. Between the end of October and early November 2020, the incidence of cases has decreased in all regions, but there was still a rise in fatal cases (Figure 6) [14].

Figure 5. Incidence of confirmed cases of COVID-19 in LTCFs per 1 000 LTCF residents, by week and by region/commune, 2 September – 10 November 2020, Belgium



Source: adapted from Figure 1 in [14]

Figure 6. Number of COVID-19 deaths in LTCF residents who died (A) in an LTCF; and (B) in hospital, by day and by region, 22 June – 11 November 2020, Belgium

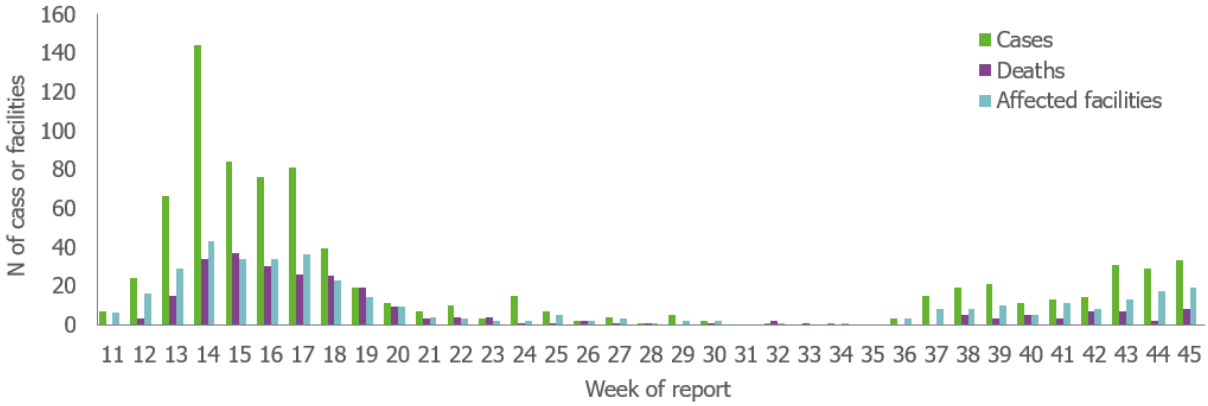


Source: adapted from Figure 5 in [14].

In **Denmark**, since 1 March, and as of 14 November, 798 cases have been reported among nursing home residents, in 175 nursing homes. These included 259 fatal cases, which is 34% of the 759 fatal cases in Denmark to date. There has been a small increase in cases in nursing homes since September (week 37), concurrent to increased case counts in the rest of the country (Figure 7), although with fewer cases and deaths reported compared to the first wave of the pandemic. More specifically, the weekly average number of fatal cases reported among nursing home residents was 29 in weeks 14-19, 0.9 in weeks 24–37, and 5.4 in weeks 41–44. In the most

recently reported week, week 45, there were eight fatal confirmed cases deaths and 33 confirmed cases reported among nursing home residents [15].

Figure 7. Number of confirmed cases, fatal confirmed cases and nursing homes with at least one confirmed case, weeks 11—45, Denmark

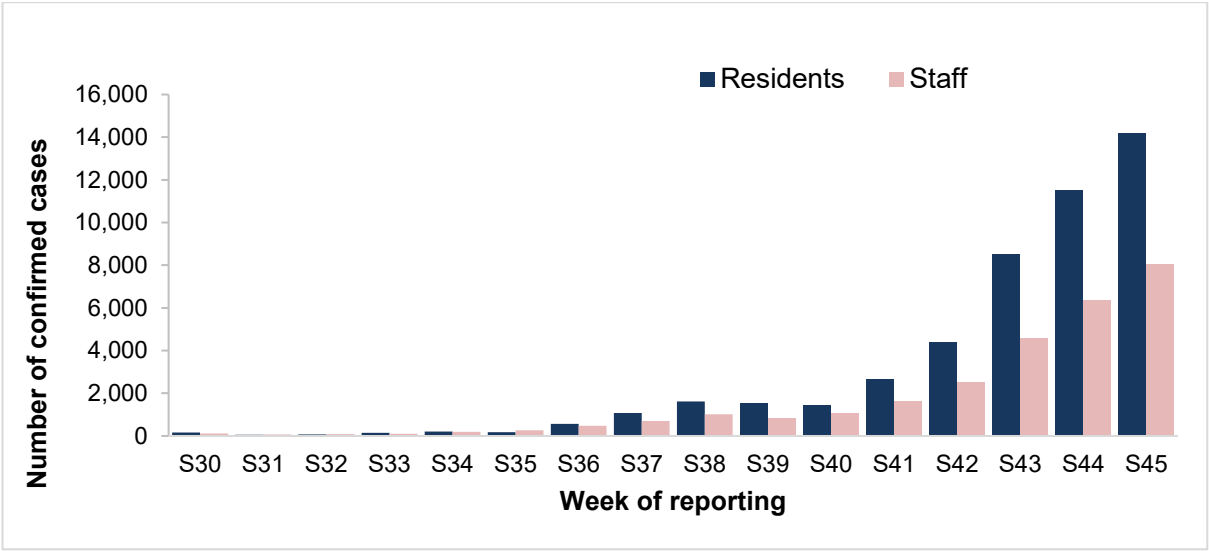


Source: Adapted from Table 7.1 in [15].

In **France**, national surveillance reports have observed an increase in the number of confirmed cases among LTCFs since the end of July, both among residents and staff (Figure 8). Since early September, the reports have indicated a sharp increase in deaths of residents occurring within LTCFs and during hospitalisation.

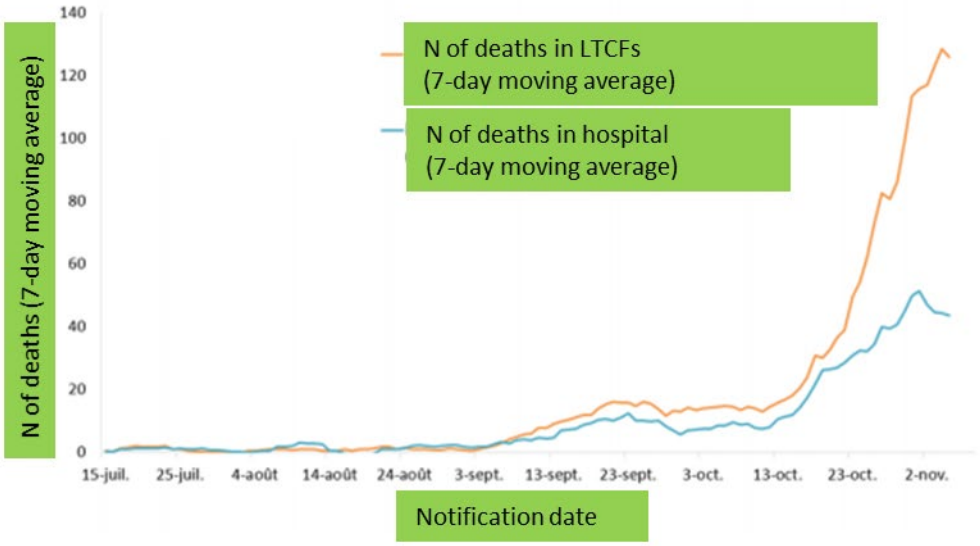
Since 1 March and as of 8 November, France has reported 75 321 confirmed cases and 18 214 fatal cases among LTCF residents, i.e. 45% of the 40 169 fatal cases reported nationally. Since 13 July, there were 39 107 confirmed cases among LTCF residents and 20 634 confirmed cases among LTCF staff [16]. The percentage of residents who died in the hospital was higher in the second period (32.8%) than in the first period (26.3%). Figure 9 shows that this percentage decreased sharply as the total number of deaths increased.

Figure 8. Number of confirmed cases of COVID-19 among medico-social institutions (including LTCFs) , by week, 20 July–8 November 2020, France



Source: adapted from Figure 19 in [16]; S – week of confirmation

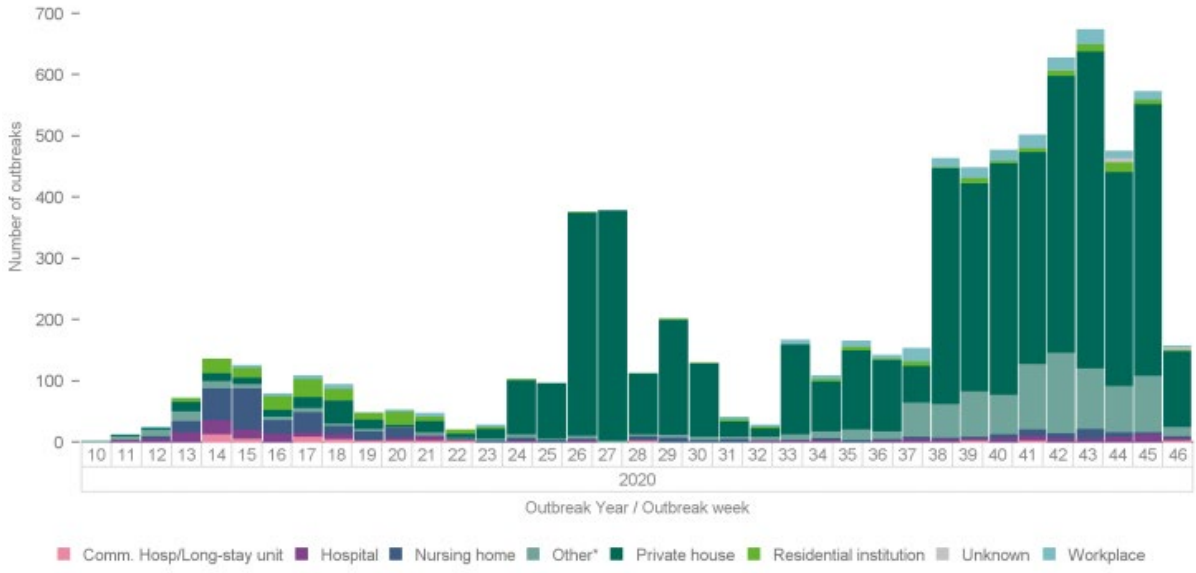
Figure 9. Seven-day moving average of the daily number of fatal cases of COVID-19 in LTCF residents by date of death report and by place of death, 20 July–8 November 2020, France



Source: adapted from Figure 20 in [16]. Data for week 45 are being consolidated.

Ireland reports the number of outbreaks per week in its weekly surveillance report (Figure 10). There is no notable change in the frequency of outbreaks in LTCFs apparent in this data. The report does not contain data on the size of the outbreaks, nor the number of cases or fatal cases among LTCF residents [39].

Figure 10. Trend in number of COVID-19 clusters, by location and week notified, weeks 10—46, Ireland

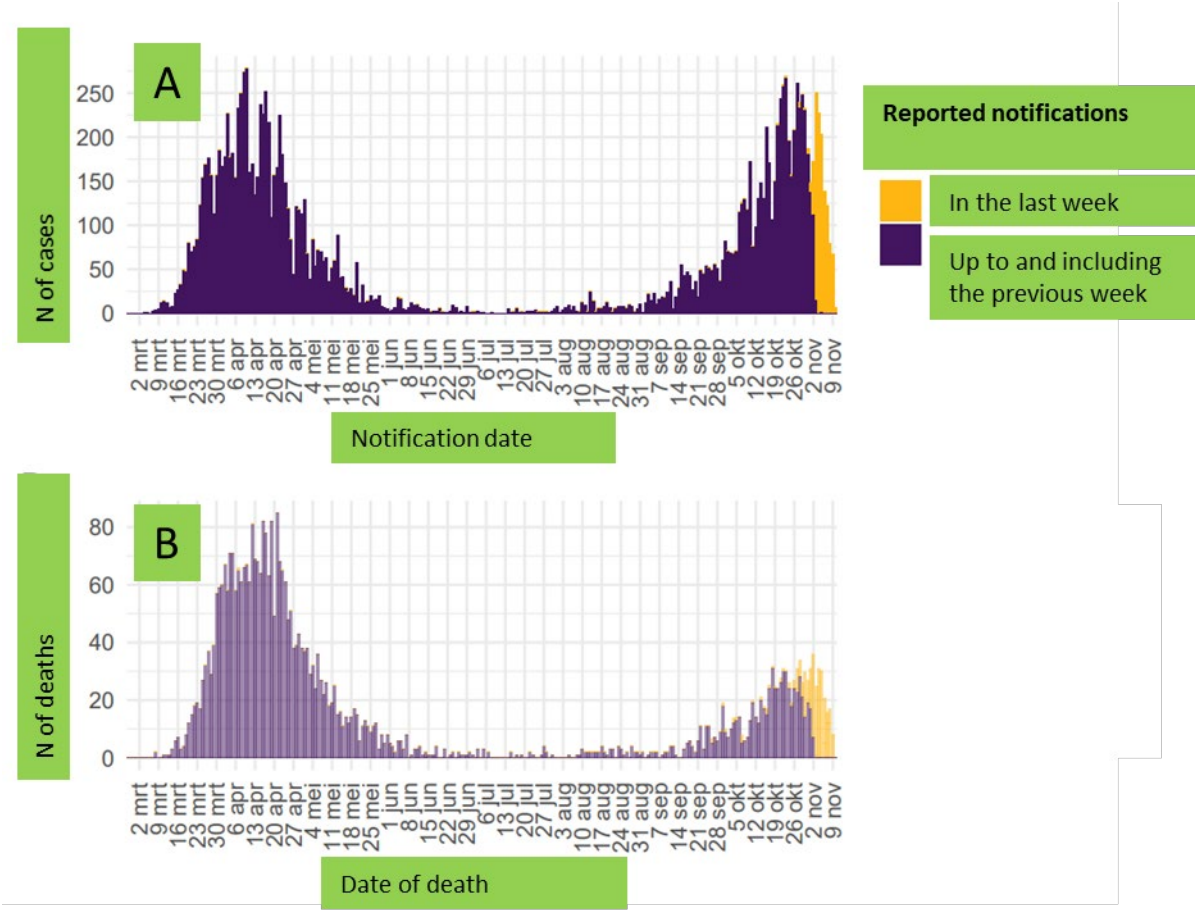


Source: adapted from Figure 5 in [39]. ***The figure includes outbreaks notified to health authorities in Ireland by midnight on 9 November 2020.*** *Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations. Note: 6,576 COVID-19 outbreaks were reported on CIDR between week 24 and week 45 2020 (9th June to 9th Nov). Of these, 5,113 were family outbreaks. Based on the earliest date associated with each outbreak, some of these family outbreaks occurred earlier and were reported between weeks 24 and 45 as a result of data validation: 1 occurred in February, 636 in March, 474 in April, 94 in May, 126 in June, 127 in July, 533 in August, 1,495 in September, 1,518 in October and 109 to date in November.*

The Netherlands has reported an increasing incidence of cases and deaths among LTCF residents since the beginning of September [18] (Figure 11). In the most recent weeks the incidence of cases and fatal cases in LTCFs have decreased. Between 26 October and 1 November there were 150 'new LTCFs', whereas between 2 and 9 November there were 104 'new LTCFs' [40]. New LTCFs are defined as LTCFs that reported their first confirmed

cases with ≥28 days without a confirmed case [18]. As of 3 November, 17 365 COVID-19 cases and 2 317 deaths were registered among LTCF residents in the Netherlands [41]. On 3 November, Verenso, the association of specialists in geriatric medicine, reported that there had been the largest increase in weekly cases in LTCFs since the summer, with 842 more cases and 98 more deaths [41].

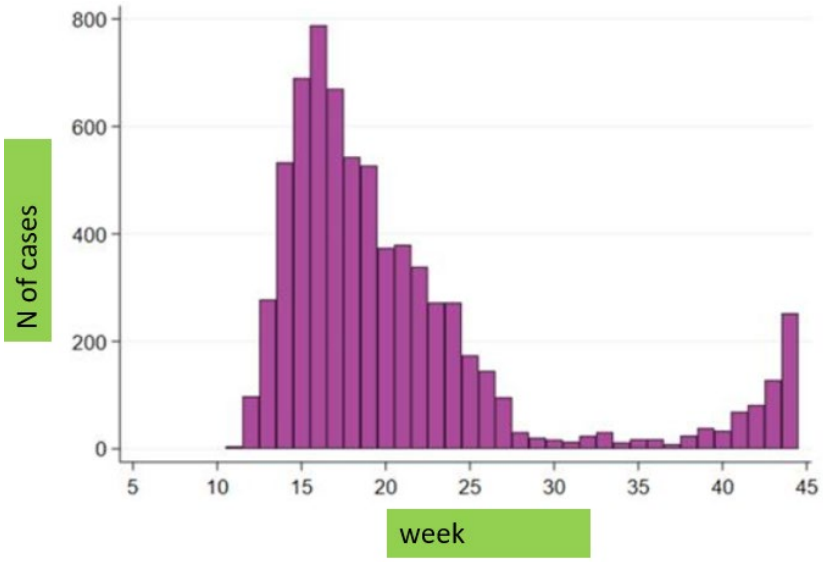
Figure 11. Number of COVID-19 cases among LTCF residents reported to the community health service (GGD) since 27 February 2020, who were (A) confirmed cases, by notification date; and (B) confirmed fatal cases, by date of death; the Netherlands



Source: adapted from Figure 46 in [18]. Reports to RIVM up to and including 27 October 10:00 am are shown in purple. Notifications from October 27 at 10:01 am to November 3 at 10:00 am are shown in yellow. There is no obligation to report death to COVID-19. the mortality figures are therefore shown in lighter colours, as they may be underreported.

Sweden reported a 97% increase in the number of confirmed cases among residents of LTCFs for adults between week 43 (19–25 October, n=128 cases) and week 44 (26 October–1 November, n=252 cases) (Figure 12) [42]. Since the start of the pandemic and as of 9 November, among the 21 301 cases aged over 70 years, there were 7 086 (33.3%) cases among people living in LTCFs; and 5 214 (24.5%) cases who received home service. Similarly, 2 774 (50.7%) of the 5 469 deaths among the cases aged over 70 years were among LTCF residents; and 1 539 deaths (28.1%) were among those receiving home care [21].

Figure 12. Number of COVID-19 cases among LTCF residents, weeks 11—44, Sweden

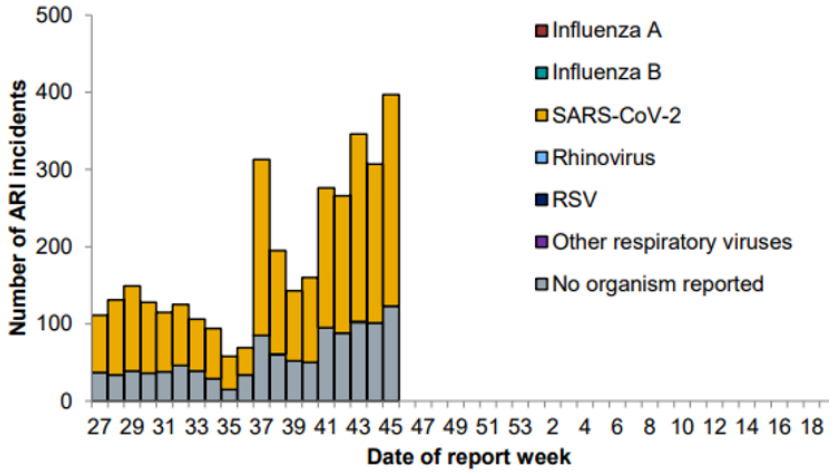


Source: Figure 3: "Number of cases in nursing homes per week", adapted from the "Weekly report on COVID-19, Week 44" from The Swedish Public Health Agency (Folkhalsomyndigheten) [42].

The **United Kingdom** has reported an increase in COVID-19 cases and deaths in LTCF in all its four administrations.

In **UK-England**, between 31 August and 8 November, Public Health England reported an increasing number of incidents of acute respiratory infection (ARI) in 'care homes', for both SARS-CoV-2 and incidents that had no organism reported (Figure 13) [43]. In more recent weeks, an increase in the number of COVID-19 cases reported in care homes has been observed, with 307 COVID-19 cases reported between 26 October and 1 November (25.7% of the 1 193 COVID-19 cases between 5 October and 1 November) [44], and 397 reported between 2 and 8 November (30.2% of 1 315 COVID-19 cases between 12 October and 8 November) [43]. In total, 20 883 deaths occurred among 'care home' residents between 17 April and 13 November, with a slight increasing trend being reported since 25 September [22].

Figure 13. Number of acute respiratory infection (ARI) incidents in care homes by virus type from week 27, UK-England

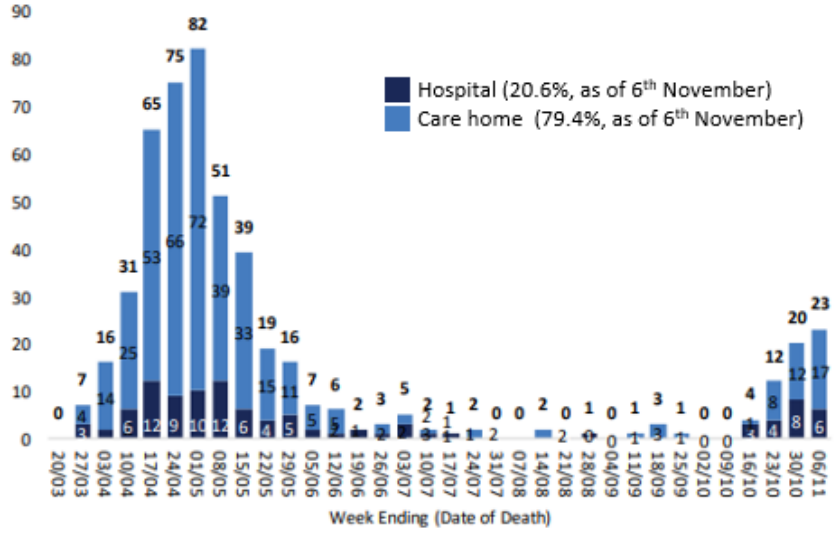


Source: Figure 16 in [43]. ARI – acute respiratory infection; RSV – respiratory syncytial virus

In the **UK-Northern Ireland**, the national report shows an increasing number of COVID-19 cases in 'care homes' since mid-August [45], and fatal cases since mid-October [23]. Between 4 July and 9 October, there were 0.9 fatal cases per week among care home residents, which has increased to 21.5 fatal cases per week in the most recently reported two weeks (24 October–6 November, Figure 14).

As of 6 November 2020, 496 deaths have been reported among care home residents, representing 43.5% of all COVID-19-related deaths [23]. In addition, 310 outbreaks in care homes have been reported, (affecting almost 50% of all care homes in the country, of which 20 outbreaks were reported in past week [46].

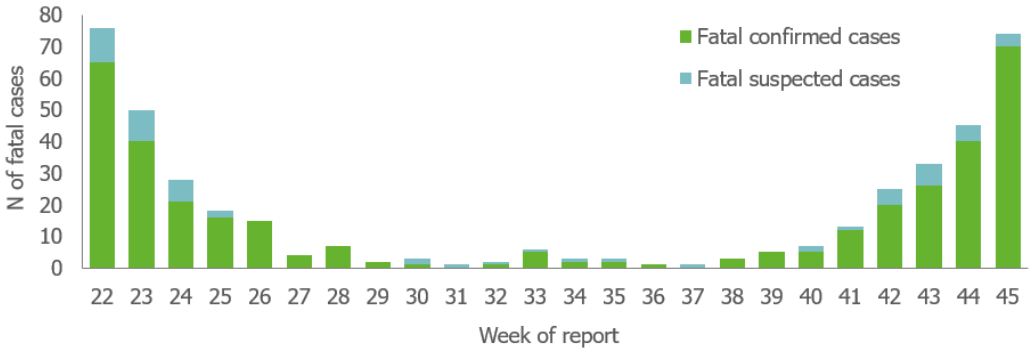
Figure 14. Number of fatal cases of COVID-19 among care home residents, by place of death, week and year to date as of 6 November 2020, UK-Northern Ireland



Source: adapted from Figure 9 [23].

In **UK-Scotland**, the number of COVID-19 cases [47] and deaths (Figure 15) [24,48] in 'care homes' has been increasing since mid-September. Between 2 and 8 November, there were 277 confirmed positive COVID-19 cases [49] and 70 confirmed deaths [24] among care homes residents. As of 8 November, of the 4 856 deaths involving COVID-19 in UK-Scotland, 50% related to deaths in hospitals, 43% of deaths were in care homes and 7% of deaths were at home or non-institutional settings. For context, in 2019 around 24% of all deaths occurred in care homes, 48% in hospitals and 28% in home or non-institutional settings [49].

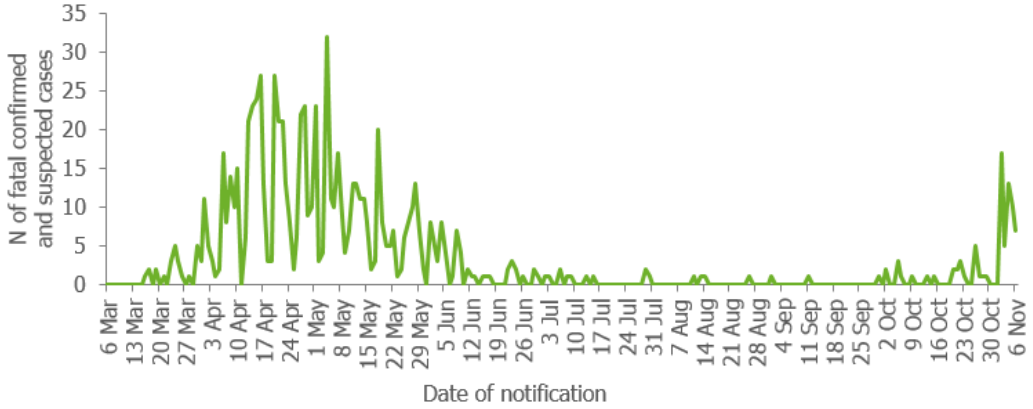
Figure 15. Number of fatal confirmed and fatal suspected cases of COVID-19 among care home residents, weeks 25 May–8 November 2020, UK-Scotland



Source: [47]

In **UK-Wales**, as of 10 November, between 31 October and 6 November there were 52 fatal cases (37 confirmed and 15 suspected) of COVID-19 in 'adult care homes'. In each of the two weeks prior to this, between the 17 to 23 October and 24 to 30 October, UK-Wales had reported comparatively lower rates of seven fatal confirmed case and one fatal suspected case in that setting [50] (Figure 16). Additionally, 5 232 deaths due to all-cause mortality within LTCFs for adults occurred between 1 March and 6 November 2020; this was 41% greater than during the same period in 2019. LTCF residents receiving care with nursing accounted for 68% of the total 5 232 deaths in UK-Wales between the 1 March and 6 November. Finally, 823 deaths with suspected or confirmed COVID-19 occurred among LTCF residents, making up 16% of all reported deaths [50]. Additionally, 5 232 deaths due to all-cause mortality within 'adult care homes' occurred between 1 March and 6 November 2020; this was 41% larger than during the same period in 2019. Care home residents receiving care with nursing accounted for 68% of the total 5 232 deaths in UK-Wales between the 1 March and 6 November. Finally, 823 deaths with suspected or confirmed COVID-19 occurred among 'care home' residents, making up 16% of all reported deaths. [50]. Of the 2 326 deaths among 'care home' residents between 2 March 2020 and 12 June 2020 and registered up to 20 June, the 'leading cause of death' was registered as COVID-19 in 778 (33.4%) [51].

Figure 16. Number of confirmed and suspected fatal cases of COVID-19 among LTCF residents by notification date, as of 6 November 2020, UK-Wales



Source: adapted from Dataset "Notifications of deaths of residents related to COVID-19 in adult care homes: 1 March to 6 November2020", Table 3: "Notifications of deaths of residents from adult care homes by date of notification and cause" [50].

In addition, two countries provided personal communication that described the equivalent national data.

In **Cyprus,** there are 126 LTCFs, including residential homes and nursing homes, with a total of 3 023 residents. During the first phase of the pandemic, only one fatal case of COVID-19 was recorded among LTCF residents. Between 1 September and 8 November 2020, there were 17 confirmed COVID-19 cases among LTCF residents; and 14 deaths related to COVID-19 recorded nationally, of which three were among LTCF residents. Since 23 October, three outbreaks have been recorded in LTCFs. (Source: Ministry of Health of Cyprus).

In **Greece**, during the first phase of the pandemic, 18 cases and six deaths associated with COVID-19 were recorded, all within two LTCFs. From August to November 2020, 732 confirmed COVID-19 cases and 66 deaths related to COVID-19 have been recorded in 31 LTCFs. The case fatality rate for August and September was 18% and for October and 8%. (Source: National Public Health Organization of Greece).

Media reports of outbreaks in LTCFs in the EU/EEA and the UK

The previous section of this document presents countries in the EU/EEA and the UK that have public national surveillance reports that contain longitudinal data on COVID-19 in LTCFs. All other countries in the EU/EEA and the UK have media reports, since September 2020, of outbreaks, or an increased frequency in outbreaks, of COVID-19 in LTCFs. Specific examples are available for **Austria** [52], **Bulgaria** [53], **Cyprus** [54], **Croatia** [55], **Czechia** [56], **Estonia** [57], **Finland** [58], **Germany** [59], **Greece** [60], **Hungary** [61], **Iceland** [62], Italy [63], **Latvia** [64], **Lithuania** [65], **Liechtenstein** [66], **Luxemburg** [67], **Malta** [68], **Norway** [69], **Poland** [70], **Portugal** [71], **Romania** [72], **Slovakia** [73], **Slovenia** [74] and **Spain** [75].

Measures for COVID-19 in LTCFs in countries reporting a recent increase in incidence of fatal cases in national surveillance reports

Annex 4 presents an overview of measures applicsable in LTCF for older people in Belgium, Denmark, France, Ireland, the Netherlands, Sweden and the UK.

During the spring of 2020, all countries recognised the vulnerability of LTCFs to SARS-CoV-2 by issuing regulations, guidance and recommendations regarding infection prevention and control measures to prevent introduction of the virus to the facilities and further to prevent its spread were it to be introduced. These measures included standard infection control precautions (e.g. hand hygiene, coughing etiquette, PPE, laundry and waste management); face mask use as a standard measure specifically for COVID-19; additional transmission-based precautions, where there is a known or potential case of COVID-19 in the LTCF, such as enhanced cleaning, staff cohorting and isolation of residents; and the establishment of testing policies for staff and residents, in addition to stay-at-home requirements for staff presenting symptoms.

In addition, all introduced regulations and/or recommendations in the first wave of the pandemic on how LTCFs could receive visitors, including some level of visitor restrictions, to reverse the increase in introduction and transmission identified in their LTCF settings. Some restricted or banned all non-essential visits to LTCFs (Belgium, Denmark, Ireland, the Netherlands, Sweden and the UK), and one country substantially limited the number of permitted visitors (France).

Since the summer, recommendations and measures for prevention and control developed during the first wave have been largely reiterated, in order to support their establishment. However, visitor restrictions have evolved to incorporate the growing scientific evidence, with the recognition of the negative effects of limiting social interactions for this socially vulnerable population group [76]. In brief, since the summer, all countries now allow

visits to LTCFs, albeit with stringent requirements on the number of visitors allowed, as well as the circumstances for the visits. This has included the number of visitors allowed, in what setting the visit can be held (in or outdoors), and the enforcement of additional infection prevention and control measures, including use of face masks. One country (the UK) recently launched a pilot intervention in three areas, looking to provide LTCF visitors access to testing prior to (with PCR testing) or upon arrival to (rapid lateral flow tests) facilities [77]. At the time of writing this Rapid Risk Assessment, Ireland and Northern Ireland had reported fully restricting/banning non-essential visits to LTCFs on their governmental websites.

Risk assessment question

This assessment is based on information available to ECDC at the time of publication and, unless otherwise stated, the assessment of risk refers to the risk that existed at the time of writing. It follows the ECDC rapid risk assessment methodology [78], with relevant adaptations. The overall risk is determined by a combination of the probability of an event occurring and its consequences (impact) for individuals or the population.

ECDC has developed epidemiological criteria to categorise the epidemiological situation in countries as being 'of concern' or 'of serious concern' (see Annex 1). Countries whose epidemiological situation does not meet the criteria for being either 'of concern' or 'of serious concern' are categorised as having a 'stable' situation although, countries in this category may still be reporting high or rising rates for at least one of the parameter values used as criteria.

Given the current increase in COVID-19 notification rates observed within the general population in the EU/EEA and the UK, what is the risk related to COVID-19 infection among residents in LTCFs in the EU/EEA and the UK?

The risk related to COVID-19 infection in EU/EEA and UK is currently considered **very high** for LTCF residents.

The probability of COVID-19 introduction into an LTCF depends on the level of SARS-CoV-2 circulation in the community, with a higher risk associated with higher 14-day incidence rates. Following introduction, the likelihood of nosocomial transmission of COVID-19 is high, as observed in many facilities. According to the latest data available to ECDC [week 45/2020], all but one of the EU/EEA countries and the UK fall within the ECDC-defined category 'of serious concern', as they have high or increasing case notification rates and/or test positivity ≥3%, as well as high notification rates in the older age groups and/or high mortality rates. The exception is Finland, which is as a country with a 'stable epidemiological situation'.

Although there has been a general increase in the levels of testing across all countries, which has resulted in the identification of additional cases who are asymptomatic or have mild disease, this increase in testing does not provide the full explanation for the concerning epidemiological picture in these countries. In fact, the concurrent increase in test positivity observed in many countries, which for some has been accompanied by an increase in hospital and ICU admissions, indicates an escalating epidemiological situation. In many of these countries, the notification rates in some sub-national areas are very high, and rates in other areas have been increasing.

Therefore, in light of the current epidemiological situation in the EU/EEA Member States and the UK, **the overall probability of infection for LTCF residents in these countries is assessed as very high**.

A number of Member States have seen a recent escalation in the notification rates for older age groups. This is of particular concern as older people are at increased risk of severe disease. LTCF residents in these age groups are therefore likely to experience severe outcomes of COVID-19.

Increased morbidity and mortality have been reported in LTCFs across the EU/EEA and the UK despite implementation of specific control measures in these settings. Hospital and ICU admissions and occupancy have been increasing and some sub-national areas have already signalled that there is significant pressure on their healthcare services. Given the congregate nature of LTCF, the probability of further spread of the virus within these settings is very high.

Although the case fatality rate appears to have decreased compared to the peak in March and April, including among older people and among hospitalised patients, probably due to improvements in clinical care, unfavourable outcomes remain very high among older people patients with COVID-19.

Therefore, **the overall impact of infection for LTCF residents is assessed as very high.**

For residents of LTCFs, who have a very high probability of infection and a very high impact of disease, the overall risk related to COVID-19 infection is assessed as very high.

Options for response

In the EU/EEA and the UK, the coordination, staffing, oversight, and management of LTCFs are often shared by multiple parties, authorities at national or subnational level, and organisations. This means that preparedness and response require coordination across different sectors, which makes the response to COVID-19 in LTCFs particularly challenging.

This rapid risk assessment suggests options for response for the central competent public health authorities. These authorities should provide guidance and support for the prevention, identification and management of COVID-19 outbreaks for all facilities that provide long-term care.

Support to LTCFs in preventing the introduction and transmission for SARS-CoV-2 needs to take a system level approach, recognising that there is no single intervention which will prevent transmission, and that multiple coordinated interventions will improve prevention success. The supportive interventions for LTCFs range from population efforts at suppressing the virus in the wider community (this aspect is not included or reflected in the current document), to infection prevention and control support measures within LTCFs themselves to prevent the introduction of and potential further transmission of the infection within a facility. These IPC measures, including the aspect of visitor restrictions, should be identified and established based on an informed risk assessment and be proportionate to the beneficial versus negative impact they might have on the residents.

Detailed recommendations for national public health authorities and LTCF administrators are contained in ECDC's fifth update of the LTCF guidance, with a selection summarised below.

A. Management of LTCFs

Ensure accessibility of information and resources for the prevention and control of COVID-19 for all facilities that provide long-term care

Competent authorities, such as the national public health institute, should ensure accessibility to COVID-19 information and resources for the control and prevention of COVID-19, for both LTCFs and LTCF-like[1] settings, e.g. by maintaining a comprehensive online repository of guidelines, guidance and training materials relevant to COVID-19 [79,80].

An implicit objective of such a repository is to provide all facilities, including those not yet registered with national authorities and those not yet included in current guidance [81,82], with the tools to develop their own comprehensive COVID-19 plans including IPC training activities [13]. This online repository should also contain guidance to help LTCFs avoid the possibility for indirect adverse effects of inappropriate application of COVID-19 measures. These should include measures that ensure psychosocial care of residents and staff; and continuity of healthcare for COVID-19 and other diseases, including maintained access to hospital healthcare, and palliation [83].

There is a comprehensive body of EU legislation to protect workers' health and safety in the workplace. In the event of a rise in infection rates in LTCFs, employers need to revise their workplace risk assessment and emergency plans and establish appropriate measures to prevent additional risk to workers. This includes technical, organisational and personal protective measures, and should take account of potential additional workload, staff absence and psychological stressors. Workers or their representatives and the health and safety committee should be consulted on any additional measures. Workers need to be provided with any PPE free of charge and have access to appropriate, rest, break, washing and changing facilities. Employers should ensure that workers in LTCFs are informed of the risks they are exposed to and appropriately trained. In the case of employees working at different locations, proper coordination between administrations/employers needs to be ensured to provide protection for the workers in question. Employers should also consult with occupational health and safety authorities, to ensure that COVID-19 preparedness and response plans can integrate measures to ensure the psychosocial well-being of staff and adhere to national requirements. Appropriate guidance is available in several Member States [84-86].

Ensure designation of lead persons within each LTCF

National authorities should ensure that LTCFs designate and train lead persons, or teams, to ensure the implementation of measures, including occupational safety and health (OSH) measures and procedures to address (1)

[1] LTCF-like settings include hospital long-term care wards, hostels (without any type of nursing care), sheltered care homes, day centres, home-based centres and facilities for protected living. ECDC's document 'Guidance on the provision of support for medically and socially vulnerable populations in EU/EEA countries and the United Kingdom during the COVID-19 pandemic' contains considerations for institutions supporting the homeless and people with alcohol or drug dependence.

IPC measures, supplies and training of staff and residents; (2) COVID-19 surveillance; (3) COVID-19 testing for the timely identification and control of outbreaks; (4) access to medical and psychosocial care; and (5) visitors [11]. Teams or responsible people need to be provided with the necessary means and resources.
Coordination of public and occupational safety and health authorities is recommended to ensure that measures are appropriate and cover both OSH and public health requirements.

Ensure adequate registration and access to external consultation services for healthcare

- The first step to ensure provision of services to LTCFs is to develop a comprehensive register of LTCFs at regional, national and federal levels. As of May 2020, this was not available in the vast majority of EU/EEA countries [87]. Data available at EU level can only be derived from ECDC point prevalence surveys of healthcare-associated infections (HAIs) and antimicrobial use in European long-term care facilities [13].
- National authorities should ensure that LTCFs have a register of residents, and all who work in the LTCF, that includes contact details, and, where applicable and health record identification number.
- If not already established, countries may consider pairing LTCFs to a local hospital and local public health authorities, for external advice on IPC and continuity of provision of essential healthcare services. The external IPC advice should ensure that LTCF staff are aware of signs and symptoms of, and risk factors for HAIs [13,87] and enable risk-based, context-specific, implementation of IPC guidance.
- It is plausible that adjustment of LTCF practices for COVID-19, particularly in LTCFs with reduced staff-to-resident ratios, may result in reduced compliance with measures to prevent HAIs, including those from organisms with antimicrobial-resistance (AMR), safe management of devices and antimicrobial stewardship [28,36,88].

B. SARS-CoV-2 testing at LTCFs

The ECDC guidance for COVID-19 surveillance in LTCFs [79] and the ECDC testing guidance [89] recommends the regular testing of all staff at LTCFs in areas with community transmission; to isolate and test possible cases as soon as possible; and to comprehensively test all residents and LTCF workers upon identification of a confirmed case among residents or LTCF workers. During the winter season, testing for SARS-CoV-2 should be a priority, but residents with respiratory symptoms and testing negative for SARS-CoV-2 should also be tested for influenza and respiratory syncytial virus (RSV).

Considerations for rapid antigen tests in LTCFs

To date, testing for SARS-CoV-2 infection mainly relies on reverse transcription polymerase chain reaction (RT-PCR) performed on a nasopharyngeal specimen. This testing method remains the gold standard for detecting SARS-CoV-2 and is characterised by both high sensitivity and specificity to detect viral ribonucleic acid (RNA). To complement RT-PCR testing, the clinical validation of rapid antigen tests performance is already in progress, and some rapid antigen tests have been integrated into routine use. In contrast to RT-PCR, which amplifies the virus target sequences and has generally a high sensitivity, rapid antigen tests detect the presence of a viral antigen in the patient's specimen without amplification. Most of the currently available Rapid antigen tests show a lower sensitivity as compared to the standard RT-PCR test; however, their specificity is generally reported to be high.

In comparison to RT-PCR tests, there are many operational benefits of rapid antigen tests for detection of SARS-CoV-2. Rapid antigen tests have been developed as both laboratory-based tests and for near-patient use (point-of-care), where results are normally generated in 10 to 30 minutes after start of the analysis. Rapid antigen tests generally offer low cost testing and relatively simple handling. Due to the timeliness of results, rapid antigen tests can provide added value e.g. in patient triage process in the healthcare settings at admission. In the context of contact tracing, Rapid antigen tests can allow for a more rapid identification of infectious contacts and a more frequent monitoring of their infectious status, while in quarantine through, recurring testing by rapid antigen tests.

Within LTCFs, it is suggested to consider favourably the use of rapid antigen tests for the following reasons:

- Rapid antigen tests may support the early identification of individuals that would likely transmit the SARS-CoV-2 infection onward. Rapid antigen tests have been shown to be more efficient in detecting cases in the days around the onset of symptoms, when the viral load is highest. Hence, a rapid antigen test should be used within five days after the onset of symptoms or no later than seven days after exposure.
- Rapid antigen tests can support outbreak investigations and contact tracing, as they will return the results quickly and make further contact tracing faster than with RT-PCR where the turnaround times are from one to several days.
- Rapid antigen tests can be used for screening staff or people in high-risk settings in which recurring testing every two to three days could identify people with a SARS-CoV-2 infection early to inform infection prevention and control measures.

For rapid antigen tests intended for use in point-of-care settings, trained healthcare and laboratory staff are needed to carry out sampling, testing, test analysis and reporting of test results to clinical staff and public health authorities at local, regional, national and international level.

C. Minimising the risk of COVID-19 introduction into LTCFs

Reinforce messages to minimise introduction of COVID-19 to LTCFs by those working in LTCFs

The risk of introducing SARS-CoV-2 to an LTCF in areas with established community transmission is especially high, and it has also been found to be high in LTCFs in which individuals are known to work in more than one facility. It is therefore crucial that rigorous measures are in place and followed, with the aim of preventing any COVID-19 introduction.

Strong positive incentives and support mechanisms need to be established for all those working in LTCFs in order to be confident that all can and will stay home if they develop or suspect any symptoms. Some examples of this include:

- Defining this occupational group as a priority for testing,
- Guarantee financial support and security for all who need to stay home due to suspected or confirmed symptoms,
- Establish mechanisms for quick recruitment/surge of trained staff to avoid a gap in care due to absenteeism,
- Ensure continuous communication, training and encouragement on the use of infection prevention and control practices within the facility as well as reminders on the importance of following the basic non-pharmaceutical measures when outside the LTCF/in the community. This is especially true for larger facilities with a large number of individuals working.

As described in ECDC's Technical Report on Infection prevention and control and preparedness for COVID-19 in healthcare settings: fifth update [13], additional measures that can prevent or minimise the introduction of infection into an LTCF are as follows:

- Ensure that any individual working in an LTCF that exhibits respiratory infection symptoms does not come, or continue, to work, can self-isolate and contact a predesignated telephone number or contact point at the LTCF to inform of their symptoms and get advice on how and where to obtain a COVID-19 test.
- In addition to practising meticulous hand hygiene, consider reinforcing the use of medical masks by all LTCF workers, including LTCF staff, who provide care for residents or have contact with residents or communal areas of the LTCF (universal masking).
- Workers who provide services to several LTCFs should be trained to reinforce IPC practices and self-monitoring of symptoms of COVID-19. Business continuity consultations by employers with local authorities should pay particular attention to the possible absenteeism of such workers.
- Larger facilities should be mindful of the increased risk of introduction, due to the more numerous workforce [11].
- Competent authorities should consider options to mobilise resources to LTCFs requiring support to their current response to a COVID-19 outbreak (e.g. healthcare workers), including, if appropriate, medical care that would have otherwise been provided in an outpatient or inpatient setting (e.g. oxygen therapy and medical staff) [13].
- Those working in larger facilities should be appropriately trained and informed about the increased risk of introduction in such facilities [11].
- Appropriate coordination between different sites or employers needs to be ensured when setting measures, including OSH measures, for individuals who work in multiple LTCFs, i.e. measures to reduce the direct risk of COVID-19 (i.e. importation), and indirect risks (e.g. staff absenteeism) [90].

Two ECDC guidance documents specify indicators to aid competent authorities in their monitoring of the availability of PPE in LTCFs, particularly equipment for respiratory protection. These are the 'Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK' (Pillar 6) [98]; and the ECDC surveillance guidance for COVID-19 in LTCFs, which also specifies collection of data on LTCF mask policy for residents and staff [79].

(Re-)admission of LTCF residents

- Assess new and returning residents for symptoms compatible with COVID-19; strongly consider requesting one negative RT-PCR test between 24 and 72 hours before (re-)admission of residents and if testing capacity allows, repeat testing can be considered 3–5 days after admission [80]; in line with hospital discharge criteria [47] request two negative RT-PCR before readmission of hospitalised clinically recovered residents with COVID-19, at least 10 days after onset of symptoms. In cases of severe COVID-19 disease, or cases whose RT-PCR tests remain positive, or in cases of immune suppression of the resident, or when there is

insufficient testing capacity, readmission can be considered after 20 days from illness onset with negative RT-PCR results [61,62].

External visitors, e.g. social visits

- Recognising that the social vulnerability of LTCF residents may be exacerbated when non-pharmaceutical interventions are in place that limit physical personal interactions or impact access to health services, **allowing external visitors should be strongly considered**, **with risk-based and proportionate IPC infection control measures** introduced to allow safe visits [12,76,90-94]. Preferably LTCFs should prepare the process in collaboration with public health authorities, i.e. to perform a risk assessment to designate visitor areas. These areas should have appropriate ventilation, permit appropriate physical distancing, and ideally should be accessible without traversing common areas.
- The use of **medical face masks should be strongly considered** [13].
- Ensure that residents and visitors at the long-term care facility practice appropriate **hand hygiene**, i.e. they should use soap and water, or alcohol-based hand rub and **physical distancing** (preferred 2m) during the visits.
- Symptomatic individuals should not visit LTCFs. Appropriate health promotion and safety information should be communicated to all patients and their families, staff, contractors and anyone who may enter the LTCF.
    - Prior to entering the LTCF, visitors should ideally be registered with sufficient information in order to assist subsequent contact tracing, if required; LTCF staff should advise visitors with current symptoms to leave by a route that avoids vulnerable people. However, staff training should also highlight the importance of pre-symptomatic and asymptomatic transmission.
    - The risk of transmission from other visitors (such as for delivery of supplies and collection of refuse, utility personnel) can be minimised through keeping visits as short as possible; avoiding or minimising entering the LTCF premises, most particularly common areas.

Ensure capacity to mobilise material resources to LTCFs

- Two ECDC guidance documents specify indicators to aid competent authorities in their monitoring of the availability of PPE in LTCFs, particularly equipment for respiratory protection. These are the 'Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK' (Pillar 6); and the ECDC surveillance guidance for COVID-19 in LTCFs, which also specifies collection of data on LTCF mask policy for residents and staff. Relevant guidance from the World Health Organisation Regional Office for Europe includes 'Strengthening the Health Systems Response to COVID-19 - Technical guidance [95].

D. Minimising risk of COVID-19 transmission within LTCFs

Management of residents with symptoms of COVID-19

- If a resident in a long-term care facility displays clinical signs or symptoms compatible with COVID-19, urgently seek medical assessment to decide on testing and need for possible transfer to an acute care hospital. Staff should be alerted to the broader spectrum of signs and symptoms presented by older people.
- The use of a high performing Rapid Antigen Tests, as described above, can assist in the rapid assessment of the symptomatic person and detection and assessment of a potential ongoing outbreak in the LTCF.
- Residents displaying mild signs or symptoms of COVID-19 and no deterioration of underlying conditions, that do not require hospitalisation, should be isolated in single rooms with a separate bathroom.
- Ensure that all long-term care facility staff are aware of the residents displaying symptoms compatible with COVID-19, or having tested positive for the disease.
- If there are more than a few cases, consider placing the residents in a separate area or section of the facility with dedicated staff, i.e. staff cohorting.
- Make available easy to understand information detailing IPC precautions throughout the facility.
- Healthcare and other workers coming into contact with residents who have respiratory infections should be appropriately trained and follow the ECDC guidance [13] (always, medical face mask or FFP2 respirator and eye protection; gown or apron and gloves when there is a risk for contact with body fluids).

Minimising personal contacts with risk of COVID-19 transmission

Within LTCFs, LTCF administrators should seek to ensure that the occupancy rate for common areas permits maintenance of physical distancing; and endeavour to ensure appropriate ventilation [13,96]. Preferably, common areas should have direct access to hand washing facilities, and alcohol hand rub dispensers. If recommended nationally, 'social bubbles' should be exclusively for people residing within the same LTCF, to minimise the introduction of infection into the bubble [12,13].

Organised activities within LTCFs, such as social activities and exercise, should be designed according to local risk assessment, inclusive of the required infection prevention and control measures [13]. Preference should always be given to activities outdoors, when feasible, while activities such as singing and stand-up comedy should not take place indoors. For organised external social activities, LTCF residents should consider, if applicable, reducing their use of transportation methods with potentially large numbers of close contacts, and consider minimising attendance at non-essential public events.

Environmental cleaning, ventilation and waste management

Regular cleaning followed by disinfection is recommended for common areas and resident rooms, especially for frequently touched surfaces. In addition, ventilation plays a key role for the prevention of respiratory infections in healthcare settings. The minimum number of air exchanges per hour, in accordance with the applicable regulations, should be ensured at all times.

For guidance to reduce the risk of transmission from environmental contamination we refer to the ECDC documents `Infection prevention and control and preparedness for COVID-19 in healthcare settings' [13] and `Environmental cleaning, ventilation and waste management' [97].

E. Vaccination

Vaccination of residents against pneumococcal and influenza diseases

Vaccination of older people against pneumococcus and influenza may mitigate the impact of COVID-19 diseases in this population in different ways. First, while conferring direct protection, the pneumococcal and influenza vaccines may help reduce the occurrence of influenza and invasive pneumococcal disease and associated complications as well as the number of related hospitalisations [98]. Whether co-infections with SARS-CoV-2 and influenza viruses or *Streptococcus pneumoniae* contribute to the clinical severity of COVID-19 disease is not fully yet clear. One non-peer-reviewed scientific study indicated that patients with influenza and SARS-CoV-2 co-infection had a significantly higher risk of mortality, being placed on a ventilator, or being admitted to an ICU [99]. It has been estimated that 10% of COVID-19 deaths are due to pneumococcal secondary-infection and are therefore preventable as they could potentially have been avoided by prior vaccination [100,101].

Current national immunisation recommendations for influenza and pneumococcal vaccinations in medically vulnerable individuals should be prioritised and effectively deployed to mitigate these risks. It is therefore likely that both the influenza and the pneumococcal vaccine could mitigate the impact of COVID-19 on healthcare systems, reducing morbidity and mortality due to non-COVID-19 respiratory infections, especially in those people who present significant risk factors, such as advanced age [101]. All the EU/EEA countries recommend the influenza vaccine in the older people. However the pneumococcal vaccine is not recommended as routine in some [102].

Vaccination of healthcare workers against influenza

Because of their direct contact with medically vulnerable people, healthcare workers (HCWs) and staff working in health care facilities should be offered appropriate vaccination against influenza to reduce the risk of infecting vulnerable groups, in addition to protecting themselves. Public health authorities should ensure easy access to influenza vaccination whenever this is recommended at national or regional level for such professional groups (Directive 2000/54).

Large outbreaks of seasonal influenza have been observed in LTCFs in the past and underline the need for vaccination of residents and HCWs in these settings [103]. Vaccination campaigns for seasonal influenza are currently ongoing and should focus on the older people, HCWs and people at higher risk for severe disease as per national or regional recommendations.

Future vaccination against COVID-19

Although not yet available, it is anticipated that some COVID-19 vaccines will be granted a license for use in the EU/EEA and the UK towards the end of 2020 or early 2021. Among the priority groups to be vaccinated against COVID-19, we indicate the following groups: those aged 60 years or older, and especially those residents in LTCFs, HCWs providing direct care to LTCFs residents, and LTCFs staff in order to minimise the risk of infection to vulnerable persons. National vaccination deployment plans should also have a section on groups to be prioritised for vaccination, under the assumption of initial limited supply. For more information, please refer to ECDC's technical report on supporting the prioritisation of COVID-19 vaccination, the European Commission Communication on Preparedness for COVID-19 vaccination strategies and vaccine deployment and WHO's material published for COVID19, in particular the WHO SAGE values framework for the allocation and prioritisation of COVID-19 vaccination, and the WHO SAGE Roadmap For Prioritizing Uses Of COVID-19 Vaccines in the Context of Limited Supply [104-106].

Limitations

This assessment is undertaken on the basis of information known to ECDC at the time of publication and has several key limitations.

The epidemiological data used in this assessment are dependent on availability from Member States through surveillance reporting or publicly available websites. The data not only reflect the epidemiological situation but are also dependent on local testing strategies and local surveillance systems.

It is also important to consider the lag time between infection, symptoms, diagnosis, case notification, death, and death notification. The effects and impact of lifting or imposing response measures may take weeks to be reflected in the population's disease rates.

Assessing the impact of response measures is complex as many countries have lifted or relaxed multiple measures simultaneously. Changes in individual behaviour, compliance with measures, and cultural, societal, and economic factors all play a role in the dynamics of disease transmission. Such assessment requires careful consideration of the national and subnational contexts.

Source and date of request

ECDC internal decision, 10 November 2020.

Consulted experts

ECDC experts (in alphabetic order): Cornelia Adlhoch, Agoritsa Baka, Orlando Cenciarelli, Scott Chiossi, Tarik Derrough, Dragoslav Domanovic, Lisa Ferland, Pete Kinross, Csaba Ködmön, Nathalie Nicolay, Sabrina Nothdurfter, Diamantis Plachouras, Emily Scott, Gianfranco Spiteri, Carl Suetens, Maria Tseroni, Emma Wiltshire.

Consulted external experts

Adelina Comas-Herrera (London School of Economics and Political Science, the UK); Dr Kostas Danis (Santé Publique France, National Public Health Agency, Saint-Maurice, France); Sara Dequeker (Sciensano, Belgium); Patricia Garvey (Health Protection Surveillance Centre, Ireland); Jenny Hellman (National Public Health Agency, Sweden); Professor Jacqui Reilly (Professor of Infection Prevention, Glasgow Caledonian University, United Kingdom); Elke Schneider (European Agency for Safety and Health at Work, Spain); Elsebeth Tvenstrup Jensen, Christian Stab Jensen & Laura Espenhain (Statens Serum Institute, Denmark).

Disclaimer

ECDC issues this risk assessment document based on an internal decision and in accordance with Article 10 of Decision No 1082/13/EC and Article 7(1) of Regulation (EC) No 851/2004 establishing a European centre for disease prevention and control (ECDC). In the framework of ECDC's mandate, the specific purpose of an ECDC risk assessment is to present different options on a certain matter. The responsibility on the choice of which option to pursue and which actions to take, including the adoption of mandatory rules or guidelines, lies exclusively with the EU/EEA Member States. In its activities, ECDC strives to ensure its independence, high scientific quality, transparency and efficiency.

This report was written with the coordination and assistance of an Internal Response Team at the European Centre for Disease Prevention and Control. All data published in this risk assessment are correct to the best of our knowledge at the time of publication. Maps and figures published do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

References

1. Spasova S, Baeten R, Coster S, Ghailani D, Peña-Casas R, Vanhercke B. Challenges in long-term care in Europe - A study of national policies 2018. [updated 7 September 2018; cited 15 November 2020]. Available from: https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8128&furtherPubs=yes
2. European Commission Directorate General for Employment Social Affairs and Inclusion. ESPN Thematic repot on challenges in long term care (country reports). [cited 13 November 2020]. Available from: https://ec.europa.eu/social/main.jsp?pager.offset=0&advSearchKey=espnltc_2018&mode=advancedSubmit&catId=22&policyArea=0&policyAreaSub=0&country=0&year=0
3. European Centre for Disease Prevention and Control (ECDC). Point prevalence survey of healthcare associated infections and antimicrobial use in European long-term care facilities. 2014. [updated April–May 2013; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/point-prevalence-survey-healthcare-associated-infections-and-antimicrobial-use-2
4. European Centre for Disease Prevention and Control (ECDC). Surveillance of COVID-19 at long-term care facilities in the EU/EEA. [updated 19 May 2020; cited 17 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/surveillance-COVID-19-long-term-care-facilities-EU-EEA
5. European Centre for Disease Prevention and Control (ECDC). COVID-19 surveillance report. [updated 13 November 2020; cited 15 November 2020]. Available from: https://covid19-surveillance-report.ecdc.europa.eu/
6. EuroMOMO. Bulletin, Week 45, 2020. [cited 14 November 2020]. Available from: http://www.euromomo.eu/
7. Comas-Herrera A, Zalakaín J, Litwin C, Hsu AT, Lemmon E, Henderson D, et al. Mortality associated with COVID-19 outbreaks in care homes: early international evidence. [updated 26 June 2020; cited 15 November 2020]. Available from: https://ltccovid.org/wp-content/uploads/2020/06/Mortality-associated-with-COVID-among-people-who-use-long-term-care-26-June-1.pdf
8. European Centre for Disease Prevention and Control (ECDC). Epidemiology of COVID-19. [updated 15 July 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/covid-19/latest-evidence/epidemiology
9. Comas-Herrera A, Zalakaín J, Lemmon E, Henderson D, Litwin C, Hsu AT, et al. Mortality associated with COVID-19 outbreaks in care homes: early international evidence. [updated 14 October 2020; cited 15 November 2020]. Available from: https://ltccovid.org/2020/04/12/mortality-associated-with-covid-19-outbreaks-in-care-homes-early-international-evidence/
10. Comas-Herrera A, Zalakaín J, Lemmon E, Henderson D, Litwin C, Hsu AT, et al. Mortality associated with COVID-19 in care homes: international evidence. [updated 14 October 2020; cited 15 November 2020]. Available from: https://ltccovid.org/wp-content/uploads/2020/10/Mortality-associated-with-COVID-among-people-living-in-care-homes-14-October-2020-5.pdf
11. Scottish Government - Community Health and Social Care Directorate. Coronavirus (COVID-19): care home outbreaks - root cause analysis. [updated 3 November 2020; cited 16 November 2020]. Available from: https://www.gov.scot/publications/root-cause-analysis-care-home-outbreaks/pages/1/
12. European Centre for Disease Prevention and Control (ECDC). Guidelines for the implementation of non-pharmaceutical interventions against COVID-19. [updated 24 September 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/covid-19-guidelines-non-pharmaceutical-interventions
13. European Centre for Disease Prevention and Control (ECDC). Infection prevention and control and preparedness for COVID-19 in healthcare settings - fifth update. [updated 6 October 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-and-preparedness-covid-19-healthcare-settings
14. Sciensano. Surveillance en Maisons de Repos et Maisons de Repos et de Soins. Rapport de la Semaine 46 (Donnees jusqu'au 10 November 2020 inclus). [cited 15 November 2020]. Available from: https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19_Surveillance_MR_MRS.pdf
15. Statens Serum Institut (SSI). Ugentlige opgørelser med overvågningsdata. [updated 11 November 2020; cited 15 November 2020]. Available from: https://covid19.ssi.dk/overvagningsdata/ugentlige-opgorelser-med-overvaagningsdata
16. Sante Publique France (SPF). COVID-19: point épidémiologique du 12 novembre 2020. [updated 12 November 2020; cited 15 November 2020]. Available from: https://www.santepubliquefrance.fr/maladies-et-traumatismes/maladies-et-infections-respiratoires/infection-a-coronavirus/documents/bulletin-national/covid-19-point-epidemiologique-du-12-novembre-2020
17. Robert Koch Institut (RKI). Situation report. [updated 16 November 2020; cited 18 November 2020]. Available from: https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Situationsberichte/Nov_2020/2020-11-16-en.pdf
18. Rijksinstituut voor Volksgezondheid en Milieu (RIVM). Epidemiologische situatie COVID-19 in Nederland. [updated 10 November 2020; cited 15 November 2020]. Available from: https://www.rivm.nl/sites/default/files/2020-11/COVID-19_WebSite_rapport_wekelijks_20201110_1158.pdf
19. Folkehelseinstituttet (FHI) - Norwegian Institute of Public Health. COVID-19 Ukerapport – uke 45. [updated 11 November 2020; cited 18 November 2020]. Available from:

https://www.fhi.no/contentassets/8a971e7b0a3c4a06bdbf381ab52e6157/vedlegg/andre-halvar-2020/2020.11.11-ukerapport-uke-45-covid-19.pdf
20. Corporación de Radio y Televisión Española (RTVE). Radiografía del coronavirus en residencias de ancianos: más de 22.500 muertos con COVID-19 o síntomas compatibles. [updated 17 November 2020; cited 18 November 2020]. Available from: https://www.rtve.es/noticias/20201116/radiografia-del-coronavirus-residencias-ancianos-espana/2011609.shtml
21. Socialstyrelsen. Statistik om covid-19 bland äldre efter boendeform. [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.socialstyrelsen.se/statistik-och-data/statistik/statistik-om-covid-19/statistik-om-covid-19-bland-aldre-efter-boendeform/
22. Office for National Statistics. Number of deaths in care homes notified to the Care Quality Commission, England - Dataset. [updated 17 November 2020; cited 17 November 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/numberofdeathsincarehomesnotifiedtothecarequalitycommissionengland
23. Northern Ireland Statistics and Research Agency (NISRA) - Gníomhaireacht Thuaisceart Éireann um Staitisticí agus Taighde. Weekly Deaths in Northern Ireland. Death Registration Statistics including Covid-19 by Date of Death. Week ending 6th November 2020 (Week 44). [updated 13 November 2020; cited 15 November 2020]. Available from: https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/Deaths%20Registered%20in%20NI%20-%20Week%2044%202020.pdf
24. Scottish Government. Coronavirus (COVID-19): adult care homes - additional data. [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.gov.scot/publications/coronavirus-covid-19-additional-data-about-adult-care-homes-in-scotland/
25. Terebuh PD, Egwiekhor AJ, Gullett HL, Fakolade AO, Miracle JE, Ganesh PT, et al. Characterization of community-wide transmission of SARS-CoV-2 in congregate living settings and local public health-coordinated response during the initial phase of the COVID-19 pandemic. Influenza Other Respir Viruses [Preprint]. 15 October 2020; Available from: https://onlinelibrary.wiley.com/doi/10.1111/irv.12819
26. Arons MM, Hatfield KM, Reddy SC, Kimball A, James A, Jacobs JR, et al. Presymptomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility. N Engl J Med. 2020;382(22):2081-90. Available from: https://www.nejm.org/doi/10.1056/NEJMoa2008457
27. Brown KA, Jones A, Daneman N, Chan AK, Schwartz KL, Garber GE, et al. Association Between Nursing Home Crowding and COVID-19 Infection and Mortality in Ontario, Canada. JAMA Intern Med [Preprint]. 9 November 2020; Available from: https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2772335
28. European Centre for Disease Prevention and Control (ECDC). Point prevalence survey of healthcare-associated infections and antimicrobial use in European long-term care facilities. 2016-2017. Stockholm: ECDC, 2020. Available from: In press
29. Bouza E, Pérez-Granda MJ, Escribano P, Fernández-Del-Rey R, Pastor I, Moure Z, et al. Outbreak of COVID-19 in a nursing home in Madrid. J Infect. 2020;81(4):647-79. Available from: https://www.sciencedirect.com/science/article/pii/S0163445320304370
30. Patel MC, Chaisson LH, Borgetti S, Burdsall D, Chugh RK, Hoff CR, et al. Asymptomatic SARS-CoV-2 infection and COVID-19 mortality during an outbreak investigation in a skilled nursing facility. Clin Infect Dis [Preprint]. 16 June 2020; Available from: https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa763/5858271
31. Hoxha A, Wyndham-Thomas C, Klamer S, Dubourg D, Vermeulen M, Hammami N, et al. Asymptomatic SARS-CoV-2 infection in Belgian long-term care facilities. Lancet Infect Dis [Preprint]. 3 July 2020; Available from: https://www.sciencedirect.com/science/article/pii/S1473309920305600
32. Yamamoto V, Bolanos JF, Fiallos J, Strand SE, Morris K, Shahrokhinia S, et al. COVID-19: Review of a 21st Century Pandemic from Etiology to Neuro-psychiatric Implications. J Alzheimers Dis. 2020;77(2):459-504. Available from: https://content.iospress.com/articles/journal-of-alzheimers-disease/jad200831
33. British Geriatric Society (BGS). COVID-19: Managing the COVID-19 pandemic in care homes for older people. [updated 16 November 2020; cited 17 November 2020]. Available from: https://www.bgs.org.uk/resources/covid-19-managing-the-covid-19-pandemic-in-care-homes
34. Socialstyrelsen. Arbetssätt vid covid-19 hos personer med demenssjukdom i särskilda boendeformer för äldre – praktiska förslag om arbetssätt till personal och arbetsledning. [updated 6 October 2020; cited 17 November 2020]. Available from: https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/ovrigt/2020-10-6946.pdf
35. Giebel C, Cannon J, Hanna K, Butchard S, Eley R, Gaughan A, et al. Impact of COVID-19 related social support service closures on people with dementia and unpaid carers: a qualitative study. Aging Ment Health [Preprint]. 21 September 2020; Available from: https://www.tandfonline.com/doi/full/10.1080/13607863.2020.1822292
36. European Centre for Disease Prevention and Control (ECDC). Healthcare-associated infections and antimicrobial use in long-term care facilities: HAI-Net HALT database. [updated 4 May 2020; cited 16 November 2020]. Available from: https://www.ecdc.europa.eu/en/all-topics-z/healthcare-associated-infections-long-term-care-facilities/surveillance-and-disease
37. Suárez-González A, Matías-Guiu JA, Comas-Herrera A. Impact and mortality of the first wave of COVID19 on people living with dementia in Spain. [updated 9 August 2020; cited 15 November 2020]. Available from:

https://ltccovid.org/wp-content/uploads/2020/08/Impact-of-COVID-19-on-people-living-with-dementia-in-Spain-10-August.pdf

38. Suárez-González A, Livingston G, Fay-Low L, Cahill S, Hennelly N, Dawson WD, et al. Impact and mortality of COVID-19 on people living with dementia: cross-country report. [updated 19 August 2020; cited 15 November 2020]. Available from: https://ltccovid.org/wp-content/uploads/2020/08/International-report-on-the-impact-of-COVID-19-on-people-living-with-dementia-19-August-2020.pdf
39. Health Protection Surveillance Centre (HPSC). Epidemiology of COVID-19 in Ireland. [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/epidemiologyofcovid-19inireland/COVID-19_Daily_epidemiology_report_(NPHET)_20201111%20-%20website.pdf
40. Rijksinstituut voor Volksgezondheid en Milieu (RIVM). Decrease in COVID-19 cases as expected, high number of contagious people persists. [updated 11 October 2020; cited 15 November 2020]. Available from: https://www.rivm.nl/en/news/decrease-in-COVID-19-cases-as-expected-high-number-of-contagious-people-persists
41. Vereniging van specialisten ouderengeneeskunde (VERENSO). Grootste wekelijkse toename sinds het begin van de tweede golf. [updated 3 November 2020; cited 15 November 2020]. Available from: https://www.verenso.nl/nieuws/grootste-wekelijkse-toename-sinds-het-begin-van-de-tweede-golf
42. Folkhalsomyndigheten - The Public Health Agency of Sweden. Veckorapport om covid-19, vecka 44. [updated 5 November 2020; cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/globalassets/statistik-uppfoljning/smittsamma-sjukdomar/veckorapporter-covid-19/2020/covid-19-veckorapport-vecka-44-final.pdf
43. Public Health England (PHE). Weekly national Influenza and COVID19 surveillance report. Week 46 report (up to week 45 data). [updated 12 November 2020 cited 15 November 2020]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/934810/Weekly_Flu_and_COVID-19_report_w46_FINAL.PDF
44. Public Health England (PHE). Weekly national Influenza and COVID-19 surveillance report Week 45 report (up to week 44 data). [updated 5 November 2020 cited 16 November 2020]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933459/Weekly_Flu_and_COVID-19_report_w45_V2.pdf
45. Information and Analysis Directorate Northern Ireland - Department of Health - An Roinn Sláinte. Dashboard. [cited 15 November 2020]. Available from: https://app.powerbi.com/view?r=eyJrIjoiZGYxNjYzNmUtOTlmZS00ODAxLWE1YTEtMjA0NjZhMzlmN2JmIiwidCI6IjljOWEzMGRlLWQ4ZDctNGFhNC05NjAwLTRiZTc2MjVmZjZjNSIsImMiOjh9
46. Public Health Agency - Northern Ireland (HSC). Coronavirus (COVID-19). Weekly Epidemiological Bulletin. Northern Ireland Week 45 (2 November - 8 November 2020). [cited 15 November 2020]. Available from: https://www.publichealth.hscni.net/sites/default/files/2020-11/Weekly%20COVID-19%20Bulletin%20week%2045_0.pdf
47. Scottish Government - Population Health Directorate. Coronavirus (COVID-19): trends in daily data. [updated 13 November 2020; cited 15 November 2020]. Available from: https://www.gov.scot/publications/coronavirus-covid-19-trends-in-daily-data/
48. National Records of Scotland (NRS). Deaths involving coronavirus (COVID-19) in Scotland Week 45 (2 to 8 November 2020). [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-report-week-45.pdf
49. Scottish Government - Chief Medical Officer Directorate. Coronavirus (COVID-19): daily data for Scotland. [updated 13 November 2020; cited 15 November 2020]. Available from: https://www.gov.scot/publications/coronavirus-covid-19-daily-data-for-scotland/
50. Welsh Government - Llywodraeth Cymru. Notifications of deaths of residents related to COVID-19 in adult care homes: 1 March to 6 November 2020. [updated 10 November 2020; cited 15 November 2020]. Available from: https://gov.wales/notifications-deaths-residents-related-covid-19-adult-care-homes-1-march-6-november-2020
51. Office for National Statistics. Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 12 June 2020 and registered up to 20 June 2020 (provisional). [updated 3 July 2020; cited 15 November 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/latest
52. Der Standard. Zahl der Corona-Infektionen in Heimen steigt rapide an. [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.derstandard.at/story/2000121632724/zahl-der-corona-infektionen-in-heimen-steigt-rapide-an
53. Novinite.com. Bulgaria: Outbreak of COVID-19 in an Elderly Care Home in Sliven. [updated 12 October 2020; cited 15 November 2020]. Available from: https://www.novinite.com/articles/206148/Bulgaria%3A+Outbreak+of+COVID-19+in+an+Elderly+Care+Home+in+Sliven
54. Cyprusbasket. Συναγερμός σε γηροκομείο στη Λεμεσό-35 άτομα θετικά στον κορωνοϊό. [updated 2 November 2020; cited 15 November 2020]. Available from: https://www.cyprusbasket.net/portal/synagermos-se-girokomeio-sti-lemeso-35-atoma-thetika-ston-koronoio/

55. Grabancijas.com. Zaraženo 26 korisnika i 19 djelatnika dvaju zagrebačkih domova za starije: COVID-19. [updated 22 October 2020; cited 15 November 2020]. Available from: https://grabancijas.com/zarazeno-26-korisnika-i-19-djelatnika-dvaju-zagrebackih-domova-za-starije-covid-10-22-listopad/
56. Brněnská Drbna. Koronavirus se dostal už do poloviny domovů pro seniory Jihomoravského kraje. [updated 21 October 2020; cited 15 November 2020]. Available from: https://brnenska.drbna.cz/zpravy/spolecnost/18987-koronavirus-se-dostal-uz-do-poloviny-domovu-pro-seniory-jihomoravskeho-kraje.html
57. Lõuna-Eesti Postimehe. Ööpäevaga lisandus 132 positiivset testi. [updated 11 November 2020; cited 15 November 2020]. Available from: https://lounapostimees.postimees.ee/7107272/oopaevaga-lisandus-132-positiivset-testi
58. Foreigner.fi. Finland reports almost 300 cases of Covid-19 in one day. [updated 20 October 2020; cited 15 November 2020]. Available from: https://www.foreigner.fi/articulo/coronavirus/finland-reports-almost-300-cases-of-covid-19-in-one-day/20201020192216008555.html
59. Süddeutsche Zeitung. Das Virus ist zurück in den Heimen. [updated 3 November 2020; cited 15 November 2020]. Available from: https://www.sueddeutsche.de/bayern/bayern-corona-altenheime-pflegeheime-1.5102980
60. Newsroom iefimerida.gr. Ιωάννινα: Στα 55 τα κρούσματα κορωνοϊού από το γηροκομείο -46 ηλικιωμένοι και 9 εργαζόμενοι. [updated 3 November 2020; cited 15 November 2020]. Available from: https://www.iefimerida.gr/ellada/ioannina-55-kroysmata-koronoioy-apo-girokomeio
61. Infostart.hu. Súlyos a helyzet több idősotthonban. [updated 12 November 2020; cited 15 November 2020]. Available from: https://infostart.hu/belfold/2020/11/12/sulyos-a-helyzet-tobb-idosotthonban
62. Magnússon P. Smit í hjúkrunarheimili á Eyrarbakka. [updated 24 October 2020; cited 15 November 2020]. Available from: https://www.mbl.is/frettir/innlent/2020/10/24/smit_i_hjukrunarheimili_a_eyrarbakka/
63. Sky tg24. Covid, i focolai nelle Rsa regione per regione: gli ultimi casi. [updated 9 November 2020; cited 15 November 2020]. Available from: https://tg24.sky.it/cronaca/2020/11/09/covid-focolai-rsa#12
64. La.lv. Saslimstības ar Covid-19 uzliesmojums turpinās Saulkrastu sociālās aprūpes mājā un slimnīcā. [updated 3 November 2020; cited 15 November 2020]. Available from: https://www.la.lv/saslimstibas-ar-covid-19-uzliesmojums-turpinas-saulkrastu-socialas-aprupes-maja-un-slimnica
65. Lrt.lt. 1433 COVID-19 atvejai Lietuvoje: koronavirusas paplitęs 16-oje ligoninių, 1100 atvejų neištirti. [updated 11 November 2020; cited 15 November 2020]. Available from: https://www.lrt.lt/naujienos/lietuvoje/2/1273787/1433-covid-19-atvejai-lietuvoje-koronavirusas-paplites-16-oje-ligoniniu-1100-atveju-neistirti
66. Presseportal.ch. Isolationsstation für an Covid-19 erkrankte Bewohnerinnen und Bewohner der Alters- und Pflegeheime. [updated 6 November 2020; cited 15 November 2020]. Available from: https://www.presseportal.ch/de/pm/100000148/100859094
67. Rasque D, Dickes R. 279 residents in retirement and care homes tested positive. [updated 6 November 2020; cited 15 November 2020]. Available from: https://today.rtl.lu/news/luxembourg/a/1608953.html
68. Arena J. Watch: Rise in COVID-19 in elderly amid outbreak in three homes. [updated 11 September 2020; cited 15 November 2020]. Available from: https://timesofmalta.com/articles/view/watch-live-health-authorities-give-coronavirus-update.817464
69. Caisa Linea Hagfors. Nytt coronadødsfall på sykehjem – to døde på fire dager. [updated 12 Novemebr 2020; cited 15 November 2020]. Available from: https://www.vg.no/nyheter/innenriks/i/yRRL6E/nytt-coronadoedsfall-paa-sykehjem-to-doede-paa-fire-dager
70. Rzeszów Nasze Miasto (nam!). 5 ognisk koronawirusa w powiecie rzeszowskim. COVID-19 atakuje w domach opieki i zakładach leczniczych. [updated 9 November 2020; cited 15 November 2020]. Available from: https://rzeszow.naszemiasto.pl/5-ognisk-koronawirusa-w-powiecie-rzeszowskim-covid-19/ar/c1-7989965
71. Observador.pt. Covid-19: Setúbal tem surtos em cinco lares de idosos com mais de 200 pessoas infetadas. [updated 4 November 2020; cited 15 November 2020]. Available from: https://observador.pt/2020/11/04/covid-19-setubal-tem-surtos-em-cinco-lares-de-idosos-com-mais-de-200-pessoas-infetadas/
72. Departamentul Social - News.ro. Buzău: Focar de coronavirus la un cămin de bătrâni din Berca, unde au fost confirmate 28 de persoane infectate. [updated 5 November 2020; cited 15 November 2020]. Available from: https://www.news.ro/social/buzau-focar-de-coronavirus-la-un-camin-de-batrani-din-berca-unde-au-fost-confirmate-28-de-persoane-infectate-1922403005102020111719576860
73. Tlačová agentúra Slovenskej republiky (TASR). Ošetrovateľské centrum v Humennom má pozitívnych klientov. [updated 29 September 2020; cited 15 November 2020]. Available from: https://www.teraz.sk/regiony/zdraviev-osetrovatelskom-centre-v-hum/496732-clanok.html
74. Slovenska tiskovna agencija (STA). Covid-19 on rise in elderly care homes. [updated 11 November 2020; cited 15 November 2020]. Available from: https://english.sta.si/2830492/covid-19-on-rise-in-elderly-care-homes
75. Catilla-La Mancha Media (CMM). Brotes de Covid en residencias de Castilla-La Mancha: un centenar de centros con casos. [updated 2 November 2020; cited 15 Novemebr 2020]. Available from: https://www.cmmedia.es/noticias/castilla-la-mancha/brotes-de-covid-en-residencias-de-castilla-la-mancha/
76. Van der Roest HG, Prins M, van der Velden C, Steinmetz S, Stolte E, van Tilburg TG, et al. The Impact of COVID-19 Measures on Well-Being of Older Long-Term Care Facility Residents in the Netherlands. J Am

Med Dir Assoc. 2020;21(11):1569-70. Available from: https://www.sciencedirect.com/science/article/pii/S1525861020307891
77. Gov.uk - Department of Health & Social Care. Pilot for family members to get regular testing for safer care home visits. [updated 14 November 2020; cited 17 November 2020]. Available from: https://www.gov.uk/government/news/pilot-for-family-members-to-get-regular-testing-for-safer-care-home-visits
78. European Centre for Disease Prevention and Control (ECDC). Operational tool on rapid risk assessment methodology. Stockholm: 2019. Available from: https://www.ecdc.europa.eu/sites/default/files/documents/operational-tool-rapid-risk-assessment-methodolgy-ecdc-2019.pdf
79. European Centre for Disease Prevention and Control (ECDC). Surveillance of COVID-19 at long-term care facilities in the EU/EEA. [updated 19 May 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/surveillance-COVID-19-long-term-care-facilities-EU-EEA
80. European Centre for Disease Prevention and Control (ECDC). COVID-19 testing strategies and objectives. [updated 18 September 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/covid-19-testing-strategies-and-objectives
81. Medecins Sans Frontieres - Doctors Without Borders. Responding to the Global Crisis in Care Homes - MSF Briefing Paper. [updated August 2020; cited 15 November 2020]. Available from: https://www.msf.es/sites/default/files/documents/msf_covid-19_briefing_paper_global_care_home_response_aug_2020.pdf
82. European Centre for Disease Prevention and Control (ECDC). Protocol for point prevalence surveys of healthcare-associated infections and antimicrobial use in European long-term care facilities – Version 2.1. [updated 4 May 2016; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/protocol-point-prevalence-surveys-healthcare-associated-infections-and-0
83. European Centre for Disease prevention and Control (ECDC). Monitoring and evaluation framework for COVID19 response activities in the EU/EEA and the UK. [updated 17 June 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/covid-19-monitoring-and-evaluation-frameworkresponse-activities
84. OSHWIKI - Network knowledge. COVID-19: Back to the workplace - Adapting workplaces and protecting workers. [cited 17 November 2020]. Available from: https://oshwiki.eu/wiki/COVID-19:_Back_to_the_workplace_-_Adapting_workplaces_and_protecting_workers
85. Gobierno de España - Ministerio de Sanidad. Recomendaciones a residencias de mayores y centros sociosanitarios para el COVID-19. [updated 5 March 2020; cited 17 November 2020]. Available from: https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/Centros_sociosanitarios.pdf
86. Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro (INAIL). Coronavirus - Guida pratica per chi si prende cura degli anziani. [updated 24 April 2020; cited 17 November 2020]. Available from: https://www.inail.it/cs/internet/comunicazione/pubblicazioni/catalogo-generale/pubbl-guida-cura-anziani-covid.html
87. European Centre for Disease Prevention and Control (ECDC). Healthcare-associated infections in long-term care facilities. [cited 17 November 2020]. Available from: https://www.ecdc.europa.eu/en/healthcare-associated-infections-long-term-care-facilities
88. Ricchizzi E, Latour K, Kärki T, Buttazzi R, Jans B, Moro ML, et al. Antimicrobial use in European long-term care facilities: results from the third point prevalence survey of healthcare-associated infections and antimicrobial use, 2016 to 2017. Euro Surveill. 2018;23(46). Available from: https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.46.1800394
89. European Centre for Disease Prevention and Control (ECDC). Testing strategies for SARS-CoV-2. [updated 29 September 2020; cited 16 November 2020]. Available from: https://www.ecdc.europa.eu/en/covid-19/surveillance/testing-strategies
90. Wu B. Social isolation and loneliness among older adults in the context of COVID-19: a global challenge. Glob Health Res Policy. 2020;5:27. Available from: https://ghrp.biomedcentral.com/articles/10.1186/s41256-020-00154-3
91. Chu CH, Donato-Woodger S, Dainton CJ. Competing crises: COVID-19 countermeasures and social isolation among older adults in long-term care. J Adv Nurs. 2020;76(10):2456-9. Available from: https://onlinelibrary.wiley.com/doi/10.1111/jan.14467
92. Medecins Sans Frontieres - Doctors Without Borders. TOO LITTLE, TOO LATE: The unacceptable neglect of the elderly in care homes during the COVID-19 epidemic in Spain [updated August 2020; cited 15 November 2020]. Available from: https://msfcovid19.org/wp-content/uploads/2020/08/msf-report-too-little-too-late-elderly-and-covid-in-ltcf-english.pdf
93. Medecins Sans Frontieres - Doctors Without Borders. Left behind in the time of COVID-19. [updated 17 July 2020; cited 15 November 2020]. Available from: https://www.msf.org/left-behind-coronavirus-belgium-care-homes-report
94. Comas-Herrera A, Salcher-Konrad M, Baumbusch J, Farina N, Goodman C, Lorenz-Dant K, et al. Rapid review of the evidence on impacts of visiting policies in care homes during the COVID-19 pandemic. LTC Responses to COVID-19. International long-term care policy network [Preprint]. 1 November 2020;

Available from: https://ltccovid.org/wp-content/uploads/2020/11/Rapid-review-of-evidence-on-impacts-of-visiting-policies-in-care-homes-during-the-COVID-pandemic-LSE068110.pdf
95. World Health Organization - Regional Office for Europe (WHO/Europe). Strengthening the Health Systems Response to COVID-19 - Technical guidance #6. [updated 21 May 2020; cited 17 November 2020]. Available from: https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/health-systems/strengthening-the-health-systems-response-to-covid-19-technical-guidance-6,-21-may-2020-produced-by-whoeurope
96. European Centre for Disease Prevention and Control (ECDC). Heating, ventilation and air-conditioning systems in the context of COVID-19: first update. [updated 11 November 2020; cited 15 Novemebr 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19
97. European Centre for Disease Prevention and Control (ECDC). Disinfection of environments in healthcare and non-healthcare settings potentially contaminated with SARS-CoV-2. [updated 26 March 2020; cited 19 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/disinfection-environments-covid-19
98. Bonten MJ, Huijts SM, Bolkenbaas M, Webber C, Patterson S, Gault S, et al. Polysaccharide conjugate vaccine against pneumococcal pneumonia in adults. N Engl J Med. 2015;372(12):1114-25. Available from: https://www.nejm.org/doi/10.1056/NEJMoa1408544
99. Stowe J, Tessier E, Zhao H, Guy R, Muller-Pebody B, Zambon M, et al. Interactions between SARS-CoV-2 and Influenza and the impact of coinfection on disease severity: A test negative design. medRxiv [Preprint]. 22 September 2020; Available from: https://www.medrxiv.org/content/10.1101/2020.09.18.20189647v2
100. Thindwa D, Garcia Quesada M, Liu Y, Bennett J, Cohen C, Knoll MD, et al. Use of seasonal influenza and pneumococcal polysaccharide vaccines in older adults to reduce COVID-19 mortality. Vaccine. 2020;38(34):5398-401. Available from: https://www.sciencedirect.com/science/article/pii/S0264410X20308331
101. Mendelson M. Could enhanced influenza and pneumococcal vaccination programs help limit the potential damage from SARS-CoV-2 to fragile health systems of southern hemisphere countries this winter? 2020;94:32-3. Available from: https://www.ijidonline.com/article/S1201-9712(20)30149-1/abstract
102. European Centre for Disease Prevention and Control (ECDC). Vaccine schedules in all countries of the European Union. [cited 16 November 2020]. Available from: https://vaccine-schedule.ecdc.europa.eu/
103. Childs A, Zullo AR, Joyce NR, McConeghy KW, van Aalst R, Moyo P, et al. The burden of respiratory infections among older adults in long-term care: a systematic review. BMC Geriatr. 2019;19(1):210. Available from: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1236-6
104. European Centre for Disease Prevention and Control (ECDC). Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK. [updated 26 October 2020; cited 15 November 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/key-aspects-regarding-introduction-and-prioritisation-covid-19-vaccination
105. World Health Organization (WHO). WHO SAGE values framework for the allocation and prioritization of COVID-19 vaccination. [updated 13 September 2020; cited 19 November 2020]. Available from: https://www.who.int/publications/i/item/who-sage-values-framework-for-the-allocation-and-prioritization-of-covid-19-vaccination
106. European Commission (EC). Communication from the Commission to the European Parliament and the Council. Preparedness for COVID-19 vaccination strategies and vaccine deployment. [updated 15 October 2020; cited 15 November 2020]. Available from: https://ec.europa.eu/health/sites/health/files/vaccination/docs/2020_strategies_deployment_en.pdf
107. World Health Organization (WHO). WHO SAGE Roadmap For Prioritizing Uses Of COVID-19 Vaccines In The Context Of Limited Supply. [updated 19 October 2020; cited 19 November 2020]. Available from: https://www.who.int/publications/m/item/who-sage-roadmap-for-prioritizing-uses-of-covid-19-vaccines-in-the-context-of-limited-supply
108. Info-coronavirus.be. 20.000 tests pour les centres résidentiels de soin et les maisons de repos. [updated 11 April 2020; cited 15 November 2020]. Available from: https://www.info-coronavirus.be/fr/news/tests-maisons-de-repos/
109. Info-coronavirus.be. Coronavirus : prolongation jusqu'au 3 mai - Communiqué de la Première Ministre, Sophie Wilmès. [updated 15 April 2020; cited 15 November 2020]. Available from: https://www.info-coronavirus.be/fr/news/prolongation-des-mesures-jusquau-3-mai/
110. Info-coronavirus.be. Quelles sont les mesures actuelles? [cited 15 November 2020]. Available from: https://www.info-coronavirus.be/fr/faq/#id_7
111. Wallonie.be. Maisons de repos et autres structures résidentielles - [Covid-19] Mesures dans les maisons de repos (MR-MRS) et autres structures résidentielles. [updated 12 November 2020; cited 15 November 2020]. Available from: https://www.wallonie.be/fr/covid19/maisons-de-repos
112. Zorg en Gezondheid. FAQ COVID-19 voor zorgprofessionelen. [cited 15 November 2020]. Available from: https://www.zorg-en-gezondheid.be/faq-covid-19
113. Iriscare. Francophones Bruxelles. Services du Collège réuni de la Commission communautaire commune - Diensten van het Verenigd College van de Gemeenschappelijke Gemeenschapscommissie. FAQ - Résidentiel - Personnes âgées/Ouderen. [cited 15 November 2020]. Available from: https://coronavirus.brussels/wp-content/uploads/2020/03/FAQ_Re%CC%81sidentiel_DEF-1.pdf

114. Sundhedsstyrelsen - The National Board of Health. COVID-19: Generelle retningslinjer for planlægning af aktivitet og forebyggelse af smittespredning i sundhedsvæsenet. [updated 30 June 2020; cited 16 November 2020]. Available from: https://www.sst.dk/da/Udgivelser/2020/COVID-19-Retningslinjer-for-planlaegning-af-aktivitet-og-forebyggelse-af-smittespredning-i-sundhedsv
115. Statens Serum Institut (SSI). Infektionshygiejniske retningslinjer for sundhedspersonale ifm. covid-19. [updated 12 November 2020; cited 17 November 2020]. Available from: https://covid19.ssi.dk/hygiejne/sundhedspersonale
116. Sundhedsstyrelsen - The National Board of Health. Vejledning om forebyggelse af smitte med COVID 19 på plejecentre, bosteder og andre institutioner. [updated 9 July 2020; cited 17 November 2020]. Available from: https://www.sst.dk/da/Udgivelser/2020/Vejledning-om-forebyggelse-af-spredning-af-COVID-19-paa-plejecentre-bosteder
117. Retsinfomation.dk. [cited 18 November 2020]. Available from: https://www.retsinformation.dk/documents?dt=10&dt=1480&dt=20&dt=30&dt=40&dt=50&dt=90&dt=120&dt=270&dt=60&dt=100&dt=80&dt=110&dt=130&dt=140&dt=150&dt=160&dt=170&dt=180&dt=200&dt=210&dt=220&dt=1510&dt=1490&dt=-10&t=bes%C3%B8g%20plejehjem
118. Sundheds- og Ældreministeriet. Gradvis genåbning på plejehjem og sygehuse. [updated 9 June 2020; cited 16 November 2020]. Available from: https://sum.dk/Aktuelt/Nyheder/Coronavirus/2020/Juni/Gradvis-genaabning-paa-plejehjem-og-sygehuse.aspx
119. Sundhedsstyrelsen - The National Board of Health. COVID-19: Smitteforebyggelse ved besøg på plejehjem og plejeboliger, aflastningspladser, sygehuse, klinikker m.v. [updated 12 November 2020; cited 16 November 2020]. Available from: https://www.sst.dk/da/Udgivelser/2020/COVID-19-Smitteforebyggelse-ved-besoeg-paa-plejehjem-sygehuse
120. Sundhedsstyrelsen - The National Board of Health. Sundheds-og ældresektoren samt indsatser til socialt udsatte. [updated 13 November 2020; cited 17 November 2020]. Available from: https://www.sst.dk/da/corona/Information-til-fagpersoner/Sundheds--og-plejesektoren
121. Ministère des Solidarités et de la Santé. Personnes en EHPAD : réponses à vos questions. [updated 22 May 2020; cited 15 November 2020]. Available from: https://solidarites-sante.gouv.fr/soins-et-maladies/maladies/maladies-infectieuses/coronavirus/tout-savoir-sur-la-covid-19/article/personnes-en-ehpad-reponses-a-vos-questions
122. Ministère des Solidarités et de la Santé. Plan de lutte contre l'epidemie de COVID-19 dans les etablissements medicosociaux hebergeant des personnes a risque de forme grave de COVID-19. [updated 1 October 2020; cited 17 November 2020]. Available from: https://solidarites-sante.gouv.fr/IMG/pdf/plan_de_lutte_contre_le_covid_covid_esms.pdf
123. Gov.ie. Public health measures in place right now. [updated 16 September 2020; cited 16 November 2020]. Available from: https://www.gov.ie/en/publication/cf9b0d-new-public-health-measures-effective-now-to-prevent-further-spread-o/?referrer=http://www.gov.ie/en/publication/539d23-stay-at-home-the-latest-public-health-measures-to-prevent-the-spread/#healthcare-and-residential-care-measures
124. Health Protection Surveillance Centre (HPSC). Residential Care Facilities. [cited 17 November 2020]. Available from: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/residentialcarefacilities
125. Health Protection Surveillance Centre (HPSC). COVID-19 Guidance on visitations to Long Term Residential Care Facilities. [updated 1 October 2020; cited 17 November 2020]. Available from: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/residentialcarefacilities/Guidance%20on%20visitations%20to%20LTRCF.pdf
126. Health Service Executive (HSE) - Feidhmeannacht na Seirbhíse Sláinte. Visiting nursing homes and residential care facilities. [updated 22 October 2020; cited 15 November 2020]. Available from: https://www2.hse.ie/conditions/coronavirus/visiting-nursing-homes-and-residential-care-facilities.html
127. Rijksinstituut voor Volksgezondheid en Milieu (RIVM). Testbeleid en inzet zorgmedewerkers buiten het ziekenhuis. [updated 30 October 2020; cited 15 November 2020]. Available from: https://lci.rivm.nl/lci.rivm.nl/covid-19/bijlage/zorgmedewerkersinzetentestbeleid
128. Rijksinstituut voor Volksgezondheid en Milieu (RIVM). Lijst met zorgberoepen die in aanmerking komen voor prioriteitstesten. [updated 16 October 2020; cited 15 November 2020]. Available from: https://www.rijksoverheid.nl/onderwerpen/coronavirus-covid-19/documenten/publicaties/2020/10/06/lijst-met-zorgberoepen-die-in-aanmerking-komen-voor-prioriteitstesten
129. Rijksoverheid. Deelnemende instellingen versoepeling bezoekregeling verpleeghuizen bekend. [updated 11 May 2020; cited 15 November 2020]. Available from: https://www.rijksoverheid.nl/actueel/nieuws/2020/05/11/deelnemende-instellingen-versoepeling-bezoekregeling-verpleeghuizen-bekend
130. Rijksoverheid. Informatie als u zorg nodig heeft of zorg geeft - Bezoek in verpleeghuizen. [cited 15 November 2020]. Available from: https://www.rijksoverheid.nl/onderwerpen/coronavirus-covid-19/zorg/verpleegtehuizen
131. Folkhalsomyndigheten - The Public Health Agency of Sweden. Grundläggande hygienrutiner viktigast för att skydda äldre inom omsorgen. [updated 7 May 2020; cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/nyheter-och-press/nyhetsarkiv/2020/maj/grundlaggande-hygienrutiner-viktigast-for-att-skydda-aldre-inom-omsorgen/

132. Socialstyrelsen. Basal hygien i vård och omsorg. 2015 [cited 15 November 2020]. Available from: https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/foreskrifter-och-allmanna-rad/2015-5-10.pdf
133. Folkhalsomyndigheten - The Public Health Agency of Sweden. Förebygga smittspridning vid besök på äldreboenden. [updated 21 October 2020; cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/smittskydd-beredskap/utbrott/aktuella-utbrott/covid-19/information-till-varden/personal-inom-aldreomsorg/forebygga-smittspridning-vid-besok-pa-aldreboenden/
134. Folkhalsomyndigheten - The Public Health Agency of Sweden. Exempel på åtgärder för att minska spridning av covid-19 på särskilda boenden för äldre. En samanställning av exempel från verksamheter, kommuner och regioner. [cited 13 November 2020]. Available from: https://www.folkhalsomyndigheten.se/contentassets/451e2b507dbc49d6b3bd9f74432e9416/exempel-atgarder-minska-spridning-covid-19-sarskilda-boenden-aldre.pdf
135. Folkhalsomyndigheten - The Public Health Agency of Sweden. Provtagning för covid-19 hos boende inom äldreomsorg. [updated 29 May 2020; cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/smittskydd-beredskap/utbrott/aktuella-utbrott/covid-19/information-till-varden/personal-inom-aldreomsorg/provtagning-for-covid-19-hos-boende-inom-aldreomsorg/
136. Folkhalsomyndigheten - The Public Health Agency of Sweden. Provtagning för covid-19 inom kommunal vård och omsorg för äldre - Version 2. [cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/contentassets/798e562807464ebcb85287b09b21cda7/provtagning-covid-19-sarskilt-boende-aldre.pdf
137. Folkhalsomyndigheten - The Public Health Agency of Sweden. Antigentester vid påvisning av covid-19. [updated 21 October 2020; cited 17 November 2020]. Available from: https://www.folkhalsomyndigheten.se/contentassets/3dec9792d0b54b29a7b078d78f56a017/vagledning-snabbtester-pavisa-antigen-covid-19.pdf
138. Regeringskansliet. Översyn av besöksförbudet på äldreboenden. [updated 20 August 2020; cited 15 November 2020]. Available from: https://www.regeringen.se/pressmeddelanden/2020/08/oversyn-av-besoksforbudet-pa-aldreboenden/
139. Folkhalsomyndigheten - The Public Health Agency of Sweden. Rekommendationer vid besök i särskilda boenden för äldre under covid-19. [cited 15 November 2020]. Available from: https://www.folkhalsomyndigheten.se/contentassets/8f507d3b108149149a0061e4ad1a6b08/rekommendationer-besok-sarskilda-boenden-aldre-covid-19.pdf
140. Folkhalsomyndigheten - The Public Health Agency of Sweden. Ändring i föreskrifterna och allmänna råden (HSLF-FS 2020:12) om allas ansvar att förhindra smitta av covid-19 m.m. [updated 19 October 2020; cited 17 November 2020]. Available from: https://www.folkhalsomyndigheten.se/publicerat-material/publikationsarkiv/h/hslf-fs-202050/
141. Gov.uk - Department of Health & Social Care. Visiting arrangements in care homes for the period of national restrictions. [updated 5 November 2020; cited 15 November 2020]. Available from: https://www.gov.uk/government/publications/visiting-care-homes-during-coronavirus/update-on-policies-for-visiting-arrangements-in-care-homes
142. Department of Health Northern Ireland - An Roinn Sláinte. COVID-19: Guidance for Nursing and Residential Care Homes in Northern Ireland. [updated 11 September 2020; cited 16 November 2020]. Available from: https://www.health-ni.gov.uk/node/43074
143. Health and Social Care Board (HSCB). Care Homes: Surge Plan. [cited 15 November 2020]. Available from: http://www.hscboard.hscni.net/coronavirus/covid-19-care-homes/
144. Scottish Government - Riaghaltas na h-Alba. Coronavirus (COVID-19): clinical and practice guidance for adult care homes. [updated 15 May 2020; cited 17 November 2020]. Available from: https://www.gov.scot/publications/coronavirus-covid-19-clinical-and-practice-guidance-for-adult-care-homes/
145. Scottish Government - Riaghaltas na h-Alba. Coronavirus (COVID-19): PPE access for social care providers and unpaid carers. [updated 29 April 2020; cited 17 November 2020]. Available from: https://www.gov.scot/publications/ppe-access-for-social-care-providers-and-unpaid-carers/
146. Richards X. Covid: Digital devices rolled out to every Scottish care home. [updated 16 November 2020; cited 17 November 2020]. Available from: https://www.thenational.scot/news/18875450.covid-digital-devices-rolled-every-scottish-care-home/
147. Scottish Government - Riaghaltas na h-Alba. Adult Social Care Winter Preparedness Plan 2020-21. [cited 17 November 2020]. Available from: https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/11/adult-social-care-winter-preparedness-plan-2020-21/documents/adult-social-care-winter-preparedness-plan-2020-21/adult-social-care-winter-preparedness-plan-2020-21/govscot%3Adocument/adult-social-care-winter-preparedness-plan-2020-21.pdf
148. Scottish Government. Coronavirus (COVID-19): adult care homes visiting guidance. [updated 20 October 2020; cited 15 November 2020]. Available from: https://www.gov.scot/publications/coronavirus-covid-19-adult-care-homes-visiting-guidance/
149. Welsh Government - Llywodraeth Cymru. Visits to care homes: guidance for providers. Guidance for care home providers for adults and children on how to enable safe visiting during the coronavirus pandemic.

[updated 10 November 2020; cited 15 November 2020]. Available from: https://gov.wales/visits-care-homes-guidance-providers-html

150. Welsh Government - Llywodraeth Cymru. Care homes action plan. [updated 7 October 2020; cited 16 November 2020]. Available from: https://gov.wales/care-homes-action-plan
151. Public Health Wales - Iechyd Cyhoeddus Cymru. Information for Health and Social Care. [cited 16 November 2020]. Available from: https://phw.nhs.wales/topics/latest-information-on-novel-coronavirus-covid-19/information-for-health-and-social-care/
152. Welsh Government - Llywodraeth Cymru. Coronavirus regulations: frequently asked questions. [updated 16 November 2020; cited 16 November 2020]. Available from: https://gov.wales/coronavirus-regulations-guidance#section-46356
153. Department of Health Northern Ireland - An Roinn Sláinte. COVID-19: Regional Principles for Visiting in Care Settings in Northern Ireland. [updated 13 November 2020; cited 15 November 2020]. Available from: https://www.health-ni.gov.uk/Covid-19-visiting-guidance

Annex 1. Criteria for epidemiological assessment

Epidemiological situation is 'of concern'

A country with at least two of the following:

1. High (≥ 60/100 000) or sustained increase1 (≥ 1 week) in 14-day case notification rates

2. High (≥ 3%) or sustained increase (≥ 1 week) in test positivity

3. High (≥60/100 000) or sustained increase (≥ 1 week) in 14-day case notification rates in the older age groups (65-79yr AND/OR 80+yr)

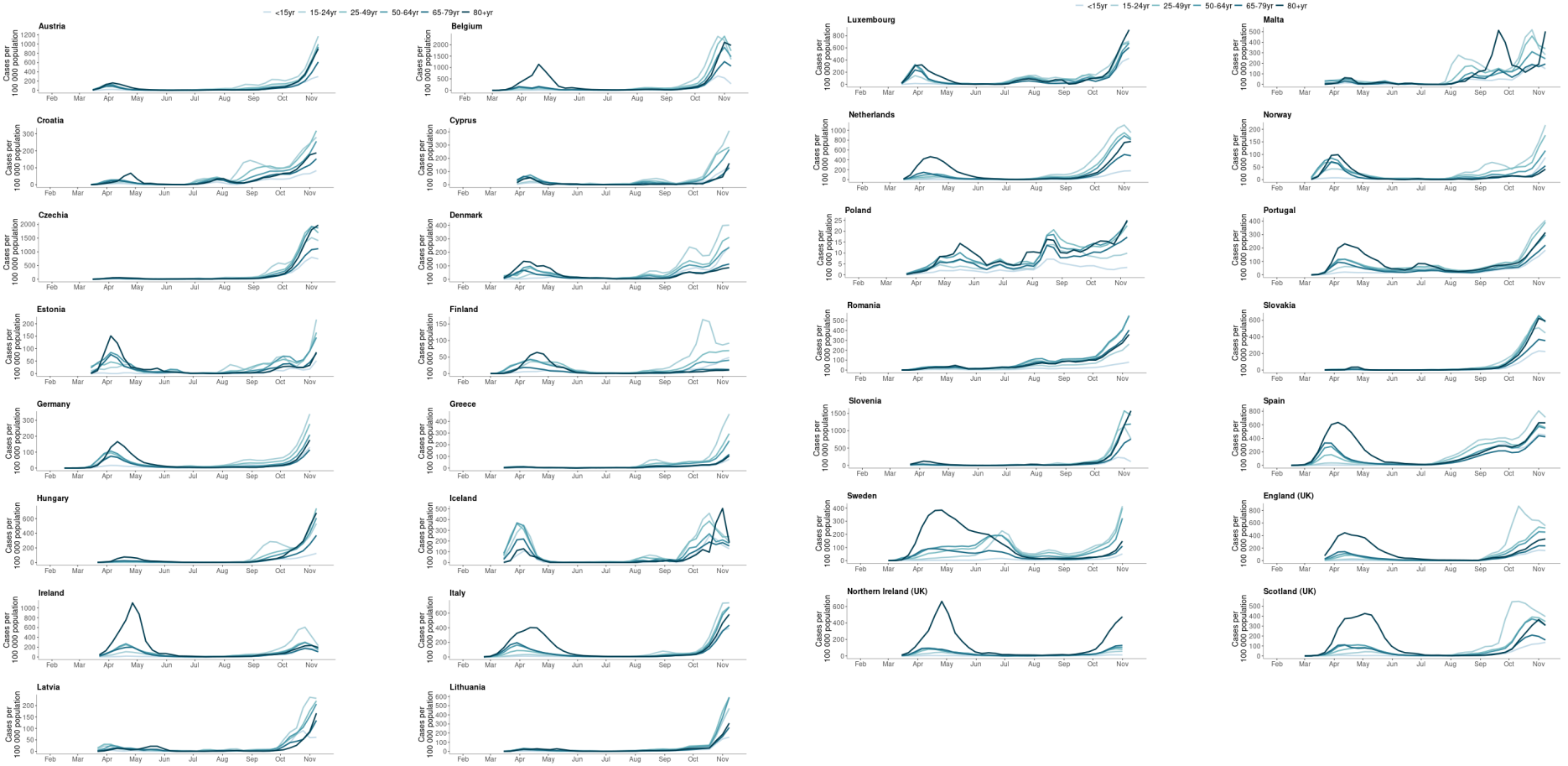
4. High (≥ 10/1 000 000) or sustained increase (≥ 1 week) in 14-day death notification rates.

Epidemiological situation is 'of serious concern'

A country whose epidemiological situation is 'of concern' and in which at least one of criteria 3-4 are met.

Countries whose epidemiological situation does not meet the criteria for being either 'of concern' or 'of serious concern' are categorised as having a 'stable' situation although, as seen in Annex 2, countries in this category may still be reporting high or rising rates for at least one of the parameter values used as criteria.

Annex 2. 14-day age-specific COVID-19 case notification rate by country, EU/EEA and the UK



Annex 3. Epidemiological summary

Figure 17. EU/EEA and the UK: country summary table, data to week ending 8 November 2020

Country	Case rate		Death rate		Positivity (%)		Testing rate		65+yr		Hospital admissions		Hospital occupancy		ICU admissions		ICU occupancy	
	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends
Austria	753.3		38.4		20		2,253		688.1				25.9				4.5	
Belgium	1366.4		202.4		21.4		2,239		1333.4		36.5		63				12.3	
Bulgaria	527.5		78.3		30.3		1,019						45.6				3.2	
Croatia	754.2		79.2		26.6		1,417		161.6		26.6		29					
Cyprus	277.1		3.4		5.6		3,064		136.8		5.6				0.1			
Czechia	1506.3		244.5		31.1		2,299		1293.2		118.6		75.2		19.2		11.2	
Denmark	255.2		6.9		1.7		7,944		106.9		4.8		3.1				0.4	
Estonia	119.4		0		6.5		1,201		82.5		3.2		3.9		0.3		0.4	
Finland	49.5		1.6		1.4		1,593		11.8				1.2				0.2	
France	988.2		82.4		19.8		2,174				28.7		41.7		4.5		6.2	
Germany	276.2		15.1		8		1,888		133.2		1.4							
Greece	231.4		17.3		10.5		1,383		113.4						1.4			
Hungary	515.4		103.7		23.8		1,310		441.1				52.8				3.8	
Iceland	187.4		19.6		2.1		2,693		161.6		6.2							
Ireland	178.4		12.8		4.3		1,599		125.8		2.6		6.2		0.4		0.8	
Italy	659.4		63.8		15.9		2,331		482.5				42.3				4	
Latvia	177.8		21.9		5.1		2,043		143.7		11.3		12.9		1.1			
Liechtenstein	1107.4		52.1															
Lithuania	470.3		26.5		11.4		2,476		275		13.7		11.8		1.8			
Luxembourg	1428.3		66.8		6.7		11,046		687.2				34				5.8	
Malta	337.1		44.6		4.1		4,980		263.6									
Netherlands	712.8		54.4		16.5		1,862		554.2		1.6				1.6		3.8	
Norway	112.5		1.1		2.2		3,104		51.7				1.5					
Poland	736.6		86.5		35.7		1,174		19.2				50.1					
Portugal	558.9		53.6		13.3		2,365		248.8		3.4		23.2				3.3	
Romania	469.8		76		26.4		1,085		392.6		242.4						5.2	
Slovakia	603		35.2		18.4		1,592		402.6				30					
Slovenia	1105		94.7		28.4		1,687		980		14.9		48.6				7.7	
Spain	602.3		86.9		13		2,354		488.7		8		41.5		0.4		5.7	
Sweden	414.2		10.5		13		1,850		120.1						1			
United Kingdom	476.3		62.2		7.6		3,158				13.7		19.6				1.8	

Annex 4. Selected measures in countries in the EU/EEA and the UK, reporting a recent increase in fatal cases and/or outbreaks in public longitudinal surveillance data

Country	Measures
Belgium	**General measures in LTCFs** 13 March: testing only possible in hospitals and for health care workers. 10 April [108]: prioritisation of 20 000 COVID-tests for LTCFs, initiate exhaustive testing in nursing homes. **Visiting policies** 10-13 March: Visits to nursing homes prohibited (date depending on the region). 15 April: The national security council decides to allow visits and the sector's leaders and regional Ministers of Health decide not to apply immediately this measure. Visits were partially authorised, under strict conditions, from 23 April in Brussels, the 28 April in Wallonia and 18 May in Flanders. Residents are permitted to receive one visitor (should be from close family), under condition that the person has shown no symptoms of illness in the previous two weeks [109]. The person should remain the same. Between end April and October: Number of visitors per resident depending on the national measures in the populations (number of contacts allowed) and regional measures in LTCFs. For the different regions [110]: Wallonia [111]: since 26 October: Visits are now limited to one visitor per resident (reflecting national measure on contacts), and should be the same person for 15 days. Visit to be held dedicated spaces, masks are obligatory for visitor and resident, and all other basic hygiene and distancing measures must be held. Flanders [112]: Visits to LTCFs are permitted and should only be restricted in exceptional circumstances. The facilities shall ensure safe visits can be held and that measures are in place. Brussels-Capitale [113]: only essential visits are permitted. These are defined as: medical visits as well as relatives visiting for specific reasons (end of life, relative in state of crisis).
Denmark	**General measures in LTCFs** National guidelines [114] available for the planning of activity and the prevention of the spread of infection in the health care system with focus on acute care, GP's and other specialists. Since 13 March 2020: Specific COVID-19 infection prevention and control guidelines for LTCF. Now specific COVID-19 IPC guidelines are common for acute and long-term care, latest version September 23, 2020 [115]. Since 8 April: General COVID-19 guidelines for LTCF since April 8, 2020, latest version July 9, 2020 (under revision) [116].

Country	Measures
	Since 29 October: Mandatory use of face covers (masks or face shields) in public indoor areas (LTCF's, hospitals and other healthcare-related institutions and clinics, transportation, restaurants, shops, training facilities) for staff and citizens in general. Some exemptions are allowed for citizens (in case of physical and mental problems with face covers). Rapid antigen testing is not recommended for staff or residents at LTCF, due to low sensitivity and other issues. **Visiting policies** [117] 18 March – 10 June: Visits to LTCFs are restricted to only essential visits. 11 June onwards[118]: Visits to LTCFs open for outdoor visits. Visits to LTCFs allowed under specific conditions: Visits should primarily be outdoors (it is no longer possible to prohibit outdoor visits). Visits can take place indoors in critical situations, but only for 1-2 regular visitors appointed by the nursing home inhabitant, if outdoor meetings are impossible; A regular accompanying person can participate in treatment, examination or consultation in hospitals; Testing is available for voluntary use before visits to nursing homes/hospitals. The Danish Patient Safety Authority officers may however prohibit or otherwise restrict visits in collaboration with the municipality, depending on rise in local (community) incidence of COVID-19 or local outbreaks. Still, visits in critical situations or visit from the closest relative should be allowed. The Danish Patient Safety Authority officers may however prohibit or otherwise restrict visits in collaboration with the municipality, depending on rise in local (community) incidence of COVID-19 or local outbreaks. Still, visits in critical situations or visit from the closest relative should be allowed. Since 17 March: National guidelines [119,120] for infection prevention and control during visits to nursing homes, relief places, hospital etc. available. Latest version from 12 November (including how to arrange for indoor visits).
France	**General measures in LTCFs** Residents (on routine basis): general national recommendation is to wear a mask indoors if 1m distance cannot be kept or once in the presence of a vulnerable person and in all places where it is obligatory. **Visiting policies** 17 March-11 May: Visits to LTCFs were suspended and visits to family (i.e. leaving facility to see family) were not permitted. After 11 May [121]: Visits are allowed, on a case-by-case basis, they require an approach of prudence (see details below). The final decision lays with the Director(s) of each facility, together with the treating team (of the individual). If health risks are deemed too high, the Director has the right to say no to a visit or require stronger protective measures. National guidance available [122]. Requirements for LTCF visits include: - Rules for the visit are communicated to the family prior to the visit; - An appointment prior to visit is necessary; - The visit may not exceed an hour; - Physical contact is prohibited; - A maximum of two people are allowed for the visit (one person only for visits in room);

Country	Measures
	- Use of mask is obligatory for both visitor and resident.
Ireland	**Visiting policies:** 1 March–6 July: All LTCF visits restricted, with the exception of compassionate grounds. 15 July-15 September [123]: LTCF visits permitted, with requirement infection control measures. Guidance for this available. Final decision and responsibility for visits lays with each facility. Guidance available [124,125] on how to set up visits based on the epidemiological situation in the area (no ongoing COVID-19 outbreak versus ongoing COVID-19 outbreak) Since 15 September: Visits to LTCFs (nursing and care homes) are suspended, with the exception of visits required for critical and compassionate circumstances. In this case special precaution measures apply including the use of face masks or other face protection device, limiting the duration of the visit and respecting strict hygiene. Regular information and updates available here [126].
The Netherlands	**General measures in LTCFs** Extensive guidance available on infection prevention and control in healthcare settings. Healthcare professionals [127,128] are listed as a priority group for testing in the event of suspected COVID-19, especially in circumstances of limited human resources. In cases of limited testing capacity, priority healthcare professions are listed, including staff from long-term care facilities. **Visiting policies** 20 March–10 May: national policy restricting all non-essential visits to LTCFs for older people. 11 May–15 June [129]: Step-wise approach to allowing visitors to LTCF, opening up for visitors in LTCFs in entire country, with requirement of infection control measures. Under strict conditions, one regular visitor per nursing home resident was allowed in 26 nursing home locations. With the knowledge and experience gained at these locations, the government aimed to gradually and carefully allow limited visits to an increasing number of nursing home locations. Current measures [130]: Residents of LTCFs for older people are allowed to receive visitors. Conditions do apply, for example: - Everyone must be able to keep to the 1.5 metre distance. - Follow the basic rules such as washing hands regularly. - If there an increased number of infections in the region of the nursing home, the advice is that visitors wear face masks when in contact with residents within 1.5 meters.
Sweden	**General measures in LTCFs** 7 May [131]: Guidance/statement provided on protecting older people population in LTCFs, highlighting requirement that the National regulations [132] for basal hygiene in healthcare must be followed and the importance for LTCFs to establish routines to prevent transmission of SARS-CoV-2. Statement includes consideration/assessment on the use of masks for staff in LTCFs. 30 September [133]: In conjunction with assessment of the impact of visitor restrictions on the spread of SARS-CoV-2 in LTCFs (see below), national public health authority highlight the importance of establishing routines in LTCFs to prevent transmission, including importance of hygiene routines, training and

Country	Measures
	human resources as well as ensuring broad and generous SARS-CoV-2 testing in LTCF environments, also in cases of even mild symptoms, in the structure of screening programmes, or for contact tracing National guidance [134] provides examples of good practice for minimising transmission in LTCFs for older people also available, including: - Establish collaboration between different actors, for example to shorten decision-making chains, for information sharing and to ensure access to protective equipment or other necessary materials. - Secure adequate basic staffing and respond to staff questions and concerns, in order to have a good psychosocial work environment. - Ensure staff receive training, including basic skills in basic hygiene routines and training in the use of protective equipment. - Inform staff and relatives by adapting the information and disseminating it in different ways. - Maintain a physical distance in the business, both between the residents, between staff and between staff and residents. - Secure routines for streamlining and simplifying the work. 9 November: update and expansion of document Guidance/statement provided on protecting the elderly to include all types of healthcare, LTCF, home-care and dentistry, also including an update for considerations for when, and how, staff should practice 'source control'. Older people receiving healthcare (i.e. in LTCFs) are the main risk group for infection and should therefore be generously tested (i.e. should prioritise for testing). The national strategy for COVID-19 [135] testing specifically indicates people received care in older people care facilities are in the priority 1 group for testing. National guidelines for testing in LFTC for older people is available [136] and in short: - Generous sampling for testing with RT-PCR or for rapid antigen test (in combination with a confirming test) to detect ongoing covid-19 infection in caregivers, even in case of non-specific symptoms [137]. - Contact tracing around newly discovered cases that include people without symptoms, both care recipients and staff. - Screening of care recipients who move in or return from hospital care. - Measures that should be taken based on test results. - What needs to be in place in the sampling process. **Visiting policies** 1 April–30 September [138]: National policy banning all visits to LTCFs for older people. Since 1 October: By request of the government, the Public Health Agency of Sweden and the National Board of Health and Welfare analysed the national ban on visits to LTCFs and, based on the situation at the time of analysis, assessed the ban was no longer required. The need for temporary visit-restrictions in not needed to the same extent anymore and the negative effects of visit-restrictions increase the longer such a ban is in place. The report underlines importance of continuing to protect the most vulnerable and continue to follow preventive measures. National recommendations [139] for visit to LTCF include:

Country	Measures
	- The requirement to establish local routines to minimise transmission during visits, including requirement of distancing between visitor and resident(s). - Communicating the routines to visitors prior to their arrival, e.g. staying home if sick, ensuring good hand and coughing/sneezing hygiene, limit the number of visitors per resident during a single visit, adapt routines based on epi situation. 19 October 2020: In case of local outbreaks, there are opportunities for further measures in accordance with new, stricter general guidelines in updated regulations [140]. An example of a measure is that the Public Health Agency, in consultation with the regions, can decide that people in the affected area should not visit nursing homes in the area.
UK-England	**Visiting policies** Visiting policies is the decision of each individual facility's management and should be made based on an overall risk assessment balancing risk of infection and benefits to the residents. National guidance [141] and guidelines available for this. In all cases several requirements include: - Visits to be limited to a single constant visitor - Use of appropriate PPE - Maintaining physical distancing at all times - Adhering to strict prevention and control practices - Establishing dedicated visiting spaces that are limited to single residents - Having open air visits as much as possible. 14 November: New testing pilot [77] is being launched, offering regular PCR testing (to be done at home) or rapid lateral flow tests (to be done in person at the care home for a visit) to family members visiting care homes, to be combined with appropriate visit routines (PPE, hygiene) as an approach to safeguarding visits even more. Pilot being run in care homes in Hampshire, Cornwall and Devon.
UK-Northern Ireland	**General measures in LTCFs** Guidance [142] for nursing and residential care homes in Northern Ireland available, including prevention and control measures guidance. First published 17 March 2020, regularly updated, last update 11th September. Care home: surge plan available [143] **Visiting policies** 16 October – 13 November: Care home visits are recommended to be restricted, with the exception of palliative care facilities and those who are receiving end of life care. Contact should be made with the individual care home for visiting arrangements. All visits require the use of face covering, with the exception of children under 13 years of age.
UK - Scotland	**General measures in LTCFs**

Country	Measures
	- April 2020: COVID-19 Guidance for care homes in Scotland has been available from April 2020, including infection prevention and control measures, last updated 13/10/20 [144]. In addition, national clinical guidance was developed inclusive of the national policy developments [144]. The work is overseen by a Government level Care Home Clinical and Professional Advisory Group, which meets weekly. - Lessons learned to date recognise that it is not only the measures within LTCFs that have impact but also the measures and behaviours of people accessing LTCFs outside the LTCFs (e.g. means of transportation to the LTCF, physical distancing within community etc)- a system approach is therefore needed and being undertaken. Government policy letters have been issued to enhance support and establish Care Home Oversight Groups locally connecting all parts of the system up. - Introduced substantial financial support to LTCF staff to ensure adherence to 'stay-at-home if you have symptoms' also if they test positive from routine weekly career testing. - Local PPE Hubs have been set up all over Scotland by Health and Social Care Partnerships to provide PPE to those providing social care support who need it [145]. - Digital infrastructure has been invested in and a new data safety huddle tool have been developed and all care homes are now capturing data on key IPC indicators daily [146]. - Investment in IPC resource and additional support for the care home sector was also announcement as part of the Scottish adult social care winter plan 2020/21[147]. - Care home workforce professional judgement tool for staffing and skill mix analysis and support **Visiting policies** Throughout pandemic essential visits have been allowed, other types of visits were restricted. Assessment was enabled via permission of the Director of Public Health for the region the care home was in, based on a situational risk assessment of their local epidemiology and whether there was an outbreak in the home. Since 3 September [148]: Established a three stage process for re-introducing visits to care homes. Common for all stages listed below is that control each stage should only be introduced once preventive measures are in place to secure safe visits (distancing, hang and cough hygiene etc) and that local measures take precedence over the general national stage (as these are adapted to the local epidemiological situation): - Stage 1: outdoor visits allowed only; - Stage 2: indoor visiting; - Stage 3: controlled programme of outdoor and indoor visiting. From 12 October: National measure: residents may have up to six outdoor visitors at one time from no more than two households. Indoor visiting to residents by designated individuals should also be possible once care homes have developed a plan to allow this to happen as safely as possible, and for up to four hours. Essential visits are recommended to be generously supported, without defined time limit, and where they will support the resident's wellbeing [148]. Risk based and proportionate IPC is being promoted to ensure compassionate care is enabled in the care homes. Testing of visitors is also being considered currently to further enable visiting.
UK-Wales [149]	**General measures in LTCFs**

Country	Measures
	National Care homes action plan [150] for how care home will be supported is available. Covers areas such as infection prevention and control, PPE etc. Dedicated Public Health Wales' guidance for health and social care professionals [151] **Visiting policies** Current policy [152]: Visits to LTCFs allowed, with restrictions on indoor visits (restricted to essential visits, including but not restricted to end of life visits). The local authorities are responsible for ensuring safe visits are ensured. Guidance visits to care homes: guidance for providers available [149,153]. It provides support to providers on facilitating; outdoor visits, indoor visits when the level of COVID-19 at a local or national level allows; indoor visits in exceptional circumstances including end of life; and people going out into the community and visiting family and friends