the routine they had both counted on was withdrawn. It was devastating. The entire clinical staff, the patients, and their families all felt the pain, the loss, and the consequences of this shifting landscape. This result necessitated us to broaden our capabilities to maintain these relationships, from phone calls to virtual meetings.

Then last week, as a nurse held a phone to his ear for his daily call with his wife, he uttered, clear as day, "I love you, I miss you." We all stopped in our tracks. Having been involved in thousands of previous interactions with him, we were thoroughly unprepared for this. I took the phone, expressing my amazement for what I just heard. His wife, matter-of-factly, replied on the other end of the line, "Good morning, Dr. Ruopp, how's he doing today?"

For his wife and so many others, the tragedy of not being with loved ones who are suffering is palpable. We know how important their support is in recovery; its absence requires us all to step in to fill the void by developing dedicated and innovative outreach methods to inform and to connect our patients with their families. It requires available technology for virtual visitation to decrease isolation and reinforce family presence. It necessitates increased access to activities for stimulation previously provided by families and may also require increased staffing to accomplish these tasks.

Despite these novel challenges surrounding us, we know there is incredible power in maintaining relationships, whether in person or remotely, even when we are social distancing. As my valued patient illustrated, we must take time to provide resources for our patients to dampen isolation, and remind families and each other that we "love them and miss them."

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Social Preparedness in Response to Spatial Distancing Measures for Aged Care During COVID-19

To the Editor:

As cases and deaths from the novel coronavirus (COVID-19) continue to rise exponentially, many countries are employing increasingly tight lock-down and emergency procedures, including the rapid implementation of spatial distancing measures. However, as we progress to more aggressive spatial distancing processes, the coronavirus fallout threatens to cause a social crisis for already disadvantaged populations, such as older individuals who are managing chronic illnesses and those who are in receipt of aged care services.

Long-term effects of prolonged spatial distancing will likely affect this cohort, who may already be and are particularly vulnerable to social isolation, and have detrimental effects on their physical and mental health.[1] This necessitates comprehensive strategies to address the social impact of these changes.

We provide solutions toward integrating traditional and new social support structures to manage the evolving pandemic in addressing the social needs of older individuals and highlight how governments can manage and evaluate social preparedness for aged care. An investment now will contribute to longer-term social benefits after spatial distancing requirements are over.

Tackling Digital Engagement

Research and resources now need to be placed on developing and adopting technology-based options to connect people in different places using both synchronous and asynchronous forms of communication.[2] Population-based survey research supports the view that older adults are increasingly adopting and using technology in their lives.[3,4] However, despite two-thirds of US seniors owning smartphones and more than 80% being Internet or social media users, adults older than 80 years barely use technology-based communications,[5] and those in residential care have even more limited use.[6]

Call to Action for Governments to Be Digitally Inclusive

To tackle the pandemic and bring forth the next era of digital inclusion, governments should apply a Digital Education Revolution to support e-connections within aged care. In 2008, laptops were provided to all Australian public high school students.[7] In 2020, supplying tablets to individual residents, rapidly employing high-speed broadband in facilities, and providing supportive information and communication technology infrastructures and digital proficiency for both staff and residents are now essential.

Residents will have varying needs and responses to technology depending on their previous technology use and adoption history, cognitive and functional status, and reliance on visitors and group activities. Initial studies have shown great benefits, with residents successfully overcoming loneliness, but effectiveness is limited by staff troubleshooting skills. Increasing staffing levels with tech personnel will assist with the digital adoption process as aged care personnel will all be stressed by the challenges of a prolonged response to COVID-19.

A Trialing Time for Aged Care

These times are now demanding care workers to both balance residents' social needs against personal risks and develop alternative, age-friendly digital environments for residents to maintain social contact with their families, other residents, and staff while being spatially distant.

Providers can take immediate action by familiarizing residents with existing, recognizable, and free video chat platforms (eg, FaceTime) to engage in meaningful social exchange with family, as well as prioritizing engagement between residents. In the long run, providers can recruit community members to assist with traditional phone check-ins to at-risk individuals and introduce residents to apps that increase individual personal well-being, physical activity, brain health, and personal interests. Websites now host free "virtual" galleries of international museums and physical activity classes, which will be particularly useful in tackling physical deconditioning, a condition likely to occur.

More original ideas will surface as we embrace these changes. It is pertinent that this information be widely distributed so improvements and adoptions can be made globally. Sharing positive

experiences in the affected communities is also key to connecting with one another, which can also support individual recovery and resilience in the long term. Research should also focus on evaluating the effectiveness of different technologies and policies used to inform future pandemics.

Supportive Role of Telemedicine

Telemedicine has been a critical part of communication during this pandemic, with patients being increasingly screened over the phone. Further use of telemedicine to specifically prevent or limit adverse health and mental impacts of social isolation in residents will be invaluable, especially for those with chronic conditions who ordinarily have frequent healthcare visits.

Conclusion

To become a stronger, more resilient society both during and after the outbreak, we must focus on rebuilding central social foundations for vulnerable individuals in an innovative way. Once this viral crisis is over, our hope is that we do not forget the lessons learned about the value of creating and sustaining meaningful relationships with our oldest members of the public.

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Heat Maps for Surveillance and Prevention of COVID-19 Spread in Nursing Homes and Assisted Living Facilities

COVID-19 has created unique challenges for societies and health care organizations globally. The pandemic has placed our older adults at a formidable risk, because age is the most significant risk factor for severe morbidity and mortality.[1–4] Consequently, some of the most challenging situations occur in nursing homes (NHs) and assisted living facilities considered hotspots for COVID-19.

In Israel, NHs and assisted living facilities were some of the hardest hit by COVID-19.[5] Henceforth, a national task force appointed by the Israeli Prime minister named "Shield of Fathers and Mothers" was appointed.

To aid the task force, we devised a novel, interactive, real-time, dashboard-based heat map tool based on COVID-19 outbreak analytic metrics as well as spatiotemporal data analytics (http://covid19maps.org/). We developed a novel platform, focused on assisted living facilities and NHs, providing the Israeli Ministry of Health policymakers with a national graphical representation of all institutes (passkey protected to secure privacy issues). A basic layer allows identification of all facilities with diagnosed cases (resident or staff) by rendering them as "warm" (red color) if a positive COVID-19 case was identified within an interactive last n days (eg, last 14 days as a default for the system) or "cold" (blue color), displayed in Figure 1A. Importantly, in addition to a basic layer that allows representation of the quantity of the diagnosed cases (displayed as circle-size in the current platform), a key novelty of the developed platform is the ability to follow and intuitively display the trajectories within the facilities where cases were identified. The trajectories can be followed by using a set of mathematical analytic algorithms of evaluating the local COVID-19 spread rates based on replication rate, the rate of spread, and the doubling time (Appendix).[6] NHs with rapidly escalating trajectories are represented by warm colors and those with stable trajectories are represented by cold colors.

The dashboard enables prevention of and acting on disease outbreaks in this susceptible population in the following ways:

- A picture at a glance to direct efforts: The task force is able to quickly assess the national picture in all of the various nursing and assisted living homes and direct its diagnostic and therapeutic efforts (Figure 1A).
- Outbreak linkage: Outbreaks in NHs and assisted living facilities can be catalyzed by the health care staff,[7] some of whom work in several proximal facilities. The heat map can assist the epidemiologic investigation by allowing an online display of nearby infected facilities, linking the outbreak in adjacent facilities to the staff (Figure 1B and 1C), thus speeding up the investigation.
- Tailoring of disease mitigation steps by heat map layering: Most of the sweeping public health measures endorsed by health policymakers lack in data and are nonselective. The resultant detrimental health implications on the older population in these facilities may be severe. The dashboard we developed monitors municipalities as well as the nursing and assisted living facilities. By layering over the 2 heat maps (Figure 1D), policymakers are able to quickly assess whether the facilities are located in "hot" or "cold" municipal zones and are able to make data-driven, precise mitigation steps in the