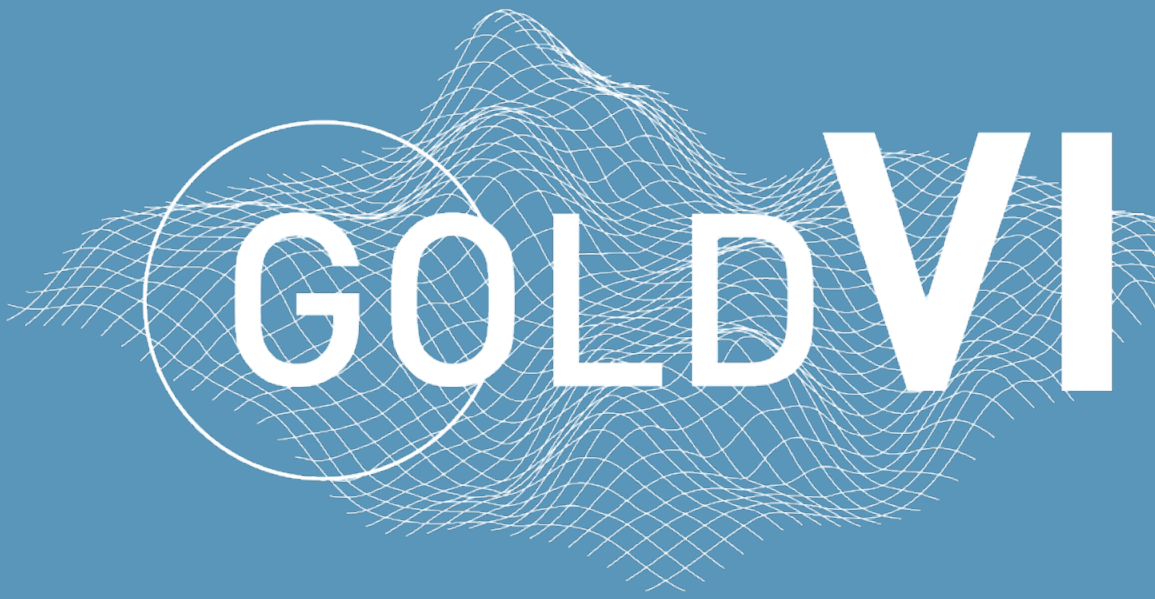


***Case-Based Contribution to Chapter 5: Caring***

*GOLD VI Report on Pathways to urban and territorial equality*

# Access to Technology and Services across the EU Regional Divide

In partnership with:

UCLG United Cities and Local Governments

KNOW Knowledge in Action for Urban Equality

# Access to Technology and Services across the EU Regional Divide

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## SUMMARY

In many countries an important role of local and regional governments (LRGs) is, amongst other things, to design and deliver policies for enhancing health-related and caring practices aimed at supporting vulnerable groups, either in cities or in less densely populated and rural regions. A key element within these caring practices is the provision of high-quality health-related services which can be consumed or acted upon in a home-based or residential setting. However, today, the provision of many health-related services is increasingly shifting online, and the Covid-19 pandemic has greatly accelerated the speed with which this is taking place. Yet, the ability to access and benefit from these increasingly online services is also contingent upon the availability of appropriate infrastructures. Here the effects of the pandemic may be to exacerbate the already growing digital divides which have been emerging between different types of places over the last decade. This divide spans both the possibilities for remote home-working and also the remote consumption of online health services.

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# Access to Technology and Services across the EU Regional Divide

Streets in Cyprus
Source: dapictures_team (Pixabay)

**The Covid-19 pandemic has thrown a spotlight on the question of the extent to which people are able to function socially and work remotely from home part time or all of the time.** Across the OECD countries the pandemic has demonstrated that there are major differences in people's ability to work remotely, depending in part on the sectoral and occupational structure of the economy and also on the communications technology and infrastructure available. Across the OECD as a whole some 30% of jobs are amenable to remote working,[1] but there are also large variations between countries, with close to 45% of jobs in the UK being amenable to remote working while in Turkey the number is close to just 20%.[2] However, there are also large regional variations within countries. Typically, the inter-regional variations in the share of jobs which are amenable to remote working varies by some 20%, and closely follows the intra-national patterns of the relative prosperity of the regions. More prosperous regions typically have larger shares of remote-working possibilities while there tend to be few such opportunities in less prosperous regions.[3]

At the same time as generating spatial differences in the extent to which work is amenable to remote working, **the Covid-19 pandemic has also accelerated the transformations which were already ongoing regarding the remote and online provision of public services.** The access to services differs across different types of places according to the economic geography of the country and also the relationships between the national and sub-national governance and institutional set-ups. Some of the most profound changes are in health and healthcare provision.

1. OECD 2020.
2. Ibid.
3. Ibid.

Prior to the Covid-19 pandemic in Europe there were already major steps being taken forward regarding the provision of e-health[4] and e-government[5] and smart public service provision.[6] The European Union had already established various initiatives across its portfolio of policies and competences aimed at furthering these possibilities. In addition, the enquiries it undertook to gauge citizens' attitudes towards the provision of digitisation in daily life[7] demonstrated that people's responses to these issues varied significantly, depending on their prior experience of digital technologies. Some 76% of those people for whom internet usage is a daily activity feel that the impact of these new technologies has been broadly positive on their quality of life. This in marked contrast to those who never use the internet, for whom only 38% regard the advent of these technologies as having had a positive effect on their lives.[8] Moreover, more than two thirds of respondents (69%) answered that they would be encouraged to make more use of these digital technologies and services if their internet connection was faster and more reliable. In particular, some 63% of survey respondents said they would increasingly use these technologies if the online services were secure and 57% said they would increase their usage if more public services were online.[9]

Already, by 2018, some 17% of the EU population aged 16-74 had booked a doctor's appointment using online services, up from 8% in 2012, and many countries including Denmark, Spain and Finland, between one third and one-half of the population use these technologies for these activities.[10] However, there are wide disparities in usage of internet technologies between skills and income groups, with 78% of graduates across the OECD using these technologies, whereas in low education groups only 44% across the OECD use these technologies.[11] As such, **problems of digital inclusion between different educational groups is a major issue, especially in countries such as Mexico, Poland, Israel, the Slovak Republic, Greece, Colombia and Brazil.**[12]

These data suggest that while on the one hand there is a growing demand for new e-health services, the ability to access such services is contingent on other issues, including the regional characteristics of the country and how this maps onto the spatial distribution of poverty and technology.

# Remote healthcare services and the urban-rural divide

In recent decades there has been a worldwide shift of healthcare resources, assets and personnel into urban centres in order to generate cost efficiencies and to realise scale economies.[13] However, **there is a danger that this will lead to an increasing urban-rural divide in the scale and quality of local healthcare provision and technologies offer possibilities to bridge this divide.**[14] Indeed, in The Netherlands we have seen spatial shifts in older age groups over 75 years old, moving back into urban areas in order to more easily access public and social services.[15] Yet, **these new technologies offer the possibilities to counter these shifts and to ensure that rural dwellers enjoy similar levels of healthcare coverage as urban dwellers.** In particular, remote monitoring is an essential element of e-health or tele-health, and this is especially important in the context of chronic

4. https://digital-strategy.ec.europa.eu/en/policies/ehealth

5. https://digital-strategy.ec.europa.eu/en/policies/egovernment

6. https://digital-strategy.ec.europa.eu/en/policies/smart-public-services

7. European Commission 2017.

8. https://digital-strategy.ec.europa.eu/en/news/attitudes-towards-impact-digitisation-and-automation-daily-life

9. European Commission 2017.

10. OECD 2019.

11. Ibid.

12. OECD 2019.

13. Clarke and MacDonald 2018.

14. Ibid.

15. De Jong et al. 2016.

disease associated with an ageing society, a feature which is characteristic of many rural and small town areas, along with connectivity between local healthcare providers and specialist resources in urban centres.[16] **However, taking advantage of these opportunities also relies on having the requisite levels of tele-literacy and technological infrastructure, and here there are serious challenges in many countries.**

In terms of the spatial structure of healthcare systems, the interaction between economic geography and institutional and technological provisions varies markedly across Europe. Countries which are more urbanised and more densely populated also tend to have more spatially concentrated healthcare systems,[17] whereas countries with lower population densities and which are less urbanised tend to display more spatially diffuse healthcare systems. Whereas in the case of North America rural areas typically display poorer levels of health,[18] across Europe, the share of the population suffering material deprivation or at risk of poverty, and the share of households experiencing very low work intensity differs very little according to the degree of urbanisation.[19] In general, **amongst the more densely urbanised and richer countries in northern and western Europe, such dimensions of deprivation tend to be slightly higher in urban areas than in rural areas, whereas the reverse is the case in less prosperous and less densely urbanised countries in southern and eastern Europe in which rural regions are typically lagging urban regions**.[20]

Yet, irrespective of the particular national spatial structure and the geography of deprivation, what is clear is that regional divides in accessibility to the technology required for e-health and e-services are significant. Across the OECD, the regional gaps within countries in terms of FTTH (Fibre-to-the-Home) connectivity vary by up to some 70-80 percentage points,[21] even amongst some of the OECD's wealthiest countries. If we consider access to the fastest broadband (30Mbits/s), across many OECD countries the regional differences in connectivity is between 20-40 percentage points,[22] and the countries in which these gaps are typically less than 10 percentage points are those which are already very highly urbanised, such as the Low Countries and the UK.[23] Rural areas in some two-thirds of OECD countries have less than 70% of households with access to fast broadband.[24]

Moreover, in more than 80% of OECD countries the household broadband connectivity levels differ by more than 10 percentage points between urban and rural areas and in two-thirds of OECD countries the gap is more than 20 percentage points.[25] These pieces of evidence suggest that **citizens dwelling in rural areas in many countries are increasingly in danger of being left behind in terms of their ability to access modern healthcare services.** In particular, in many OECD countries the advent of the Covid-19 pandemic has meant that many healthcare services, including those which were traditionally locally provided, have moved entirely online, something which in many countries systematically disadvantages citizens living in more remote or sparsely populated locations.

Across European countries, access to next generation broadband varies markedly between urban areas and rural areas.[26] Across the EU, by 2016 on average some 80% of urban households have access to Next Generation Access (NGA) broadband while only 40% of rural households have access to NGA broadband. Although they are very unbalanced, these figures do represent rapid increases over the last decade.

16. Clarke and MacDonald 2018.
17. https://gisco-services.ec.europa.eu/pub/healthcare/metadata.pdf
18. Richman et al. 2019.
19. European Union 2014.
20. Ibid.
21. OECD 2020.
22. Ibid.
23. Ibid.
24. Ibid.
25. Ibid.
26. European Union 2017.

In 2012, the EU-wide average level of NGA access in urban areas was 55% and in 2014 it was 75%[27] while in rural areas in 2012 was only just over 10%[28] and 25% in 2014.[29] In other words, across Europe, in spite of rapid roll-outs in many countries, there are still major accessibility differences for NGA broadband between urban and rural areas. These differences suggest that the ability of citizens to take advantage of the newly-emerging service e-services provision will differ significantly.

However, these large differences also mask further significant differences between urban areas and between rural areas at a more local scale. While the 2016 EU-wide NGA average for urban areas is 80%, across two-thirds of EU countries at least 90% of urban households have access to NGA broadband. This figure has risen from just over 50% in 2014.[30] As such, urbanisation and NGA accessibility are closely related. In contrast, for rural regions, while the EU-wide NGA accessibility average is just 40% of households, some 45% of EU countries display lower accessibility levels than this. Indeed, there are only four countries that actually have NGA access above 80%, which is the EU-wide average for urban areas.[31] Moreover, if we remove the two tiny states of Malta and Luxembourg, then only the Low Countries of Belgium and The Netherlands (along with the UK, a former EU member state) reach this level for rural areas. In other words, **there are still very significant European-wide gaps in Next Generation Access accessibility between urban and rural areas.**

However, these problems of peripherality to technological platforms underpinning service provision are not just associated with very remote locations. Many peripheral areas are inside countries and do not appear to be peripheries when looked at on maps,[32] and many of these same places are also facing population decline.[33] Population decline puts continuous pressure on public budgets thereby undermining the capacity and quality of local governance, meaning that those localities and jurisdictions which most need innovative approaches to governance are often the least able to adapt accordingly.[34] These issues are critical in terms of the provision of the requisite information and communications technologies needed to underpin e-health and e-government services, especially in the context of ageing populations widely observed in rural, small town and economically lagging and peripheral areas.[35]

# Horizontal coordination to map the structures of healthcare provision and the administrative boundaries

Across the European Union, policy coordination linking the spatial restructuring of healthcare systems to technological and infrastructure roll-outs and e-literacy enhancement, especially for older age groups, would appear to be essential in order to avoid the digital divide becoming an even greater geographical healthcare divide in the post Covid-19 context. However, this is increasingly complex because medical and healthcare services are also centralising at a regional scale in many countries, although the technological infrastructure and literacy required to readily access these services is very uneven. **Accessibility to such services can be very unequal both across regions[36] but also within individual cities or regions and marginalised groups are especially vulnerable to these shifts.** Moreover, in many cases, the institutional or jurisdictional architecture is not consistent

27. EU and UN 2016.
28. Ibid.
29. Ibid.
30. Ibid.
31. EU 2017.
32. ESPON 2017.
33. ESPON 2020a.
34. ESPON 2020b.
35. Ibid.
36. OECD 2015a.

with local healthcare needs and as such our ability to respond to these challenges is often inhibited by the very institutional systems we rely on for public service provision.

This is because the structures of healthcare provision systems do not necessarily map neatly onto existing local government jurisdictional and administrative systems and finding ways to upgrade the appropriate infrastructures and technologies for improved online healthcare provision often involves traversing different local government jurisdictional boundaries. In other words, **improving the connectivity of households with healthcare service providers requires coordination across institutional boundaries,** something which can significantly slow down both the provision of these technologies and also the household uptake of these new online healthcare services.

If there are appropriately designed local and regional institutional arrangements in which the jurisdictions and powers related to communications infrastructure provision align with the institutions charged with the design and planning of healthcare services then such healthcare services' restructuring need not necessarily disadvantage particular areas of the local economy. However, often these institutional arrangements are not aligned, and separate and uncoordinated deals are struck between local government bodies and technology providers. Local government areas which are smaller and economically weaker will tend to be heavily disadvantaged by such arrangements due to weaker bargaining powers, and such weaknesses will tend to amplify the overall effects of the increasing spatial centralisation of healthcare facilities. As such, **designing bespoke sub-national governance bodies[37] which are able to better align these different interests and facilitate coordinated decision-making across local government jurisdictions is essential.** In many countries, the fallout from the pandemic and the accelerating changes in online and remote healthcare service provision and accessibility will accelerate the need for such the creation of sub-national boundary-spanning institutions, the precise form of which will depend on the challenges associated with the existing institutional arrangements.

37. OECD 2015b.

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CARING

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In particular, the present paper has contributed to Chapter 5 on "Caring", which focuses on the multiple actions that promote the care of diverse groups within society through safety nets and solidarity bonds, and the ways in which local and regional governments can promote caring practices that support structurally discriminated and/or vulnerable groups, as well as those that have historically "taken care" of others.

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