Healthy Cities 21st Century

City leadership for age-friendly communities in the post-pandemic era

Five lessons for building health emergency resilience from 16 European cities

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ABSTRACT

The COVID-19 pandemic hit older people hardest. This policy brief, intended for planners, policy-makers and politicians, was produced by the 16 cities of a Healthy Ageing Task Force and the WHO Regional Office for Europe. During the pandemic, cities provided leadership and innovative programmes to meet the four key challenges of survival, equity, creating conditions for people to adapt and thrive, and ensuring older people have a voice which is listened to and acted upon. Drawn from the experience of the cities, five lessons should inform age-friendly, resilient and adaptive cities for all types of health emergency: building resilience together; using a cycle of preparedness, response and recovery; adopting an all-hazards approach; investing in community infrastructure; and creating systems for feedback from older citizens. Older people should not be left behind when cities prepare for, respond and recover from future crises.

Contents

Acknowledgements

Abbreviations

AFEE   Age-friendly Environments in Europe (project)

COVID-19   coronavirus disease

HASP   Healthy Ageing Strategic Partnership

HATF   Healthy Ageing Task Force

SARS-CoV-2 severe acute respiratory syndrome coronavirus 2

Key messages

This policy brief outlines the background for health emergency preparedness in cities to create age-friendly resilient communities. It derives five lessons for building back better.

1. Build resilience together

City leadership during the coronavirus disease (COVID-19) pandemic was nested within innovative systems and structures combining many sectors and all levels of government. It is vital to utilize this ecosystem to prepare for and respond to future health emergencies.

2. Adopt a resilience cycle

All the cities in the Healthy Ageing Task Force (HATF) acknowledge how the experience of responding to the COVID-19 pandemic should inform a virtuous cycle of preparedness, response and recovery for future health emergencies.

3. Adopt an all hazards approach

With limited capacity and constrained budgets, the HATF cities have adopted an all-hazards approach, utilizing mechanisms developed during the COVID-19 pandemic to prepare for and respond to different types of health emergency.

4. Invest in community infrastructure

System resilience is not built overnight. Evidence produced by HATF cities has demonstrated the strategic priority of investing over the longer term in the social, physical and economic environment for age-friendly cities.

5. Ensure older people have a voice

Policies and protocols generated at an international and national level are only effective if they command the trust and support of older citizens. Either as active citizens or as citizens with special needs, the voice of older people should be listened to and acted upon.

Cities emerged as national epicentres of the COVID-19 pandemic caused by the rapid spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Cities were challenged in unprecedented ways to meet the needs of their communities, particularly those of their older and vulnerable populations. As countries and cities adjust to the new normal after the pandemic and invest in recovery efforts, it is critical that they do not default to a business as usual situation. The ambition is to maintain public health measures, reorient and redesign services and spaces, and build resilience by adapting to the changing economic, social and cultural challenges brought about by the crisis. Building resilience to prepare, respond and recover from health emergencies must be at the heart of equitable age-friendly cities, leaving no one behind.

COVID-19 hit older citizens hardest *(1)*. This brief summarizes how investment and engagement by age-friendly initiatives at local government level built resilience into communities and older populations prior to the pandemic; how COVID-19-shielding measures disrupted or utilized these programmes during the pandemic; and how age-friendly cities can build back better. Momentum generated during the pandemic and the lessons learned from city responses should inform age-friendly resilient and adaptive cities for all health emergencies: an all-hazards approach. Globally, and specifically within the WHO European Region, Member States wish to align national, regional and local preparedness for emergencies caused by pandemics, climate-induced disasters, humanitarian crises and forced migration.

Purpose and structure of the brief

The purpose of this brief is to sensitize politicians and policy-makers at all levels of government to the leadership role of European cities in combating the pandemic, signalling key elements of recovery planning and preparedness for all health emergencies. City leadership embraces all the key agencies planning and operating at a local level. While experiences at a local level are context dependent, the 16 member cities contributing to this brief represent a broad range of experiences across 13 countries in the WHO European Region. The brief provides context, analysis, messages and lessons learned, always highlighting the value of intersectoral city systems.

The results are summarized and synthesized in four following sections. The European panorama outlines responses to both COVID-19 and other health emergencies in the 16 cities. The following section identifies the specific challenges for resilience in European cities. The responses and lessons learned by the 16 cities are outlined in the three clusters describing resilient age-friendly city environments (the municipal, physical and social clusters) to provide a city investment framework. The final section outlines the lessons learned for building health emergency resilience. The brief has been co-produced by the Ageing and Health Unit at the WHO Regional Office for Europe and the HATF, which consists of 16 cities drawn from the WHO European Healthy Cities Network. It combines scientific evidence with experiential knowledge and looks towards an optimistic scenario of age-friendly cities that are prosperous, healthy, equitable and inclusive of all generations, and that are facilitated by intersectoral cooperation and multilevel governance.

European panorama: health emergencies

The COVID-19 pandemic

From the first recorded infection in Europe in February 2020, SARS-CoV-2 rapidly spread across the WHO European Region to cause a public health emergency of international concern lasting three years and that was only declared at an end in May 2023. Epidemiological data synthesized by the WHO Regional Office for Europe confirmed that older people carried the greatest burden of the 2.2 million COVID-19-related deaths in the Region, with residents of care homes at greatest risk *(2)*. Over 85% of deaths were in those aged over 65 years, with the occurrence of comorbidities such as heart disease and hypertension also elevating the risk of serious illness and death *(2)*.

Infections and deaths were concentrated in cities, which is where most older people in the WHO European Region now live. Most at risk of serious illness and death were older people living in poorer neighbourhoods; both Vienna and Barcelona divided the city into a patchwork of neighbourhoods to better highlight and respond to inequalities in health. Early into the pandemic, a scientific investigation by the Barcelona Department of Public Health highlighted the relationship between low income and the occurrence of COVID-19 (Fig. 1) *(3)*. An academic study found much higher infection rates in the poorest residents of Vienna *(4)*.

Health emergencies

Within the WHO European Region's panorama of regional conflicts and fragile city environments, older citizens are most at risk of health emergencies from a variety of causes. Older people accounted for most of the estimated 61 672 heat-related deaths in the summer of 2022 *(6)*, and in Barcelona the pattern of these deaths also intersected with age and socioeconomic status *(7)*. Southern Europe is also most at risk from earthquakes *(8)*, with four HATF cities – Çankaya, Metamorphosis, Muratpaşa and Udine – either at risk of their destructive force or faced with the humanitarian emergency of displaced people from epicentres nearby. Finally, many cities are transit areas or destinations for forced migration, induced by conflict or climate change. Flows of refugees from Africa and Ukraine have impacted particularly on the cities of Łódź, Novi Sad and Udine.

Fig. 1. Correlation between socioeconomic status indicated by the personal income index (a) and the distribution in cumulative incidence of COVID-19 Barcelona (b)

(a)

■	6262–11 913
■	11 913–13 960
■	13 960–15 537
■	15 537–18 085
■	18 085–29 364

(b)

Cumulative incidence (per 100 000)

□	250–450
■	450–550
■	550–650
■	650–750
■	750–850
■	850–1200
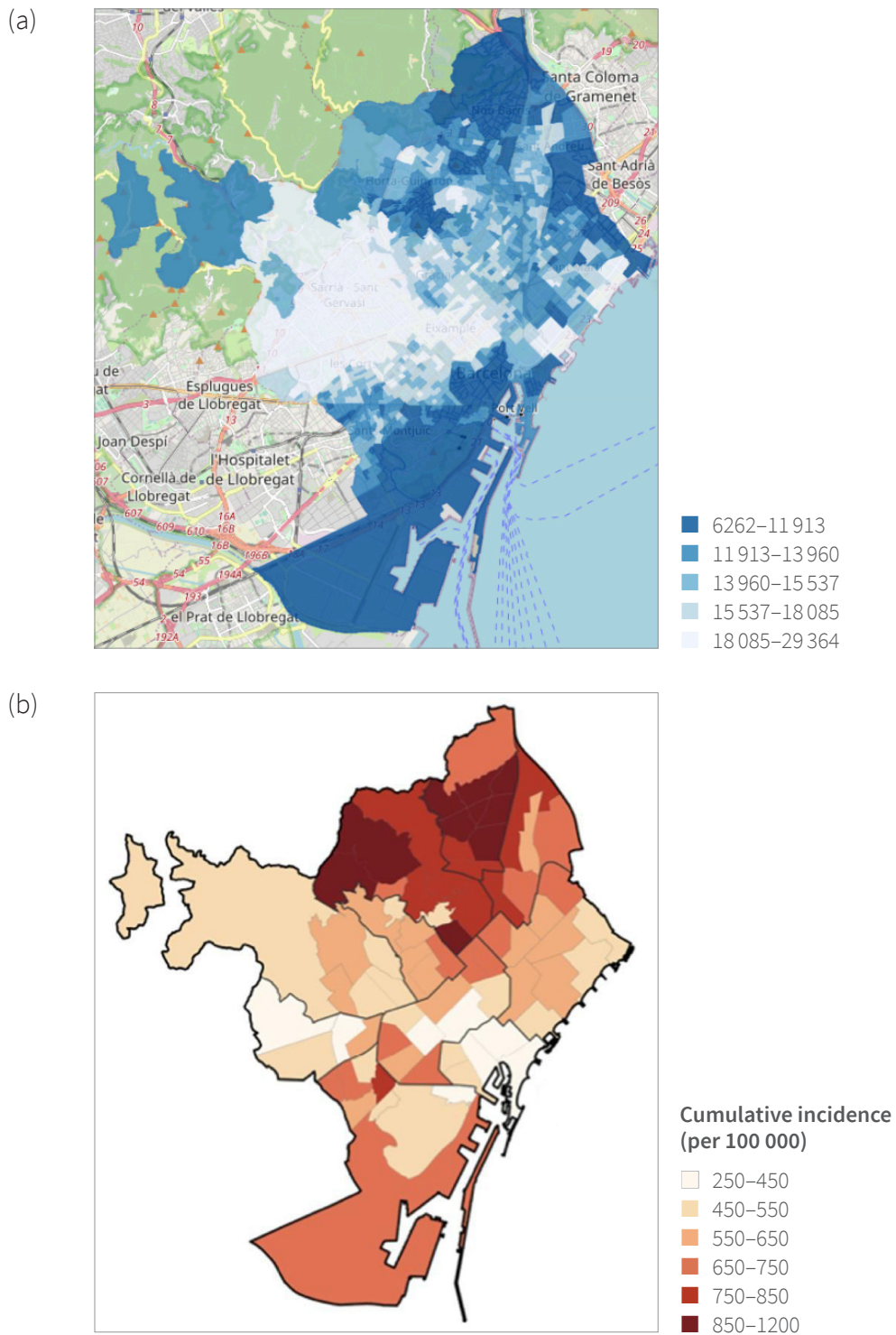
Source: with permission from Agència de Salut Pública de Barcelona *(5)*.

Individual and community resilience in cities

The WHO European Healthy Cities Network was an early adopter of an age-friendly cities approach; over many years this helped to build the personal and community resilience required to ensure survival during the COVID-19 pandemic. The main challenge now is to build back better and more fairly. Resilient cities create and sustain age-friendly environments, supporting older citizens to adapt to a new normal and ideally thrive in the post-pandemic era (Fig. 2).

Fig. 2. Recovery trajectories through the pandemic
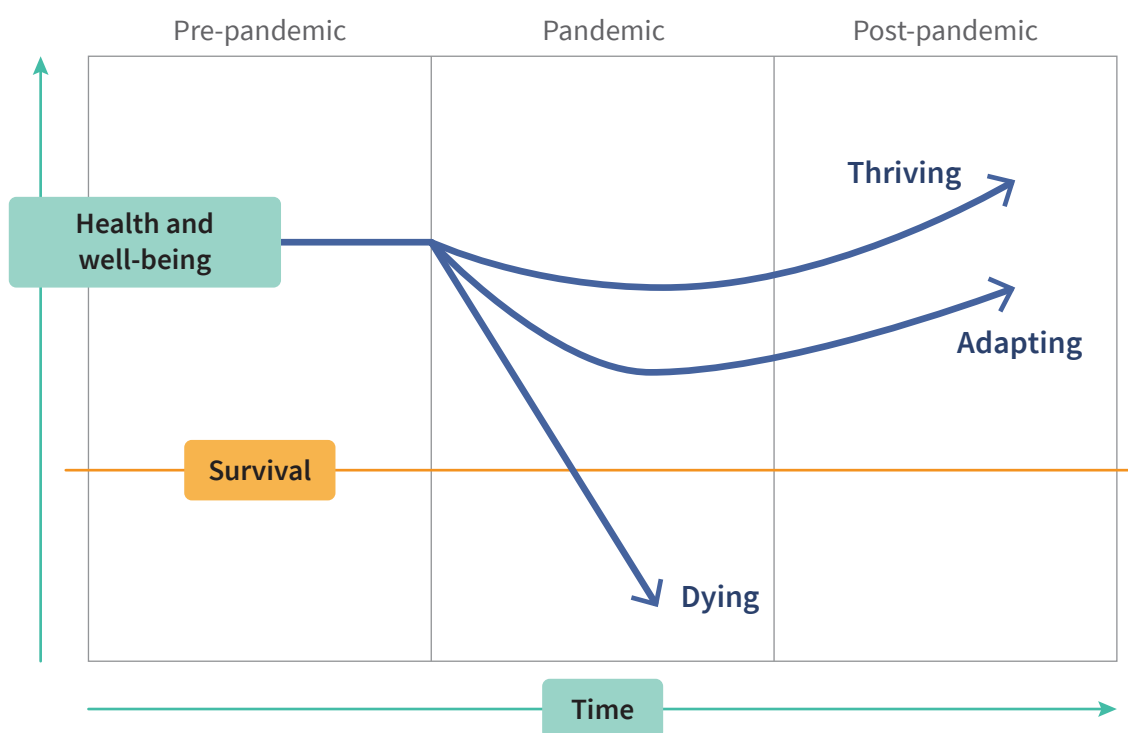
Four challenges for resilient cities

The Resilient Cities Network defines urban resilience as "the capacity of a city's systems, businesses, institutions, communities and individuals to survive, adapt and thrive, no matter what chronic stresses and acute shocks they experience" *(9)*. Holman and Walker recorded how over the life-course, older people can use their individual agency to capitalize on these resilient, age-friendly environments *(10)*. The *WHO World Health Report on Ageing and Health* embraces a public health framework for healthy ageing, which conceptualizes resilience as the ability to maintain or improve a level of functional ability in the face of adversity (through resistance, recovery or adaptation) *(11)*.

Based on these three publications, four areas of challenge can be identified for older people: survival, equity, adaptation and thriving, and ensuring voice.

Survival. Cities and communities were challenged to develop quick, effective and flexible protection for those most susceptible to dying from COVID-19 yet without isolating and stigmatizing older people. The current challenge is to reinforce and sustain resilient health protection systems, maximizing preparedness for and minimizing the impact of emergencies.

Equity. Cities were epicentres of the pandemic and the wider government and societal responses brought social and health inequalities into sharp focus. Deep inequalities endure in many low-income neighbourhoods. COVID-19 recovery strategies need to focus on building back fairer cities and communities so no older person is left behind. This requires embedding age-friendly principles into policies and programmes to support marginalized groups of older people.

Adaptation and thriving. Older people who were required to shield or follow social distancing guidelines experienced a so-called double lockdown, suffering the effects of enforced social isolation while living in spaces affected by the loss of services and social infrastructure. Mental health suffered. The challenge now is to help people to adapt lives to a new normal by investing in community-based infrastructure, services and organizations that can provide vital social, psychological and practical support to marginalized and vulnerable groups.

Ensuring older voices. The need for quick decisions often led to the voices of older people being overlooked. The challenge now is to involve older people in designing smart, liveable and resilient cities of the future, accounting for their diversity, recognizing their capacities and harnessing their experience.

Framework for resilient age-friendly city environments

The framework used in this policy brief is based on that outlined in the *Global Guide to Age-friendly Cities* published by WHO in 2007 *(12)*. It is elaborated in *Age-friendly Environments in Europe: A Handbook of Domains for Policy Action*, which was co-produced by the HATF and the WHO Regional Office for Europe as part of the Age-friendly Environments in Europe (AFEE) project *(13)*. Prior to the pandemic, HATF municipalities worked with partners to implement policies and programmes within this strategic framework. They were guided by the five principles and 20 steps that were summarized in a second co-produced tool for local policy-makers and planners *(14)*. In effect, investment in age-friendly environments helped to prepare for the pandemic, enhancing the health and resilience of older citizens over the course of their lives.

These strategic investments to build city capacity and institutional resilience complemented emergency services during the response phase of the pandemic. HATF cities reported that innovations in the domains of age-friendly environments helped to sustain more resilient communities, reducing the risk of severe illness and death. Now, in the recovery period, these investments across cities and in city neighbourhoods continue to enhance the well-being of older people. The ambition of cities and of their older citizens is beyond mere survival – it is to flourish and thrive.

The eight domains of age-friendly city environments are grouped into three clusters (Fig. 3):

- the municipal services: (i) community health and social services and (ii) communication and information;
- the physical environment: (iii) outdoor environments, (iv) transport and mobility, and (v) housing;
- the social environment: (vi) civic engagement and employment, (vii) social inclusion and non-discrimination and (viii) social participation.

Clearly the physical environment is critical to physical health and the social environment influences mental health. However, evidence from the HATF cities also highlighted the interaction between the physical and social environments and the balanced ticket of investment required to minimize unintended consequences, maximize the flow of benefits to older people and encourage intergenerational support.

Fig. 3. Investment framework with three clusters of activity

Physical environment

Municipal services

Community health and social services

Transport and mobility

Outdoor environments

Communication and information

Age-friendly city

Housing

Civic engagement, volunteering and employment

Social inclusion and non-discrimination

Social participation

Social environment
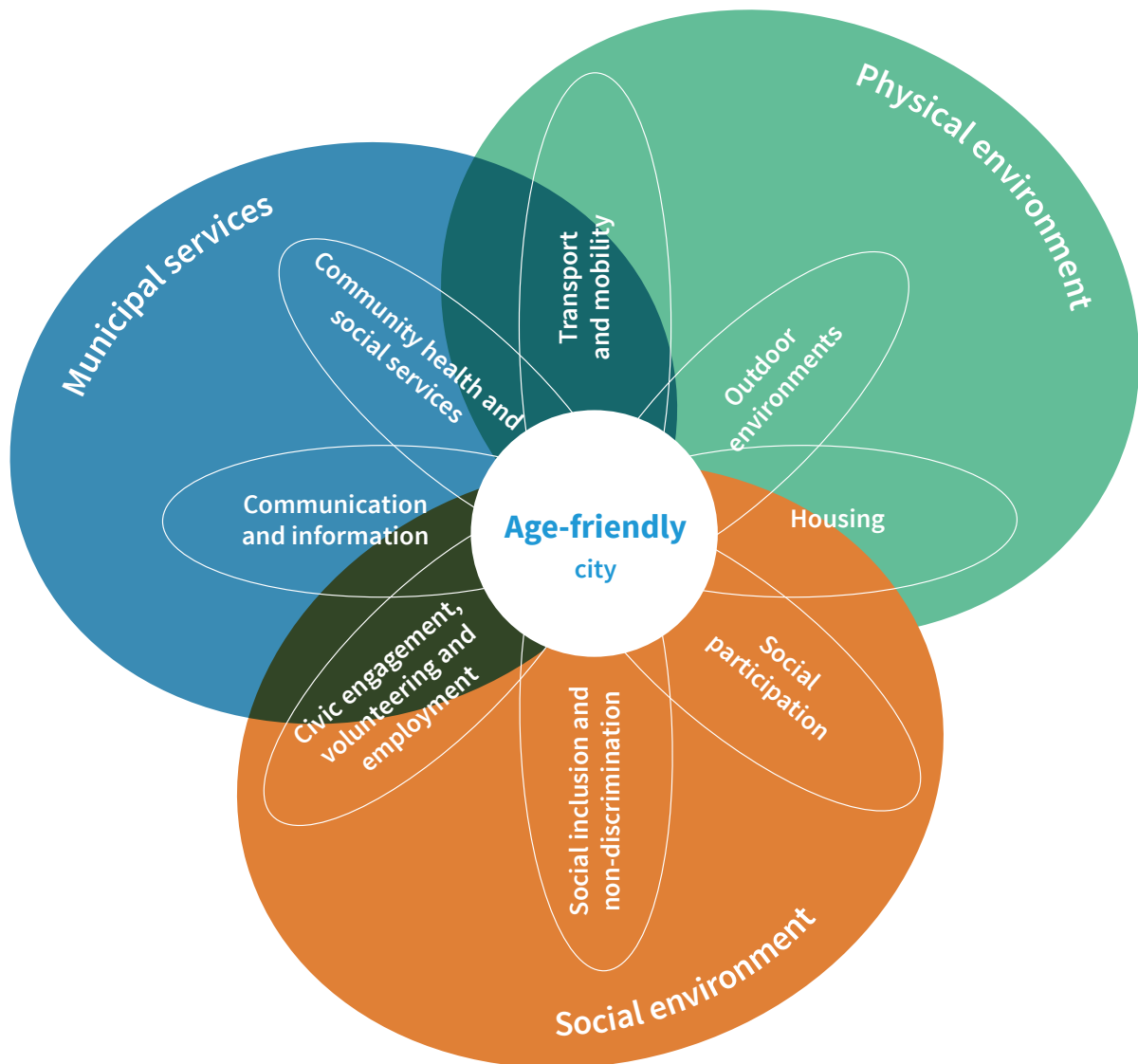
Source: WHO Regional Office for Europe *(13)*.

City leadership

A resilient city system depends on cooperation and coordination between the agencies and institutions responsible for implementing the variety of functions sustaining an age-friendly city. A major challenge is to harmonize the effort of relatively centralized health systems of Member States with devolved systems of local government. A second challenge is to identify entry points into the complex web of interlocking competences; identify the key actors, policy-makers, planners and forums; and always ensure that older people have a voice which is listened to and acted upon.

Mayors and municipalities

Agis Tsouros commented in the Introduction to *City Leadership for Health (15)*:

> Courage and vision are required of city mayors whose remit does not extend to formal responsibility for health services. Health is the business of every sector, and mayors have a key role in orchestrating the contribution of many actors.

The courage of city mayors was tested in the pandemic and again now in setting a roadmap for recovery and a vision for the future. Skills, experience and diplomacy are required to harmonize policies and programmes in a concerted approach by all tiers and spheres of government. Within cities, the guiding principle is intersectoral action across all domains and by many actors and agencies. In most cities, municipalities are the key authorities with convening power and a democratic mandate, listening to the voice of older citizens and, via executive mayors, orchestrating investment, policies and programmes in age-friendly domains of city life.

Collaboration

The Healthy Ageing Strategic Partnership in Belfast (United Kingdom) works closely with Greater Belfast's Seniors' Forum to implement a recovery plan for community resilience entitled Building Back Fairer from COVID-19. Collaborative Newcastle (Fig. 4) is an innovative and ambitious formal partnership of health services, municipal government, universities and the community and voluntary sector that was taking shape before the COVID-19 pandemic began. It seeks to improve the health, wealth and well-being of everyone in Newcastle, recognizing the significant and persistent inequalities in the city.

Fig. 4. Newcastle's intersectoral partnership

Source: with permission from Newcastle Upon Tyne Hospitals NHS Foundation Trust.

Collaborative Newcastle was key to Newcastle's success in combating COVID-19 and planning a way forward into recovery. The Chair of the Collaborative Newcastle Director Team and Chief Operating Officer of the city's NHS Foundation Trust, Martin Wilson, summarized how the city responded to pandemic: "We developed plans for an Integrated COVID Hub for the region, designed to build on our key strengths locally – strong partnership working, high-quality clinical services, excellent universities and effective public health arrangements in the local authority".

Although in early stages of development, local growth partnerships devised by Derry City and Strabane District Council rose to the forefront during the COVID-19 emergency. Using networks, local knowledge, assets, services and the community and voluntary sector base in each area, the City was able to respond immediately with an effective and coordinated response, channelling resources to older and vulnerable citizens.

Vienna's interdisciplinary crisis management teams and subgroups met regularly to ensure a coordinated approach to the pandemic, with special attention to vulnerable groups. The teams consisted of representatives from the Medical University of Vienna, Vienna Psycho-Social Services, social housing provider Wiener Wohnen, rescue organizations, media departments, umbrella organizations for care facilities and nursing, as well as the Vienna School Board.

Three cluster of domains for age-friendly city environments

The municipal services cluster

The municipal services cluster contains two domains: (i) community health and social services and (ii) communication and information (Fig. 5).

Fig. 5. The municipal services cluster
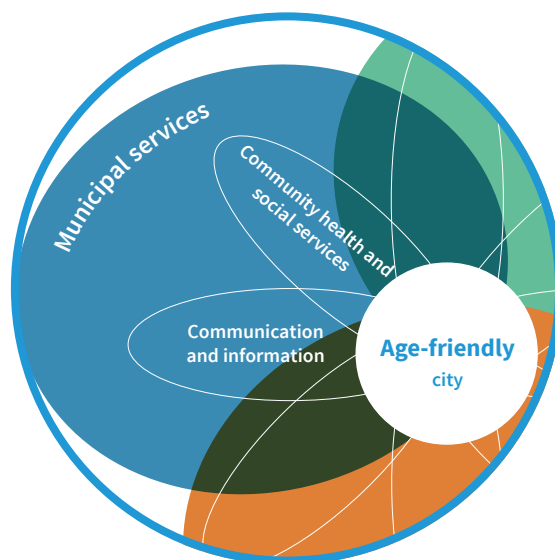
Community health and social services

Community health and social services made a vital contribution to the survival of older people during the pandemic, developing protective regimes and innovative policies and programmes that also enable them to adapt and thrive in the post-pandemic era. In many Member States of the WHO European Region, these services are the responsibility of national governments, through regulation, funding or direct provision. Throughout the pandemic, city administrations were reliable partners, not merely implementers of national policies but also strong actors, responding effectively to many overlapping challenges.

Communication and information

The AFEE *Handbook of Domains for Policy Action (13)* sets the goal for this domain as:

> to assist older adults in accessing timely, reliable, relevant and understandable information about their community, ways of engagement, available services and health topics through word of mouth, general press or the use of information technology.

During the COVID-19 pandemic, this flow of information in HATF cities helped to build both **survival resilience**, preventing illness and death, and **adaptive resilience**, supporting older people to navigate city environments degraded by restrictions on face-to-face contact. Seven members of HATF (Belfast, Çankaya, Gyor, Horsens, Metamorphosis, Newcastle and Rijeka) refer explicitly to both communication and information. Łódź refers to information plus a helpline, and both Brno and Vienna refer to a hotline. Vienna's Mental Health Hotline (*Sorgenhotline Wien*) continues as a first point of contact for psychosocial stress for all people in Vienna. The hotline offers a telephone link to provide "clarification, relief and direct, quick advice – so that worries, problems and stresses do not turn into a crisis if possible!".

In 1964 Marshall McLuhan, a Canadian communication theorist, coined the phrase "the medium is the message" *(16)*. The form and author of communications shape the message and its receptivity and interpretation by the intended recipients. All 16 HATF cities highlighted the importance of information and communication technology in the switch from face-to-face communication to virtual communication during the pandemic. The communication infrastructure at a city level consists of a combination of intersecting authors and mediums, designed to reinforce health literacy and protection messages, and promote trust in their veracity.

Survival resilience

City governments and their local partners have sought compliance by building trust. Gyor's COVID-19 Newscast provides "reliable and authentic information to the public". Newcastle's collaboration of agencies delivers the health messages of the Office for Health Improvement and Disparities, a Government agency. Horsens reported that the Emergency Response Team coordinated closely with the Communications Department of the Municipality – emphasizing clear, concise and understandable information to citizens regarding both the restrictions and guidelines related to the pandemic and a much wider range of information using the media, the Municipality's web page and its Facebook page. Both Belfast and Udine highlighted the role of the municipality in interpreting scientific evidence to promote health literacy. Belfast summarized the scientific evidence linking health literacy to resilience and Udine used socially innovative communication media such as musicals and video spots to increase scientific literacy among its citizens.

Adaptive resilience

During the pandemic lockdowns and other physical restrictions on face-to face contact, HATF cities have taken measures described by Horsens as an adaptive approach. Adapting older forms of communication, HATF cities have enhanced telephone contact to address also the two domains of social inclusion and civic engagement, which are discussed further in the social environment cluster. Brno reported that the "Department of Social Services has been operating an all-day hotline that is helping our citizens to solve situations connected with the pandemic". Together with the Subvenio Foundation, the city of Łódź operates a Halophone. Telephone volunteers support the callers with a chat and suggest where and how to deal with official matters. A collaboration between the City of Metamorphosis and civil society organizations

launched a Friendship at all Ages programme; "volunteers of all age groups adopt telephone communication with an elderly person, with the supervision and guidance of the social service and the Prevention Institute". The aim is to combat loneliness, which was most pronounced during the pandemic.

Virtual communication

HATF cities also innovated during the pandemic by developing virtual communication systems and platforms. Metamorphosis developed new techniques for the continuation of mental and psychological empowerment actions online. In Muratpaşa, the preferred social media platforms were YouTube, Instagram and Facebook. Udine provided online courses and exercises plus "psychological assistance for managing anxiety and panic". Çankaya supported online brain exercise workshops with cognitive, auditory and visual exercises. The city also cooperated with a local university to offer informative online Zoom seminars. Horsens addressed civic engagement by setting up a Zoom café that helped to sustain the voice of older people in policy-making. Indeed, during the pandemic, its long-established participatory forum developed daughter forums in the districts and neighbourhoods of Horsens. The Horsens Healthy City Shop is a hub digitalized as an online community: "Horsens – Together at a Distance, where over 450 citizens can engage in conversations, photo exchange and sharing of recipes and highlights from everyday life".

Digital inclusion

Older people often experience digital exclusion because of their limited ability to access new Internet technology skills. Rijeka referred to the digital divide and Belfast reported that "some older people are rapidly learning how to use digital modes of social connection and information, but some are now experiencing 'zoom fatigue'. Digital engagement is not part of the lives of many older people and they will need support to adapt." Five cities developed programmes to upskill older people in digital inclusion. Łódź developed training workshops on computers, smartphones and Internet use for older people. Newcastle collaborated with the local Northumbria University to offer "Tech Buddies, providing one-to-one IT [information technology] support". Udine's priority for the future is to provide remote learning and interactive discussion through online platforms such as Zoom and YouTube. Rijeka has reported what can be considered as a gold standard of preparedness. From 2009 Rijeka invested European Union funds in an age-friendly communication platform (Fig. 6) and activities to bridge the digital divide. This project, entitled "Society in Which I Am Learning and Feeling Good" proved an invaluable asset during the pandemic.

Fig. 6. Rijeka's age-friendly communication platform

Source: Municipality of Rijeka.

The physical environment cluster

Prior to the pandemic, investment in all three domains clustered around the physical environment (outdoor environments, transport and mobility, and housing) contributed to the resilience and well-being of older people over their life-course (Fig. 7).

Fig. 7. The physical environment cluster
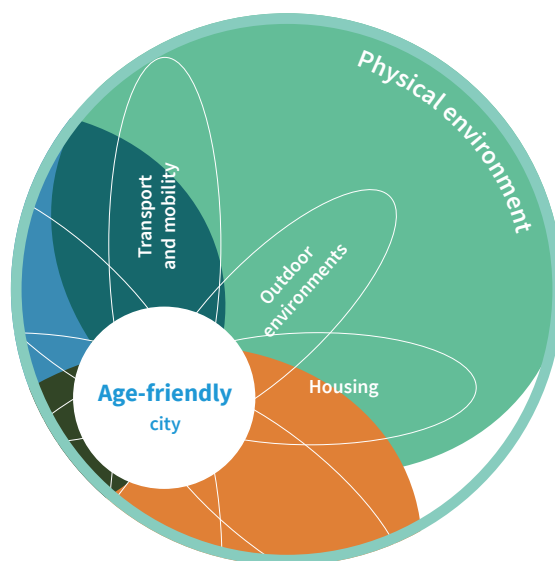
Activity-friendly neighbourhoods have been shown to have benefits for both noncommunicable and infectious diseases. The HATF city of Belfast utilized global evidence marshalled by the local Queens University to demonstrate that activity-friendly neighbourhoods also increased survival resilience during the pandemic *(17)*. This can be summarized as four evidence-based propositions that support such a life-enhancing effect.

1. The vast majority of deaths from COVID-19 have been among people with noncommunicable diseases.
2. Older people with noncommunicable diseases are at greatest risk of COVID-related deaths.
3. Residents of activity-friendly communities have lower risk of obesity, diabetes and heart disease, the major noncommunicable diseases.
4. Investment in age-friendly physical environments has been shown to encourage active lives.

During the pandemic, further adapting the domains of transport and housing required longer-term planning and capital investment. Consequently, cities focused on swift adaptations within the domain of outdoor environments.

Outdoor environments

There was greater appreciation of natural surroundings and how they particularly benefit older people during the pandemic *(18)*. Parks, gardens and other local green spaces are vital to people's physical and mental health, and, in turn, to survival and adaptive resilience. Ample greenery in outdoor spaces also appears to promote more frequent visits and better health in older people *(19)*, with higher frequency of urban green space visits being associated with lower mortality in older people *(20)*. The rate of virus transmission is much lower in outdoor environments than indoors *(21)*; consequently, outdoor spaces offer a safer option for physical activity.

Neighbourhoods

Popularized prior to the pandemic by the Mayor of Paris Anne Hidalgo and adopted by Barcelona, the concept of the 15-minute city highlights the benefits of accessible, liveable neighbourhoods where basic amenities and services are in close vicinity to where older people live *(22)*. During the pandemic, cities adapted to maintain these benefits while facilitating physical distancing and upholding preventive measures to minimize the spread of the virus. Restrictions on movement forced residents to find local solutions to meet their day-to-day needs. The ideal solution is found in neighbourhood parks.

Tensions and tradeoffs

The outdoor environment also promotes social engagement *(23)*. However, there are tensions and trade-offs. Fearful of public parks in normal times, many Polish seniors also had a perceived risk of virus transmission *(24)*. Two HATF cities engaged with their seniors' councils to resolve this conundrum. The City of Udine (Fig. 8a) adapted parks as safe places of social interaction for survival resilience while overcoming isolation to promote adaptive resilience and mental health. In Horsens, older people were encouraged to be "Together – at distance" (Fig. 8b).

> The bench-to-bench walking community in Horsens is for those of you who want to join us on a considerate walk. We don't walk far and fast, but make use of benches along the way. We meet and walk in the lovely Bygholm Park, where the benches are not far apart. The paths are flat with a firm gravel surface. We go together and support each other along the way.
>
> – Muncipality of Horsens

Fig. 8. Physical distancing measures in Udine (a) and Horsens (b)
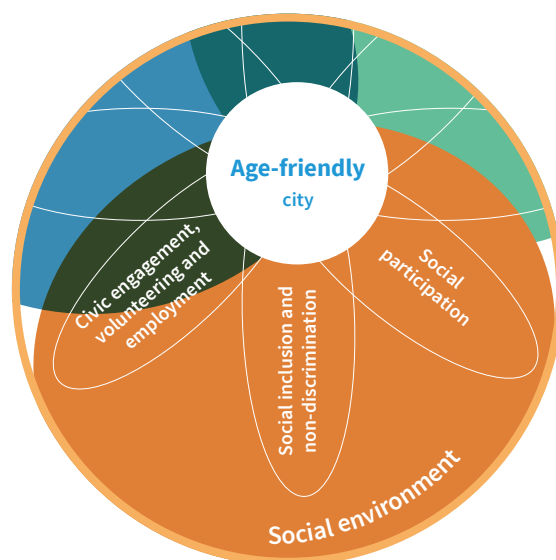
(a)

(b)

Sources: with permission from the Municipality of Udine (a) and the Municipality of Horsens (b).

The social environment cluster

Prior to and during the pandemic, HATF cities invested heavily in the cluster of three interrelated domains of civic engagement, social inclusion and social participation (Fig. 9).

Fig. 9. The social environment cluster

Source: WHO Regional Office for Europe *(13)*.

Civic engagement: older peoples' councils

Sustaining and enhancing the collective voice of older people is a key element of civic engagement. Elders' or older people's councils were part of most city systems for combating COVID-19 (Fig. 10). Newcastle's Elders Council demanded an active voice (Fig. 10a) and the Novi Sad Association of Pensioners (*Udruženje penzionera grada Novog Sada*) lobbied a Serbian Government minister (Fig. 10b). Barcelona's Senior Citizens' Advisory Council (*Consell Assessor de Gent Gran de Barcelona*), the Greater Belfast Seniors Forum and Horsens' Senior Council (*Seniorradet Horsens Kommune*) reported both a citywide organization and neighbourhood councils. Metamorfosis also has clubs (KAPI: Open Care Centres for the Elderly), which give voice to older people.

Three cities report the occurrence of associations: in Rijeka the Rijeka Pensioners Association (*Matica umirovljenika grada Rijeke*), in Udine the 50+ and Senior Trade Union (*Associazione 50ePiu Sindacati Pensionati*) and in Brno the Senior Organization (*Senioři České republiky, městská organizace Brno*); the last is federated to a national organization operating throughout Czechia. Four other cities report either a seniors' or an older people's council: Gyor Council for the Elderly (*Idősügyi Tanács*), Łódź City Council of Seniors (*Miejska Rada Seniorów*), Muratpaşa Municipality Elderly Council (*Muratpaşa Belediyesi Yaşlı Meclisi*) and the Novi Sad Association of Pensioners (*Udruženje penzionera grada Novog Sada*). Most appear to be independent civil society organizations.

Fig. 10. Associations or council of older people lobbying for an active voice: the Newcastle Elders Council (a) and the Novi Sad Association of Pensioners (b)

(a)

(b)

Source: with permission from the Elders Council of Newcastle (a) and the City Administration for Health of the City of Novi Sad (b).

Operation of civil society organizations

Almost all these civil society organizations functioned well during the pandemic, reaching out both to older people and to city partner organizations: the municipality, health authority and other nongovernmental organizations. Most are strategic partners, building trust in public health messages, although not influencing content. However, the objective of Barcelona's Seniors Council is "to formulate proposals and demand action from governments", implying, as in Brno, constructive challenges to central and local governments.

Most organizations switched from in-person to virtual communication, with a balanced use of the media available: telephone, mobile communication, Zoom/Facebook and other virtual forms of interactive communication. Objectives were to help to promote public health messages, express solidarity, provide practical assistance (for example, with shopping) and sustain social activities online.

Social inclusion

The challenge of a double lockdown

The pandemic acted as a magnifying glass to reveal the isolation and loneliness of many older and vulnerable citizens who had already been left behind. Early in the pandemic, the WHO Regional Director for Europe had identified older people as being at highest risk from COVID-19. The presence of at least one underlying health condition created a situation of double jeopardy. A partnership between the Greater Manchester Ageing Hub and researchers from Manchester University's Institute for Collaborative Research on Ageing generated further insights. The clustering of older people with poor health in deprived neighbourhoods of European cities led to what was termed double lockdowns: "under physical distancing guidelines, older people living in socio-economically deprived urban neighbourhoods experience a 'double lockdown' as a result of interrelated social and spatial inequalities associated with COVID-19" *(25)*.

Outreach

Cities reached out to older, vulnerable and ethnic minority populations as priority groups for social support. Brno Municipality supported volunteer assistance for older adults. The Department of Social Services operated an all-day hotline helping older citizens. The Healthy Ageing Strategic Partnership is an important resource for Belfast. The Partnership works closely with older people through the Greater Belfast Seniors' Forum and it also managed the development and implementation of the city's Age Friendly Plan 2018–2021. The Dementia Engaged and Empowered in Derry and Strabane organization found new ways of reaching out to people with dementia across Derry City and Strabane District Council, with Carers Connect, Doorstep Melodies and a dramatic uptake in social media: its Facebook page recording an increase from 9000 to 79 000 users.

Barcelona launched a community strategy in 2008, Health in the Neighbourhoods, to promote equity in health across disadvantaged communities. Informed by evidence, the strategy aimed to reduce health inequalities by an intersectoral commitment to include communities and society in development, implementation and monitoring of community health action *(26)*. The strategy is co-directed by the Public Health Agency of Barcelona, the district councils and a consortium of health-care providers. In each neighbourhood, a cross-sectoral task group ensures community participation in a 4-year planning cycle.

Barcelona's research institutes confirmed that COVID-19 incidence followed a socioeconomic gradient in Barcelona (see Fig. 1). The city authorities adapted the Barcelona Health in the Neighbourhoods strategy to ensure that public protection measures promoted equity of outcome for older residents of poorer neighbourhoods. Collaboration was reinforced between the consortium partners and neighbourhood representatives and local working groups.

Social participation

Social participation is a person's involvement in activities that provide interaction with others in society or in the community. This encompasses participation not only in formal structures and leisure activities (such as social, cultural and leisure activities; meetings; and religious participation) but also in informal structures of socializing and communicating in private spaces (in the form of neighbourhood contacts, virtual and telephone contacts and visiting friends and family).

Strategy: participation versus loneliness

The AFEE *Handbook of Domains for Policy Action* defines social participation as a counterpoint to both the objective isolation and subjective loneliness experienced by many older people in normal times *(13)*. The exceptional time of pandemic lockdowns heighted these challenges but also revealed innovative forms of social participation that carried lessons for the post-pandemic era. In 2019, 6 months before the onset of the pandemic, both Udine (Fig. 11a) and Barcelona (Fig. 11b) reinforced the foundations of a long-term city strategy to combat loneliness.

Fig. 11. Measures to combat loneliness in Udine (a) and Barcelona (b)

(a)

(b)
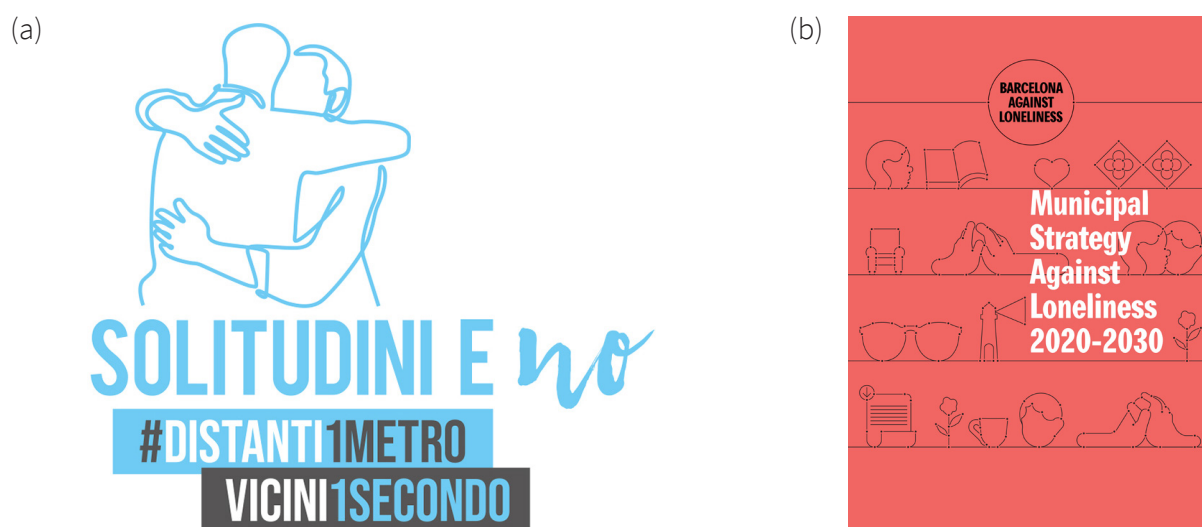
Sources: with permission from the Municipality of Udine (a) and the Municipality of Barcelona (b).

Udine hosted an international congress in 2019 entitled Leaving Loneliness: Building Relationships that underpinned its long-term programme No to loneliness (*No Alla Solit'Udine*). A key objective was to give support to older people living alone. Key elements identified were age-friendly environments, social innovation, brokerage and intermediation. Barcelona addressed undesired solitude by preparing a Municipal Strategy Against Loneliness 2020–2030, which became "urgent because of the effects of the COVID-19 pandemic … giving rise to new forms of loneliness". The plan is to build upon "our neighbourhood structure, designed to foster community interaction and social relations, and empower neighbours to organise themselves to improve collective life, fostering social innovation practices and citizen action". Barcelona's strategy defines the city's approach to social participation in the post-pandemic era. Vienna has a Senior Citizens' Advocate, supported by a team, Vienna for Seniors, to initiate and coordinate projects to address the needs of older people. The focus for 2023 is on loneliness in old age, and a variety of events and initiatives organized with several partners will serve to put the spotlight on this issue.

Health emergency preparedness: five lessons for building back better

1. Build resilience together

City leadership during the COVID-19 pandemic combined all levels of government and was nested within innovative systems and structures. It is vital to utilize this ecosystem to prepare for and respond to future health emergencies. Within the United Kingdom, the devolved Government in Northern Ireland introduced *Building Resilience Together (27)*, which was "developed from the lessons learned from our response to the COVID-19 pandemic" (Fig. 12). Acknowledging the role municipalities such as Derry City and Strabane District Council played, the document stated:

> The resilience of our communities to deal with and recover from emergencies depends upon clear direction and collaboration. Sometimes that collaboration and direction can come from the local level multi-agency response teams; sometimes it requires a more strategic cohesion at Government level. Understanding the language, the frameworks and the mechanisms for providing support to those dealing with an emergency must be part of our psyche, whether at local council, or Government level.

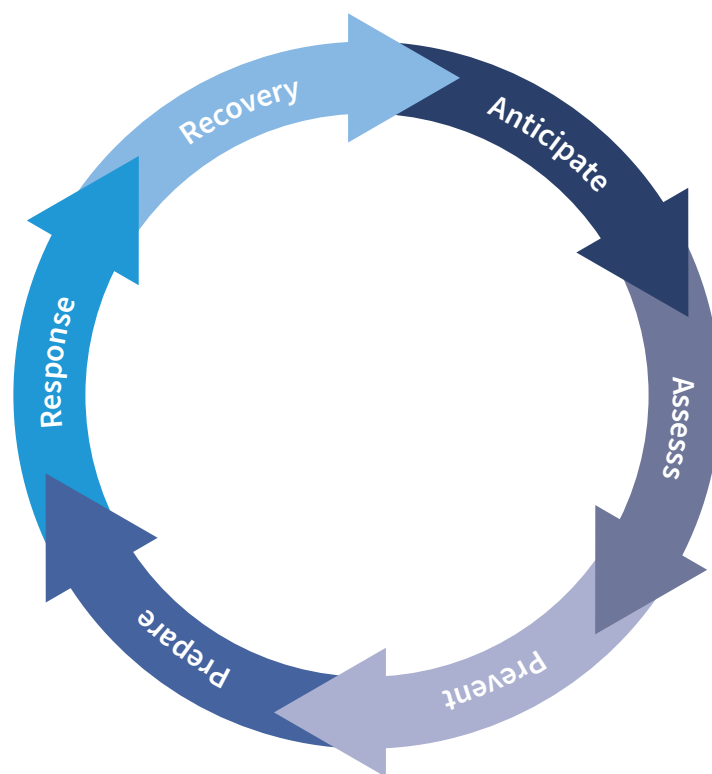**Fig. 12.** Preparedness strategy of the Northern Ireland Government (United Kingdom)
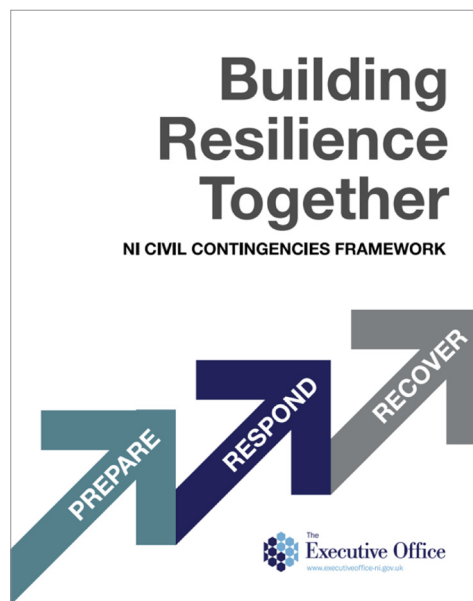
Source: with permission from the Executive Office of the Government of Northern Ireland *(27)*.

2. Adopt a resilience cycle

All the HATF cities acknowledged that the COVID-19 pandemic was a call to action, providing an opportunity to build momentum for more resilient public health systems at all levels of government. The United Nations Economic Commission for Europe identified three phases of addressing the needs of older people in emergency situations: preparedness, response and recovery *(28)*. The civil contingencies framework in Northern Ireland (United Kingdom) contains a resilience cycle based on experience and lessons learned that can inform preparedness for the next emergency *(27)*.

Fig. 13. Six steps of integrated emergency management: the resilience cycle in Northern Ireland (United Kingdom)

Source: with permission from the Executive Office of the Government of Northern Ireland *(27)*.

HATF cities have built resilience into their health emergency systems. The Healthy Ageing Strategic Partnership in Belfast and Collaborative Newcastle have both joined forces with their local resilience forums mandated by the United Kingdom Government. Learning from the pandemic, the public health partnership responsible for Barcelona's Health in Neighbourhoods strategy now has wider responsibilities for public health emergencies that impact on health inequality.

3. Adopt an all-hazards approach

With limited capacity and constrained budgets, HATF cities have adopted the all-hazards approach recommended by WHO *(29)*.

> Different types of hazards are associated with similar risks to health, and many EDRM [emergency and disaster risk management] functions are similar across hazards (e.g. planning, logistics, risk communications), it is neither efficient nor cost-effective to develop separate, stand-alone capacities or response mechanisms for each individual hazard.

Novi Sad's Migration Plan and Metamorfosis' Earthquake Plan build upon intersectoral and intergovernmental consortiums and partnerships refined during the pandemic. The Mayor of Metamorfosis can mobilize three key departments to implement the plan (Fig. 14) with the Social Policy Department responsible for monitoring the needs of older people via a telecare programme.

Fig. 14. Mobilizing departments in the earthquake response plan in Metamorfosis
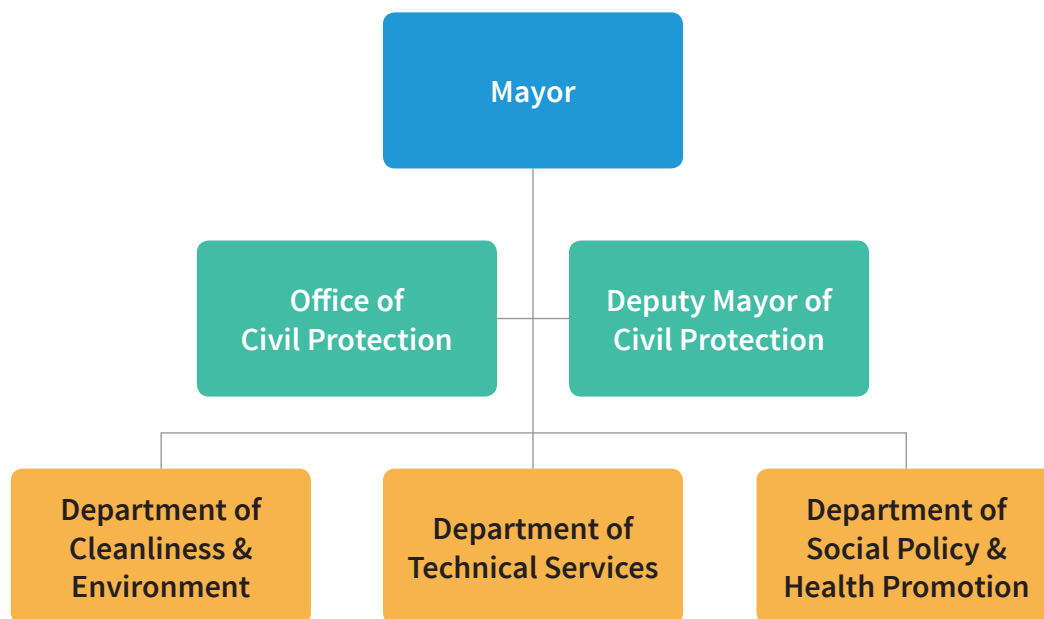
Source: with permission from the Municipality of Metamorfosis.

Utrecht's Heat Plan (*Hitteplan*) builds upon the experience of collaboration across 35 sectors during the COVID-19 pandemic. This local approach to the National Heat Plan in the Kingdom of the Netherlands combats the health consequences of extreme and persistent heat. It elaborates the heat section of the Utrecht Climate Adaptation Vision and helps to implement the Kingdom of the Netherlands' Public Health Act. There is a large overlap between the risk groups for COVID-19 and those for heat stress. Consequently, older people, those who are chronically ill and homeless people are central to the Heat Plan.

Prompted by experience of earthquakes and the COVID-19 pandemic, Çankaya Municipality has developed a generic methodology for creating participatory and inclusive emergency action plans. The methodology has six steps: (i) current situation analysis, (ii) problem and need analysis, (iii) stakeholder analysis, (iv) collecting the innovative ideas, (v) creating the roadmap, and (vi) the final action plan. The plan offers a comprehensive approach based on social innovation tools. With a focus on disaster management, a sister-city protocol has been prepared for Çankaya and Kadıköy Municipalities, establishing a bilateral relationship.

4. Invest strategically in community infrastructure

Guidance on health emergencies from WHO and other international organizations is generally targeted towards national governments, cascading down to regional and then local governments. Even when cities and urban settings are the primary focus *(30)*, the emphasis tends to be on emergency services and disaster surveillance systems.

However, this policy brief, produced by HATF cities, provides evidence that demonstrates the value of a strategic priority of investing longer term in the domains of an age-friendly city. A programme well established in Vienna to promote active ageing, Pharmacies in Motion, combined social interaction with necessary physical distancing during the pandemic and continues to build resilience for future emergencies (Fig. 15).

Fig. 15. Pharmacies in Motion, Vienna

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System resilience is not built overnight. Community resilience builds cumulatively over many years and the personal resilience of older people develops over their life-course and is further enhanced by their current social and physical environments. Building back our cities in a more equitable and better way requires a balanced ticket of investment in all eight domains sustaining the lives and livelihoods of older people. The review of evidence in this policy brief puts a spotlight on COVID-19-inspired innovations to augment these guidelines.

5. Ensure older people have a voice

Guidance from WHO, the European Union and the United Nations Economic Commission for Europe puts the voice of older people at centre stage. A lesson from the HATF cities is that there is a clear distinction between (i) sensitizing processes and systems to the special needs of older people and (ii) ensuring that older people having a voice as active citizens who engage with city health and social systems to help to shape policies and programmes. Policies and protocols generated at an international and national level are only effective if they command the trust and support of citizens, including older citizens.

Conclusion

The COVID-19 pandemic hit older people hardest. The 16 HATF cities provided leadership and innovative programmes to meet the four key challenges of survival, equity, creating conditions for people to adapt and thrive, and ensuring older people have a voice. Drawn from the experience of the cities, five lessons should inform age-friendly, resilient and adaptive cities for all types of health emergency: building resilience together; using a cycle of preparedness, response and recovery; adopting an all-hazards approach; investing in community infrastructure; and creating systems for feedback from citizens. Older people should not be left behind when cities prepare for, respond and recover from future crises.

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References

1. Kluge, H. Statement – older people are at highest risk from COVID-19, but all must act to prevent community spread [website]. In: News. Copenhagen: WHO Regional Office for Europe; 3 April 2020 (https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-older-people-are-at-highest-risk-from-covid-19,-but-all-must-act-to-prevent-community-spread, accessed 5 November 2023).

2. Weekly epidemiological update on COVID-19: 13 July 2023. Geneva: World Health Organization; 2023 (https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---13-july-2023, accessed 5 November 2023).

3. Marí-Dell'Olmo M, Gotsens M, Pasarín MI, Rodríguez-Sanz M, Artazcoz L, Garcia de Olalla P et al. Socioeconomic inequalities in COVID-19 in a European urban area: two waves, two patterns. Int J Environ Res Public Health. 2021;18:1256–67. https://doi.org/10.3390/ijerph18031256

4. Oberndorfer M, Dorner TE, Brunnmayr M, Berger K, Dugandzic B, Bach M. Health-related and socio-economic burden of the COVID-19 pandemic in Vienna. Health Soc Care Community. 2022;30(4):1550–61. https://doi.org/10.1111/hsc.13485

5. #COVID19aldiaBCN. Evolució de la infecció per coronavirus SARS-CoV-2 (COVID-19) a Barcelona. Barcelona: Agència de Salut Pública de Barcelona; 11 April 2022 (https://aspb.shinyapps.io/COVID19_BCN/, accessed 5 November 2023).

6. Ballester J, Quijal-Zamorano M, Méndez Turrubiates RF, Pegenaute F, Herrmann FR, Robine JM et al. Heat-related mortality in Europe during the summer of 2022. Nat Med. 2023;29:1857–66. https://doi.org/10.1038/s41591-023-02419-z

7. Mueller N, Rojas-Rueda D, Khreis H, Cirach M, Andrés D, Ballester J et al. Changing the urban design of cities for health: the superblock model. Environ Int. 2020;134:105132. https://doi.org/10.1016/j.envint.2019.105132

8. du Brulle C. Mapping Europe's earthquake risk. Horizon. 3 March 2014 (https://ec.europa.eu/research-and-innovation/en/horizon-magazine/mapping-europes-earthquake-risk, accessed 5 November 2023).

9. What is urban resilience? [website]. New York: Resilent Cities Network; 2023 (https://resilientcitiesnetwork.org/what-is-urban-resilience/, accessed 5 November 2023).

10. Holman D, Walker A. Understanding unequal ageing: towards a synthesis of intersectionality and life course analyses. Eur J Ageing. 2021;18:239–55. https://doi.org/10.1007/s10433-020-00582-7

11. World report on ageing and health. Geneva: World Health Organization; 2015 (https://apps.who.int/iris/handle/10665/186463, accessed 5 November 2023).

12. Global age-friendly cities: a guide. Geneva: World Health Organization; 2007 (https://iris.who.int/handle/10665/43755, accessed 5 November 2023).

13. Age-friendly environments in Europe: a handbook of domains for policy action. Copenhagen: WHO Regional Office for Europe; 2017 (https://iris.who.int/handle/10665/334251, accessed 5 November 2023).

14. Age-friendly environments in Europe: indicators, monitoring and assessments. Copenhagen: WHO Regional Office for Europe; 2018 (https://iris.who.int/handle/10665/334284, accessed 5 November 2023).

15. Tsouros A. Introduction. In: Green G, Tsouros A, editors. City leadership for health: summary evaluation of Phase IV of the WHO European Healthy Cities Network. Copenhagen: WHO Regional Office for Europe; 2008:3 (https://apps.who.int/iris/handle/10665/341089, accessed 5 November 2023).

16. McLuhan M. Understanding media: the extensions of man. Cambridge (MA): MIT Press; 1994.

17. Adlakha D, Sallis JF. Activity-friendly neighbourhoods can benefit non-communicable and infectious diseases. Cities Health. 2021;5:S191–55. https://doi.org/10.1080/23748834.2020.1783479

18. Levinger P, Cerin E, Milner C, Hill KD. Older people and nature: the benefits of outdoors, parks and nature in light of COVID-19 and beyond: where to from here? Int J Environ Health Res. 2021; 32:1329–36. https://doi.org/10.1080/09603123.2021.1879739

19. Dahlkvist E, Hartig T, Nilsson A, Högberg H, Skovdahl K, Engström M. Garden greenery and the health of older people in residential care facilities: a multi-level cross-sectional study. J Adv Nurs. 2016;72:2065–76. https://doi.org/10.1111/jan.12968

20. Sulander T, Karvinen E, Holopainen M. Urban green space visits and mortality among older adults. Epidemiology. 2016;27:e34–5. https://doi.org/10.1097/EDE.0000000000000511.

21. Nishiura H, Oshitani H, Kobayashi T, Saito T, Sunagawa T for the MHLW COVID-19 Response Team. Closed environments facilitate secondary transmission of coronavirus disease 2019 (COVID-19). medRxiv. 2020; 02.28.20029272 (preprint). https://doi.org/10.1101/2020.02.28.20029272

22. Moreno, C. Living in proximity, the 15-minute city. Barcelona Metropolis. 20 December 2020 (https://www.barcelona.cat/metropolis/en/contents/living-proximity-the-15-minute-city, accessed 5 November 2023).

23. Pleson E, Nieuwendyk LM, Lee KK, Chaddah A, Nykiforuk CI, Schopflocher D. Understanding older adults' usage of community green spaces in Taipei, Taiwan. Int J Environ Res Public Health. 2014;11(2):1444–64. https://doi.org/10.3390/ijerph110201444

24. Fabisiak B, Jankowska A, Kłos R. Attitudes of Polish seniors toward the use of public space during the first wave of the COVID-19 pandemic. Int J Environ Res Public Health. 2020;17(23):8885. https://doi.org/10.3390/ijerph17238885

25. Buffel T, Yarker S, Phillipson C, Lang L, Lewis C, Doran P et al. Locked down by inequality: older people and the COVID-19 pandemic. Urban Studies. 2023: 60:1465–82. https://doi.org/10.1177/0042098021104

26. Daban F, Pérez A, García I, Vázquez N, Sánchez E, Díez È. Barcelona Health in the Neighbourhoods: an urban Health in All Policies strategy: Ferran Daban. Eur J Public Health. 2017;27(suppl 3): ckx189.024. https://doi.org/10.1093/eurpub/ckx189.024

27. Building resilience together: NI civil contingencies framework. Belfast: Executive Office of the Government of Northern Ireland; 2021 (updated July 2023) (https://www.executiveoffice-ni.gov.uk/sites/default/files/publications/ofmdfm_dev/ni-civil-contingencies-framework.pdf.pdf, accessed 5 November 2023).

28. Older persons in emergency situations. Policy Brief on Ageing No. 35. Geneva: United Nations Economic Commission for Europe; 2020 (https://unece.org/fileadmin/DAM/pau/age/Policy_briefs/ECE_WG1_36_PB25.pdf, accessed 5 November 2023).

29. WHO health emergency and disaster risk management framework. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/326106, accessed 5 November 2023).

30. Framework for strengthening health emergency preparedness in cities and urban settings. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/348351, accessed 5 November 2023).