

WHAT LONG-TERM CARE INTERVENTIONS AND POLICY MEASURES HAVE BEEN STUDIED DURING THE COVID-19 PANDEMIC? FINDINGS FROM A RAPID MAPPING REVIEW OF THE SCIENTIFIC EVIDENCE PUBLISHED DURING 2020.

Mapping review for the Social Care Covid Recovery & Resilience project

INTRODUCTION

EVIDENCE LANDSCAPE

- Deaths from Covid-19 have been concentrated among people using long-term care.
- Consequently, measures have been implemented to prevent infections or manage the consequences of Covid-19 in institutional and home-based care settings.
- Researchers made efforts to:
 - Rapidly assess the effectiveness of some of these measures.
 - Generate timely evidence to inform the pandemic response.
- It can be expected that there is an uneven evidence landscape.

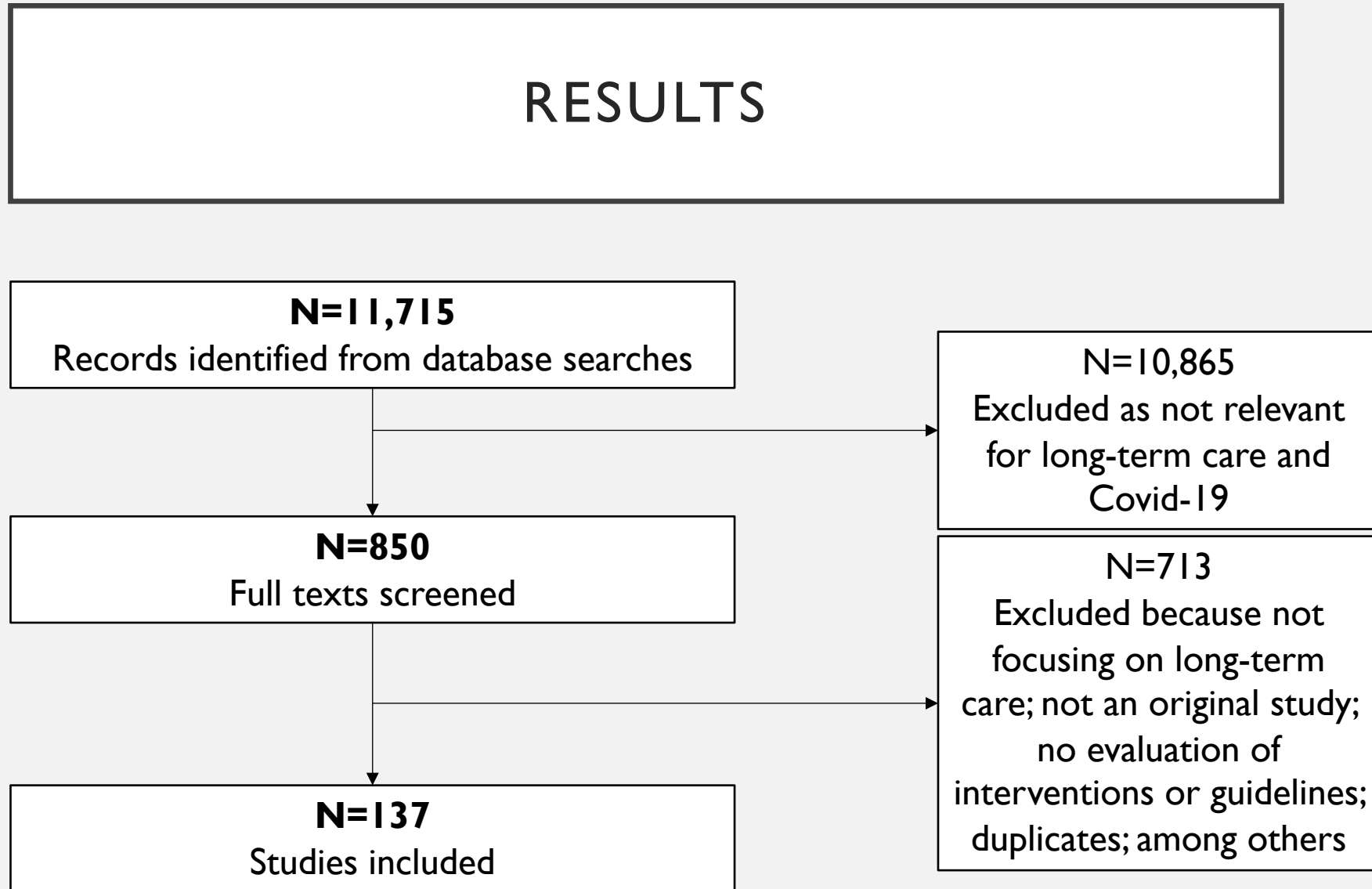
METHODS

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- We aimed to map the international evidence published during the first year of the pandemic.
- We adopted a pragmatic approach that allowed us to rapidly identify emerging evidence, rather than one aimed at exhaustively documenting all studies.
- Weekly database searches were conducted from April through December 31, 2020.
- Studies were included that provided original data on any intervention or measure that was implemented in response to the Covid-19 pandemic in a long-term care population, or original data on possible targets for such measures.

RESULTS

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- Included studies were conducted in 22 countries.
 - Most studies were from the United States (n=58; or 42%).
 - There were 11 studies from the United Kingdom.
 - Only 4 studies were from low- and middle-income countries (2 studies from China and 1 each from Brazil and Cuba).
- There was a strong focus on institutional care, with 95% of studies focusing on this setting.
- Most of the studies only provided a narrative account, and few used a control group or other comparative analytical approaches.
- We categorised the measures identified within these studies, adapting an existing taxonomy developed by the LTCcovid.org collaboration.

PREVENTION/CONTROL OF COVID-19 INFECTIONS

- Of the 137 included studies, 50% (n=69) reported on interventions for preventing or controlling Covid-19.
- The majority were descriptive studies of multifaceted outbreak responses,.
- The most common interventions were testing approaches (n=45).
 - Basic testing was limited to screening symptomatic cases, missing asymptomatic cases.
 - A more thorough approach involved repeat universal testing, undertaken until there were either no new cases or until everyone in the care home tested negative.
 - Pooled testing was used to preserve resources when there were no current cases.
 - Antibody detection was used in conjunction with testing for diagnosing those with a low viral load.

PREVENTION/CONTROL OF COVID-19 INFECTIONS

- Cohorting and isolation were commonly used to limit the spread of the disease (n=24).
 - Isolation was undertaken to prevent infected residents from leaving their rooms, which sometimes included those who had been exposed.
 - Some facilities isolated new admissions before they were allowed to integrate.
 - Cohorting enabled the spatial separation of infected residents from the rest of the care home.
 - Separation was sometimes done in special facilities.
 - Selected groups of staff were sometimes cohorted with specific groups of residents.

PREVENTION/CONTROL OF COVID-19 INFECTIONS

- Several measures aimed to reduce the risk of infection from staff (n=24).
 - Symptom and temperature screening before shifts enabled symptomatic staff to be identified, although this was unable to detect asymptomatic staff.
 - In some cases, staff were isolated on site or in hotels to reduce the risk of infection transmission.
- Infection prevention and control (IPC) protocols that were implemented early on in response to the pandemic included measures such as social distancing, use of personal protective equipment (PPE), enhanced hygiene, closure of communal areas, and restriction of activities in care homes (n=22).
- IPC protocols were often implemented through training interventions (n=15).

MEASURES TO TREAT COVID-19/IMPROVE ACCESS TO GENERAL HEALTHCARE

- Several studies reported on measures to treat Covid-19 or improve access to general healthcare for people living in institutional care settings (n=26).
 - Although pharmaceutical interventions were identified, none of these were randomized controlled trials.
 - Non-pharmaceutical interventions included the creation of contingency plans to maintain access to general healthcare.
 - Telemedicine by videocall or telephone was used to reduce in person consultations.

POSSIBLE TARGETS FOR POLICIES AND INTERVENTIONS

- Studies were identified that analysed possible targets for interventions (n=24), such as ownership structures, quality of services, and staffing policies.
 - Some studies found that private ownership was associated with more infections and higher mortality.
 - Some studies found that high nursing home quality ratings were associated with fewer infections and lower mortality.
 - Other studies found that cases or deaths were instead associated with care homes being part of a chain.
 - Higher staffing levels were often found to be associated with fewer infections and lower mortality, reflecting the need for sufficient staff to implement IPC and cohort patients.
 - PPE shortages were associated with more infections and higher mortality.

POLICY AND GOVERNANCE

- Several studies reported on policy and governance (n=15).
 - The regulation and oversight of social care services was analysed.
 - The number of available beds and the maximum occupancy of nursing homes were associated with the number of infections and mortality.
 - Strict IPC policies and more robust responses led to fewer infections and deaths.
 - Implementation was dependent on resources.
 - Studies from Hong Kong and Taiwan highlighted local preparedness following the experiences of the SARS pandemic.
 - Central command centres utilised strict emergency response plans.

DATA AND INFORMATION COMMUNICATION TECHNOLOGY

- Numerous studies focused on data and information communication technology (n=25).
 - Care home residents were sometimes supplied with technology to enable them to maintain social contact with either families or dedicated volunteers.
 - Electronic health record data enabled the efficient admission of residents, allowing the history of patients to be tracked.

CONCLUSIONS

FINDINGS

- During the first year of the COVID-19 pandemic, a substantial body of evidence on interventions to mitigate impacts of the pandemic in the long-term care sector emerged.
- The state of the evidence was poor overall, reflecting both the time it takes to generate evidence and for it to be published, and the crisis context in which most of the research was carried out.
- Most studies did not apply an analytical lens and instead provided descriptive findings only.
- An important evidence gap was identified, with few studies focusing on non-institutional care, despite growing evidence that these populations have been severely affected by the pandemic.

IMPLICATIONS

- Only low-quality evidence on measures to mitigate Covid-19 in the long-term care sector was available to guide decisions
- There may be scope for researchers, research funders, governments, and publishers to:
 - Learn lessons from the scientific response to the pandemic in relation to long-term care.
 - Consider the role of research in future pandemics or other major emergencies.
- This may involve:
 - Assessing the degree to which the existing research infrastructure was able to support the rapid generation of evidence to assist decision-making during the pandemic.
 - Identifying opportunities to both strengthen the long-term care evidence base and have better research preparedness for future events.

IMPLICATIONS

- Comparatively, the health sector was able to respond more rapidly to the pandemic, partly enabled by existing mechanisms for global research coordination during public health emergencies:
 - Global Research Collaboration for Infectious Disease Preparedness (GloPID-R).
 - WHO Research and Development Blueprint.
- Our review indicates a possible geographical imbalance in research capacity. There is a need for the Global South to further develop robust research and implementation capacity that is independent of the Global North.
- This should be supported by unconditional financial capital and the free sharing of knowledge and technology.

LIMITATIONS

- We focused on English language databases only and so the findings of this mapping review may not be representative of the global literature.
- The classifications we used to define types of care, which were instrumental in developing our search strategy, reflect care systems present in the Global North.
- Representation of the structure of long-term care provided in the Global South would enable a more inclusive search strategy.

RAPID MAPPING REVIEW OF THE SCIENTIFIC EVIDENCE PUBLISHED DURING 2021.

- As of September, 2021, the search strategy for the mapping review has been updated to identify the scientific evidence published during 2021.
- The search strategy has been modified to maintain the sensitivity, but increase the specificity, so that there are fewer references to screen.
- MEDLINE (via OVID) and Web of Science are the databases being searched.