



The following information resources have been selected by the National Health Library and Knowledge Service Evidence Virtual Team in response to your question. The resources are listed in our estimated order of relevance to practicing healthcare professionals confronted with this scenario in an Irish context. In respect of the evolving global situation and rapidly changing evidence base, it is advised to use hyperlinked sources in this document to ensure that the information you are disseminating to the public or applying in clinical practice is the most current, valid and accurate. For further information on the methodology used in the compilation of this document—including a complete list of sources consulted—please see our [National Health Library and Knowledge Service Summary of Evidence Protocol](#).

YOUR QUESTION

Is visiting [in the social context] associated with increased incidence of COVID-19 in long-term residential care facilities?

IN A NUTSHELL

In response to the COVID-19 pandemic many nursing homes and long-term care facilities have introduced restrictions on visitors to minimize the risk of spreading the infection to their residents. Public Health and government advice globally has attempted to reconcile the separate concerns of limiting the potential transmission of SARS-CoV-2 on the one hand; and, on the other hand, the psychological wellbeing of residents^{1,2}.

A rapid review by the University of Oxford Centre for Evidence Based Medicine did not find any evidence on the effectiveness of limiting visitors to facilities. However they did state that as staff movement is a risk factor for outbreaks, similarly visitors may be a potential source of infection during a pandemic with widespread community transmission.⁶ Although there is little evidence to date investigating visitation as a means of spreading COVID-19, there is evidence that families play a significant role in the community transmission of the infection¹⁵. Another study from McMichael et al¹⁶ points out the prevalence of asymptomatic transmission of SARS-CoV-2 in nursing homes, reinforcing the need for particular caution around any potential relaxation of restrictions.

Visitor access to nursing homes should be dependent on a risk assessment of both the local epidemiological situation and of the nursing home itself.¹ Communicating the relative risk of visiting to nursing homes is identified as a key step in re-building trust in long-term care facilities¹. Kroner¹¹ and Lee-Fay¹⁴ point out that restricting visitor access to nursing homes has not inhibited transmission of the virus. Increasingly, as the duration of the COVID-19

pandemic extends, organizations representing older people are questioning the benefits of implementing visitor restrictions on the grounds that protection against the virus has to be weighed against the risk of damage to an older person's mental health¹⁷. Dichter also suggests: "In spite of current restrictive infection control measures, the principle of person-centred care must be implemented"⁸. Ethical considerations regarding long-term isolation and restriction of visits should be balanced against the potential impact of infection on residents and staff⁶.

Several studies identified under-resourcing of nursing homes combined with inadequate decontamination and poor hand hygiene as the most frequently cited factors propagating transmission¹³. Staff working across different care homes have a higher risk of SARS-CoV-2 positivity than staff working in single care homes¹². Another study by Belbin et al recorded far lower rates of COVID-19 transmission in nursing homes that were able to implement staff confinement with residents⁴. He et al¹⁰ assessed cross-sectional data from 1,223 Californian skilled nursing facilities with reported quality and longitudinal data of COVID-19 cases and found that homes with 5-star ratings were less likely to have COVID-19 cases and deaths after adjusting for nursing home size and patient population.

A national study by Verbeek et al²¹ which looked at the results of allowing visitors back into nursing homes in the Netherlands during COVID-19 pandemic found that of the 26 nursing homes surveyed, none reported any new COVID-19 infections. The authors also comment on the value to resident wellbeing achieved by allowing visitors to return. There have been efforts in several countries to facilitate visits to nursing homes even when tighter restrictions have been implemented: eg garden and window visits. Technology has also played an important role in maintaining social connectedness between families and residents^{5,14}.



IRISH AND INTERNATIONAL GUIDANCE

What does the World Health Organization say?

[Preventing COVID 19 across long term care services \(24 July 2020\)¹](#)

Similar to many major public health organizations, WHO stresses the need to develop policies that strike a balance between infection prevention and control measures and psychological wellbeing. WHO states that guidance should be made available on thresholds as to when and how to phase in or out isolation of residents and loosen restrictions on visitors. Communicating the relative risk of visiting to nursing homes is identified as a key step in rebuilding trust in long-term care facilities. There is no explicit evidence statement with regard to visitation being associated with outbreaks of COVID-19.

What does the European Centre for Disease Prevention and Control say?

[Surveillance of COVID 19 at long term care facilities²](#)

ECDC guidance refers to a systematic review by Lee et al¹³ regarding the cause of transmission outbreaks in long-term care facilities. Visitation is not designated as a factor explicitly associated with the introduction of outbreaks of COVID-19. ECDC states that if visitors are allowed to enter facilities, depending on the epidemiological situation where the facility is located, they should wear face-masks, keep a physical distance of 2 metres and adhere strictly to hygiene measures. ECDC also states that ethical considerations regarding long-term isolation and restriction of visits should be balanced against the potential impact of infection on residents and staff.

What does the Health Protection Surveillance Centre say?

[COVID-19 guidance on visitations to long-term residential care facilities³](#)

On September 11, the Government issued a FIVE LEVEL FRAMEWORK – TABLE OF PUBLIC HEALTH RESTRICTIVE MEASURES that includes visiting to long-term residential care facilities (LTRCF). LTRCF refers to all congregated care settings where people are intended to remain for extended periods including nursing homes, certain mental health facilities and community housing units for people with disabilities. Acute hospitals are not included in this guidance. All designated centres for older people and designated centres for children and adults with disabilities must be registered with the Office of



the Chief Inspector of the Health Information and Quality Authority (HIQA) who monitor and inspect designated centres regularly to ensure they maintain a high level of care and support. In residential disability services in own-door supported accommodation or small group homes for people with disabilities and particularly where residents are younger and do not have specific medical vulnerability the risk is lower than in larger congregated care settings for older people. In that context more frequent visits can be managed with little risk particularly if there is one nominated visitor who is complies fully with measures to reduce inadvertent introduction of COVID-19. The document specifies the following:

Framework Level	Visiting Policy
Level 1	Open with protective measures
Level 2	Open with enhanced protective measures
Level 3, 4 and 5	Suspended, aside from critical and compassionate circumstances

* Note: This is intended to apply to in-door visiting. Window visiting where a person stands outside and speaks to a person at safe distance through an open window or by telephone is acceptable at any framework level and during outbreaks. Similarly, outdoor visiting where safe distance can be maintained at all times need not be restricted at any framework level or during outbreaks where it is appropriate for the resident, is arranged in advance and where there are suitable facilities and capacity to accommodate and support the visit. If suspension of window visiting and outdoor visiting are considered, such suspension should be in the context of a documented risk assessment.

[British Geriatrics Society \(2020\) Managing the COVID 19 pandemic in care homes⁴](#)

The COVID-19 pandemic raises particular challenges for care home residents, their families and the staff that look after them. Guidance has been developed to help care home staff and NHS staff who work with them to support residents through the pandemic. Key recommendations in respect of visitation include:



1. For many residents the risks of exposure to COVID-19 from visitors may outweigh the benefits. Exceptions may include residents nearing the end of life and some residents with a mental health disorder such as dementia, autism or learning disability where absence of visiting from an immediate family member or carer may cause distress. Visiting policies should be based upon individualised risk-assessments and shared decision-making with residents, their families and care home staff.
2. Where face-to-face visits with carers or family members aren't possible, alternative arrangements should be facilitated using other means such as telephone and/or videoconferencing technology.
3. Care homes that allow visitors should have an infection control and PPE policy that applies to visitors.

INTERNATIONAL LITERATURE

What does the international literature say?

[Belbin et al \(2020\) Coronavirus disease 2019: outcomes in French nursing homes that implemented staff confinement with residents⁵](#)

Coronavirus disease 2019 (COVID-19) is a major threat to nursing homes. During the COVID-19 pandemic wave that hit France in March and April 2020, staff members of some French nursing homes decided to confine themselves with their residents on a voluntary basis to reduce the risk of entry of SARS-CoV-2 into facilities.

[Centre for Evidence Based Medicine \(2020\): How can pandemic spreads be contained in nursing homes?⁶](#)

In response to the COVID-19 pandemic many nursing homes and long-term care facilities have introduced restrictions on visitors to minimize the risk of spreading the infection to their residents. This rapid review evaluates available measures to minimize the risk of infection spread among residents and staff in care home settings.

The authors did not find any evidence on the effectiveness of limiting visitors to facilities. However, as staff movement is a risk factor for outbreaks, similarly visitors may be a potential source of infection during a pandemic with widespread community transmission.



[Chen et al \(2020\) Long-term care, residential facilities, and COVID 19: an overview of federal and state policy responses⁷](#)

The COVID-19 pandemic has disproportionately affected residents and staff at long-term care (LTC) and other residential facilities in the United States. The high morbidity and mortality at these facilities has been attributed to a combination of a particularly vulnerable population and a lack of resources to mitigate the risk. During the first wave of the pandemic, the federal and state governments received urgent calls for help from LTC and residential care facilities; between March and early June of 2020, policymakers responded with dozens of regulatory and policy changes. In this article, the authors provide an overview of these responses by first summarizing federal regulatory changes and then reviewing state level executive orders. The policy and regulatory changes implemented at the federal and state levels can be categorized into the following 4 classes: 1. preventing virus transmission, which includes policies relating to visitation restrictions, personal protective equipment guidance, and testing requirements; 2. expanding facilities' capacities, which includes both the expansion of physical space for isolation purposes and the expansion of workforce to combat COVID-19; 3. relaxing administrative requirements, which includes measures enacted to shift the attention of caretakers and administrators from administrative requirements to residents' care; and 4. reporting COVID-19 data, which includes the reporting of cases and deaths to residents, families, and administrative bodies such as state health departments. These policies represent a snapshot of the initial efforts to mitigate damage inflicted by the pandemic. Looking ahead, empirical evaluation of the consequences of these policies — including potential unintended effects — is urgently needed. The recent availability of publicly reported COVID-19 LTC data can be used to inform the development of evidence-based regulations, though there are concerns of reporting inaccuracies. Importantly, these data should also be used to systematically identify hot-spots and help direct resources to struggling facilities.

[Dichter et al \(2020\) It is time to balance infection management and person-centred care to maintain mental health of people living in German nursing homes⁸](#)

The introduction of regional, state and federal regulations to protect residents from an infection has led to bans on leaving and visiting nursing homes (State Government of North Rhine-Westphalia, 2020). Since mid-



March, the doors have been closed to relatives and residents. This means that relatives or friends cannot visit residents, and residents cannot leave the nursing home property.

The ban on visits for nursing homes represents a serious restriction on residents' rights to self-determination. Thus, it is currently not possible to have personal contact with relatives, friends and spouses who do not live in the same nursing home. Possibilities for sharing personal fears and worries and for talking about everyday topics are reduced to telephone or video calls. Apart from direct contacts, any support that residents have received previously from relatives and friends is no longer possible—eg company during walks outside; reading aloud of newspaper articles or books; purchasing food and refreshments; physical closeness such as a hug or holding of hands. In addition, relatives and friends are missed as advocates, translators and communicators of residents' needs.

[Graham et al \(2020\) SARS-CoV-2 infection, clinical features and outcome of COVID-19 in United Kingdom nursing homes⁹](#)

The SARS-CoV-2 outbreak in 4 UK nursing homes was associated with very high infection and mortality rates. Many residents developed either atypical or had no discernible symptoms. A number of asymptomatic staff members also tested positive, suggesting a role for regular screening of both residents and staff in mitigating future outbreaks.

[He et al \(2020\) Is there a link between nursing home reported quality and COVID-19 cases? Evidence from California skilled nursing facilities¹⁰](#)

During the COVID-19 outbreak in the United States, nursing homes became the hotbed for the spread of COVID-19. States developed different policies to mitigate COVID-19 associated risks at nursing homes, including limiting nursing home visitation and mandating staff screening. The authors investigated whether COVID-19 cases and deaths are related to the nursing home reported quality. Nursing home star ratings and greater percentage of residents from different racial and ethnicity groups were significantly ($P < .01$) related to increased probability of having a COVID-19 residents' case or death. Nursing homes with 5-star ratings were less likely to have COVID-19 cases and deaths after adjusting for nursing home size and patient race proportion.

[Krones et al \(2020\) Medicine is a social science: COVID-19 and the tragedy of residential care facilities in high income countries¹¹](#)

Current isolation and confinement policies including the prolonged separation of residents from their loved ones have failed to demonstrate effectiveness in preventing transmission and are therefore disproportionate. They have to be replaced by policies that respect both the needs and safety of all residents and basic human rights.

[Ladhani et al \(2020\) Increased risk of SARS-CoV-2 infection in staff working across different care homes: enhanced COVID-19 outbreak investigations in London care homes¹²](#)

Care homes have been disproportionately affected by the COVID-19 pandemic and continue to suffer large outbreaks even when community infection rates are declining, and therefore represent important pockets of transmission. We assessed occupational risk factors for SARS-CoV-2 infection among staff in 6 care homes experiencing a COVID-19 outbreak during the peak of the pandemic in London, England. SARS-CoV-2 positivity was significantly higher among staff working across different care homes than those who were working in the same care home. We found local clusters of SARS-CoV-2 infection between staff only, including those with minimal resident contact. Infection control should be extended for all contacts, including those between staff.

[Lee et al \(2020\) A systematic review on the causes of the transmission and control measures of outbreaks in long-term care facilities: back to basics of infection control¹³](#)

The authors indicate that the violation of basic infection control practice could be a major factor in introducing and facilitating the spread of contagious diseases in long-term care facilities.

[Lee-Fay et al \(2020\) Easing lockdowns in care homes during COVID-19: risks and risk reduction¹⁴](#)

Many governments and care homes have instituted complete lockdowns of care homes, banning all visitors. Lockdowns are probably resulting in mental and physical deterioration of residents. Easing of complete visitor bans should consider regional prevalence of COVID-19 and may include strategies to limit the number of visitors and visits, screening of visitors, and additional infection control. Even when some visitors are allowed, additional measures and funding are required to support resident wellbeing during spatial



distancing restrictions. Increased staffing, technology and implementing new practices are required to support social, cognitive and physical activity.

[Liu et al \(2020\) cluster infections play important roles in the rapid evolution of COVID-19 transmission: a systematic review¹⁵](#)

SARS-CoV-2 can be transmitted in various circumstances, and cluster infections play an important role in the rapid evolution of COVID-19 transmission. Prevention and control measures such as social distancing must be strictly implemented to contain these cluster infections.

[McMichael et al \(2020\) Epidemiology of COVID-19 in a long term care facility in King's County, Washington¹⁶](#)

Long-term care facilities are high-risk settings for severe outcomes from outbreaks of COVID-19 owing to both the advanced age and frequent chronic underlying health conditions of the residents and the movement of health care personnel among facilities in a region.

[Rimmer et al \(2020\) COVID-19: charity to challenge rules on visits to care homes¹⁷](#)

The UK charity John's Campaign has instructed lawyers to ask for a judicial review of government guidance that restricts family visits to loved ones in care homes. The guidance issued by the Department of Health and Social Care on 22 July advises care homes in England on creating their own visiting policies with an aim to reduce the risk of coronavirus transmission and prevent future outbreaks. The guidance says that the health and wellbeing of residents should be considered in these policies. "This will include both whether [residents'] needs make them particularly vulnerable to COVID-19 and whether their needs make visits particularly important."

[Roxby et al \(2020\) Outbreak Investigation of COVID-19 Among Residents and Staff of an Independent and Assisted Living Community for Older Adults in Seattle, Washington¹⁸](#)

SARS-CoV-2 has caused epidemic spread of coronavirus disease 2019 (COVID-19) in the Seattle, Washington, metropolitan area, with morbidity and mortality concentrated among residents of skilled nursing facilities. The prevalence of COVID-19 among older adults in independent or assisted living is not understood.



[Suarez-Gonzalez et al \(2020\) Detrimental effects of confinement and isolation on the cognitive and psychological health of people living with dementia during COVID-19: emerging evidence¹⁹](#)

3 studies describing the effects of lockdown on people with dementia living in the community have been published to date. They show a worsening of functional independence and cognitive symptoms during the first month of lockdown (31% of people surveyed) and also exacerbated agitation, apathy and depression (54%), along with the deterioration of health status (40%) and increased use of antipsychotics or related drugs (7%). People with frontotemporal dementia (FTD) and their family caregivers seem to be particularly struggling to comply with protective measures. Only 2 case studies reporting strategies to support people with dementia in care homes have been produced to date. One describes a quarantine care plan for a person with FTD; and the other, a mitigating strategy to ease the distress experienced by a man when his family stopped visiting during the pandemic. People living with dementia in care homes have experienced a particularly harsh version of lockdown. Although no observational studies on the effects of confinement in care home residents have been published yet, the ban on visits from spouses and partners in care is believed to be causing a significant deterioration in the health and wellbeing of residents with dementia. It is worth noting that a study involving 26 care homes proved that it is possible to implement successful infection control measures at the same time that visits are permitted.

[Sugg et al \(2020\) Mapping community-level determinants of COVID-19 transmission in nursing homes: a multi-scale approach²⁰](#)

Deaths from the COVID-19 pandemic have disproportionately affected older adults and residents in nursing homes. Although emerging research has identified place-based risk factors for the general population, little research has been conducted for nursing home populations. This GIS-based spatial modelling study aimed to determine the association between nursing home level metrics and county level, place-based variables with COVID-19 confirmed cases in nursing homes across the United States. A cross-sectional research design linked data from Centres for Medicare and Medicaid Services, American Community Survey, the 2010 Census, and COVID-19 cases among the general population and nursing homes. Spatial cluster analysis identified specific regions with statistically higher COVID-19 cases and deaths among residents. Multivariate analysis identified risk factors at the nursing home level including total count of fines, total staffing



levels, and LPN staffing levels. County level or place-based factors such as per-capita income, average household size, population density and minority composition were significant predictors of COVID-19 cases in the nursing home. These results provide a framework for examining further COVID-19 cases in nursing homes and highlight the need to include other community level variables when considering risk of COVID-19 transmission and outbreaks in nursing homes.

[Verbeek et al \(2020\) Allowing visitors back in the nursing home during the COVID-19 crisis: a Dutch national study into first experiences and impact on well-being²¹](#)

To prevent and control COVID-19 infections, nursing homes across the world have taken very restrictive measures, including a ban for visitors. These restrictive measures have an enormous impact on residents' well-being and pose dilemmas for staff, although primary data are lacking. A Dutch guideline was developed to cautiously open nursing homes for visitors during the COVID-19 pandemic. This study reports the first findings on how the guideline was applied in the local context; the compliance to local protocols; and the impact on well-being of residents, their family caregivers, and staff.

ELEMENTS FROM THE DUTCH GUIDELINES FOR VISITATION IN NURSING HOMES DURING COVID-19

Preconditions for Visitors

- Make agreements with the nursing home on the frequency and duration of the visit.
- 1 designated visitor is allowed per resident
- Take personal hygiene measures: use of hand sanitizer at entrance; temperature check.
- Visitors are spread throughout the day and week.
- Visits take place at least 1.5 metres in distance, including from staff and other residents.
- Visitors should be free from COVID-19 symptoms.
- Visitors are obliged to wear a protective mouth mask for visiting residents who are difficult to instruct: eg people with dementia.

Preconditions for Organizations





- Should observe regulations and keep in perspective the well-being of residents and family.



- Sufficient personal protective equipment, thermometer assessment and appropriate application of same.
- Strict hygiene protocol.
- Sufficient staffing.
- Sufficient test capacity by local health authority.

Produced by the members of the National Health Library and Knowledge Service Evidence Team[†]. Current as at 25 September 2020. This evidence summary collates the best available evidence at the time of writing and **does not replace clinical judgement or guidance**. Emerging literature or subsequent developments in respect of COVID-19 may require amendment to the information or sources listed in the document. Although all reasonable care has been taken in the compilation of content, the National Health Library and Knowledge Service Evidence Team makes no representations or warranties expressed or implied as to the accuracy or suitability of the information or sources listed in the document. This evidence summary is the property of the National Health Library and Knowledge Service and subsequent re-use or distribution in whole or in part should include acknowledgement of the service.

The following PICO(T) was used as a basis for the evidence summary:

	GENERAL POPULATION AND POPULATION SUBGROUPS
	VISITATION ACCESS
	
	

The following search strategy was used:

CARE HOME OR RESIDENTIAL CARE OR NURSING HOME OR CONVALESCENT HOME

AND "COVID-19" OR CORONAVIRUS OR "WUHAN VIRUS" OR "2019-NCOV" OR "SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2" OR "2019 NOVEL CORONAVIRUS" OR "2019 NEW CORONAVIRUS"

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- ¹ World Health Organization (2020) Preventing COVID-19 across long term care services <https://www.who.int/publications/item/WHO-2019-nCoV-Policy-Brief-Long-term-Care-2020.1> [Accessed September 15 2020]
- ² European Centre for Disease Prevention and Control (2020) Surveillance of COVID-19 at long term care facilities [Accessed August 14 2020] <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-long-term-care-facilities-surveillance-guidance.pdf>
- ³ Health Protection Surveillance Centre (2020) COVID-19 guidance on visitations to long-term residential care facilities <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/residentialcarefacilities/Guidance%20on%20visitations%20to%20LTRCF.pdf>.
- ⁴ British Geriatrics Society (2020) Managing the COVID-19 pandemic in care homes <https://www.bgs.org.uk/resources/COVID-19-managing-the-COVID-19-pandemic-in-care-homes>
- ⁵ Belbin J et al. (2020) Coronavirus disease 2019 outcomes in French nursing homes that implemented staff confinement with residents <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2769241>
- ⁶ Centre for Evidence Based Medicine (2020) How can pandemic spreads be contained in nursing homes? <https://www.cebm.net/COVID-19/how-can-pandemic-spreads-be-contained-in-care-homes/>
- ⁷ Chen et al. (2020) Long-term care, residential facilities, and COVID-19: an overview of federal and state policy responses <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7334928/>
- ⁸ Dichter et al. (2020) COVID-19: it is time to balance infection management and person-centred care to maintain mental health of people living in German nursing homes <https://pubmed.ncbi.nlm.nih.gov/32393407/>
- ⁹ Graham et al. (2020) SARS-CoV-2 infection, clinical features and outcome of COVID-19 in United Kingdom nursing homes <https://www.sciencedirect.com/science/article/pii/S0163445320303480>
- ¹⁰ He et al. (2020) Is there a link between nursing home reported quality and COVID-19 cases? Evidence from California skilled nursing facilities <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7294249/>
- ¹¹ Kronen et al. (2020) Medicine is a social science: COVID-19 and the tragedy of residential care facilities in high income countries <https://gh.bmj.com/content/5/8/e003172>
- ¹² Ladhani et al. (2020) Increased risk of SARS-CoV-2 infection in staff working across different care homes: enhanced COVID-19 outbreak investigations in London care homes <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7387283/>
- ¹³ Lee et al. (2020) A systematic review on the causes of the transmission and control measures of outbreaks in long-term care facilities: back to basics of infection control <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7064182/>
- ¹⁴ Lee-Fay et al. (2020) Easing lockdowns in care homes during COVID-19: risks and risk reduction <https://ltcCOVID.org/2020/05/13/easing-lockdowns-in-care-homes-during-COVID-19-risks-and-risk-reduction/>
- ¹⁵ Liu et al. (2020) Cluster infections play important roles in the rapid evolution of COVID-19 transmission: a systematic review [https://www.ijidonline.com/article/S1201-9712\(20\)30619-6/fulltext#:~:text=and%20nursing%20homes,-_Conclusions.to%20contain%20these%20cluster%20infections](https://www.ijidonline.com/article/S1201-9712(20)30619-6/fulltext#:~:text=and%20nursing%20homes,-_Conclusions.to%20contain%20these%20cluster%20infections).
- ¹⁶ McMichael et al. (2020) Epidemiology of COVID-19 in a long-term care facility in King County Washington <https://www.nejm.org/doi/full/10.1056/NEJMoa2005412>
- ¹⁷ Rimmer et al. (2020) COVID-19: charity to challenge rules on visits to care homes <https://www.bmj.com/content/370/bmj.m3467>
- ¹⁸ Roxby et al. (2020) Outbreak investigation of COVID-19 among residents and staff of an independent and assisted living community for older adults in Seattle <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2766448>
- ¹⁹ Suarez-Gonzalez et al. (2020) Detrimental effects of confinement and isolation on the cognitive and psychological health of people living with dementia during COVID-19: emerging evidence <https://ltcCOVID.org/wp-content/uploads/2020/07/LTCCOVID-1-July-Detrimental-effects-confinement-on-people-with-dementia.pdf>
- ²⁰ Sugg et al. (2020) Mapping community-level determinants of COVID-19 transmission in nursing homes: a multi scale approach <https://www.sciencedirect.com/science/article/pii/S0048969720354759#!>
- ²¹ Verbeek et al. (2020) Allowing visitors back in the nursing home during the COVID-19 crisis: a Dutch national study into first experiences and impact on well-being <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7294280/>