# The COVID-19 pandemic and vulnerable older persons: impact of a public health emergency on nursing homes and geriatric rehabilitation

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# Part 1

## Impact of, challenges presented by, and policy measures of Dutch nursing home organizations during the COVID-19 pandemic

# 2

# COVID-19 management in nursing homes by outbreak teams (MINUTES) study: study description and data characteristics. A qualitative study

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# ABSTRACT

**Objectives:** Nursing homes are hit relatively hard by the COVID-19 pandemic. Dutch long-term care (LTC) organizations installed outbreak teams (OT) to coordinate COVID-19 infection prevention and control. LTC organizations and relevant national policy organizations expressed the need to share experiences from these OT that can be applied directly in COVID-19 policy. The aim of the "COVID-19 management in nursing homes by outbreak teams" (MINUTES) study is to describe the challenges, responses, and the impact of the COVID-19 pandemic in Dutch nursing homes. In this first article we describe the MINUTES study and present data characteristics.

**Design:** This large-scale multi-center study has a qualitative design using manifest content analysis. The participating organizations shared their OT minutes and other meeting documents on a weekly basis. Data from week 16 (April) to week 53 (December) 2020 included the first two waves of COVID-19.

**Setting:** National study with 41 large Dutch LTC organizations.

**Participants:** The LTC organizations represented 563 nursing home locations and almost 43,000 residents.

**Results:** At least 36 of the 41 organizations had one or more SARS-CoV-2 infections among their residents. Most OT were composed of management, medical staff, support services staff, policy advisors, and communication specialists. Topics that emerged from the documents were: crisis management, isolation of residents, personal protective equipment and hygiene, staff, residents' well-being, visitor policies, testing, and vaccination.

**Conclusions:** OT meeting minutes are a valuable data source to monitor the impact of and responses to COVID-19 in nursing homes. Depending on the course of the COVID-19 pandemic, data collection and analysis will continue until November 2021. The results are used directly in national and organizational COVID-19 policy.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- Minutes of OT capture the impact, challenges and responses to problems and measures taken regarding the COVID-19 pandemic in LTC organizations. However some minutes were only brief descriptions of decisions that lacked context.
- Collecting existing minutes enabled analysis of a large amount of data, without adding to staff burden, that is often not feasible in qualitative studies.
- Minutes data allow not only for in-depth scientific analyses but can also directly be used as input for national and organizational COVID-19 policies.
- The longitudinal nature of our study enables analysis of medium and long-term impact of the pandemic in nursing homes during multiple waves of infections over time.

# INTRODUCTION

COVID-19 can have a serious and fatal course, especially among vulnerable older adults (1, 2). Thus, nursing homes were hit relatively hard by the pandemic. In 2020 nursing home residents in many countries made up substantial proportions of COVID-19 related deaths (3). Besides, COVID-19 related measures negatively impact nursing home residents' mental and physical well-being (4).

Prior to the COVID-19 pandemic, nursing homes and other long-term care facilities (LTCF) have had ample experience with outbreaks such as norovirus and influenza. Guidelines are available on how to prevent and act in case of outbreaks of these infectious diseases (5). By contrast, COVID-19 was unknown, and the impact of the pandemic required rapid policy decisions. For example social distancing, wearing face masks, and avoiding crowds became important policies to slow the spread of the virus (6). LTCF in many European countries were also faced with visitor bans (7).

To implement policies regarding infection prevention and control (IPC), the World Health Organization (WHO) recommends LTCF to have an IPC focal point to lead and coordinate IPC activities, supported by an IPC team (8). They would be responsible for IPC training, providing information to residents, maintaining high hygiene standards and more (8). Most Dutch LTC organizations have an IPC committee, but in severe outbreaks such as COVID-19 these organizations install or convert IPC committees into outbreak teams (OT). In contrast to IPC committees, OT include management representatives (9).

Both LTC organizations and national policy institutes, including the Ministry of Public Health Welfare and Sport, expressed the need to learn from each other by sharing experiences, which could be used directly in LTC COVID-19 policy considerations. Therefore, the aim of the "COVID-19 management in nursing homes by outbreak teams" (MINUTES) study was to describe the challenges presented by, responses to, and the impact of the COVID-19 pandemic in nursing homes, based on the minutes and other meeting documents of the OT. We will describe the MINUTES study and present data characteristics and topics discussed by the OT.

# METHODS

## Study design and setting

The MINUTES study is a large national multi-center study and has a qualitative design based on manifest content analysis of meeting documents. OT document their meetings

in minutes. In order to avoid adding to staff burden during this crisis, we have collected and analyzed these minutes. Directors of all LTC organizations informed their OT about study participation and provided written informed consent.

Dutch LTC organizations often provide a wide range of inpatient and outpatient medical and social care (10). In nursing homes, care is provided by multidisciplinary teams, coordinated by specially trained and registered elderly care physicians (11, 12). Inpatient assisted living care is provided in care homes (10). Furthermore many LTC organizations provide geriatric rehabilitation and homecare (10). The focus of this study is on care homes and nursing homes, hereafter referred to as nursing homes.

In 2020, about 8000 to 13 000 of the total of 115 000 nursing home residents nationwide (13), had a confirmed SARS-CoV-2 infection. More than 2300 COVID-19-related deaths were registered (14). National infection rates in the Netherlands showed a 'first wave' from weeks 11 to 19 of 2020 and a 'second wave' from week 39 onwards (15).

## Participants

The LTC organizations of the Dutch academic nursing home research networks (16) were approached for participation by e-mail in weeks 11 to 15 of 2020. The aim was to recruit at least 50% of the organizations from at least two networks to achieve an accurate reflection of the actual situation. Other LTC organizations that heard of the study and expressed a willingness to participate were also eligible for participation. The meeting documents had to include minutes, preferably supplemented with associated meeting documents, such as overviews of SARS-COV-2 infections among residents.

## Data collection

OT meeting documents were shared with the study institute's research center within a week after the meetings. The research center operated as trusted third party; they pseudonymized names of LTC organizations and deleted personal data of residents and staff from the submitted documents. Subsequently, they uploaded the documents in the online electronic data capture program 'Castor' (17) to make them available to the researchers for analysis. In addition, the organizations were asked to provide numbers of residents, employees, nursing home locations, as well as organization and OT characteristics.

## Data analysis

A coding frame was developed inductively by two coordinating researchers (LSvT, MW-MdW). They independently coded the same minutes document in order to develop a first version of the coding frame. Subsequently, from weeks 12 to 15 they each coded half of

the documents that were available from the first six participating LTC organizations with this first version of the coding frame. In weekly consensus meetings, they discussed their work and expanded the coding frame (**Appendix**). After week 15, all other researchers could suggest additional codes. Which of the suggested codes were added to the coding frame was decided by three coordinating researchers (LSvT, MWMdW, JMG) .

In total, 19 researchers analyzed the meeting documents, ranging from master students and PhD candidates to post-doc researchers. The common denominator was that they all performed research with a focus on LTC and wanted to assist in the pandemic.

Data were analyzed using manifest content analysis (18, 19). This was done on a weekly basis in two steps. First, the researchers coded the meeting documents. They were instructed to select at least all passages, called textual units, that included data on measures, problems, stock or infection rates. This corresponds with the study aim to describe the challenges (problems, stock, infections rates) presented by, responses to (measures), and the impact (resulting from challenges and responses) the COVID-19 pandemic in nursing homes. Besides, the researchers were aware of the use of data for writing the summary reports described below as input for policy. Each textual unit selected had to be assigned with a code from the coding frame in an open field in the Castor database. Second, the coordinating researchers clustered codes into topics, which are referred to as 'data categories' in literature (19).

## Quality control

The coordinating researchers provided all other researchers with individual instructions, digital standard operating procedures, and the coding frame. For each researcher the textual units they selected in their first two to four weeks were double coded by LSvT and if needed feedback was given and improvement was monitored. Half yearly meetings with all researchers were organized. Besides, all coded data were checked by one of two coordinating researchers (LSvT or JMG) on a weekly basis.

## Summary reports

Besides scientific analysis, coded data were used by the coordinating researchers to prepare summary reports on a weekly to triweekly basis. In these reports, they summarized the most recent meeting documents and listed what they regarded as the most important points of attention for policy makers. These reports were shared as input for policy with participating LTC organizations, the Ministry of Public Health, Welfare and Sport, the chief nursing officer, and professional associations for elderly care physicians, nurses, and nursing homes.

### Patient and public involvement

This study was initiated based on the need of LTC organizations and national policy organizations to share experiences from these OT that can be applied directly in COVID-19 policy. The study did not involve patients and the public in study design or analyses. However, we frequently held evaluation meetings with the receivers of the summary reports for feedback and additional research questions. In a follow-up study, nursing home staff has elaborated on OTs' responses to the pandemic that were described in the meeting documents.

## RESULTS

The data characteristics presented in this article are based on the data from week 16 to week 53, 2020, including the first two waves of COVID-19 infections.

### Participating LTC organizations

A total of 41 LTC organizations participated in this study (**Figure 1**). These organizations represented almost 43 000 residents living in 563 nursing homes locations. Of these 41 organizations, 39 belonged to five of the six Dutch academic nursing home research networks, representing 58% of the organizations in these networks. The organizations varied in size from 3 to 70 nursing homes. More than 40% of the organizations installed their OTs in week 10 or 11. From weeks 16 to 53 at least 88% ($n$ = 36) of the organizations had (one or more) SARS-CoV-2 infections among residents (**Table 1**). Organizations, on average, shared meeting documents over 23.1 of 38 weeks (median 24, IQR 10.5–35.0). Per week, 15 (week 32) to 39 (week 18) organizations shared meeting documents (**Figure 2**). Five organizations contributed meeting documents over all 38 weeks.

**Figure 1.** Participating long-term care (LTC) organizations from the Netherlands.
Note: Two LTC organizations with locations in multiple regions are presented with multiple dots

**Table 1.** Description of participating long-term care organizations.

| **Participating organizations** | | **n = 41 (100%)** |
|---|---|---|
| | | *Range / no. (%)* |
| Nursing home locations | | 3 – 70 |
| | 1 - 10 | 20 (49) |
| | 11- 20 | 17 (42) |
| | ≥ 20 | 4 (10) |
| Residents | | 171 – 4700 |
| | 1 - 999 | 20 (49) |
| | 1,000-1,999 | 14 (34) |
| | ≥ 2,000 | 5 (12) |
| | missing | 2 (5) |
| SARS-CoV-2 infected residents | | |
| | yes | 36 (88) |
| | missing | 5 (12) |
| | week 16 - 19 | 22 (54) |
| | week 20 - 38 | 9 (22) |
| | week 39 -53 | 29 (71) |
| Start date OT | | week 8 - 13 |
| | ≤ week 9 | 3 (7%) |
| | week 10 –11 | 17 (42%) |
| | ≥ week 12 | 7 (17%) |
| | missing | 14 (34%) |
| Data shared in weeks | | *Median (IQR)* |
| | week 16 – 53 (38 weeks) | 24 (10.5 – 35.0) |

OT, outbreak team.

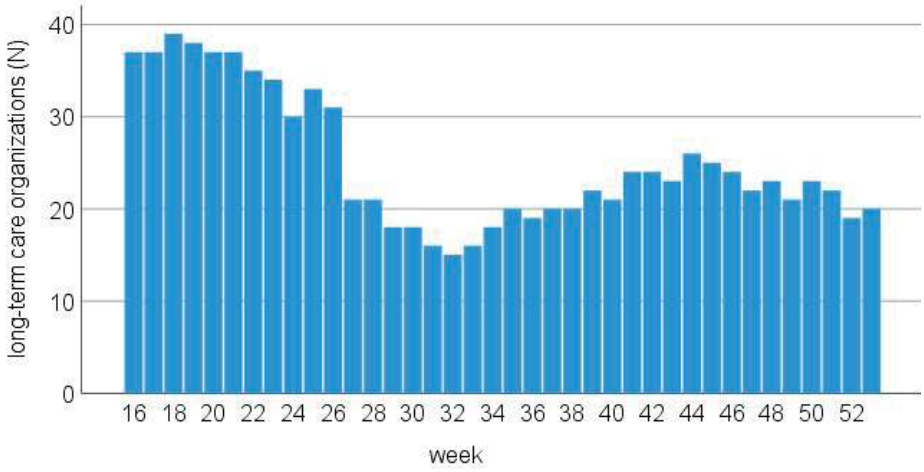


**Figure 2.** Number of long-term care organizations that shared meeting documents per week.

## OTs' members

The composition of the OT was known for 30 LTC organizations (73%). All but one included management (e.g. directors, managers, and administrators). In 60 to 80% of the OT, medical staff (e.g. elderly care physicians, occupational physicians, and other physicians), support services staff (facility management and human resources), policy advisors (including quality officers), and communication specialists were represented. In a few OT, nursing staff (6 OTs) and residents (one OT) were represented (**Figure 3**).

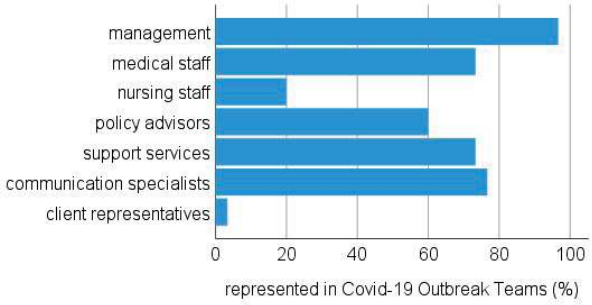


**Figure 3.** Disciplines represented in outbreak teams.

## Qualitative topics

The following eight topics were extracted from the data. Matching quotes that illustrate these topics are presented in **Box 1**.

***Crisis management***

From the start of the pandemic, OTs discussed infection rates, COVID-19 related finances, OT meeting frequency, internal and external communication, and regional collaboration. Besides, OTs prepared for worst case scenarios and monitored and evaluated IPC and outbreak management. For example, OT meeting frequencies depended on infection rates.

***Isolation of residents***

The occupation and availability of beds for both SARS-CoV-2-infected and non-infected residents and other SARS-CoV-2 infected patients was a recurring topic. LTC organizations applied various isolation and social distancing policies, such as quarantine, isolation in single rooms, and cohort isolation. Besides, at various times, nursing home departments stopped admitting new residents or providers of 'non-essential' care, such as hair dressers and dental hygienists. OTs also discussed ethical dilemmas and customization of these measures to local situations or resident groups, e.g. residents with psychogeriatric problems.

***Personal protective equipment (PPE) and hygiene***

This topic included hygiene procedures, and available stock, policies for use and experiences with wearing personal protective equipment (PPE). With shortages and rising costs, OTs considered the sterilization and reuse of PPE. Besides, OTs discussed promoting proper PPE use and set policies for what types of PPE when to be used by which staff members. Changes in national guidelines gave cause for discussion. Hygiene procedures included hand hygiene, laundry and waste management, and airborne precautions such as use of air conditioning and ventilation.

***Staff***

This topic included isolation and social distancing restrictions for staff, workforce scheduling, supporting staff with materials and facilities, their well-being, and mental support. The minutes first described distancing policies for employees and volunteers during work, training sessions and meetings, for example, staff members were not allowed to work in more than one nursing home location. In addition, isolation measures and absenteeism were topics of conversation. Staff waiting for their own or their housemates' test results had to stay at home in quarantine or, in times of staff shortages, had to work in COVID-19 cohorts. Second, workforce scheduling was a logistical challenge due to high absenteeism among staff and distancing policies. Therefore, temporary workers, non-healthcare staff members and even army medical staff were deployed. Third, OTs facilitated staff by means of equipment to work from home. Fourth, OTs discussed the impact of the COVID-19 crisis on staff mental well-being. They spoke of emotional

exhaustion of staff due to the high workload, fear of becoming infected, and verbal abuse by residents' family members. LTC organizations set up various mental support initiatives to support staff.

***Residents' well-being***

A few times the observed impact of the COVID-19 crisis on residents' well-being was mentioned, for example, increased loneliness and restlessness. OTs discussed restarting or continuation of activities for residents. Group activities had to be replaced by individual or living room activities. Issues also included whether to allow residents to go outside with their informal caregivers. Palliative care death rituals and memorial events required adjusting.

***Visitor policies***

This topic is about the organization of and experiences with visiting policies. During total lockdowns, alternatives for social contact were offered, such as window visits and video calling. After the national visitor ban was partly lifted in May, OTs made decisions about regulated lengths of visits, maximum numbers of visitors, and use of PPE by visitors. To organize these policies, visitors needed to register upon entering the nursing home or had to schedule their visit online. Sometimes LTC organizations allowed staff to customize visiting policies to local situations or for residents in the end-of-life phase. OTs discussed experiences with and impact of these policies and considered how to deal with family of residents disagreed with visiting policies.

***Testing***

Since week 15, when testing of nursing home staff and residents for COVID-19 became possible nationwide, OTs discussed the policies, organization and logistics of testing. Many LTC organizations implemented a policy to test residents at nursing home admission. In some organizations, staff and residents without symptoms were preventively tested following contact with an infected person. Regarding organization and logistics, routes for requesting tests and receiving test results required OTs' attention. Several organizations arranged their own testing facilities, due to waiting times at governmental test facilities.

***Vaccination***

The topic vaccination for residents and staff emerged around week 49. Staff and residents had to be informed about the upcoming vaccination process and preparations for vaccination had to be made.

**Box 1.** Quotes from meeting documents illustrating the topics identified.

**Crisis management**

"Roadmaps (description of operational [OT[2]] with clear roles) for new infections." (organization XF, week 26)
"A next [OT[2]] meeting will not yet be scheduled, but the situation in [municipality] will be monitored." (organization YF, week 33)
"It is unclear how financing the COVID-wards in the province is going." (organization YX, week 23)

**Isolation of residents**

"Scenario positive resident: no transferring, isolation in own room/ward - otherwise to cohort ward." (organization YB, week 25)
"Hair dressers and beauticians can't go back to work yet in the nursing homes, because these homes are still locked down. The medical pedicure [podiatrist] can come and treat indoors on doctor's prescription." (organization XT, week 20)
"Residents with psychogeriatric problems and the urge to wander are difficult to keep in quarantine for 7 days. They are therefore not admitted to [location], which is still 'clean.'" (organization XZ, week 16)

**PPE[3] and hygiene**

"Pressure is put on ordering the right aprons, these are hard to get." (organization XF, week 16)
"At psychogeriatrics [ward] it has been indicated that continuously working with mouth mask/PPE[3] is not always experienced positively by residents and staff. Yet with ADL care [care regarding activities of daily living], PPE[3]'s are experienced as pleasant." (organization YS, week 31)
"Attend staff to sound hand hygiene and sound use of gloves. Keep cleaning laptops, telephones, door handles etc." (organization YW, week 41)

**Staff**

"The exchange of staff between [ward] and other parts of [nursing home] has to be prevented as much as possible." (organization XH, week 20)
"We could fall back on the old scenario, like asking retired nurses and call in the military. Getting regional assistance will be difficult." (organization XF, week 41)
"In ward with many infections the workload is high, staff members are emotionally 'done'." (organization YB, week 18)

**Residents' well-being**

"Due to a positive [tested] residents, the other residents feel restless and would like to leave their rooms" (organization XF, week 21)
"Church activities with 1.5 meters distance, maximum 30 persons, singing discouraged." (organization XS, week 24)

**Visitor policies**

"Volunteers are deployed for visitors cabins: scheduling appointments, receiving visitors, serving coffee, cleaning cottage after each visit." (organization XZ, week 17)
"Family does not keep enough distance from the residents. Staff finds this worrisome, visitors don't allow anyone to correct them. The question remains what can be done about this." (organization XH, week 27)

**Testing**

"If a resident tests positive, we will test the fellow residents and close contacts of the residents with rapid tests." (organization YE, week 46)
"Not enough test materials in stock available. Swaps have to be picked up an brought back again." (organization XC, week 43)
"Because healthcare workers sometimes cannot be tested within 24 hours, our own test location is being set up" (organization XF, week 36)

**Vaccination**

"Preparing vaccinating, the [IPC[1] committee] believes that it is too early to set up a program/plan. A message with information about how a vaccine works is already being placed on the intranet." (XP week 52)

[1]infection prevention and control, [2]outbreak team, [3]personal protective equipment.

# DISCUSSION

The COVID-19 MINUTES study describes the challenges, responses, and the impact of the COVID-19 pandemic in Dutch nursing homes. The representative sample of 41 LTC organizations all installed OTs in weeks 8-13. The composition of OTs was multidisciplinary. Almost all organizations had SARS-CoV-2 infections among nursing home residents. Topics in the qualitative data included crisis management, isolation of residents, PPE and hygiene, staff, residents' well-being, visitor policies, testing, and vaccination.

To our knowledge, the COVID-19 MINUTES study is the first large-scale qualitative study examining the challenges, responses, and the impact of the COVID-19 pandemic in nursing homes. In forthcoming studies, more in-depth analyses of the topics observed here will provide information that will be useful for management and IPC in subsequent phases of the COVID-19 pandemic and beyond.

The fluctuation in the amount of data collected per week (see **Figure 2**) appears to reflect the fluctuation in national infection rates (20). However, compared to infection rates, the second peak in data collection seen in autumn is lower than the first peak in spring. This illustrates that length or frequency of OT meetings decreased, because they learned from the first wave. On the other hand, implementation and adaptation of changing in national guidelines to local settings continued to be topic of conversation.

Our findings show that, in accordance with (inter)national recommendations, OTs were multidisciplinary (21, 22). However, nursing staff was represented in only one-fifth of the OTs, although it is possible that they were consulted. Nevertheless, literature recommends consultation of LTC workers or representation of nurse specialists (21, 22). Besides, paramedics working in nursing homes such as physiotherapists, psychologists and social workers (23) were not represented in OTs. This underrepresentation of nursing staff and paramedics in OTs may have affected the topics discussed.

The observed topics are in line with IPC guidance literature. Apart from vaccination, all topics are mentioned by the WHO in a guidance report on COVID-19 in healthcare (24) and in a policy brief on preventing and managing COVID-19 in LTC (25). Testing, isolation of residents, PPE, and staff and residents' well-being were identified as challenges and dilemmas related to COVID-19 in care homes (26). Remarkably, ample research has shown that COVID-19-related measures negatively impacts nursing home residents' mental and physical well-being (4), but only little has been described about this in the meeting documents. Apparently, either OT meetings have a different focus, or OTs

discuss well-being of residents but regard this as context to decisions that does not have to be written down in the minutes.

## Strengths and limitations

The first strength of our study is our data source. Minutes and other meeting documents capture challenges, responses and impact of the COVID-19 pandemic in LTC organizations. Collecting the existing documents enabled analysis of a large amount of data that is often not feasible in qualitative studies; the sample of participating LTC organizations represents over one third of nursing home residents nationwide (13). The participating organizations indicate that the use of this data source led to a low study load during these times of crisis. Second, the data allow for a more in-depth scientific analyses, and can also directly be used as input for national and organizational COVID-19 policies. There are other projects that supported LTC organizations during the pandemic (27), but to our knowledge COVID-19 MINUTES is the only study that supports both organizations and national policy makers with quick input. Third, the longitudinal nature of our study collected from the start of the COVID-19 pandemic enables analysis of medium and long-term impact of the pandemic in nursing homes (28).

Some study limitations should also be recognized. First, some data were missing. Five LTC organizations did not share data on infection rates. In addition, most organizations did not share meeting minutes over the whole study period (38 weeks). However, sometimes meeting documents were absent because OTs had not held meetings, especially from weeks 20 to 38 when infection rates were low. In this regard, the amount of data that were shared is satisfactory. Moreover, the overall large amount of data available will be sufficient to reach saturation in future in-depth analyses. Second, data sometimes lacked context, because meeting documents itself were sometimes only brief descriptions of decisions. To overcome this limitation, each researcher analyzed a fixed set of LTC organizations in order to get a better indication of the context. Moreover, by selecting textual units for coding, these units are removed from their context. This is a known limitation of content analysis (19). Third, the focus on not only scientific analyses but also on writing summary reports as input for organizational and national policy makers could have biased data coding. Possibly, the researchers mainly coded data that they considered relevant for policy making. However, researchers were instructed to code all textual units that included data on measures, problems, stock and infection rates.

## Implications and future research

Minutes and other meeting documents provide a valuable data source for studies on IPC and crisis management, without burdening staff with data collection. They can be used directly as input for national and organizational policy and scientific evaluation.

Multidisciplinary OTs discussed crisis management, isolation of residents, PPE and hygiene, staff, residents' well-being, visitor policies, testing, and vaccination during their meetings. Depending on the course of the COVID-19 pandemic, the data collection will continue until November 2021.

In coming studies, data over the complete study period will be analyzed and challenges, responses and impact of the COVID-19 pandemic regarding the various topics will be analyzed in depth. This will provide valuable lessons that can be used for management and IPC in subsequent phases of the pandemic, future heavy-impact epidemics, and other crisis situations, as healthcare organizations, national governments and (inter) national institutes will continue to innovate care.

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**Patient consent for publication** Not required

**Ethics Approval** The Leiden-The Hague-Delft Medical Ethical committee reviewed the study protocol and provided a waiver of medical ethical approval since the study is not subject to the Dutch Medical Research Involving Human Subjects Act (WMO).

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**Data availability statement** Pseudonymized data are available upon reasonable request. prohibit the authors from making the data set publicly available. During the consent process, participating organizations were explicitly guaranteed that the data would be pseudonymized by the study's research center and that pseudonymized data would only be seen my members of the study team. For any discussions about the data set please contact UNC-ZH@lumc.nl .

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# APPENDIX: CODING FRAME PRELIMINARY RESULTS COVID-19 MINUTES STUDY

| Theme | Code | Explanation | Week added |
|---|---|---|---|
| **1.** | **Crisis management** | | |
| | budgets, finances | everything concerning finances | 14 |
| | communication | | 14 |
| | Crisis status | general situation, e.g. stabilization of situtation, outbreak status | 19 |
| **2.** | **Isolation of residents** | | |
| | Beds, segregation and isolation (general) | including integrated care function | 14 |
| | Free up beds | | 14 |
| | Segregation and isolation | of residents | 15 |
| | Admissions | (policy re) new admissions | 15 |
| **3.** | **Personal protective equipement (PPE) and hygiene** | | |
| | Hygiene/disinfection | concerns environment and personal hygiene | 14 |
| | Personal protective equipment (PPE) | gloves, masks, aprons, goggles | 14 |
| | PPE: disinfectants | | 14 |
| | PPE: deployment and utilization | e.g. instructions, when to wear face mask | 26 |
| | PPE: stock | e.g. shortages, supply, quality tests | 26 |
| **4.** | **Staff** | | |
| | Staff | | 14 |
| | Staff: competences | e.g. validity of certificates, e.g. caregiver carries out nursing tasks | 14 |
| | Staff: cohorting and isolation | | 14 |
| | Staff: facilitation | e.g. childcare, e-learning | 14 |
| | Staff: deployment (additional or change) | | 14 |
| | Materials for staff | e.g. telephones | 14 |
| | Volunteers | | 14 |
| | Staff: wellbeing | | 19 |

(*continued*)

| Theme | Code | Explanation | Week added |
|---|---|---|---|
| **5.** | **Residents' wellbeing** | | |
| | Activities for residents | planning, cancelling, alternatives | 14 |
| | Informal caregivers, family | | 14 |
| | Palliatieve situation, death | | 14 |
| | Wellbeing of residents | physical and mental wellbeing | 19 |
| **6.** | **Visitors policies** | | |
| | Visitors, door policy (general) | | 14 |
| | Materials: hardware video calling | | 14 |
| | Visitors: experiences | evaluation, disruption, problems | 26 |
| | Visitors: policy | e.g. number of visitors and who | 26 |
| | Visitors: organization | e.g. planning, registration, accompanying visitors | 26 |
| **7.** | **Testing** | | |
| | Staff: testing and disease | | 17 |
| | Testing residents | testing, contact tracing etc. among clients | 45 |
| | Testing (undefined) | testing, contact tracing etc., not specifically staff only or residents only | 45 |
| **8.** | **Vaccination** | | |
| | Vaccinations corona | | 50 |