

Demographic change in cities

Trends, challenges and insights from G7 economies



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By David Burgalassi and Tadashi Matsumoto

This paper provides evidence and insights on the main demographic trends and challenges in cities across OECD countries, with a focus on G7 cities. The paper also draws implications for urban policy and city-specific examples to address the negative effects of demographic change, with a view to building more inclusive, sustainable, and resilient cities. Preliminary findings from the paper served as input to the G7 Ministerial Meeting on Sustainable Urban Development (7-9 July 2023, Takamatsu, Japan) under the G7 Japanese Presidency.

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Executive summary

Cities are experiencing significant demographic change, a structural megatrend largely determined by natural and migratory factors, but sometimes also magnified by specific shocks such as pandemics, wars, natural disasters. As a consequence, cities and urban systems are facing a number of complex challenges, such as adapting urban infrastructure and services to the needs of an increasingly ageing population, managing population growth or decline, and addressing social isolation and segregation within urban areas. The complexity is also linked to the fact that cities are heterogeneous in their demographic composition, spatial structure, and population size, and because their capacity to respond to demographic change varies.

This paper presents, and draws implications on, complex demographic trends and challenges by disentangling those trends and challenges across three distinct dynamics: i) ageing population and decreasing household size in cities, ii) city population growth or decline, and iii) the spatial segregation within cities. It's important to recognise inter-relations across these dynamics. For instance, the share of the ageing population in cities is often higher in shrinking cities, while cities with a growing population – especially large metropolises – often face larger inequalities within the urban landscape. This highlights the need for integrated and systemic policy approaches.

Ageing population and decreasing household size in cities

Key trends

- In OECD countries, the share of older adults (i.e., people aged 65 and over) in the median metropolitan area increased from 14.5% in 2006 to 17.6% in 2018.
- In G7 countries, the number of older adults in metropolitan areas increased by an average of 2.4% per year from 2006 to 2018, while the population aged 0-14 years increased by only 1%.
- Ageing is more pronounced in shrinking metropolitan areas. Indeed, between 2008 and 2018, the share of older adults increased by 4% in these areas, compared to 2.7% in those with a growing population.
- The average household size dropped from 2.8 persons in the mid-1980s to 2.5 in 2015. Currently, 17% of children live with a single parent in OECD countries.

Key challenges

- The need to rethink housing, the urban built environment, and public services. For example, in Japan, 58% of residences with older adults in 2023 were not equipped with barrier-free facilities.
- Poverty, particularly in single-parent families. A third of single-parent families with at least one child live in poverty in OECD countries.
- A declining share of the working age-population in the total population (projected to drop from 60% in 2020 to 54% in 2050 in OECD countries), affecting the dependency ratio.

Implications for urban policy

- Promote Universal Design in housing, infrastructure, and digital tools to create accessible communities for all ages while maintaining affordability across generations.
- Enhance workforce participation of older adults through measures such as adapting workplaces to the ageing workforce and strengthening cross-generational knowledge sharing. This will contribute to increased labour productivity and maximise the potential of the 'silver economy' as a valuable asset for cities. Anticipating skills needs in sectors critical for older populations and enhancing improving working conditions can further maximise this potential.
- Support families by facilitating the balance between work and family duties. Encourage the engagement of older adults, through initiatives like promoting "time banks," which are reciprocal exchange systems of services among citizens like caregiving, home repairs, and more, at both the neighbourhood and city level.

City population growth or decline

Key trends

- On average, OECD metropolitan areas grew by 15% in the period of 2001-2021, outpacing the growth rate in the rest of their respective countries (6%). However, over the same period, more than one in five metropolitan areas across OECD countries experienced population decline.
- Larger metropolitan areas have grown faster than smaller ones. In G7 countries, the population in metropolitan areas over 1.5 million people grew by almost 8% between 2006 and 2018 but declined by 1% in metropolitan areas with fewer than 500 000 inhabitants.
- Since the COVID-19 pandemic, large cities have been attracting fewer new residents (e.g., in Germany, population growth halted in all large cities), with some evidence of increasing preference for small and intermediary cities (e.g., in Paris, France, enrolments in primary school in 2020-2022 were 1.5% lower than in 2017-2019, and 1% lower than the national average). Cities also show signs of suburbanisation (e.g., residential rents increased more in the suburban parts than in core cities of New York, San Francisco, and Toronto), although such trends remain heterogeneous.

Key challenges

- Provision of affordable housing, infrastructure, and services (e.g., public transport) in growing cities, along with concerns about related urban sprawl and the rise of carbon emissions and pollution.
- Declining economic viability of urban public services and a loss of revenue for local governments in shrinking cities, which may trigger a downward spiral, leading to a dilapidated urban environment, a lower quality of life, and reduced vitality.
- Disparities in terms of social and economic structures among small and intermediary cities, creating risks of widened inequalities within urban systems and risks for some smaller cities of falling into 'development traps'.

Implications for urban policy

- Deploy a diverse range of instruments to finance urban infrastructure in growing cities (e.g., mobilising private sector resources, issuing Green, Social, and Sustainable Bonds, Land Value

Capture) and enhance housing affordability (e.g., repurposing vacant and unused properties into social housing, promoting community-led housing solutions).

- Manage population decline in shrinking cities in a just and sustainable way (“smart shrinking”), by ensuring decent living conditions and service levels (e.g., right-sizing infrastructures to reduce costs, leveraging digital services, incentivising inter-municipal cooperation, supporting small businesses to diversify the urban economy, promoting civic initiative in repurposing under-utilised spaces).
- Harness the benefits of remote and hybrid work to retain talent and prevent development traps in small and intermediary cities, by investing in digital infrastructure and quality workplaces (e.g., co-working, “third places”) and maintaining an affordable cost of living.

Spatial segregation within cities

Key trends

- The share of older adults within the urban population increased more rapidly in commuting zones than in inner cities in all G7 countries between 2008 and 2018 (3.8% vs. 2.6%). In the United Kingdom, generations are increasingly living physically separated from each other within the largest urban areas, with children no longer growing up in the same areas as older adults.
- Age-related spatial segregation might compound with other forms of spatial segregation within cities, such as segregation related to income or minority groups. For instance, in France, spatial income disparities within cities intensified in 30 of the 53 largest cities between 2004 and 2019.

Key challenges

- Social exclusion of older adults, which can limit their well-being, community development, and cohesion, hamper cross-generational interaction, and increase the risk of loneliness and mental health issues, for both young people and older adults.
- The need to adapt urban public spaces and services to the needs of older adults.
- The need to guarantee equitable access to urban opportunities and services across different population groups in cities.

Implications for urban policy

- Facilitate cross-generational interaction, for example by diversifying housing options in neighbourhoods (providing both inter-generational and age-specific housing) and incorporating schemes to provide housing to young people in exchange for social and care activities as part of rental contracts, (e.g., Alicante in Spain, Turin in Italy).
- Tackle loneliness and improve both mental and physical wellbeing across generations through a better design of public spaces, inter-generational facilities with amenities tailored to different age-groups, and engagement programmes to promote inter-generational support networks.
- Ensure equal access to public services and urban amenities for different population groups, for example, by applying the concept of “X-minute” cities in low-density suburban areas, which are ageing rapidly.

1 Setting the scene

Demographic change is a long-term and structural trend, largely determined by natural and migratory factors, but in some cases driven by specific shocks.

Cities around the world are facing a dynamic and complex demographic transformation, which may profoundly affect the life and well-being of urban citizens. This demographic shift is largely determined by two long-term and structural factors:

- **Natural factors:** Increasing life expectancy and decreasing fertility are major drivers shaping the long-term demographic structure. These trends have driven population ageing, slower population growth, and, in some cases, population decline. Changing lifestyles and household characteristics can also affect demographic patterns in cities. For example, an increasing share of people are living alone in cities. As family types are becoming more diversified, single-parent families with children have become more common (see Sections 2 and 4).
- **Migratory factors:** People's jobs and residential choices affect population trends and the demographic structure. For example, better economic opportunities in cities drive rural-to-urban migration and urbanisation—one of the most prominent demographic trends in the modern world. The world's urban population is projected to grow from 3.5 billion in 2015 to 5 billion in 2050 (OECD/European Commission, 2020^[1]). Migration not only occurs between urban and rural areas (rural-to-urban and urban-to-rural) but also within urban systems (e.g., large cities become larger and small cities become smaller). In addition, migration can affect age profiles and trends of countries and cities (see Section 3).

Meanwhile, some specific shocks can also generate sudden and disruptive impacts, such as pandemics, wars, territorial disputes, and natural disasters. Recent examples illustrate how specific shocks have affected demographic patterns in cities (Box 1). While primarily addressing long-term factors, this paper also considers the impacts of COVID-19 on households' settlement preferences and their consequences for urban systems (see Section 3).

Box 1. Recent examples of demographic changes driven by specific shocks

The COVID-19 pandemic

The COVID-19 pandemic has provoked a sharp increase in mortality rates, disproportionately impacting older adults. Indeed, the rate of COVID-19 deaths among people aged 60 and older has been 4 500 deaths per million people, with deaths among older adults representing 90% of all COVID-19 deaths (OECD, 2021^[2]). At the same time, the level of vulnerability to COVID-19 varied across cities, depending on structural inequalities and the quality of urbanisation, rather than urban density or size. Cities with higher inequalities, poor housing conditions, and a high concentration of urban poor were more vulnerable compared to those with better resources and greater equality (OECD, 2020^[3]). The

pandemic has also significantly slowed down international migration (Jatrana et al., 2022^[4]) and increased suburbanisation in some large metropolitan areas.

Wars and territorial disputes

Russia's war of aggression against Ukraine has resulted in the displacement of more than 6.2 million refugees from Ukraine worldwide (of which 5.8 million in Europe) as of 30 October 2023, 90% of whom are women and children (UNHCR, 2023^[5]). This has created an immediate need for many European cities to accommodate them, including as beneficiaries of temporary protection (BTP). Most refugees have settled in the largest urban areas of host countries such as Germany, Poland, and Czechia. This has posed a significant challenge to the capacity of these urban centres to accommodate them and provide essential services, such as health, education, and social services (OECD, 2022^[6]). In Poland, for instance, 300 000 BTPs from Ukraine settled in Warsaw and 150 000 in Krakow within the first three months of the war. This resettlement increased the population of these two cities by 17% and 20%, respectively (OECD, 2022^[7]). Following the war, a steep increase in energy and food prices – fuelling broader and core inflation – has cast a light on the stark inequalities in cities and the living conditions of vulnerable groups (OECD, 2023^[8]). Food and energy constitute a larger share of expenditure for lower income households than for higher income households, with some groups such as single-parent families being particularly vulnerable.

Natural disasters

Extreme weather events (e.g., floods, droughts, heatwaves, wildfires) are likely to affect demographic trends in the short and long term. These challenges compound with ageing and other demographic challenges, as older adults, with weaker immune systems and more chronic health conditions, are more vulnerable to extreme weather events such as extreme heat or cold events. In 2022, natural disasters caused the displacement of 32.6 million people (International Organization for Migration, 2023^[9]) and it is estimated that climate change could force 216 million people to re-settle by 2050 (World Bank, 2021^[10]).

Demographic change brings complex challenges to cities and requires immediate policy responses, as the cost of inaction will place a burden on future generations.

Demographic change brings complex challenges to the economic and social systems of cities (OECD, 2019^[11]). For instance, ageing is prompting many OECD cities to redesign housing to support independent living for older adults. Cities also need to address the challenge of the inadequate design of infrastructure and public spaces for older adults, increasing healthcare needs, and higher old-age dependency ratios. The rapid inflow or outflow of population in cities often gives rise to challenges related to housing supply and affordability on one hand, and issues surrounding vacant homes on the other. A shrinking household size in urban areas may also contribute to loneliness and mental health issues, especially among youth.

Leaving such demographic challenges unchecked is likely to incur a “cost of inaction”, by amplifying disparities across places and posing a burden on future generations. For instance, ageing implies higher old-age dependency ratios which place stronger pressure on public finances, healthcare, and social security systems, as there are fewer workers to support a larger ageing population. Many cities are already facing strong labour shortages and skills gaps, which may undermine productivity and innovation.

Overall, the trends and challenges related to demographic change in cities can be analysed in three distinct yet inter-related scopes:

1. Ageing population and decreasing household size in cities: This scope relates to the natural factors that affect the demographic structure of OECD countries. By applying an ‘urban lens’ to ageing,

shrinking household size, and single-parent families, this paper analyses the need to adapt housing and the urban built environment, as well as to provide universal access to services for all citizens.

2. City population growth or decline: This scope refers to migration and settlement patterns within a national urban system. The trend shows that while large cities have continued to grow, (OECD, 2022^[12]) medium- and small- sized cities have been experiencing depopulation. Growing cities and shrinking cities present distinct challenges in terms of urban infrastructure and the provision of local public services.
3. Spatial segregation within cities: This scope refers to intra-city settlement patterns. The spatial clustering of people of similar characteristics or backgrounds in the same neighbourhood may result in different levels of access to services and opportunities within cities, creating risks of social exclusion.

The three scopes, while distinct, are interconnected, and the challenges pinpointed within each are compounded by their interrelation. For example, a greater proportion of older adults is found in cities that are also experiencing population decline, whereas growing cities that attract residents tend to encounter more significant inequalities between their neighbourhoods, as is discussed in the following sections.

Demographic change can also bring opportunities to shape more productive, inclusive, and sustainable cities.

Demographic change does not only bring about challenges to cities, but also opportunities for positive and adaptive change. For instance, ageing in cities means growing demand for age-friendly infrastructure and dedicated services for the elderly, stimulating a ‘silver economy’. It has been demonstrated that the inclusion of people of diverse backgrounds in cities has largely stimulated productivity and creativity-led development. For instance, on average in OECD regions, a 10% increase in the share of migrants over the population is associated with 0.15% higher regional GDP per capita and a 1.2% increase in the region’s exports (OECD, 2022^[13]). Developing age-diverse communities and enhancing cross-generational interaction in cities can nurture social cohesion and reinforce the sense of belonging to a community, which in turn boosts community resilience.

Growing cities have a unique window of opportunity to invest in urban infrastructure and associated services. Cities can use their power over urban planning and development strategies to plan the effective use of their assets minimise investment costs and catalyse private investment to finance urban infrastructure (OECD, 2023^[14]). In contrast, shrinking cities might focus on quality of life and the adaptive use and revitalisation of vacant buildings and public spaces. Vacant buildings could be converted into ‘neighbourhood hubs’ for multiple purposes (e.g., social services, education, recreational activities) and as vehicles to promote multi-generational shared environments. Digitalisation and smart cities can also be leveraged to improve the well-being of the elderly, for instance via telemedicine and other assistive technologies.

Cities will need to adapt to demographic change and mitigate associated negative impacts.

Cities need to adapt to current and future demographic shifts. This means adopting forward-looking urban planning (e.g., adapting the urban transport system for all age groups) and national urban policy frameworks that can guide the future system of cities (e.g., identifying innovative ways of providing public services, e.g., via digital or mobile services). Cities must also invest in knowledge and foresight, as well as in addressing the compounding effects of other relevant megatrends, such as climate change. Effective responses to megatrends mean tackling changing needs through the effective implementation of planning and strategic frameworks, for instance, by providing adequate and affordable housing to all generations.

Cities can also mitigate some of the negative impacts of demographic change with urban policies playing a crucial role, especially in addressing migratory factors. For example, shrinking cities can put efforts into retaining talents to alleviate depopulation, or policies to increase the attractiveness of small- and medium-sized cities to help rebalance urban systems. Some urban policies can also affect natural factors. For example, the quality of housing and living standards in urban areas can have positive health impacts, not only contributing to increased life expectancy, but also to promoting the physical and mental well-being of an ageing population. Enhancing housing affordability may impact birth rates, as evidence suggests that higher housing prices have a negative influence on fertility rates (Dettling and Kearney, 2014^[15]).

By combining mitigation and adaptation efforts, cities can become more diverse and inclusive. The ultimate goal is to build urban neighbourhoods with cross-generational interaction, equal access to public services and opportunities, social capital, and a sense of community belonging. G7 countries recognise the importance of tackling demographic challenges in cities and advocate for collective action, ensuring that no one, especially the most vulnerable, is left behind (Box 2).

Box 2. The G7 Ministerial Meeting on Sustainable Urban Development (2023)

The **G7 Ministerial Meeting on Sustainable Urban Development**, held under the Japanese Presidency in Takamatsu, Kagawa, Japan (July 2023), highlighted that cities are on the frontline of addressing a diverse and complex set of challenges. This meeting recognised that “demographic change and socio-economic disparities, both within cities and between cities, pose a challenge for inclusivity”, which disproportionately impact the “people in vulnerable situations, marginalised groups and disadvantaged neighbourhoods” (G7, 2023^[16]). There is a need to address inclusive development in cities, by leaving no one behind and addressing the demographic shifts by means of *integrated* and *participatory* responses. This will allow cities “to adequately respond to the diverse needs on the ground and ensure effective implementation” (*ibid.*).

The G7 recognises three main policy avenues to shape more inclusive cities: i) *Attractive and accessible urban areas for people from diverse backgrounds*; ii) *Diverse and inclusive communities and neighbourhoods* and iii) *Economic prosperity to correct disparities in and between cities*.

What insights does previous OECD work on demographic change provide?

The analysis of the trends and the challenges of demographic change has been at the core of previous OECD work on ageing (OECD, 2015^[17]) and inclusiveness in cities (OECD, 2016^[18]; OECD, 2018^[19]), as well as on depopulation and service delivery in territories (OECD, 2021^[20]). The *OECD Regional Outlook 2023* highlights the role of demographic change, together with other megatrends, in magnifying inequalities across regions (OECD, 2023^[21]). The OECD Recommendation on Regional Development Policy recognises the need for regional development policies to address the impacts of global challenges including demographic shifts. It stresses that such action should consider the asymmetric effects across space (OECD, 2023, p. 8^[22]). The OECD Principles of Urban Policy recognise the challenges caused by demographic shifts, in particular ageing and outmigration. Principle 6 “Providing opportunities for all” calls for inclusive policies tackling demographic change and fostering social cohesion at all urban scales, including policies for gender equality, healthy ageing, and integration of migrants (OECD, 2019^[23]) (Box 3).

Box 3. Spotlight on demographic change in the OECD Recommendation on Regional Development Policy and the OECD Principles on Urban Policy

OECD Recommendation on Regional Development Policy

The OECD Recommendation on Regional Development Policy was adopted by the OECD Council meeting at Ministerial level (8 June 2023) on the proposal of the OECD Regional Development Policy Committee.

The Recommendation acknowledges that regions play a crucial role in economic and social mitigation as well as adaptation to global challenges, including climate change, digitalisation, demographic shifts, and globalisation. These challenges exhibit highly asymmetric impacts within OECD countries and are addressed through ten interconnected pillars that underpin regional development policy.

OECD Principles on Urban Policy

The OECD Principles on Urban Policy (2019) offer a framework to guide the design and implementation of smart, sustainable, and inclusive urban policies by national and subnational governments. This involves shared responsibility across public, private, and non-profit sectors.

Principle 6 “Providing opportunities for all” calls for inclusive policies tackling demographic change and fostering social cohesion at all urban scales. This involves:

- Improving access for all urban residents and users, regardless of their gender, age, ethnic background, or health status, to drivers of social inclusion. These include local public services, affordable quality housing, transportation, education, health care, employment and economic opportunities, cultural heritage, amenities, leisure, and safe public spaces;
- Supporting national and local inclusive growth policies is essential for helping cities adapt to demographic change and foster social cohesion at all urban scales, from neighbourhoods to metropolitan areas. This encompasses policies addressing gender equality, healthy ageing, and the local integration of migrants;
- Promoting urban identity, culture, and a high-quality living environment for all neighbourhoods, with special emphasis on the most degraded.

Source: OECD (2023), *Recommendation of the Council on Regional Development Policy*, <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0492>; (OECD, 2019^[23]); *The OECD Principles on Urban Policy*, <https://www.oecd.org/cfe/urban-principles.htm>

This paper builds on the analytical and policy frameworks provided by past OECD work, aiming to apply a dedicated focus on cities and urban policies while complementing ongoing and upcoming OECD research on “Preparing Regions for Demographic Change”. This broader initiative includes thematic work on “Understanding Present and Future Public Service Delivery Costs”, “Shrinking Smartly and Sustainably”, and “Settlement Networks and Links between Population, Services and Connectivity” (OECD, 2023^[24]).

The outcomes of this paper will also feed into a specific OECD project “Cities for All Ages: Policy Innovations that Support Growing Up, Growing Old, and Living Well” (due for the end of 2024). This ongoing project will further analyse what innovative policies cities can be put in place to anticipate, prepare for, and respond to changing demographics. In addition, it will identify strategies to accommodate residents of all ages and to support inclusive growth.

2 Ageing population and decreasing household size in cities

Key trends

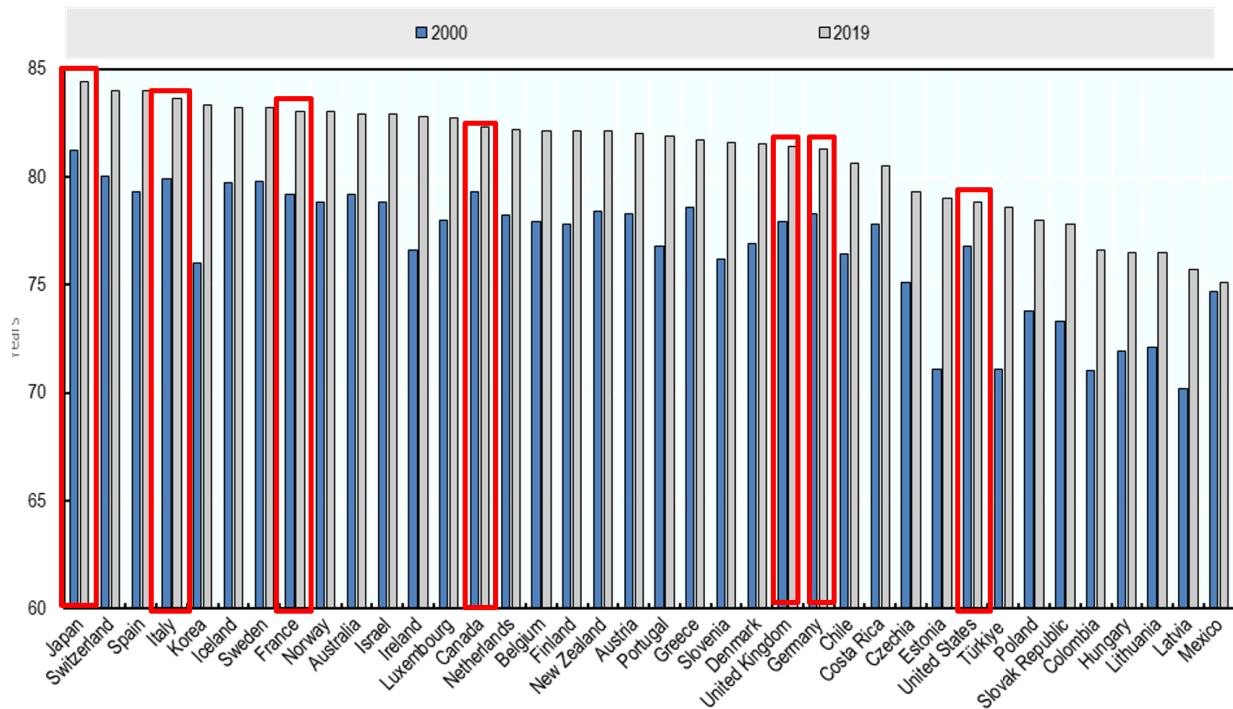
The combination of increasing life expectancy in OECD countries and decreasing fertility rates is shaping an ageing society

Increasing life expectancy and decreasing fertility rates are two main factors driving the long-term ageing trend.¹ Life expectancy at birth in OECD countries increased from 69.5 years in 1971 to 72.2 in 1995 and 80.5 in 2020. It is even above 84 years in a few OECD countries such as Japan, Spain, and Switzerland, and it increased by more than five years in some countries like Estonia, Korea, and Türkiye from 2000 to 2019 (Figure 1). Across G7 countries, life expectancy increased by 3.8 years in France, 3.7 years in Italy, 3.5 years in the United Kingdom, 3.2 years in Japan, 3 years in Canada and Germany, and 2 years in the United States. Meanwhile, the infant mortality rate dropped from 27.8 deaths (per 1 000 live births) in 1970, to 8.8 in 1995, and 4.1 in 2020 (OECD, 2021^[25]). This drop is a major contributor to the increasing life expectancy rate. The fertility rate in OECD countries dropped from 2.84 children per woman in 1970, to 1.77 in 1995, and 1.59 in 2020 (OECD, 2023^[26]). This rate is 24% lower than 2.1 children per woman, the value ensuring a stable population (i.e., “replacement fertility rate”).

¹ These are data at the national scale. There is no internationally comparable data available at the city scale across OECD countries. All indicators consider the changing composition of OECD countries over time.

Figure 1. Life expectancy at birth in OECD countries (2000-2019)

Years



Note: Countries are ordered in descending order according to life expectancy at birth for the year 2019. G7 countries are highlighted by red squares.

Source: Author's own elaboration from OECD (2023^[27]) (2023^[28])

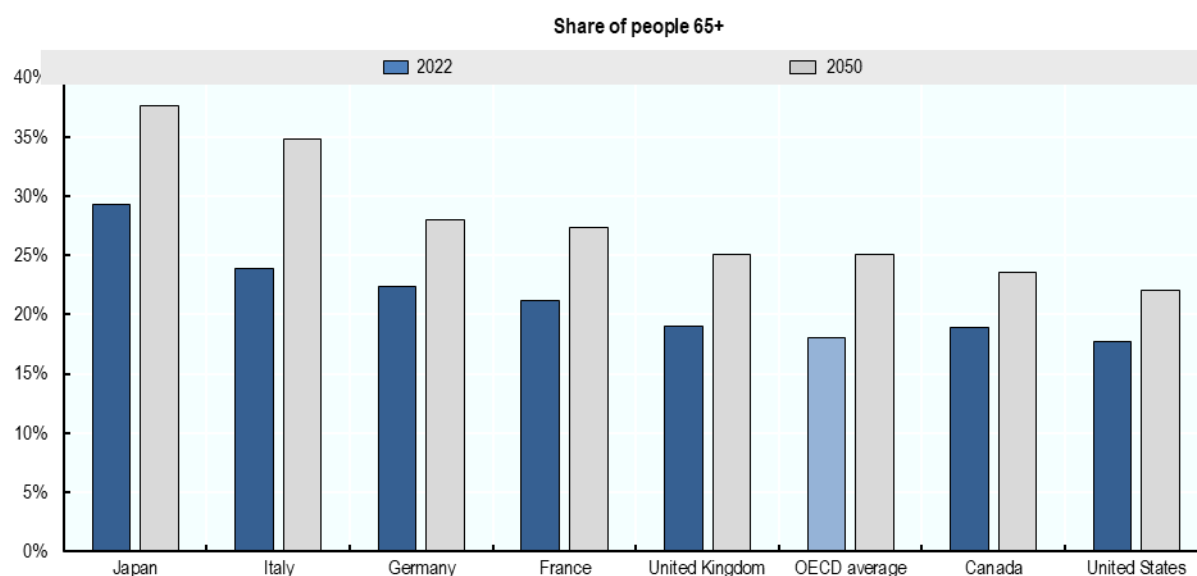
By 2050, one in four people in OECD countries will be aged 65 years or older

Ageing is a common trend in all OECD countries, driven by increasing life expectancy and lower fertility rates, as described above. In 2050, the median age across OECD countries will be 45 years, up from 40 years in 2018 (OECD, 2019^[29]). The population aged 65 years and older in OECD countries is expected to increase by 122 million between 2022 and 2050 (from 250 million to 372 million). This means that in 2050, one in four people in OECD countries will be aged 65 or more. In all G7 countries, the share of the population aged 65 years or older will reach above 20% in 2050, with a peak of 38% in Japan (Figure 2). Furthermore, population aged 80 years and older will more than double over the next three decades in OECD countries, reaching almost 10% of the population by 2050. In the same time span, the share of the population aged 0-14 in OECD countries is expected to decrease by 5.2 million, from 243.7 million in 2022 to 238.4 million in 2050. In other words, in 2050, there will be only 15 children for every 100 people (down from 18 in 2022). The share of youth (i.e., population aged 15-24) will also drop from 12.4% to 10.8%. Similarly, the population in the 15-64 age group is expected to decrease by 4.6 million people.

Population is ageing both in countries with low or no population growth (e.g., Italy, Japan) and in countries with relatively strong population growth. In Canada, for instance, where the overall population grew by 7.8% during the period 2016-2021, the share of the population aged 65 and older grew six times faster than the population below 15 years of age (Statistics Canada, 2022^[30]).

Figure 2. Share of older adults over total population, 2022 and projections to 2050, G7 countries and OECD average

% values



Note: Countries are ordered in descending order according to the share of older adults projected at the year 2050.

Source: Author's own elaboration from OECD (2023^[27])

On average, urban populations are still younger than non-urban populations. However, the absolute number of older adults is increasing much faster in urban areas

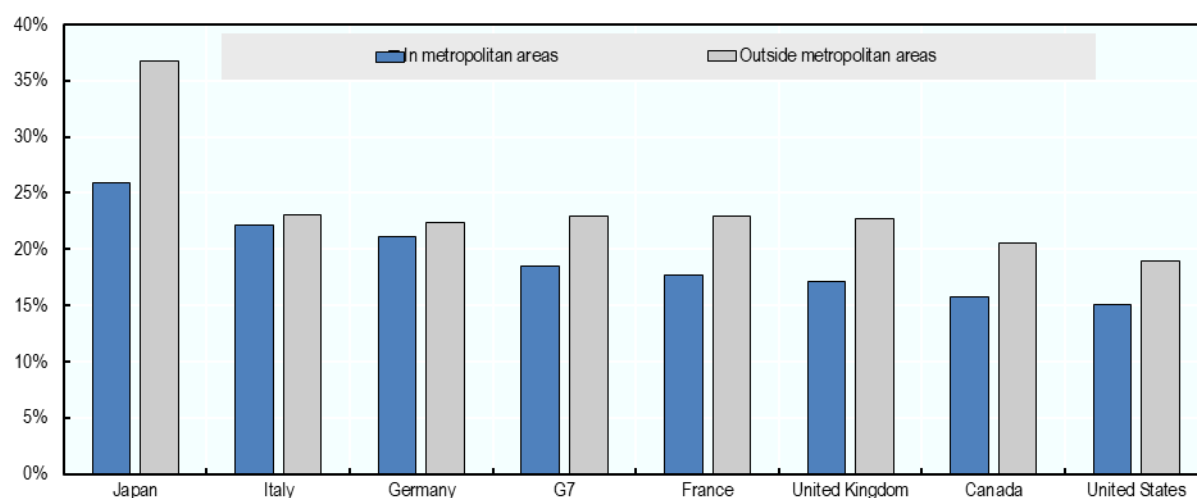
To take a closer look at ageing in cities, this paper uses the concept of 'metropolitan areas', as defined jointly by the OECD and the European Commission, which allows for international comparisons of demographic data in OECD countries.²

On average, across G7 countries, the share of older adults is lower in metropolitan areas than outside metropolitan areas (Figure 3). However, when looking at the absolute number, older adults in metropolitan areas have increased much more than outside metropolitan areas (Figure 4).

² Metropolitan areas are also referred to as "Functional Urban Areas" (FUAs).

Figure 3. Share of population aged 65 years or more in metropolitan areas, G7 countries (2018)

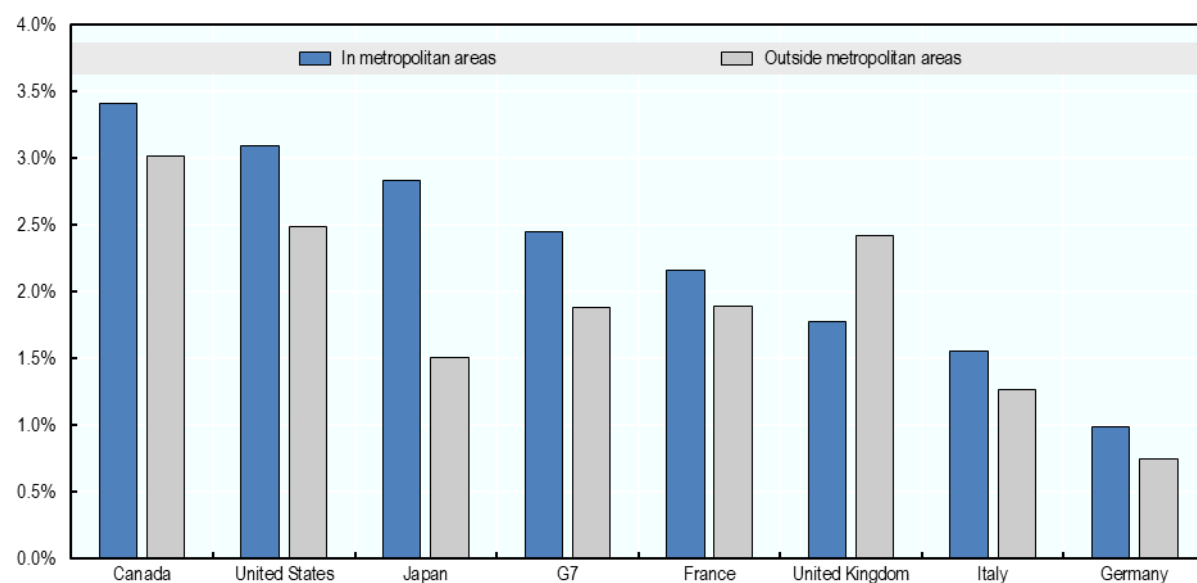
% values



Note: Countries are ordered in descending order according to the share of older adults in metropolitan areas in 2018.

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Figure 4. Annual growth of population aged 65 years or older, within and outside of metropolitan areas, G7 countries (2006-2018)



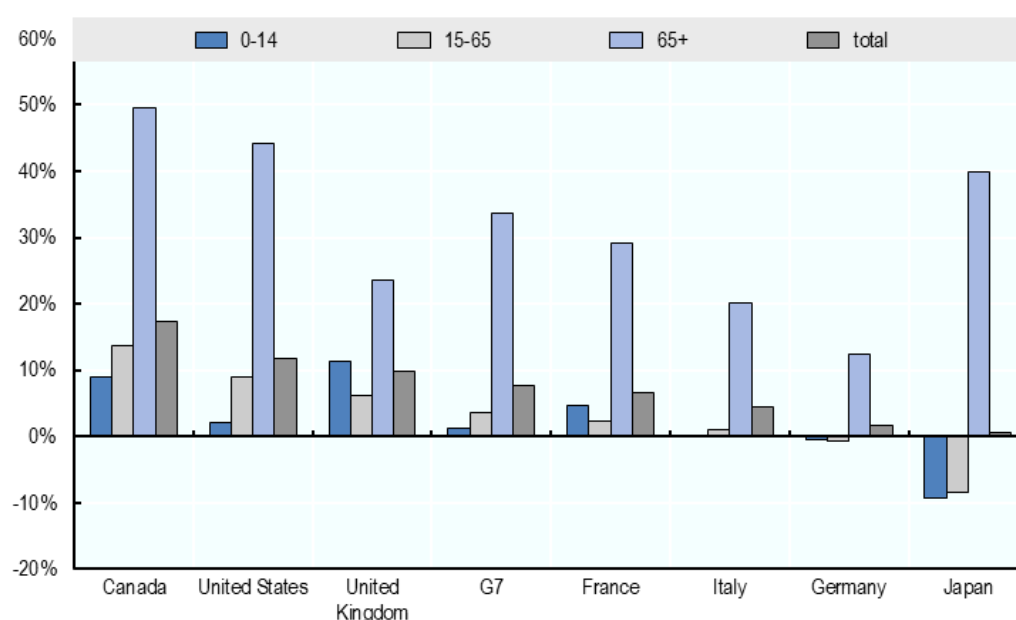
Note: Countries are ordered in descending order according to the growth rate of older adults in metropolitan areas in 2006-2018.

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Between 2006 and 2018, the population aged 65 and older in metropolitan areas of G7 countries increased by 33%, and in some cities, it exceeded 80%

Almost all OECD metropolitan areas (1 234 out of 1 240 metropolitan areas, i.e., 99.5%) have seen the share of people aged 65 years and more increase over the period 2006-2018. In 2006, the median metropolitan area within OECD countries had 14.5 older adults for every 100 inhabitants, compared to 17.6 in 2018.³ In G7 countries, the population of metropolitan areas aged 65 years and older had an annual growth rate of 2.4% between 2006 to 2018. This led to an increase of 33% within this age range, equivalent to 26 million people. During this same period the population aged 0-14 years increased by only 1%, or by 1.25 million people (Figure 5). Between 2001 and 2021, in Tokyo (Japan), the number of older adults increased by 4.2 million (+82%). In New York (US), the number of older adults increased by 1 million people between 2001 and 2021, meaning the metropolitan area gained 50 000 older adults per year. In Rome (Italy), the median age increased from 43 years in 2011 to 47 years in 2022 (Eurostat, 2020_[31]).

Figure 5. Change of population in G7 metropolitan areas (2006-2018), % growth rate by age group



Note: Countries are ordered in descending order according to the aggregate growth rate of total population in metropolitan areas in 2006-2018.
Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Metropolitan areas with populations below 500 000 inhabitants are ageing faster than larger metropolitan areas

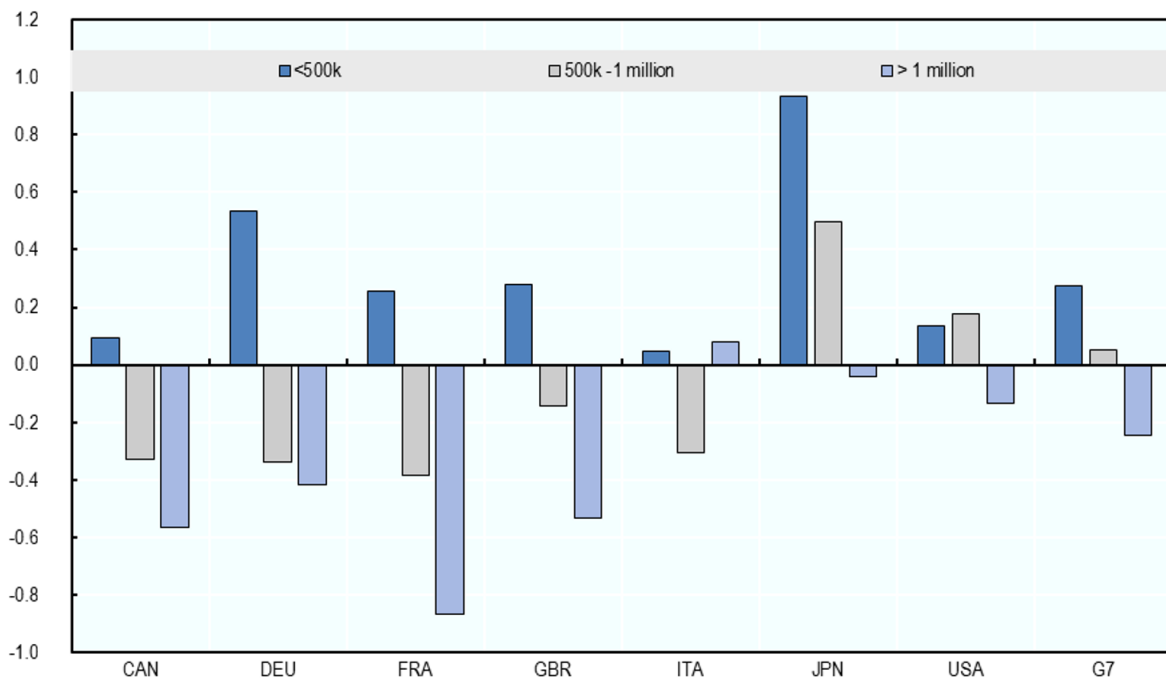
In G7 countries, metropolitan areas with populations below 500 000 inhabitants are ageing faster than larger metropolitan areas (Figure 6). On average, between 2008 and 2018, the share of older adults in the metropolitan areas of G7 countries with populations below 500 000 inhabitants increased 0.3 percentage points faster than the country-wide average. In contrast that of larger metropolitan area increased 0.2 percentage points slower than the country-wide average. This gap between metropolitan areas below and above 500 000 inhabitants is particularly apparent in France and Japan. This is due to the combined effects

³ Instead of the median, the unweighted average is 14.5% in 2008 and 17.5% in 2018.

of natural and migratory factors – namely, the outflow of young inhabitants to the largest metropolitan areas (OECD, 2022^[12]).

Figure 6. Change in the share of older adults in metropolitan areas, G7 countries (2008-2018), by population size

Percentage points difference respective to the country average



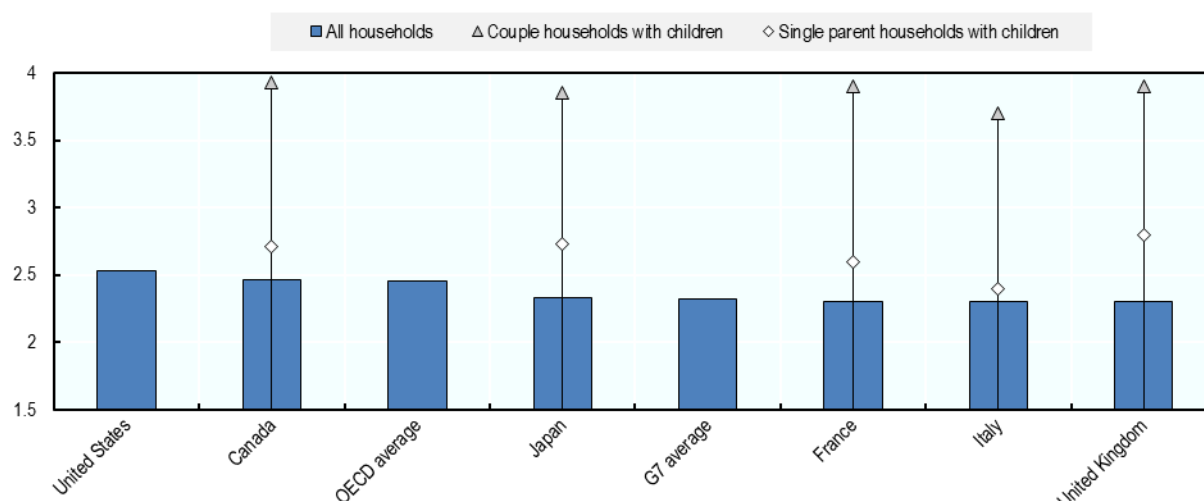
Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Household size is decreasing, and the number of single-adult families is increasing in OECD countries

The changing family and household structure have also produced demographic changes for countries. For instance, the older age of women at childbirth combined with smaller household sizes contribute to population ageing. The mean age of women at childbirth in OECD countries rose from 28.5 years in 2000 to 30.7 years in 2020 (OECD, 2023^[32]). The average size of households dropped from 2.8 people in the mid-1980s to 2.5 in 2015 (OECD, 2023^[32]). Five G7 countries, excluding Canada and the United States, have a smaller average household size than the OECD average (Figure 7). Household size decreased in all G7 countries over the period of 2009- to 2022. In the United States, it decreased from 2.57 to 2.50 people (United States Census Bureau, 2022^[33]). It dropped from 2.4 to 2.2 in Italy, from 2.3 to 2.1 in France, from 2.1 to 2 in Germany (Eurostat, 2023^[34]). In Japan, it dropped from 2.42 people to 2.2 people between 2010-2020 (Statistics Bureau of Japan, 2022^[35]). In Canada, it dropped from 2.5 to 2.4 in 2011 and 2021 (Statistics Canada, 2023^[36]). In the United Kingdom, it remained stable at 2.37 between 2011 and 2021 but remained lower than its value of 2.42 in 1996 (Office for National Statistics, 2023^[37]). Smaller family sizes can be explained by a combination of factors, including low fertility rates, decreasing marriage rates, rising divorce rates, postponement of family formation, and childlessness (OECD, 2011^[38]).

Figure 7. Average household size, 2015

Average number of people per household



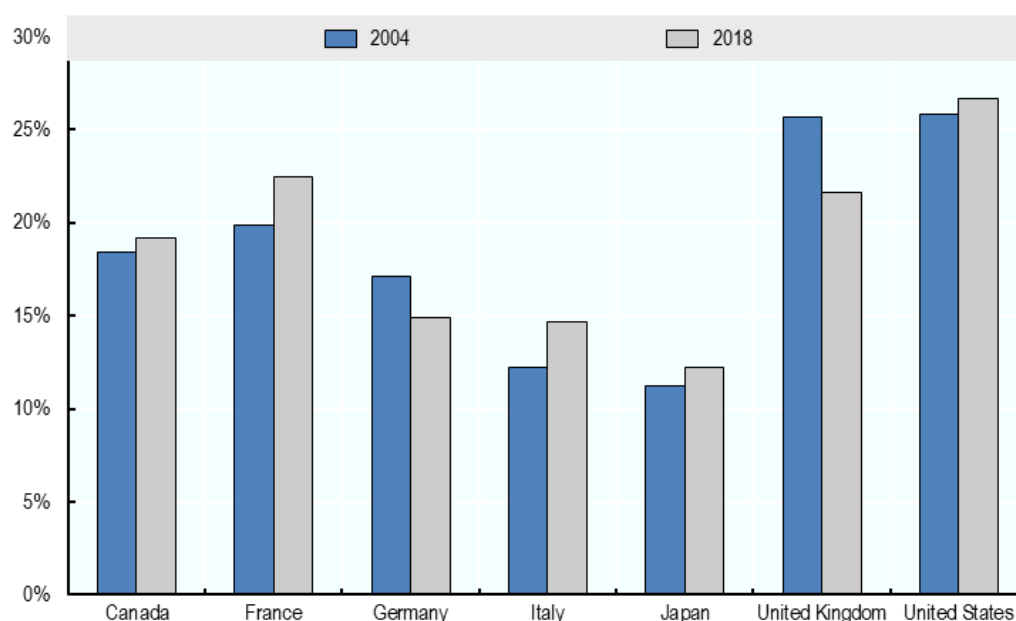
Note: Countries are ranked in descending order according to the mean average number of people per household in all households. In Canada, 'children' are defined as someone of any age who lives with their parent(s) and as long as they do not have a partner or children of their own living in the same household, and data refer to persons in 'census families' only. For more detail on census families, see the Statistics Canada website (<https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=Unit&Id=32746>). In Japan, data on 'couple households with children' only refer to married couple households with children. 'Children' refer to unmarried children under age 20. In the United States, data are available only for 'all households'.

Source: OECD Family Database (<https://www.oecd.org/els/family/database.htm>)

These factors are leading to an increasing number of single-adult households (i.e., households comprising only one adult, living with or without children) and single-parent households. For instance, in EU countries, single-adult households rose by 27.4% between 2009 and 2021 while the total number of households increased by 9.5% (Eurostat, 2022^[39]). Single-parent families have also increased in most OECD countries. Data shows that 17% of children in OECD countries are living with a single parent (OECD, 2023^[32]). The share of children living with a single parent has increased in all G7 countries but Germany and the United Kingdom (Figure 8). In Germany, the share of children living with a single parent has declined, following an increase in the 1990s (Zagel, Hübgen and Nieuwenhuis, 2021^[40]). In the United Kingdom, the decline in the proportion of children living with a single parent is attributed to the decrease in marriages. The reduction in divorces among married couples has had a more significant positive impact on preventing family breakdown compared to the rise in breakups among less stable couples who are cohabiting (Institute for family studies, 2021^[41]).

Figure 8. Share of children living with a single parent in G7 countries (2004-2018)

%



Note: Data for Canada refer to years 2001-2016, data for France refers to years 2004-2017, data for Germany refer to years 2005-2018, data for Japan refer to years 2005-2015, data for the United Kingdom refer to years 2005-2017, data for the United States refer to years 2007-2018. Source: OECD Family Database (<https://www.oecd.org/els/family/database.htm>)

Key challenges

Buildings and infrastructure need to be re-designed to support independent living and healthy ageing

In an ageing society, inclusive urban planning and urban service delivery should promote a healthy lifestyle, encompassing: i) physical health, ii) mental well-being, and iii) social engagement. This approach is crucial for preserving people's autonomy and functional capacities over their lives (World Health Organization, 2007^[42]). By prioritizing these aspects, the goal is not only to allow people to live *longer*, but also *healthier* and *happier* lives.

Longer lifespans require housing, infrastructure, and public spaces to support the independent living of older adults, or "ageing-in-place". To address the specific needs of older adults, buildings should be adapted to overcome physical limitations and mobility challenges. For instance, in the United Kingdom, where 45% of older households⁴ have at least one member with a long-term illness or disability, such adaptations become crucial for ensuring accessibility and improving overall living conditions (Department for Levelling Up, Housing and Communities, 2022^[43]). Adapting buildings to the needs of ageing residents requires renovating the existing housing stock. Additionally, cities with ageing populations need to rethink urban design and public infrastructure, with the goal of making buildings and facilities "barrier-free". However, this often represents a challenge for cities. In Japan, as of 2018, 58% of housing units with older

⁴ Households where the household reference person (i.e., the 'householder' in whose name the accommodation is owned or rented) is aged 65+.

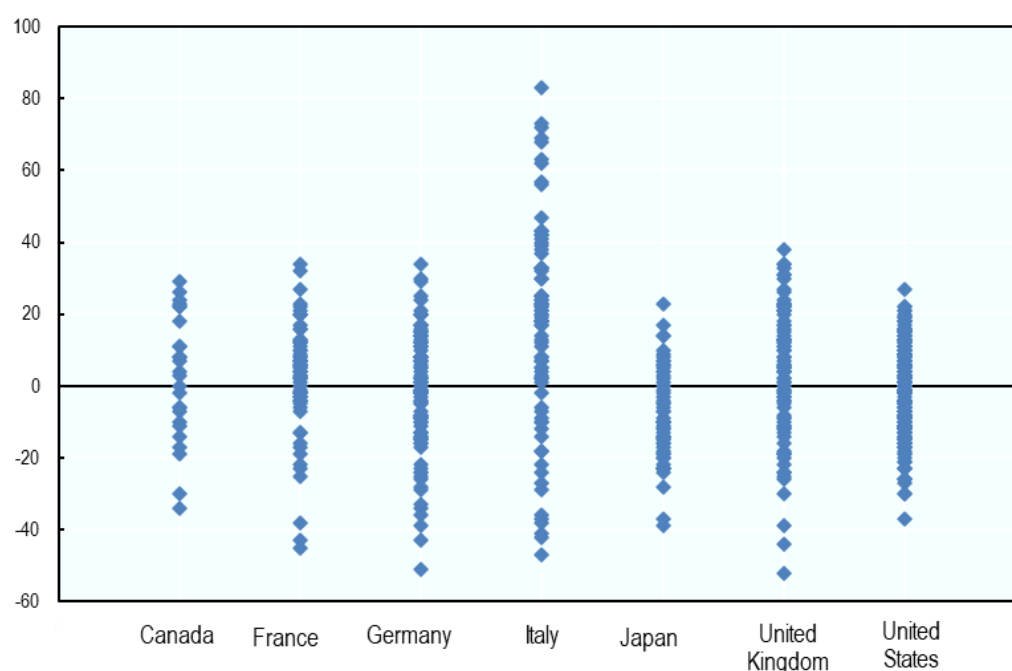
adults were not equipped with barrier-free facilities, such as more than two handrails or with even floors, and only 8.8% had wheelchair accessible halls (Ministry of Internal Affairs and Communications, 2018^[44]).

While digitalisation can support service provision, gaps remain across cities and generations

Digitalisation creates opportunities for cities to adapt to ageing in a cost-effective way that can support ageing-in-place. For instance, digital technologies can help provide monitoring and prevention services for older adults such as via digital health platforms. However, the integration of digital technologies will require investment to address the existing gaps that persist across cities. Internet speed differs significantly across OECD metropolitan areas. For instance, Italy showcases the largest disparities in internet download speeds among its metropolitan areas. The average download speed deviation from the national average ranges from a positive 83% to a negative 47%. Even in Japan, the country with the lowest disparities across metropolitan areas, the average download speed is below the national average in 43 out of 61 metropolitan areas (OECD, 2022^[12]) (Figure 9).

Figure 9. Disparities in average download speeds across G7 metropolitan areas (2022)

Megabits per second (Mbps), deviation (%) from the national average



Note: Estimates of Internet download speeds, measured in Mbps, based on user-performed tests conducted on Speedtest by Ookla, <https://registry.opendata.aws/speedtest-global-performance/>

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Digital divides also exist across generations. On average, in OECD countries, 71% of people between 55 and 74 years old are internet users, while the average across all ages is 87.5% (OECD, 2020^[45]). Furthermore, older adults face significant challenges to adopt digital platforms and are more likely to exhibit negative attitudes and technology anxiety than younger generation (Frishammar et al., 2023^[46]). Such digital access and literacy gaps across generations are often not adequately addressed, particularly in a context where the use of digital tools for public services has increased, especially since the COVID-19

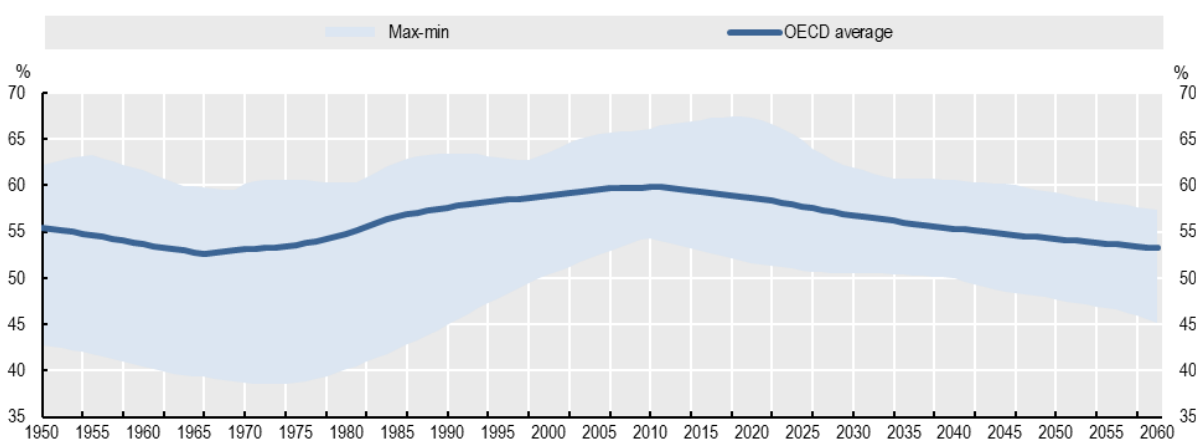
pandemic (OECD, 2021^[20]). As a consequence, the adoption of digital tools can remain limited for older adults.

The ageing population will challenge the labour market in OECD cities, as the dependency ratio continues to increase

The working-age population in OECD countries is experiencing a decline, impacting the dependency ratio. After peaking in 2011 at 60%, the share of the prime working-age population (20 to 64 years) has been declining, with this trend projected to continue (Figure 10). This leads to an increasing dependency of the inactive population on the “productive” population. This trend can also be attributed to the retirement of the baby-boomers generation⁵ from the labour market (OECD, 2023^[47]).

Figure 10. Share of working-age population in OECD countries

%



Note: Share of people aged 20-64 in total population, average, maximum and minimum among OECD countries, 1950-2060

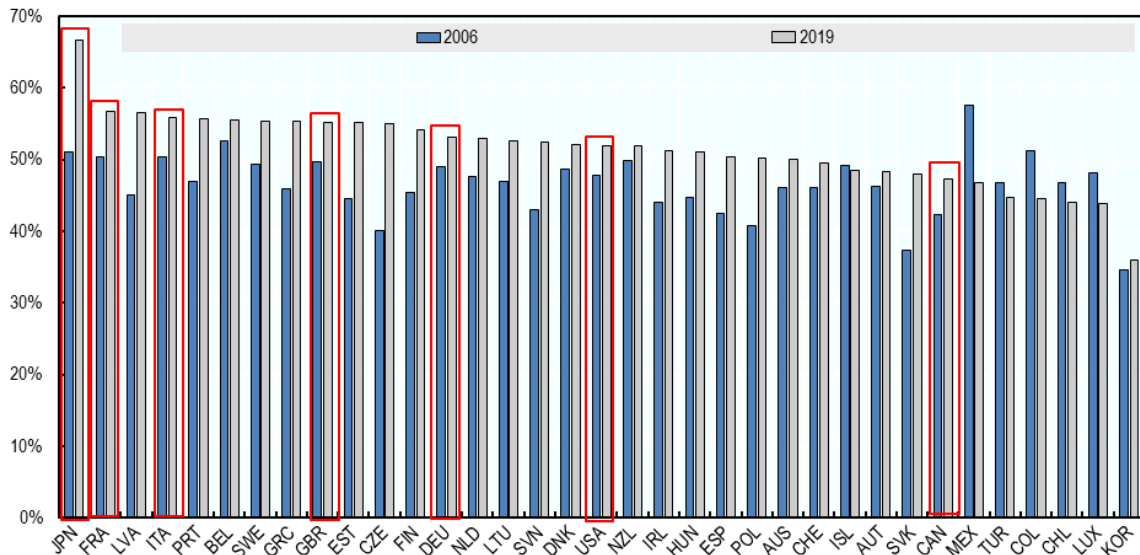
Source: OECD Population Projections Database, <http://stats.oecd.org/Index.aspx?QueryId=88954>.

The steady increase in the dependency ratio is a common phenomenon in OECD cities. Between 2006 and 2019, the dependency ratio in metropolitan areas has increased in all but six OECD countries where data is available (Figure 11). It varies from 36% (Korea) to 67% (Japan). While Korea has a low dependency ratio, it is set to experience a steeper increase in the coming years due to its low fertility rate (0.81 in year 2021).

⁵ The term “baby-boomers” refers to the demographic cohort born between 1943 and 1964, characterised by marked increases in birth rates in advanced countries during that period.

Figure 11. Dependency ratio in OECD metropolitan areas

% values



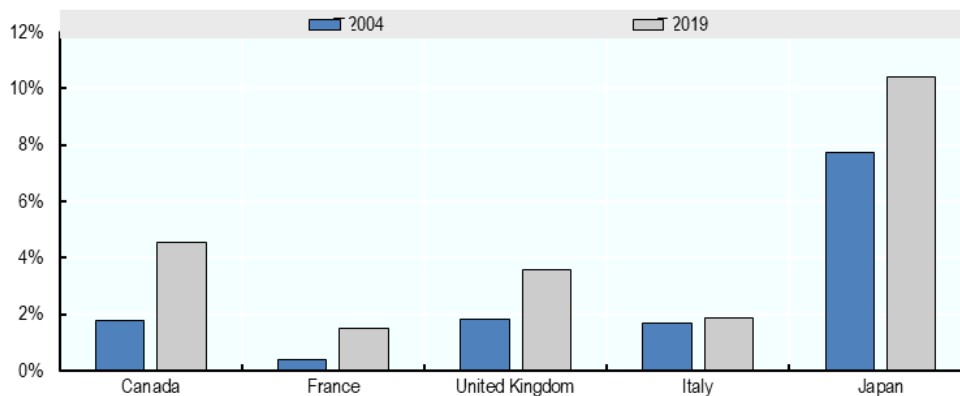
Note: The dependency ratio measures the ratio between people not in working age (0-14 and 65+ years old) and people in working age (15-64 years old), in %. G7 countries are highlighted by red squares.

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Participation in the labour market is a key factor in a city's inclusiveness. Older adults are increasingly participating in the labour market, despite the COVID-19 pandemic. Data on metropolitan areas in G7 countries has shown an increased participation of older adults in the labour market. In 2019, 10% of the workforce in Japan was made up of older adults, up from 8% in 2004. Older adults' participation increased strongly in Canada and the United Kingdom, by 3 and 2 percentage points respectively (Figure 12).

Figure 12. Share of older adults in the workforce in metropolitan areas (2004-2019)

% values



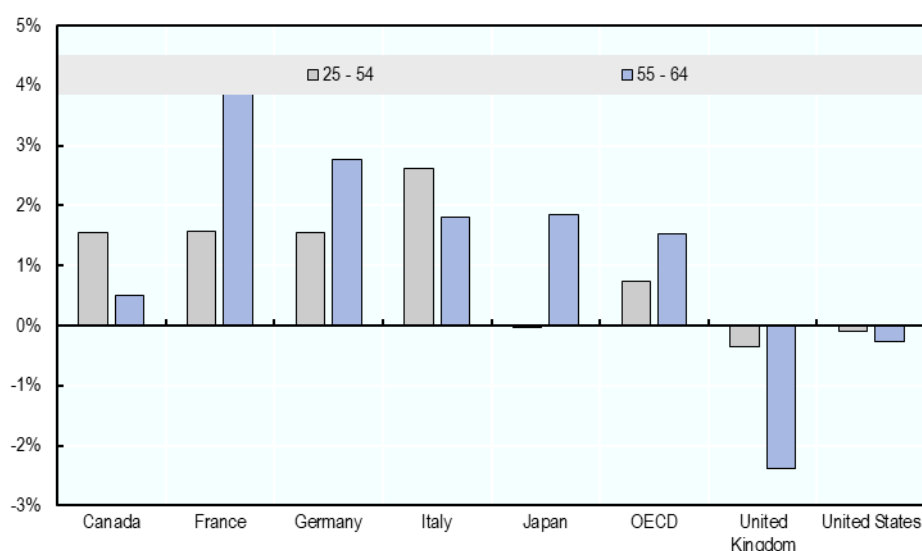
Note: Data refer to people aged 65 years or more. Data for Italy and Japan refer to the period 2004-2014. No data available for Germany and the United States.

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

After the overall employment rate dropped by 3 percentage points from 2019 to 2020 during the COVID-19 pandemic in OECD countries (OECD, 2023^[48]), employment rebounded in 2021 and 2022. Participation and employment rates reached their highest levels since 2005, with almost half of OECD countries, including Canada, France, Germany, and Japan among G7 countries, reporting record highs for both indicators (OECD, 2023^[49]). However, recovery has been uneven across places and people. G7 countries display diverse patterns in terms of the employment rate of older adults (i.e., the age group between 55-64). In France, Germany and Japan, the employment rate of workers aged between 55 and 64 years increased more than that of the 25-54 age groups between 2019 and 2022. In contrast, Canada, Italy, the United Kingdom, and the United States display an opposite pattern (Figure 13). OECD analysis has shown that older workers are more prone to exiting the labour market than transitioning to new positions (OECD, 2023^[47]). Canada, for instance, is showing record levels of retirement from the labour force in the period of 2016 to 2021 (Statistics Canada, 2022^[30]).

Figure 13. Changes in employment rate by age groups (2019-2022)

% change



Source: OECD (2023), Labour Force Statistics. Doi: 10.1787/084f32c7-en

The ageing population poses challenges to productivity growth in cities and may lead to skills mismatches

An ageing workforce poses risks to productivity growth. According to OECD research, in OECD regions, a 10% faster ageing rate than the national average causes a decline of productivity growth by 1.5% (Kim and Dougherty, 2020^[50]). The negative effect of ageing on productivity growth is likely to be more pronounced in urban regions. This is due to the expectation that urban areas are expected to concentrate a significant portion of the older adult population in the future. Additionally, cities are likely to be more affected as they concentrate economic sectors that are heavily affected by the negative impacts of ageing on productivity growth. These sectors include knowledge-intensive services, information and communication, as well as finance (Kim and Dougherty, 2020^[50]).

Ageing may also worsen skill mismatches. The convergence of ageing with other megatrends such as the digital and green transition, is putting pressure on the job market. The retirement of older adults from the labour force coupled with lower inflows of young people to the labour force, can result in labour shortages.

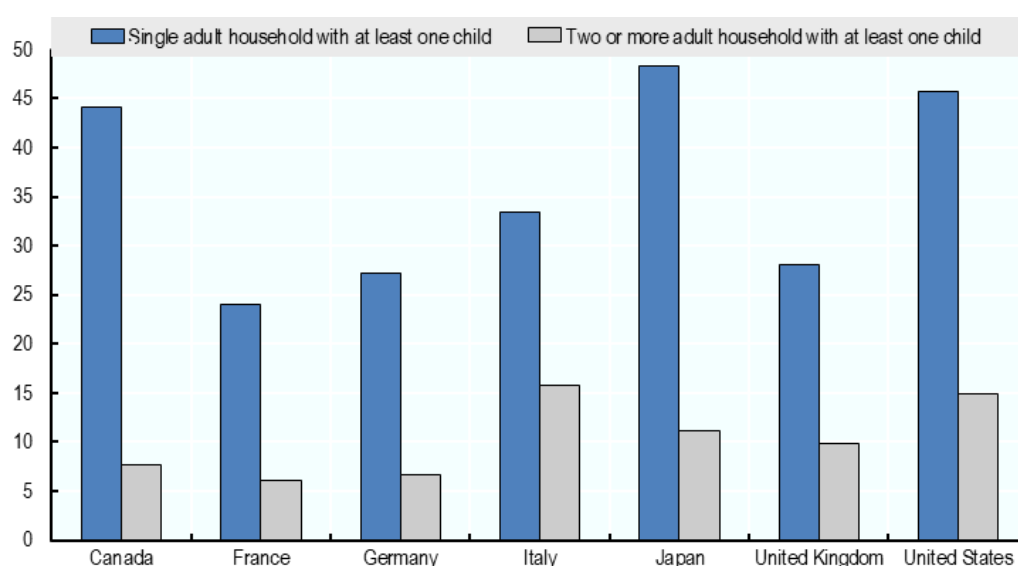
Additionally, older workers are less engaged in training. Across OECD countries, only 24% of workers aged 55-65 participate in training courses, compared to 41% of the cohort aged 45-54 (OECD, 2023^[47]). This discrepancy is attributed to the various obstacles that older workers often encounter when attempting to engage in professional training, such as a lack of digital skills.

One third of single-adult families with at least one child live in poverty

Single-parent households, along with larger families, are more vulnerable to poverty. For instance, in OECD countries, a third of single-adult families with at least one child live in poverty, compared to less than 10% of families with more than one adult and at least one child (OECD, 2022^[51]). In all G7 countries, the poverty rates for single-adult households with at least one child are substantially higher than those of households with two or more adults (Figure 14). The vulnerability of single-parent families is driven by several factors, including low income, lower participation in the labour market⁶, and challenges in balancing work and family time due to multiple caring responsibilities, and the lack of partner support or access to childcare services (European Commission, 2019^[52]). Gender gaps in the labour market, discussed later in this section, further exacerbate the vulnerability of single mothers.

Figure 14. Poverty rates by household type in G7 countries (2019)

% values



Note: Data for France, Germany, Italy, Japan refer to the year 2018. Data for the United States refer to the year 2017.

Source: Authors' own elaboration from OECD Family Database.

⁶ For instance, in EU countries, the employment rate for single parents was 74%, vs. 82% for parents living in a couple (European Commission, 2019^[107]).

Implications for urban policy

Promote Universal Design in housing, infrastructure, and digital tools to create accessible communities for all ages while promoting affordability for all generations

Ageing calls for renewing how buildings and cities are designed. To make cities “age-ready” and “age-friendly”, an integrated approach to private and public spaces within the urban fabric is needed. Urban spaces should be safe, accessible, and supportive of all generations, including older adults.

Building renovation and design need to encourage and facilitate the independence of older adults. Buildings should support the independent living of older adults as much as possible. Universal Design is an inclusive approach aiming at creating buildings that can be used by all generations – from children to older adults – and for individuals with different physical or cognitive capabilities (Carr et al., 2013^[53]). It can be applied to all types of buildings, from housing to public buildings. **London (UK)** and **Tokyo (Japan)**, for instance, applied Universal Design to the infrastructure built for the 2012 and 2020 Olympics Games, respectively.

National urban policies also play a strategic role in promoting Universal Design across all cities. For instance, **Sweden**’s “Strategy for Liveable Cities” promotes safe, universal access to public spaces, contending inclusivity and accessibility for all inhabitants, regardless of age (Swedish Government, 2018^[54]) (OECD/UN-Habitat/Cities Alliance, 2023^[55]).

Continuous urban growth will require massive investment in existing and new infrastructure (OECD, 2023^[14]). The design of public spaces and services can help older adults maintain physical activity. Ensuring walkability should therefore be an important goal for cities. Safe walkways and crossroads, well-maintained pavements and universally designed signs and markers are essential to promote active mobility for all residents. The quality of the urban space, encompassing elements such as well-designed and maintained green areas, public washrooms, comfortable seating, and accessibility for those with limited mobility, crucial to incentivise active mobility, especially among older adults. For example, in **Singapore**, “silver zones” – neighbourhoods with a high share of older adults – have a reduced speed limit of vehicles and dedicated crossing points, as well as friendly path markers, green areas, and rest-points (Singapore Land Transport Authority, 2022^[56]). In **Salzburg (Austria)**, a set of information campaigns for senior passengers of public transport and trainings for staff have helped reduce the number of accidents among older passengers, while increasing the awareness of the specific problems faced by older passengers (Urban Agenda for the EU, n.d.^[57]).

While digitalisation offers opportunities for cities to provide key services in a cost-effective way, cities should make such services accessible for people of all ages. In the sector of public transport, for instance, the increasing adoption of digital tools to access the service – i.e., to purchase tickets – requires the use of devices that can be challenging for older adults with limited digital literacy. Inclusive digitalisation therefore calls for investments in life-long training and actions to improve digital literacy. Collecting input and feedback from older adults offers cost-effective ways to improve the design of digital services, notably to help develop more user-friendly e-platforms for the delivery of public services. For instance, the “Be-connected”⁷ initiative in **Australia** is a government-led action to improve the digital skills and online safety of older adults, by means of free online learning resources and free computer classes across the country. The city of **Seoul (Korea)** is introducing humanoid robots to assist senior citizens in becoming familiar with smartphones, online messaging, and various digital services (Cities Today, 2020^[58]).

⁷ <https://beconnected.esafety.gov.au/>

Promote further workforce participation of older adults and making the most of the ‘silver economy’

To face the rising old-age dependence in the labour market, it is essential for cities to support further participation of older adults by promoting better work choices and opportunities. Increasing the participation of older adults in the labour market requires a mix of age-inclusive measures for workers and employers. Retaining older adults in the workforce not only helps the labour market, but also supports healthy lifestyles, reduces the risks of social isolation and loneliness of older adults, and addresses gender gaps. It also reduces the workload and improves work-life balance of younger generations.

Main directions for urban policies could include:

- Encouraging life-long learning and skills development for older adults.
- Shaping age-friendly workplaces that prioritise safety and flexible timing arrangements (e.g., variable start and finish times, remote work options), to accommodate specific needs and manage physical and mental fatigue.
- Providing non-monetary rewards, such as improved healthcare and insurance benefits.
- Facilitating work-sharing and knowledge transfer across generations, by means of mentorship and other intergenerational programmes, which recognise the contribution of older adults and help prepare for inter-generational turnover.

To advance inclusion of all ages, cities could also support social entrepreneurship and social innovation, by leveraging the potential of older adults in actively contributing to, and enjoying, the social life of cities. To this aim, cities can facilitate volunteer and civic engagement of older adults, recognising and valuing their time.

Cities can also consider making the most of the “silver economy” by supporting business initiatives and incentivising investments. The changing needs and preferences attributed to population ageing can provide openings that can be aligned with these changes. For instance, a growing ageing population stimulates higher demand for healthcare, elderly care services, and infrastructure, which in turn can boost investments in growing industries related to healthcare and long-term care. Some industries incorporate a high level of technology and innovation including remote care and health monitoring, which can have multiplier effects on business creation and jobs. However, realising these benefits requires a long-term vision and investment to anticipate future needs.

Making the most of the silver economy requires cities to address labour and skill shortages. This implies anticipating the skills needed for the future and making the jobs critical for ageing populations, such as those in healthcare, long-term care, and social care, by improving working conditions. This requires implementing a comprehensive set of measures that local governments might consider, such as developing and supporting training and educational programs, particularly in vocational education, for example, through scholarships in healthcare and social care. Support for life-long learning and professional development, including upskilling and reskilling of workers, is crucial to adapt to evolving demands. Moreover, making the most of digitalisation and automation is essential, requiring investment in telemedicine infrastructure and skills. Engaging in meaningful dialogues with local institutions and the business sector is key to attracting and retaining talent while boosting entrepreneurship in healthcare. For instance, **Barcelona (Spain)** invested in the “Barcelona Health Hub”, a non-profit association that aims to advance innovation in digital health and its transfer to the health sector, by supporting startups in healthcare.⁸

Finally, ageing societies can provide opportunities for cities to invest in ‘silver’ tourism to attract visitors and seasonal residents, as well as extend holiday seasons, while at the same time improving their well-

⁸ <https://barcelonahealthhub.com/en/>

being. To promote themselves as ‘senior-friendly’ destinations, cities should invest in healthcare, adapted transport infrastructure, cultural facilities, and other urban amenities. For instance, **Lisbon** and **Porto (Portugal)** are positioning themselves as medical tourism destinations.⁹

Support families by reconciling work and family duties and engaging older adults

Single-parent families are among the most vulnerable groups in cities, particularly in terms of material well-being and housing. Almost all OECD countries provide support to (low-income) single-parent families with a combination of social measures, such as family, housing, and work benefits, social assistance, and tax reductions (OECD, 2022^[51]). Cities could complement national policies by implementing measures that foster the active participation of single parents, with a particular focus on single mothers, in the urban labour market and the economic and social life of cities.

A key policy avenue involves facilitating the reconciliation of work and family duties. This can be achieved by improving childcare services and providing targeted education and vocational training. To reach this goal, urban planners and designers could provide incentives to developers to include childcare facilities and related services in housing or commercial developments, with the goal of bringing such services closer to either home or work for parents. Neighbourhood- and city-based initiatives could also actively engage older adults to support family and childcare tasks of single-parent families. “Time banks” are a concrete step to support families, and in particular single families. For instance, the **EU** “Families_ share” project,¹⁰ which has been promoted in six European pilot cities, provides a platform to support families to share time and tasks related to the household and children, with a dedicated focus on engaging older adults in supporting families.

⁹ <https://www.portugal.com/science/medical-tourism-in-portugal/>

¹⁰ <https://families-share.eu/>

3 City population growth or decline

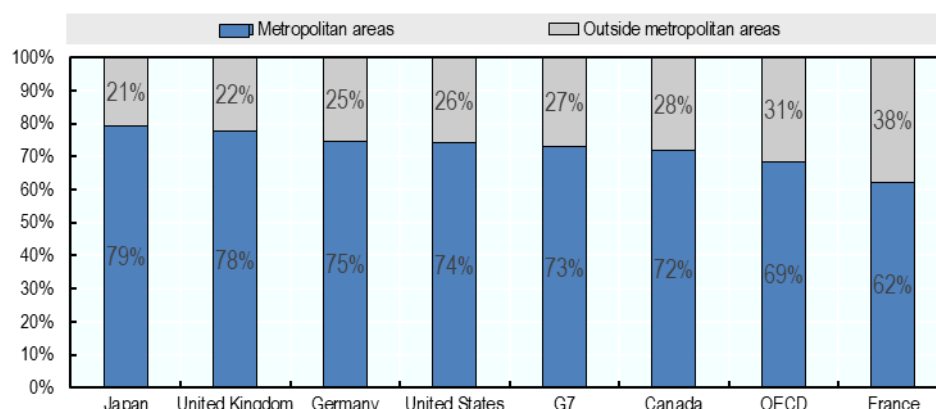
Key trends

Cities are growing faster than non-urban areas

In OECD countries, almost 7 out of 10 people, totalling 931 million individuals, reside in metropolitan areas, including cities (settlements with at least 50 000 inhabitants) and their surrounding commuting zones. In G7 countries, 563 million people, constituting 73% of the G7 population, reside in these metropolitan areas (Figure 15). The population has further concentrated in cities, with metropolitan areas growing by 15% between 2001 and 2021 in OECD countries. In contrast, the population outside metropolitan areas increased by only 6% (OECD, 2023^[21]). In all G7 countries, cities outperformed the rest of the country in terms of population growth.

Figure 15. Distribution of population in and outside metropolitan areas, 2021

% share of national population



Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

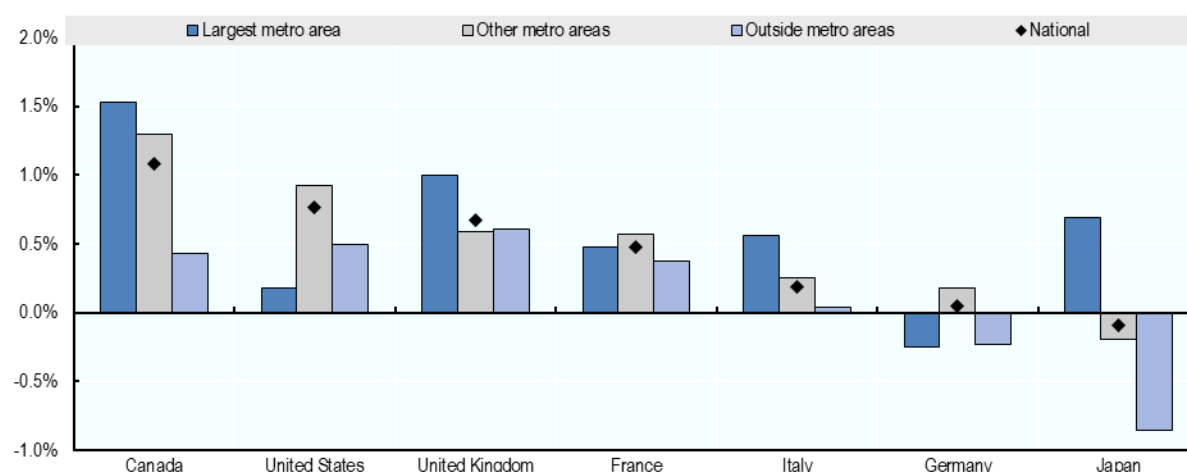
Urban population growth in OECD countries is often led by large metropolitan areas, typically the largest ones

The largest cities have led urban population growth. Specifically, in Canada, Italy, Japan, and the United Kingdom, the largest metropolitan areas outperformed the others. For instance, the population in London (United Kingdom) grew by 1% per year between 2001 and 2021, compared to the national average of 0.7%. France, Germany, and the United States have different growth dynamics, with metropolitan areas other than the largest ones growing faster (Figure 16).

In G7 countries, the population in metropolitan areas with at least 1.5 million inhabitants grew by almost 8% between 2006 and 2018. At the same time, the population in metropolitan areas with populations between 500 000 and 1.5 million inhabitants grew by 5%, and population in metropolitan areas smaller than 500 000 inhabitants decreased by 1% (Figure 17). This indicates a general trend of spatial polarisation – that is, an increasing share of the population is concentrating in the largest cities, with subsequent risks of imbalances and polarisation within national urban systems.

Figure 16. Population growth in G7 countries (2001-2021)

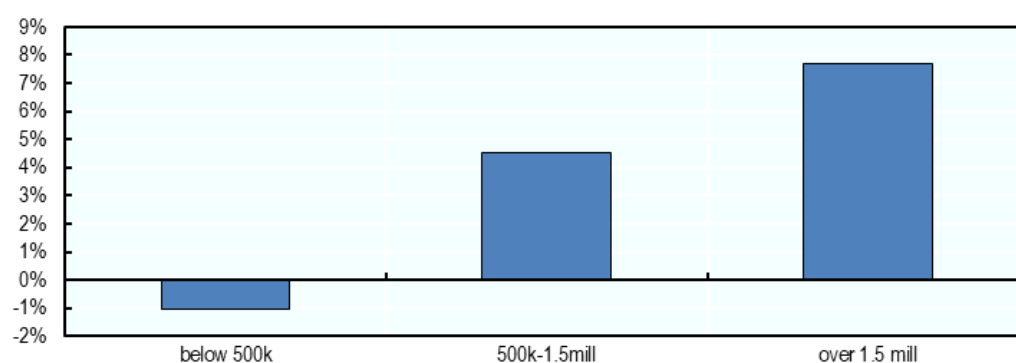
% growth rate (annualised)



Note: Data for Canada refer to the period 2001-2020. Data for France refer to the period 2006-2018. Data for the United Kingdom refer to the period 2001-2020.

Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Figure 17. Growth of population in G7 metropolitan areas (2006-2018)

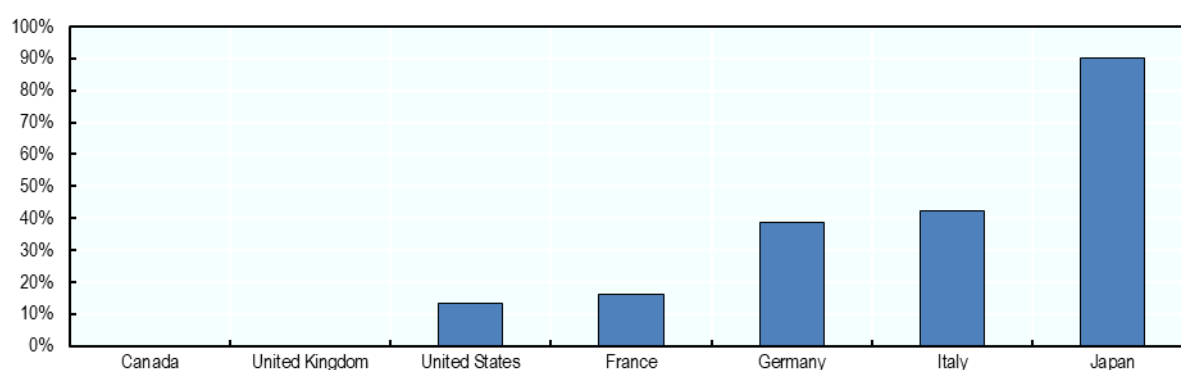


Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Population loss occurred in more than one out of four metropolitan areas in G7 countries.

Between 2009 and 2020, 22% of metropolitan areas in OECD countries (i.e., 273 metropolitan areas) lost population. Cities in G7 countries displayed an even higher share of depopulation at 26%. The phenomenon is manifest in cities of all sizes, except for metropolitan areas with more than 1.5 million inhabitants, of which only 13% lost population. However, G7 countries show different patterns. Canada and the United Kingdom are not affected by population loss in cities, in line with the national trend of population growth fuelled by migration¹¹. By contrast, in Japan, almost 90% of cities lost population, especially in those with fewer than 500 000 inhabitants¹². The United States and France have a relatively low share of depopulating metropolitan areas (13% and 16% respectively), compared to Germany (38%) and Italy (42%) (Figure 18).

Figure 18. Share of depopulating metropolitan areas across G7 countries (2009-2020)



Source: Author's own calculations based on OECD data (OECD, 2022).

Note: Data for France and Japan refer to the 2009-2018 period.

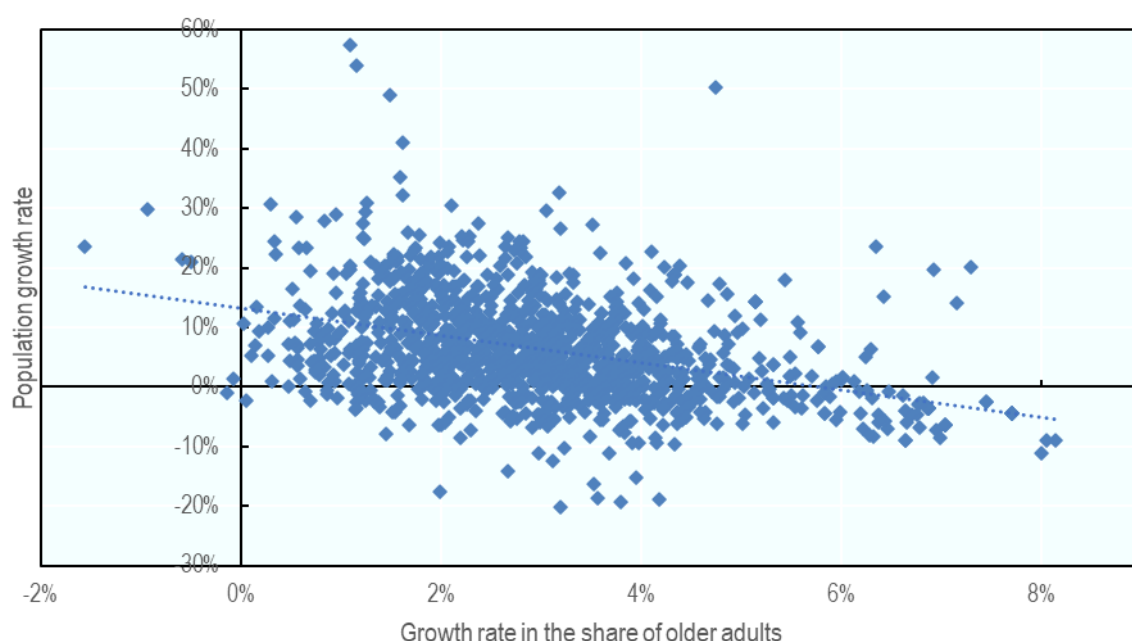
The ageing trend is particularly pronounced in shrinking cities

On average, across OECD countries, metropolitan areas that lost population in the 2008 to 2018 period experienced an increase of 4% in the share of older adults, compared to an increase of 2.7% in metropolitan areas with a growing population (Figure 19). Across G7 countries, the share of older adults increased by 4.2% in metropolitan areas that lost population, compared to 2.9% in metropolitan areas with a growing population. In **Osaka (Japan)**, which experienced the largest population decline across metropolitan areas in G7 countries, losing almost 125 000 inhabitants from 2008 to 2018, the share of older adults increased from 21.7% to 28.2% during the same periods. In Detroit (US), which lost 16 000 inhabitants in 2008 to 2018, the share of older adults increased from 12.8% to 16.4% in the same time span.

¹¹ Between 2010 and 2019, Canada and the United Kingdom received respectively an average of nearly 350 000 and 280 000 permanent immigrant inflows per year (OECD, 2023^[171]).

¹² In Japan, 94% of metropolitan areas below 500 000 inhabitants lost population between 2009 and 2018, while the share of shrinking cities above 500 000 inhabitants was 75%.

Figure 19. Population growth rate and growth rate in the share of older adults in OECD metropolitan areas (2008-2018)



Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Since the outbreak of the pandemic, large cities have been attracting fewer new residents

The COVID-19 pandemic has brought about complex changes to OECD countries in terms of settlement patterns. Since the outbreak of the pandemic, several large cities worldwide have experienced decreases in the arrival of new residents and an increase in outflows. Many surveys show an increased desire among households to relocate outside of large metropolitan areas. Examples of such trends and preferences can be observed in Canada, France, Germany, Japan, and the United States (Burgalassi and Jansen, forthcoming^[59]):

- In Canada, it has been reported that more than 64 000 people left Toronto (population of 2.9 million) for other parts of Ontario between mid-2020 and mid-2021. Montreal (1.8 million people) also lost about 46 700 residents to other areas of Quebec (Ottawa Citizen, 2021^[60]; CBC News, 2022^[61]),
- In Paris (France), during the period of 2020 to 2022, enrolments in primary schools were 1.5% lower than in the period of 2017 to 2019, and 1% lower than the national average. In contrast in small- and medium-sized cities and rural areas, enrolments were higher than the national average (Bouvard and Bouba-Olga, 2023^[62]).
- In Germany, a 2021 survey administered to 18 000 people living in urban, suburban, and rural areas found that almost 13% of respondents from major German cities were planning to leave within the following year (Dolls and Mehles, 2021^[63]). A 2022 survey also found that remote and hybrid workers were 10% more likely to have changed their place of residence since the outbreak of the pandemic, most likely as a result of high housing costs (Dolls and Lay, 2023^[64]).
- In Japan, immigration to Tokyo dropped from 80 000 people in 2019 to 30 000 people in 2020. In the same period, the share of residents willing to move out of the city increased from 25% to 34%,

while in 2021, 31.5% reported that they were willing to live in lower-density areas closer to nature (Government of Japan, 2021^[65]).

- In the United States, large metropolitan areas such as New York City, the San Francisco Bay Area, Washington DC, and Boston saw the largest decreases in population inflows and the largest increases in population outflows. In particular, San Francisco has experienced a notable trend of businesses relocating from the city (sf.citi, 2022^[66]).

During the COVID-19 pandemic, there has also been evidence of multi-locality, also known as seasonal residence, where individuals live in and work from more than one location throughout the year. This trend was particularly visible in Nordic countries such as Denmark, Finland, Iceland, and Norway, all which have a high share of second homeowners (Nordregio, 2022^[67]). Multi-locality is also on the rise in France, where half of the people who are willing to relocate out of cities would still prefer to keep a place to stay in the city (Rey-Lefebvre, 2021^[68]).

The rise of remote work and changes in the organisation of work in firms are driving preferences for relocating outside large metropolitan areas, including both small and intermediary cities

The pandemic has led to a notable surge in remote work, which has become, to a certain extent, structural. Across European OECD regions, the share of remote workers rose from 5.4% to 14% between 2019 and 2021 (Özgüzel, Luca and Wei, 2023^[69]). The uptake of remote work was higher in cities than in rural areas since cities have a higher share of workers and industries amenable to remote work. Across G7 countries with available data, the uptake of remote work in cities has been 19% in France, 18% in Italy, and 17% in Germany, while the rural areas in these same countries reported lower rates of 12.3%, 8.4% and 9.5% respectively. The rise of digitalisation across industries and regions, coupled with the transition to remote work and the rising cost of living in large metropolitan areas, holds the potential to reshape the locational decisions of both households and firms. The OECD has outlined several scenarios in the post COVID-19 system of cities, including the “business as usual” scenario, where large cities continue to grow, and the “rise of intermediary cities” scenario, in which people prefer to relocate from large cities to intermediary cities (OECD, 2021^[70]; OECD, 2022^[71]). Recent surveys consistently highlight people’s increasing preference to relocate to cities of a smaller size than large metropolitan areas. For instance, in Germany, cities between 100 000 and 500 000 inhabitants were the most likely to attract people looking to relocate from large cities (Dolls and Mehles, 2021^[63]). Similar preferences are evident in France (La fabrique de la cité, 2022^[72]), and in the United States where smaller cities have gained traction.

Recent OECD research, (Ahrend et al., 2023^[73]) also shows that within the commuting zones of large metropolitan areas, low-density (more affordable) areas have gained attractiveness in terms of housing demand. Conversely, outside the commuting zones of large metropolitan areas, housing demand has been higher in small and medium-sized cities with a greater degree of accessibility to metropolitan centres. These patterns suggest an increasing desire to live in locations that combine the benefits of both urban services and rural amenities (e.g., natural amenities, larger and cheaper housing).

However, resettlements are mostly observed in or close to large metropolitan areas, which will maintain, or even widen, existing inequalities between larger and smaller cities

Evidence shows that re-settlement is not happening in every city but mostly in settlements that are close to, although outside, large metropolitan areas. Among changes in the organisation of work, the emergence of hybrid work seems to prevail over full remote work models. This entails a split working week is split between the place of work and home, or a “third place” such as co-working spaces. While hybrid work still requires a certain amount of commuting, it might induce workers to relocate outside of large cities—albeit

within a reasonable commuting distance. This implies less frequent but longer commutes compared to on-site working arrangements. As a result, suburbs and rural areas close to large cities have seen their residential rents increase, especially in large metropolises such as **New York City** and the **San Francisco Bay Area (United States)** (Ramani and Bloom, 2021^[74]), **Toronto** and **Montreal (Canada)** (Lundy, 2022^[75]), and **Milan (Italy)** (Guglielmetti et al., 2021^[76]). A recent analysis shows that housing prices have been increasing faster in the surrounding areas of large metropolitan centres (Ahrend et al., 2023^[73]). Specifically, the (areas within commuting distance of large metropolitan areas are experiencing a rise in housing prices, reflecting an “extended doughnut effect”. This suggests that large metropolitan areas are expanding their areas of influence, as people relocate out of the main metropolitan centre but continue to travel to it albeit through longer but less frequent commutes – for working, studying or other purposes. In other words, large cities will keep their role of economic hubs and magnets for those people. This will maintain, or even widen, existing inequalities (i.e., gaps in population growth trajectories, ageing, shrinking cities) between large and smaller cities.

Key challenges

Urban growth and suburbanisation will lead to an increased demand for infrastructure and services

As cities grow, the demand for infrastructure investment is rising. Globally, urban infrastructure investment needs are projected to reach USD 94 trillion between 2016 and 2040 (Global Infrastructure Hub, 2018^[77]). In order to meet this growing demand, cities will need to mobilise diverse sources of finance from a variety of stakeholders, including the private sector (OECD, 2023^[14]).

The suburbanisation trend also puts pressure on infrastructure (e.g., public transport) in new suburban and peri-urban developments. This urban sprawl may also lead to a rise of greenhouse gas emissions and pollution, stemming from increasing dependence on private transport and longer commuting distances.

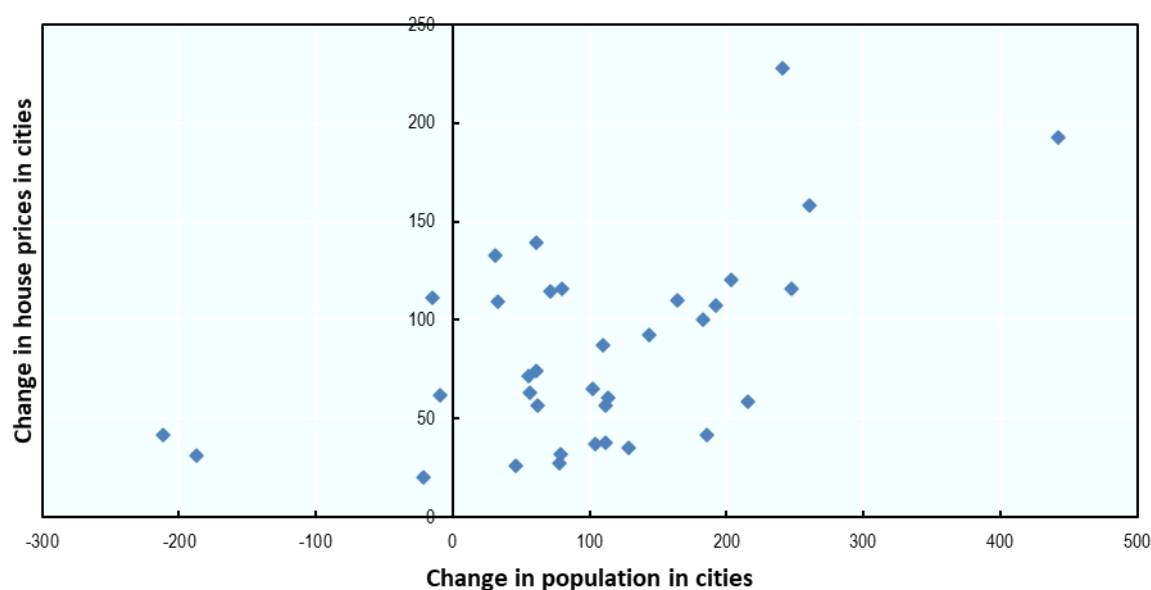
Rapid urban growth challenges housing availability and affordability

The rise of housing costs is particularly evident in fast growing cities. An analysis of population and housing prices in 35 OECD cities shows that between 2012 and 2022, real estate prices grew more in cities with higher population growth (Figure 20). Fast population growth generates a mismatch between housing supply and demand, and subsequently increases housing costs.

Housing demand is also increasing in suburban commuting zones, as a result of the “doughnut” effect observed in large metropolitan areas, as discussed above. However, it is unlikely that such a trend will act as an equaliser against the persistent housing challenges in urban centres. For example, in the **United States**, research shows that evictions have forced low-income households to move out of urban centres to peripheral areas (Hepburn, Rutan and Desmond, 2022^[78]).

Figure 20. Evolution of population and house prices in cities (2012-2022)

Evolution of population and house prices



Note: The figure refers to a sample of 35 cities in Australia, Canada, France, Japan, Korea, Mexico, the Netherlands, United States. The change in house prices is expressed by the evolution of Residential Property Prices Indices (RPPIs), also named House price indices (HPIs). The changes in population and house prices are computed as ratios between city values and country values. Population data refers to cities defined according to the Degree of Urbanisation.

Source: OECD, National and Regional House Price Indices.

The relocation of certain populations out of urban centres could potentially increase the cost of living in suburban areas or small and intermediary cities near metropolitan areas due to increasing housing demand (Nelson and Frost, 2022^[79]). The arrival of new affluent residents might also change the local supply of goods and services (Tommasi, 2018^[80]), potentially leading to the replacement of affordable options with upscale businesses. This gentrification process may result in reduced access to affordable groceries or related services for long-time residents, particularly affecting vulnerable groups. In **Sydney, Brisbane, and Melbourne (Australia)**, for instance, it has been found that the highest levels of gentrification are happening in the suburbs rather than in inner cities, due to the fact that the middle class is no longer able to afford housing in city centres (Pegler, Li and Pojani, 2020^[81])

Housing challenges severely affect the most vulnerable groups in cities

Housing affordability challenges disproportionately impact low and middle-income households, who are more at risk of living in poor-quality housing and face obstacles in accessing property, mortgages, and the rental market (OECD, 2023^[8]). Recent OECD research on confronting the cost-of-living crisis in cities (OECD, 2023^[8]) shows that rising housing costs have stronger impacts on the most vulnerable groups, exacerbating their challenges, particularly in the wake of the 2022 inflationary crisis. In OECD countries, over one-third low-income tenants allocate 40% of their disposable income to rent, and young adults face difficulties in securing quality and affordable housing. Housing also poses challenges for middle-income households, as their earnings have not kept pace with increasing housing expenses (“squeezed middle-class”) (OECD, 2023^[8]). From 2005 to 2015, middle-income households’ spending on housing increased by 5 percentage points across OECD countries, while the share of spending on other items remained

stable or decreased (e.g. the share of spending on food decreased by 2 percentage points) (OECD, 2021^[82]).

Population decline puts cities at risk of entering a downward spiral of negative consequences

The loss of population raises serious concerns for the city's development and the well-being of urban citizens for several reasons, including weaker tax bases, the loss of revenues for local public administrations, and with associated challenges in maintaining the level and quality of local public services and infrastructure (OECD, 2022^[83]). Urban shrinkage is also linked to a growing share of older adults in the total population, potentially increasing healthcare and service costs, exacerbating building vacancy, leading to shortages in services and care workers, and reducing investment in, and maintenance of, infrastructure. These challenges create a self-reinforcing cycle, leading to a deteriorating urban environment characterised by increased housing vacancies, constrained public budgets for the maintenance of the public space, business closures, job loss of jobs, and a loss of human and social capital. These factors collectively contribute to a decrease in the overall attractiveness of the city (Aurambout et al., 2021^[84]).

Remote and hybrid work settings may not benefit all small and intermediary cities, potentially creating increased polarisation and widening inequalities among them

While large and capital cities are more attractive for talent and capital, other cities risk lagging behind, resulting in regional and national economic and social disparities (OECD/European Commission, 2020^[1]). Despite increasing interest in settling in intermediary cities in some G7 countries like France and Germany due to the rise of remote work, this has not led to a large population reshuffling. This is partly because small and intermediary cities are very heterogeneous in terms of their social and economic structure and are not always attractive for migration. While remote and hybrid work settings are opening opportunities for small and intermediary cities to attract workers and businesses, the possibility to reap such benefits depends on a set of enabling factors, influencing the settlement choices of workers, households, and firms (Table 1).

Small and intermediary cities that possess key enabling factors, such as transportation linkages to workplaces and major economic hubs, digital infrastructure, co-working spaces, quality of public services and amenities, are better positioned to attract firms, workers, and households. In contrast, other cities may fall into so-called “development traps”, characterised by a lack of economic diversification and sectoral resilience, brain drain of young talents in a way that undermines economic growth, a lack of infrastructure, limited access to finance, and a perceived “weak” image. Development traps may also manifest as rising social discontent, with visible political implications such as declining trust in democracy.

Table 1. Enabling factors of remote and hybrid work, work choice and re-settlement choice

	Workers/households	Firms
Individual factors	<ul style="list-style-type: none"> • Type of job amenable to remote work • Digital skills • Degree of remote work (full, partial/hybrid) • Personal/jobs characteristics 	<ul style="list-style-type: none"> • Digitalisation of the firm • Production processes amenable to remote work • Employer's organisational culture • Relocation costs and opportunity costs • Being (or not) bound to specific local resources or markets
Place-based factors	<ul style="list-style-type: none"> • Accessibility to workplace • Cost of housing • Quality broadband and co-working spaces • Quality of public services and quality of life 	<ul style="list-style-type: none"> • Physical accessibility to markets • Digital connectivity • Local human capital, know-how • Affordable office space

Source: Authors' own elaboration

Implications for urban policy

Diversify the instruments to finance urban infrastructure in growing cities and target affordable housing for all ages amid the current cost-of-living and housing crisis

While cities play a key role in the planning and provision of urban infrastructure, they frequently face constrained investment capacities, grappling with significant funding gaps to meet current and future infrastructure needs. Given the tight fiscal and monetary environment, it is crucial for cities to explore diverse funding and financing instruments. The G20-OECD Report on Financing Cities of Tomorrow for the G20 Infrastructure Working Group provides guidance and evidence to accelerate quality infrastructure investment in cities through diverse approaches (OECD, 2023^[14]):

- Ensuring effective urban planning, including via integrated design and organisation of land use and amenities in a city (e.g., integrating transport planning and land use planning), is crucial for shaping more inclusive, resilient, and sustainable cities. This “getting planning right” approach can play an instrumental role in optimising urban infrastructure financing by maximising investment benefits and creating significant opportunities to attract private investment.
- Facilitating strategic collaboration between the public and private sectors to finance a high-quality urban built environment is essential. Private sector investment can play an important role in meeting infrastructure needs. Cities should make substantial efforts to leverage private investment, including by providing the legal and institutional grounds for new funding and financing mechanisms, and fostering partnerships.
- Improving the ability of cities to access affordable and sustainable finance for quality infrastructure investments in a fiscally responsible way is crucial. At global level, the issuance of Green, Social, and Sustainable (GSS) bonds by subnational governments grew from USD 17.5 billion in 2017 to USD 54.8 billion in 2022. This creates an important opportunity for cities to borrow to better address their investment needs.

The current cost-of-living and housing crisis is disproportionately affecting vulnerable groups. This impact extends beyond older adults, as students and young families are also facing difficulties to live in cities. Cities exhibit a lower share of both older adults and children compared to suburban commuting zones.

The OECD paper on “Confronting the cost-of-living and housing in cities” (2023^[8]) provides key directions for cities to promote housing affordability and foster inclusivity. As part of these policy recommendations, cities could consider measures that simultaneously promote affordability, support neighbourhood revitalisation, and strengthen social capital. This involves addressing housing affordability comprehensively, with a special focus on the most vulnerable populations. Some potential actions include:

- Boosting housing supply: For instance, the city of **Riga (Latvia)** is developing a housing plan for 2024-2030 to incentivise new housing developments, customising developments to cater to different demographic groups, including determining the necessary number of new apartments for young professionals (Staķis, 2023^[85]).
- Repurposing vacant and unused properties: Transforming vacant properties in inner cities into social housing, targeting young families and older adults. Re-developing these properties can enhance demographic diversity, fostering social capital in cities while mitigating urban sprawl and the associated costs of suburbanisation. This will require cities to use a wide range of local financing tools both from public and private sources to incentivise investments in housing. The “Brussels Blueprint for Affordable Cities and Housing for All”, endorsed by the OECD Champion Mayors for Inclusive Growth Initiative in June 2023, exemplifies this approach (2023^[86]). For instance, the city of **Reykjavik (Iceland)** is targeting housing development efforts to underused plots within the city’s existing boundaries.
- Promoting community-led housing solutions: Encouraging initiatives such as community land trusts¹³ or student housing co-operatives to promote house purchasing or rental at below-market prices, as well to encourage housing renovation. For instance, in **Bologna (Italy)**, there are 3 000 housing units dedicated to cooperatives that enable rents to remain below market rates (OECD, 2023^[8]).
- Regulating short term tourism rentals: Implementing regulations to favour longer-term rentals over short-term tourism rentals to control or reverse housing shortages and rent increases (OECD, 2023^[8]). For example, **Lisbon (Portugal)** provides incentives to owners to convert short-term rental units into long-term rentals for residents.

Adopt ‘smart shrinking’ strategies, while maintaining decent living conditions and service levels

A “smart shrinking” approach can help cities cope with depopulation. This approach refers to managing population decline with proactive strategies and policies to address the challenges and opportunities associated with shrinking. Depopulation will be an inevitable feature of an increasing number of cities. Therefore, they must cope with shrinkage by maintaining their attractiveness and vitality (OECD, 2022^[87]), and adapting to the changing population structure. Instead of viewing population decline as a purely negative phenomenon, smart shrinking seeks to optimise the use of resources, infrastructure, and services in a way that aligns with the new realities of a smaller population. For instance, in **Heerlen (Netherlands)**, a formerly industrialised city, the city administration has implemented ‘rightsizing’ policies by promoting civic initiatives on the management of underused spaces (Matoga, 2022^[88]). **Kilkenny (Ireland)** has also developed a strategy based on sustainability and compactness (JRC, 2023^[89]).

To maintain the supply and quality of public services, intermunicipal co-operation is essential. The delivery of accessible, high-quality, and cost-effective public services is an essential element for urban well-being, and lies at the core of smart shrinking strategies. In a context where depopulation will characterise many OECD cities, the delivery of key services such as education or health will become more challenging, since per capita costs increase in depopulating areas (OECD/EC-JRC, 2021^[90]). In fact, inter-municipal co-operation can help seize economies of scale from shared service delivery, joint infrastructure investments, sharing of best practices, and capacity building. For instance, neighbouring municipalities might share resources to provide flexible and demand-responsive transport for citizens, to compensate for a reduction

¹³ Community land trusts are non-profit organisations that own and develop land to provide affordable homes. They buy land to develop or facilitate the development of social housing. They can operate as a co-operative, under a lease-to-own model, or act mainly as a facilitator of further development (OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center, 2022^[170]).

of the total supply of public transport (Visser, 2019^[91]). Co-operation should take a long-term approach, involving cooperative planning that considers the future demographic prospects, including population trends and structure, to effectively manage current and future needs.

Reap the benefits of remote and hybrid work to prevent development traps in small and intermediary cities

The rise of remote work presents a unique opportunity for cities and regions to increase their attractiveness, especially for small and intermediary cities – which are more likely to be affected by the effects of demographic change. Several territories are considering remote work as a factor of social and economic development, like the **Autonomous Province of Trento (Italy)** and the **Ems-Achse (Germany)** (OECD, 2021^[92]; OECD, 2023^[93]). The uptake of remote work and other flexible working arrangements can help match job demand with supply by activating individuals who are not currently seeking employment or are unemployed, tapping into neighbouring regions to expand the employer's talent pool, and attracting workers from high-population-density areas or from abroad (OECD, 2023^[93]). However, unlocking this potential requires targeted policy interventions that leverage local conditions, empowering people, firms, and places to capitalise on the advantages of remote work.

Policy avenues include:

- Investing in remote work enablers. OECD research carried out on in the **Ems-Achse Region (Germany)**, which is challenged by out-migration of skilled workers and shows a relatively low remote work potential, highlights the following key areas: core requirements (internet infrastructure, physical workspace, legal framework, work culture), influential economic and social factors (economic structure, digital skills, demographic composition), and pull factors for attractiveness (public services, accessibility) (OECD, 2023, pp. 32-33^[93]).
- Integrate remote work into a wider approach that not only focuses on its direct implications but also addresses broader aspects of community well-being (OECD, 2021^[92]). This includes considerations for transport, housing, and health, aligning with sustainability objectives such as reducing land consumption and enhancing energy efficiency.
- Coordinated planning policies across different levels of government. This involves optimising public services and infrastructure along settlement networks. Neglecting these policy areas may exacerbate existing disparities, with a small group of places reaping the benefits of remote work while others are left behind.

In **Tulsa (United States)**, the “Tulsa Remote” initiative has successfully attracted remote workers through economic incentives, investment in co-working spaces (Frick, 2023^[94]), and the maintenance of low housing prices. The city's commitment to housing affordability is underpinned by the presence of a dedicated municipal strategy (City of Tulsa, 2019^[95]). In **Ireland**, the “Our Rural Future” strategy plans to improve digital connectivity and provide financial support to local authorities to set up “Remote Work Hubs” in smaller cities and towns (OECD, 2021^[92]). Some countries are using national instrument to raise attractiveness for remote workers. For instance, **Estonia** and **Ireland** are simplifying visa procedures to attract international digital nomads, while **Greece** issued tax-breaks (OECD, 2023^[96]).

4 Spatial segregation within cities

Key trends

Multiple forms of spatial segregation exist within cities

As the urbanisation process continues, cities attract people because they provide economic and social opportunities for residents. For instance, more than half of foreign-born migrants are concentrated in large metropolitan regions¹⁴ (OECD, 2022^[13]). However, spatial segregation is a barrier to diversity that might hinder social cohesion and increase inequalities at the city level (Greenstein, Sabatini and Smolka, 2000^[97]). Spatial segregation relates to the spatial clustering of people belonging to similar demographic or social groups, which causes the physical separation of different groups of people (OECD, 2018^[19]). Groups can be defined according to several characteristics including income, nationality, ethnicity, and age. Spatial segregation can take place on several scales, ranging from the neighbourhood to the regional scale. In urban settings, it typically manifests as clustering in neighbourhoods, where certain characteristics (e.g., the same income level) concentrate in specific neighbourhoods. For example, within a city, low-income and high-income households tend to concentrate in separate neighbourhoods.

Demographic change can impact spatial segregation within cities by influencing people's locational choices. For example, ageing can lead to an increase in age-specific living arrangements, resulting in physical separation between older adults and younger individuals. The attractiveness of cities and urban growth may lead to the clustering of people in specific neighbourhoods as well. For instance, high-income individuals tend to cluster in neighbourhoods with higher housing prices, reflective of better amenities and services, while low-income individuals might be pushed to neighbourhoods with more affordable housing.

Commuting zones are ageing faster than inner cities

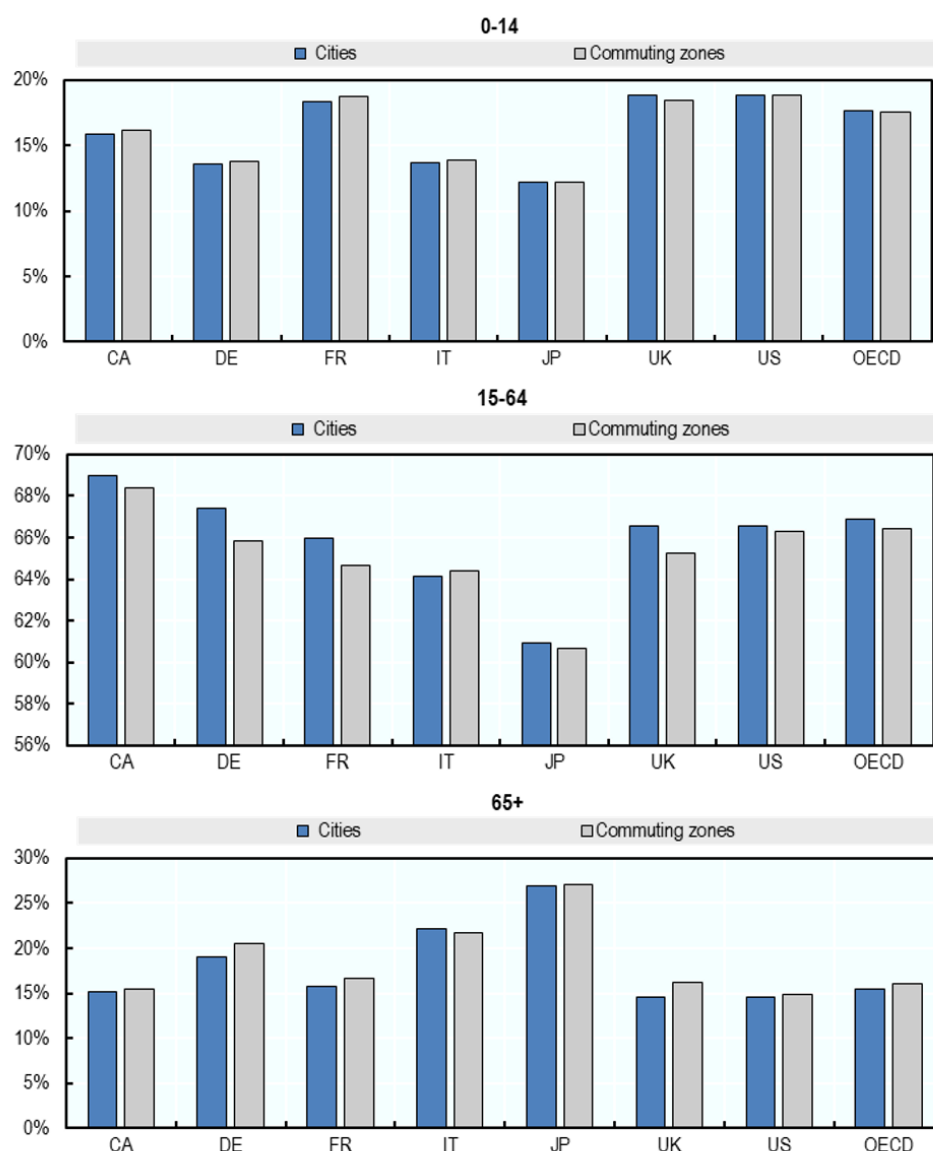
Spatial age segregation in cities is commonly observed in G7 countries between urban centres and commuting zones of metropolitan areas. Spatial age segregation in cities occurs when people of different ages do not share the same physical space, leading to a lack of interaction between them. The age structure within cities depends on several factors, including the settlement of people in reproductive age (e.g. in suburban areas) or the characteristics of neighbourhoods (e.g. the presence of leisure facilities) that may attract people from specific age groups (Leyso and Umezaki, 2023^[98]). In the United Kingdom, urban areas are ageing at a slower rate than rural areas. Within urban areas, there is an increasing physical separation between generations. Particularly in the largest UK cities, children are no longer growing up in the same areas where retirees are growing old (Kingman, 2016^[99]).

Although data availability to investigate age-related spatial segregation in cities remains limited, an option is to measure gaps in the population's age structure across different parts of a metropolitan area. For example, in OECD metropolitan areas, the average share of older adults in commuting zones is 0.6 percentage point higher than in inner cities (19.2% vs. 18.6% in 2018). The difference is larger in G7

¹⁴ Large metropolitan regions are those with at least half of their population living in a Functional Urban Area above 1.5 million inhabitants.

metropolitan areas, where the average share of older adults in commuting zones is 1.3 percentage point larger than in inner cities (21.4% vs. 20.1%) (Figure 21). Italy is the only G7 country where the share of older adults is on average higher in inner cities than in their commuting areas.

Figure 21. Share of population by age in cities and commuting zones, metropolitan areas of G7 countries and OECD average

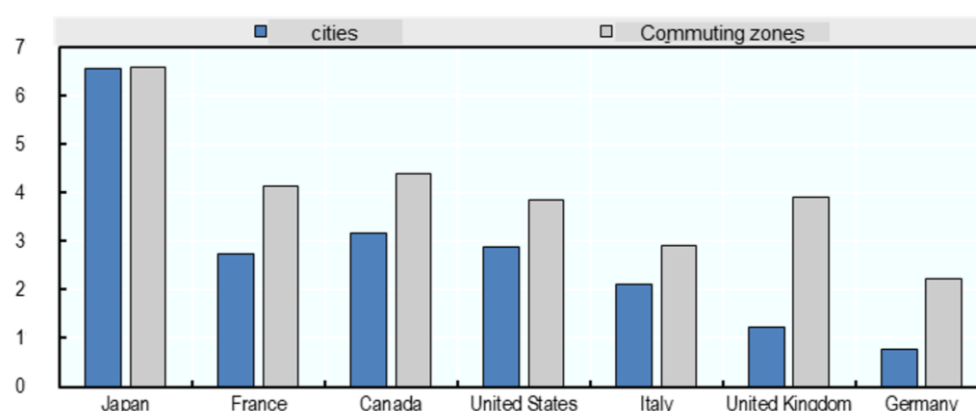


Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Furthermore, between 2008 and 2018, on average, the share of older adults increased faster in commuting zones than in inner cities in all G7 countries (Figure 22). In the UK, the share of older adults increased by 4 percentage points in commuting zones, while it increased by 1 percentage point in inner cities between 2008 and 2018. In Germany, the share of older adults in commuting zones increased by 2 percentage points in commuting zones, while it increased by 1 percentage point in inner cities.

Figure 22. Growth in the share of older adults in cities and commuting zones (2008-2018)

Percentage points difference



Note: share of people aged 65 years and more. Average values (unweighted).

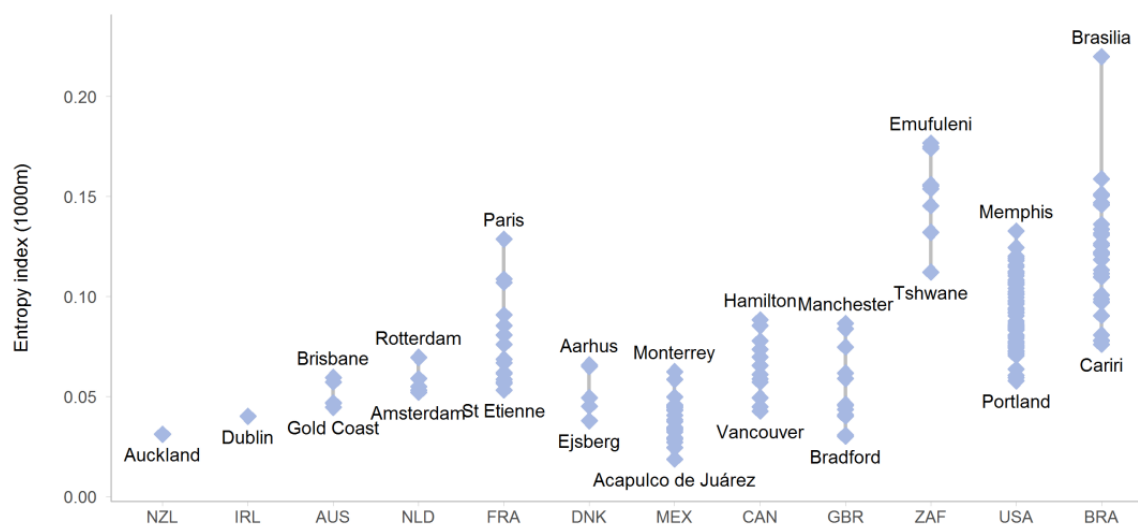
Source: OECD (2023), OECD City Statistics (database), OECD Publishing, Paris, <http://dx.doi.org/10.1787/region-data-en>.

Income spatial segregation is increasing in G7 cities

Income spatial segregation refers to the concentration of people in particular neighbourhoods according to their income level. Larger and wealthier cities tend to exhibit higher levels of income spatial segregation (OECD, 2018^[19]). Countries such as Brazil, France, South Africa, and the United States show a high degree of heterogeneity in income segregation in metropolitan areas (Figure 23).

In France, spatial disparities within cities based on income intensified in more than 30 out of the 53 largest cities between 2004 and 2019. This indicates that people with similar incomes tend to live in the same neighbourhood, a trend which has accelerated over the past 15 years in cities (INSEE, 2023^[100]). The city of Paris illustrates how income tends to be uniform within neighbourhoods and differentiated across neighbourhoods (Figure 24). In Italy, a high level of spatial disparity in households' income is observed not only within cities, between urban centres and suburbs. In Milan, for instance, the average income of households in the central neighbourhood (about EUR 88 700) was more than five times higher than the average income of households in the poorest neighbourhood (less than EUR 18 000) in 2019 (Ministry of Economy and Finance, 2021^[101]). In Rome, a significant income gap is evident within the city, accompanied by various other forms of geographic inequality, including employment levels, education, and access to cultural and recreational amenities (Lelo, Monni and Tomassi, 2019^[102]) (Figure 25).

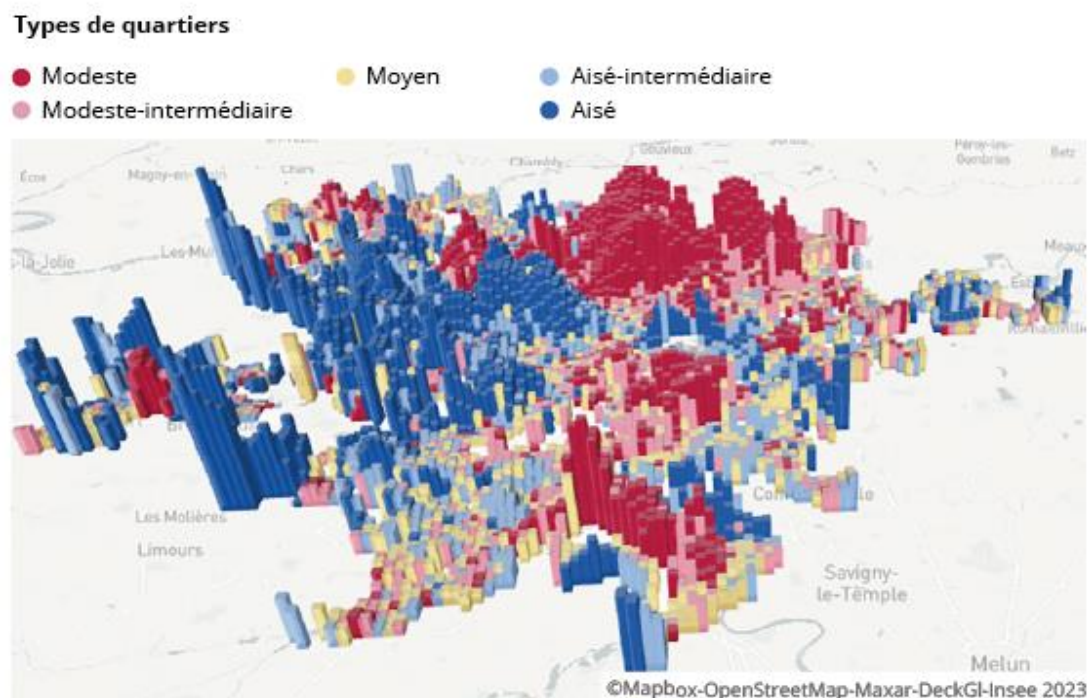
Figure 23. Income segregation in selected metropolitan areas



Note: Data refer to 2014 for the United States; 2013 for Denmark and New Zealand; 2011 for Brazil, Canada, France, Ireland, United Kingdom and South Africa; 2010 for Australia; 2008 for the Netherlands; 2000 for Mexico. National definitions of urban areas have been used in the case of Brazil, New Zealand, and South Africa as the EC-OECD FUA definition was not available for those countries.

Source: OECD (2018), Divided cities: understanding intra-urban inequalities, <https://doi.org/10.1787/9789264300385-en>

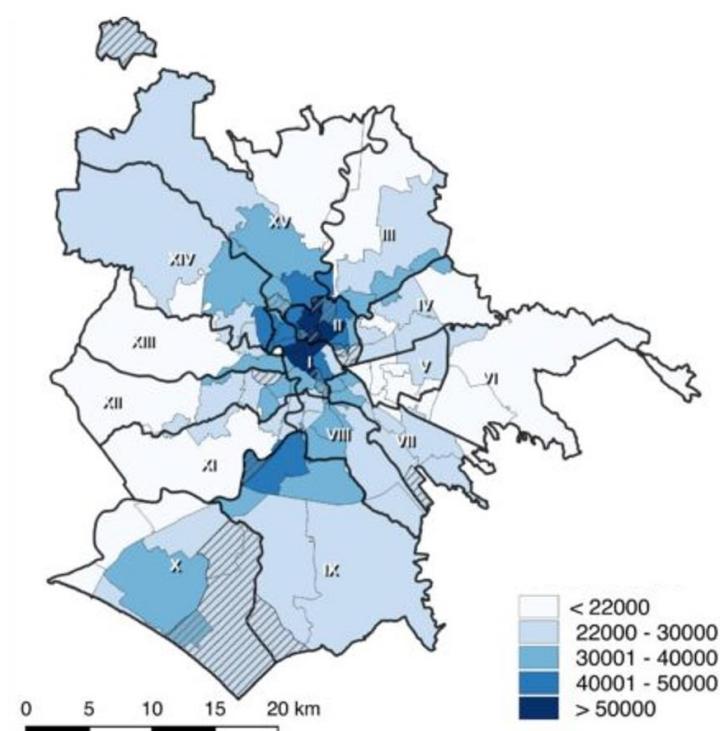
Figure 24. Degree of income segregation in neighbourhoods in Paris, France



Source: (INSEE, 2023₍₁₀₀₎).

Figure 25. Personal income levels in neighbourhoods in Rome, Italy

Average income per capita in 2019 (EUR)



Source: (Lelo, Monni and Tomassi, 2019^[102])

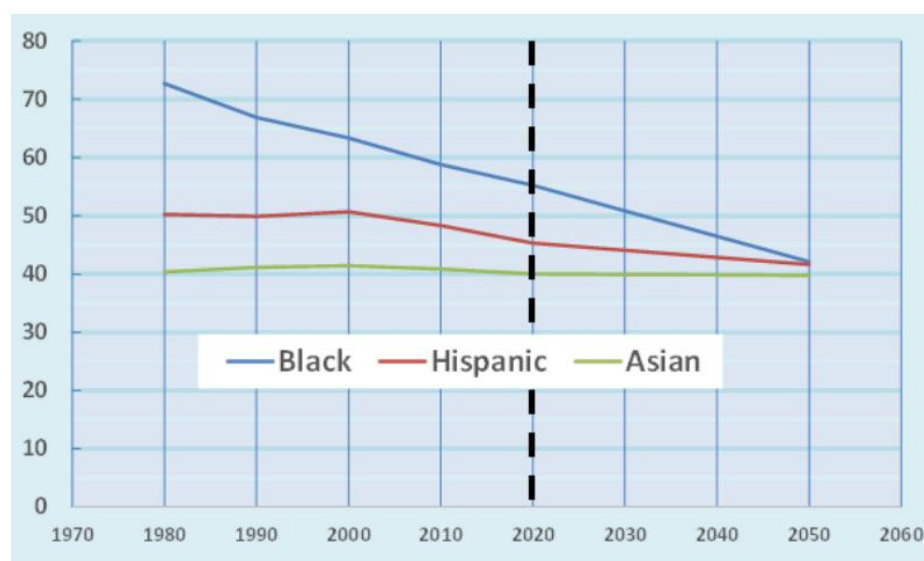
The residential segregation of minorities in cities remains a persistent challenge, despite some improvements

The separation between population groups in distinct neighbourhoods is observed in many OECD cities. In the United States, census data at the neighbourhood level show that residential segregation for the Black population has been declining over the last 20 years. However, the level of segregation for the Hispanic and Asian populations has remained nearly unchanged (Logan and Stults, 2022^[103]; Frey, 2022^[104]) (Figure 26).

In European countries, evidence of segregation among minorities, particularly foreign-born migrants, is observed, especially in large cities and within migrants' communities that are geographically far from the receiving country (OECD, 2018^[19]).

Figure 26. Trajectories of segregation in US cities, 1980-2020 and projections through 2050

Index of Dissimilarity



Note: Segregation is measured by using the Index of Dissimilarity, which captures the degree to which two groups are evenly spread among census tracts in a given city. Whites are the reference group. The index gives the percentage of one group who would have to move to achieve an even residential pattern. For instance, a value of 50 for black-white segregation means that 50% of either group must move to a different tract for the two groups to become equally distributed. Therefore, the higher the Index, the stronger the spatial segregation.

Source: (Logan and Stults, 2022^[103])

Key challenges

Spatial segregation puts people, particularly minorities, at risk of experiencing social exclusion.

With spatial segregation, various social groups become isolated, limiting opportunities for interaction. This increases the risk for people to fall into social exclusion, meaning the inability to participate effectively in economic, social, and cultural life (Duffy, 1995^[105]). Consequently, social exclusion jeopardises individual well-being and capabilities (Sen, 1993^[106]). Furthermore, it hinders community development and the city's social cohesion. Social isolation can reinforce prejudice and discrimination, bringing stigmatisation effects that perpetuate a downward spiral in neighbourhoods (European Commission, 2019^[107]). Social exclusion represents a significant risk, especially for minorities such as migrants, hindering their integration.

Spatial age segregation reduces cross-generational interaction and can increase the risks of loneliness among older adults

When different people share fewer spatial areas, several negative consequences arise (OECD, 2018^[19]). Primarily, age segregation reduces opportunities for cross-generational interactions, leading to the physical and social isolation of vulnerable groups, especially the elderly. This, in turn, compounds the risk of loneliness for older adults, who are already more likely to live alone. Age segregation may be a self-reinforcing phenomenon, reducing social cohesion and impeding community-building. In neighbourhoods dominated by a single generation of residents, market services such as retail might cater predominantly to that specific age group. This runs the risk of exacerbating segregation, resulting in neighbourhoods "specialised" in services for young people, and others serving older adults.

Spatial segregation exacerbates disparities in housing quality and affordability.

When individuals from the same social groups cluster in specific city areas, housing opportunities become unequally distributed. Housing is the biggest expense for low-income households, which are often more affected by the “housing overburden rate” — i.e., spending more than 40% of their disposable income on housing costs (OECD, 2020^[108]). In 2019, the housing overburden rate for low-income households was 34% for those renting without subsidies, 15% for subsidised rentals, and 25% for homeowners with mortgages (OECD, 2021, p. 17^[82]). By 2020, the housing overburden rate further increased by an additional 2 percentage points for low-income private tenants (OECD, 2023^[109]). The housing burden has disproportionately increased for low-income households, rising by 9% between 2005 and 2015 in OECD countries — higher than the increases observed for middle- and top-income households (5% and 3%, respectively). Moreover, low-income households often experience lower housing quality and are more likely to live in overcrowded conditions. Across OECD countries, 16.4% of households in the bottom quintile experience overcrowded living conditions, contrasted sharply with the less than 6% for the top quintile (OECD, 2020^[108]; OECD, 2021^[82]). Spatial segregation reinforces disparities in housing quality, as affluent neighbourhoods have a better maintained housing stock, while dilapidated housing is more prevalent in segregated neighbourhoods with lower income and more vulnerable populations. This affects housing affordability, driving prices upward in affluent neighbourhoods and perpetuating a vicious cycle that reinforces the separation between communities. This, in turn, contributes to increased socioeconomic segregation and reduced social cohesion, fostering persistent disparities in resources and opportunities among different neighbourhoods or communities.

The risk of loneliness-related challenges will increase, especially for young people and older adults

Mental health is a key factor for well-being and quality of life. Urban life exposes residents to an elevated risk of serious mental illness as compared to rural areas (Gruebner et al., 2017^[110]), attributed to various negative social and environmental determinants such as pollution and crime. Shocks and uncertainties, such as the COVID-19 crisis, have had a negative impact on mental health and unveiled the need for cities to support residents in this field. For example, a survey conducted in the United States found that more than half of mayors have identified mental health as one of their primary post-pandemic challenges, underscoring the elevated priority cities now place on mental health (Linos and Margolis, 2023^[111]). Indeed, the most recent *Eurocities Mayors Pulse Survey*—which collects answers from almost 100 mayors across Europe—revealed that mayors are keen to preserve investment in public health, (including mental health (Eurocities, 2023^[112])).

Given that social interaction is a key determinant of people's mental health and wellbeing, it should be prioritised in policies aimed at promoting healthy ageing. Spatial segregation increases the risk of loneliness and its consequences for individuals of all ages. In the European Union, a 2022 survey found that 36% of respondents declare feeling lonely at least some of the time, and 13% most of the time (Berlingieri, Colagrossi and Mauri, 2023^[113]). Both young people and older adults can face such risks. The COVID-19 pandemic caused loneliness to increase among young people because of containment measures and school closures (OECD, 2021^[114]). In EU countries, loneliness has a higher incidence among youth than older adults (Berlingieri, Colagrossi and Mauri, 2023^[113]). Higher isolation for youth risks severe long-term consequences, such as dropping out of school (OECD, 2021^[115]). For older adults, social isolation is compounded with declining physical health, the transition from an active work-life to retirement, and disruptive events such as the loss of family members and friends. In high-income countries, it is estimated that 12% of older adults are affected by depression (McDaid, Hewlett and Park, 2017^[116]), and a higher share of the population is at risk of depression. In European countries, it is estimated that 50% of the population aged 60 and older is at risk of depression (OECD/European Union, 2022^[117]).

Spatial segregation goes beyond residential segregation, since accessibility to urban opportunities and services also varies across social groups

While segregation, including age segregation, is mostly tackled through the lens of *residential segregation* — where different age groups reside separately (Miliadis and Psyllidis, 2022^[118]) — the concept extends beyond the residential dimension. It is also strongly linked with access to services and urban activities. Spatial accessibility, defined as the ease with which individuals can reach the locations of goods and services using the public transport system plays a critical role. Yet, equitable accessibility, remains unevenly distributed within population, making it a core policy objective in many societies (OECD/EC-JRC, 2021^[90]).

Age segregation presents challenges in terms of access to infrastructure and public spaces. For instance, in the United States, the accessibility of jobs via public transport varies widely across and within cities. This discrepancy is particularly pronounced in neighbourhoods with concentrated minority populations, hindering their economic opportunities (OECD, 2018^[19]). Furthermore, age spatial segregation is associated with inequalities in accessibility. Addressing the needs of an ageing population necessitates ensuring that the accessibility challenges that older adults and other vulnerable groups may encounter when accessing public transport are acknowledged. Such challenges include reduced mobility, poor design of public transport systems, a lack of adequate seating, insufficient signals at bus stops and stations, low frequency service, safety concerns, perceived security issues, and other barriers that might deter some groups from using urban infrastructure. For instance, in **Seoul Metropolitan Area (Korea)**, the actual accessibility to services and amenities is spatially unequal, particularly impacting older adults (Box 4).

Box 4. Inequalities in accessibility by public transport in Seoul Metropolitan Area (Korea)

A recent study by the International Transport Forum (ITF, 2023^[119]) builds on the Urban Access Framework (ITF, 2019^[120]) to explore the determinants of equitable access. It proposes a framework for incorporating such an analysis into policymaking, aiming to better account for the distributional effects of transport policies and interventions. The report focuses on the Seoul Metropolitan Area (SMA), where the share of older adults is expected to grow from its current level of 15% to 37% in 2050.. This demographic change will have an impact on travel patterns in the region as well as on infrastructure needs and costs. The SMA's evolution over time has resulted in high housing costs in the core areas where many opportunities are located. These areas also have more extensive public transport coverage. However, in part due to housing costs, a high share of older adults lives outside the more accessible core areas. Car ownership rates are increasing in the region, particularly outside of the core areas.

The analysis focuses on determining whether the transport system is fulfilling its core function of connecting people to their needs:

- By measuring absolute accessibility through a combination of land use density and diversity (proximity) with transport system's performance. It calculates a cumulative count of the opportunities that can be reached within a specified travel time or distance threshold using a given transport mode, and
- By considering personal and contextual factors influencing travel behaviour such as age, income, and gender. These factors allow for a targeted assessment of absolute accessibility between residences and destinations.

The analysis finds lower levels of accessibility by public transport and active modes, especially for older adults residing in the SMA's peripheral zones. This reinforces spatial access inequality for individuals without cars, contributing to increased car dependence and the associated negative externalities of

congestion, pollution, and traffic fatalities. For older adults, the lack of suitable alternatives to driving can mean less independence and a higher risk of social isolation, leading to associated negative health outcomes.

Source: ITF (2023), *Accessibility in the Seoul Metropolitan Area: does transport serve all equally?*, <https://www.itf-oecd.org/accessibility-seoul>

Implications for urban policy

‘Age-diverse’ neighbourhoods with diversified housing options for cross-generational interaction

Age-diverse communities are essential for building inclusive and diverse cities. Place-sharing by different generational groups in cities can yield major advantages for individuals, households, and cities. Inter-generational place-sharing can improve mental health and well-being by better connecting older adults to younger generations. Within mixed-generation neighbourhoods, older adults may take on various roles such as mentoring, sharing their experiences, and providing support to younger generations. In addition, mixed-age neighbourhoods can incentivise older adults to be physically active and therefore contribute towards improving their physical health. Age-diverse neighbourhoods may also provide older adults with incentives to be active in the economic life of cities. For example, older adults may be able to pass their knowledge and experience along to younger generations and guiding them in topics such as career development. By fostering local networks, cross-generational interaction promotes social cohesion, reinforces the sense of belonging to a community, reduces loneliness, and in turn boosts community resilience. A well-designed, age-diverse neighbourhood should include a diversified offer of housing to accommodate different preferences corresponding to different life stages. This involves incorporating a mix of inter-generational residences, single-family homes, and senior living facilities, ensuring that these options are integrated or placed in proximity. This design encourages interactions among different age groups, while also incorporating designated quiet areas and acoustic buffering.

In fast-growing cities, rapid and unplanned housing development may result in neighbourhoods with a low variety of housing options, such as housing types and sizes. This situation can contribute to the formation of segregated communities. On the contrary, fostering a diverse mix of housing types in a neighbourhood can promote mixed-age and mixed-income communities. This approach also mitigates the common housing mismatch challenge often observed in the suburbs of large cities, offering a greater variety and flexibility in the housing stock. For instance, **Renca (Chile)** is promoting flexible land use by allowing multiple activities and mixed land uses.

Land planning instruments can play a crucial role in designing neighbourhoods that cater to individuals at different life stages. This includes offering a diverse range of housing options, such as varied apartment sizes, and promoting the development of intergenerational houses with communal spaces and shared services. For instance, in **Alicante (Spain)**, the Municipal project for Intergenerational Housing and Community Services provided 244 social housing units for older residents and young professionals willing to participate in social and care activities as part of their stay contract. The rich community life engages all tenants in the housing governance and allows older tenants to live on their own, while maintaining an engaging social life filled with intergenerational interactions (World Habitat Awards, n.d.^[121]). Another direction is to design multi-functional public spaces that cater to the diverse needs of people of different ages and backgrounds, while also encouraging the creation of “active neighbourhoods” with the participation of youth. For instance, in **Turin (Italy)**, the city is promoting “Youth Solidarity Co-housing”. In this initiative volunteers between 18 and 30 years old can receive reduced rent in exchange for committing 10 hours per week to provide support, companionship, and assistance in daily activities for older adults or other vulnerable individuals: this collaborative effort contributes to community development (City of Turin,

n.d.^[122]). Finally, cities can promote the mixed land-use of spaces and buildings by integrating residential, retail, community, social, and recreational spaces. This approach increases opportunities for social interaction among people of different ages. For example, retirement homes can transition to “third spaces” for “co-living” and “co-working” by opening their premises to activities such as co-working spaces and rooms for students, as demonstrated by the “Jardins d’Haiti” in **Marseille (France)** (Le Media Social, 2022^[123]).

Age-diverse neighbourhoods should also prioritise the creation of child-friendly spaces to enhance the well-being of children and youth (OECD, 2021^[124]). The spatial design of neighbourhoods can serve a crucial role in achieving this goal by providing accessible and well-equipped outdoor spaces and recreational facilities near children and their families. Considering the critical importance of ensuring the safety of children in promoting activities outside of institutional contexts (e.g., kindergarten, school), these child-friendly urban designs help improve children's well-being. They provide them with opportunities for constructive social interactions and facilitate activities that are crucial for their social and emotional development (OECD, 2021^[125]). In cities that prioritise the welfare of children, play extends beyond designated spaces, permeating the entirety of the urban landscape (OECD, 2021^[126]). Such an approach to urban development can create urban landscapes that cultivate child-friendly cities, ensuring the well-being of forthcoming generations (OECD, 2021^[125]). For example, in **Austria**, the “Austrian Spatial Planning Concept” focuses on improving the social infrastructure for children. The initiative seeks to improve urban spaces pertaining to the well-being of children. This involves the advancement of recreational areas, educational facilities, as well as services tailored to the unique needs of children (UN-HABITAT/OECD, 2023^[127]).

In **Amsterdam (Netherlands)**, the city has developed an extensive Living Agenda 2025¹⁵, to counter market-driven social economic segregation. In its pursuit of preventing social-economic and ethnic segregation, the city is drafting a regulatory agenda to guide new housing projects. The agenda involves the subdivision of the municipal territory into 22 areas, each intended to contain a balanced share of affordable, middle-income, and high-end, housing, including both rental and owner-occupied properties (Urban Land Institute Europe, 2018^[128]). Specifically, within each of the 22 areas, the agenda mandates 40% rent-regulated housing and social housing, 40% mid-range rent and sale properties, and 20% high-end rent and buying options. The agenda stipulates detailed guidelines for applying this 40-40-20 programming in housing development projects (Play the City, 2018^[129]).

Urban design to fight loneliness

To reduce the risks associated with loneliness, another key policy avenue for cities is to promote better accessibility to nearby facilities and green spaces. Better accessibility to neighbourhood facilities and walkability increase opportunities for social interaction and connections, with particularly noticeable benefits for older adults (Berlingieri, Colagrossi and Mauri, 2023^[113]). Having a greater number of facilities within neighbourhoods increases the likelihood of meeting people with similar interests such as sports or culture. This fosters connections, contributing to improved community building and a sense of belonging. An example is the initiative “Todos al parque”¹⁶ from the city of **Barranquilla (Colombia)**. Through a co-design process involving residents, the initiative reimaged parks with plazas with a specific focus on the needs of children, older adults, and people with reduced mobility. This included considerations such as the location of specific furniture, the incorporation of access ramps, and the creation of paths without steps.

Initiatives aimed at advancing the well-being of all inhabitants, irrespective of age, can enable cities to support the elderly population as well as attract the younger demographic necessary to sustain economic

¹⁵ The Living Agenda 2025 is part of the Housing Agenda 2025, which is the guiding document for housing policy of the city.

¹⁶ <https://prizeforcities.org/project/todos-al-parque>

and social vitality. In a broader context, policies aimed at addressing demographic changes and challenges can help foster diverse and inclusive cities (OECD, 2015^[130]). Therefore, generational cohesion is another pivotal component of diversity and inclusion in cities. Youth isolation, in conjunction with social isolation among older adults, underscores the importance of fostering community bonds across generations. While the younger population does not necessarily have a pressing need for a large spatial area, it is imperative to acknowledge that they do need a designated space in which they can actively partake in the process of placemaking (Nordregio, 2023^[131]).

In **Denmark**, the Danish Design Center (DDC), along with over 150 partners across government, non-profits, researchers, and entrepreneurs, has developed an initiative (in English, “Our Town”) to address the imperative of youth’s mental health in urban settings, outlined in seven fundamental principles. These principles entail relations and care, open families, lifelong learning, community and democracy, new forms of work, prevention and treatment, and nature on purpose. By deploying participatory workshops and testing various urban models, the project seeks to reinvent urban spaces, enabling the advancement of young inhabitants’ well-being (OECD, 2023^[132]).

Equal access to public services and urban amenities in all neighbourhoods by shaping “X-minute” cities for all ages

The changing mobility requirements associated with age underscore the importance of land use and transport policies. These policies play a crucial role in maintaining accessibility, supporting ageing in-place, and ensuring opportunities for people of all ages in every neighbourhood across cities. Neighbourhoods that can provide a range of affordable housing options near essential services, amenities, and dedicated infrastructure for active travel can facilitate independent mobility for all ages. Additionally, such neighbourhoods contribute to ensuring access to transportation infrastructure for marginalised groups. To this aim, designing cities and neighbourhoods around the “X-minute city” concepts, such as the 15-minute city proposed in **Paris (France)** (Moreno, 2020^[133]), is essential for providing access to all essential services and daily needs within a short distance, promoting active transportation. For instance, **Utrecht (Netherlands)** is developing a “10-minute city” model grounded in strong connections between services, transport, and housing (City of Utrecht, n.d.^[134]). Similarly, **Brussels (Belgium)** aspires to transform into a “10-minute city,” ensuring that all essential services and facilities are easily accessible to its residents and visitors within a 10-minute walk or bike ride (City of Brussels - Smart City Unit, n.d.^[135]). In 2012, **Portland (United States)** adopted a strategic plan to create “20 minute neighbourhoods” where 90% of residents can easily get to services by soft mobility (City of Portland, 2012^[136]). **Sydney (Australia)**, the Planning Agency for the Greater Sydney Region developed the Greater Sydney Region Plan, which is built on the idea of creating three cities where the majority of residents are situated within a 30-minute commute from their workplaces, educational institutions, healthcare services, various amenities, and attractive public spaces (Greater Sydney Commission, 2018^[137]).

“X-minute” cities require investments in transport that can capitalise on low-cost infrastructure to reallocate urban spaces to people, improving the connectivity of active modes. In less dense areas, characterised by higher per-capita costs, better public transport coverage or demand-responsive services can help maintain basic mobility and independence for all ages. The case of the Metrocable cable-car system in **Medellin (Colombia)**, shows the impactful role that transport infrastructure can play in benefiting vulnerable groups and communities. The cable-car provides a reliable transport connection to the most remote and underserved neighbourhoods, and is used by vulnerable groups including women in the low socio-economic class (Matsuyuki et al., 2020^[138]).

Ensuring equal access to public services necessitates cities to conduct accessibility analyses. Such analyses can inform the design and implementation of targeted interventions tailored to the local context, ensuring an equitable distribution of benefits. Moreover, accessibility analyses can enhance participatory planning processes by incorporating individual lived experiences into transport decision-making. For

example, the city of **Rennes (France)** partnered with local associations of people with disabilities to design the facilities of the metro line and the bus vehicles and stops (Euractiv, 2017^[139]).

To fix spatial segregation, shaping “X-minute” cities should be coupled with policies targeting housing affordability and inclusionary zoning, with incentives to create affordable housing units in new residential developments, adequately located in areas with high density of services and amenities and good access to economic opportunities. For instance, in **Germany**, inclusionary zoning is used by most major cities (OECD, 2023, p. 26^[8]). To make inclusionary zoning financially viable for developers, cities can consider offering economic incentives such density bonuses (i.e., allowing more housing units than normally permitted) to compensate the loss of revenue, or mechanisms to facilitate permitting procedures. For instance, in **New York (United States)** the Voluntary Inclusionary Housing scheme provides developers with an optional floor area bonus to developers that commit to the creation, rehabilitation, or preservation of permanently affordable housing units for low-income families (NYC Housing Preservation and Development, n.d.^[140]).

5 Conclusion

This paper analysed demographic change in cities, a structural megatrend that is affecting – or will affect soon – all OECD countries. It highlighted that demographic change is a long-term phenomenon occurring at various spatial scales and affecting the well-being of households in neighbourhoods and cities. As for other megatrends and shocks (including globalisation, biodiversity collapse, climate change, the erosion of democracy, and digitalisation), the impacts of demographic change are asymmetric, overlapping, and compounded across people and places. These effects manifest in various ways, including new forms of mobility, transformation of productive systems, the adoption of carbon-free energy and food networks, shifts in land use, alterations in people’s relationship to nature, changes in poverty, and new solidarity models (OECD, 2023^[21]). Cities, functioning as economic hubs for regions and countries, serve as focal points where the impacts of megatrends, their associated challenges, and crises intertwine in complex ways. For instance, cities are particularly susceptible to extreme heat events, disproportionately affecting vulnerable groups such as older adults and young people. The inherent heterogeneity of cities and urban systems magnifies the complexity of the challenges posed by demographic change.

To disentangle the complexity of the challenges associated with demographic change, the paper focused on three scopes: i) ageing population and decreasing household size, ii) the dynamics of population growth or decline in cities, and iii) the spatial segregation within cities. The paper demonstrated how these three scopes are distinct (for instance, they consider different units of observation) yet interconnected. The challenges identified within each scope are compounded, posing concrete risks to cities’ resilience, diversity, and inclusion. These risks include inadequate housing and urban built environments, insufficient support for families, infrastructure challenges in growing cities, spirals of decline in shrinking cities, and issues related to loneliness and mental health in age-segregated cities.

Not surprisingly, the slow pace of demographic change creates challenges for policymakers. During periods of multiple crises, there is a bias towards short-term oriented public policy, potentially overlooking the long-term cost of inaction. In practical terms, it might be challenging for policymakers to allocate resources and invest in policies that may not show immediate benefits. Despite cities and local governments facing resource constraints in services and infrastructure investment, they have the responsibility to plan for the future, adapting urban planning, housing, and services to meet the evolving needs of the population. Therefore, decision makers need to prioritise their actions by responding to current needs while also anticipating future needs. Balancing these demands can be a daunting task, with a high risk of succumbing to the “present bias”, favouring short-term payoffs over long-term gains. To mitigate this risk, cities will need to adjust their revenues to adapt to demographic changes, such as an ageing population and a decreasing workforce. Implementing these changes can be politically sensitive and require a long-term vision.

To address the complexities associated with demographic change, urban policies require a comprehensive and systemic approach. This approach should aim to i) respond in real time to major shocks and crises, and ii) design long-term resiliency (Matsumoto and Ledesma Bohorquez, 2023^[141]). The intricate nature of demographic change, coupled with close interactions across various elements in the urban system (e.g., economic, social, ecological), implies that major shocks in one system can have cascading effects on other systems in cities. For example, climate change is impacting several interconnected systems in urban areas, including economic systems (e.g., production, jobs), social systems (e.g., housing, health,

education), ecological systems (e.g., ecosystem services like temperature regulation, flood protection), and physical systems (e.g., transport, energy, water, and sanitation). A systemic approach to address demographic change in cities involves:

- Considering not only direct (or single) impacts, but also indirect, cascading, or compounding impacts of change.
- Recognising asymmetric impacts across people and places, acknowledging that climate shocks disproportionately affect certain areas (e.g., coastal cities) and vulnerable population groups concentrated in specific geographical locations within cities.
- Examining spatial linkages within and across urban areas, where functional interconnections within a metropolitan area, such as city centres and surrounding regions, may either mitigate or amplify the impact of change.
- Adopting a cross-sectoral, multi-disciplinary approach that properly integrates the connections between issues generally treated separately in different specialisations and scientific or institutional silos (e.g., local economic development and environment protection in cities).
- Engaging local communities throughout the policy cycle, ensuring the inclusion of all generations in shaping inclusive urban communities. This requires adopting innovative and open approaches in urban development and management decisions.

Futures thinking and foresight tools are valuable resources for cities aiming to adopt a long-term and systemic approach (OECD, 2023^[21]). Futures thinking encompasses any activity that may aid policymakers in comprehending and making sense of potential future changes or uncertainties (Government Office for Science, UK, 2022^[142]), while ‘strategic foresight’ involves gathering and processing information about the future, utilising specific tools and methods for conducting futures work. By integrating both approaches, policymakers can analyse emerging signals, current trends, and develop alternative strategies to consider and anticipate potential challenges. The application of futures thinking and foresight in strategic analysis signifies a shift away from short-term thinking.

Futures thinking and foresight can play a crucial role in aiding local policymakers to understand and prepare for the impacts of demographic change at the city level. While this paper recognised several common demographic trends in G7 cities and OECD countries, their current and future magnitudes will depend on various endogenous place-based factors. Foresight approaches, by identifying the linkages between trends and place-based features, help inform how to anticipate demographic shifts in cities and the evolving needs of diverse groups. They identify the most vulnerable groups and the risks they may encounter in the future. Foresight can also help decision-makers to consider the interactions between demographic change and other megatrends, facilitating long-term strategies for addressing them. For instance, strategic foresight enables cities to tackle both demographic change and climate change, fostering integrated planning and urban design that aligns future needs with climate-related and energy boundaries. Some areas in which futures thinking and strategic foresight can aid urban policy design to address demographic change include: planning for increased healthcare demand, long-term care, and elder-friendly infrastructure; anticipating skill gaps and workforce changes; planning the location of housing and infrastructure; as well as innovative housing solutions¹⁷.

¹⁷ Several OECD countries, including Australia, Finland, France, and the United Kingdom, have implemented foresight for cities or regions (OECD, 2023, p. 102^[21]). In the United Kingdom, the national project “Foresight Future of Cities”, which has been conducted over 25 cities (Government Office for Science, 2016^[156]), provided directions both for city and national governments to adopt, value, implement, and practise the use of city foresight. However, the potential of foresight for city is still underexploited. For instance, a 2019 survey of 400 flagship sustainability initiatives taken by 225 cities and local governments around the world in 2015-2016 revealed that only 8.5% adopted foresight methods (Castán Broto et al., 2018^[163]).

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