

**POLICY
HIGHLIGHTS**

ACCESS AND COST
OF **EDUCATION**
AND **HEALTH** SERVICES

PREPARING **REGIONS**
FOR **DEMOGRAPHIC CHANGE**

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About this policy highlights

This booklet reproduces highlights from the Access and Cost of Education and Health Services OECD/EC-JRC report, which provides fine-grained, present and future estimates and analysis of the cost and access to education and health services in 27 EU countries and the United Kingdom. It complements the OECD report [Delivering Quality Education and Health Care to All](#) focusing on policies and good practices. It is also the second report of the OECD series of work: *Preparing Regions for Demographic Change*.

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Introduction

How can governments deliver on the mandate to provide public services across territories efficiently, especially in places with low density facing depopulation and ageing?

This report makes use of novel methods to simulate the location of education and health services and estimate the differences in access and costs at very granular geographical levels. The report applies these methods to Europe and provide a thorough analysis of territorial differences in

the cost of and access to education and health services arising from local differences in demand. The report also identifies the areas facing the most difficult future challenges in provision based on available population projection grids. The findings highlight the value-added of considering a spatial lens in developing policies to mitigate inequalities across different geographies. These stem due to the unique trade-off between costs and physical access to local services in rural areas.



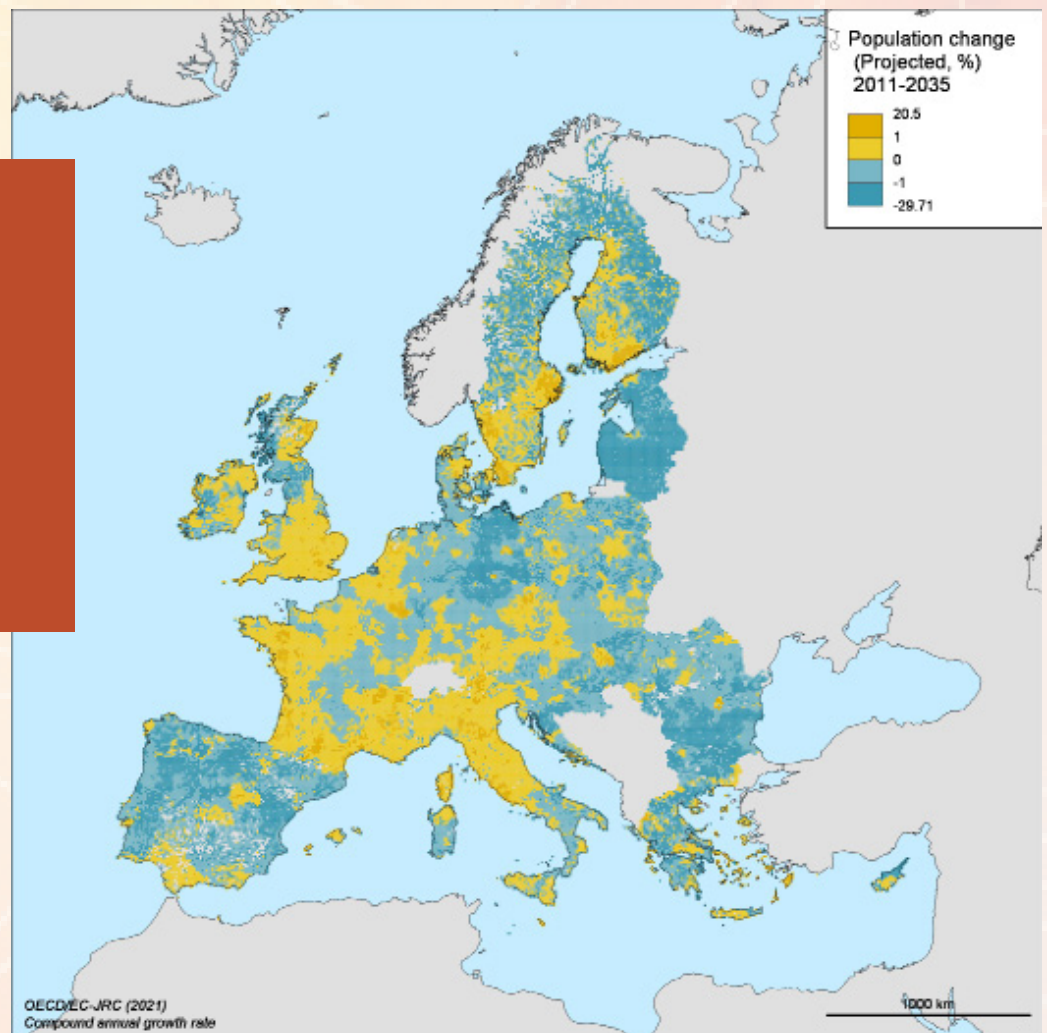
With population decline and ongoing concentration in metropolitan regions, the population base of many regions is becoming smaller, older and more dispersed. Within Europe, 35% of people live in a region that saw population decrease between 2011 and 2019. The population of regions covering about half of the European territory, most of them non-metropolitan, is projected to decline in 2011-35 (Figure 1). In 2020 the average resident of a remote region in Europe was older than a resident of a metropolitan region, as remote regions continue to age faster than other types of regions. This situation is the result of low immigration and a dramatic decline in fertility rates from 2.8 children per woman of childbearing age in 1970 to 1.6 in 2018 on average across OECD countries.

Demographic change is a structural force that can widen territorial disparities in access to services. Population decline directly affects the provision

of public services by shrinking the pool of potential users, leading to professional shortages and forcing facilities to close and consequently increasing distance to services for users in remote areas. While demography and geography have clear implications for service provision in rural areas, most countries do not quantify the effective difference in the costs resulting from these factors. In many cases too, the funding of public services in rural areas does not take into account the unavoidable costs of remoteness, smallness, and ageing.

This report advances toward this objective by considering two social services of general interest: (primary and secondary) education and health (cardiology, and maternity and obstetrics). It provides the first internationally comparable estimates of both cost and access (distance) to these services, as well as future projections based on demographic change at a very granular level.

Figure 1. Projected population change, EU27+UK



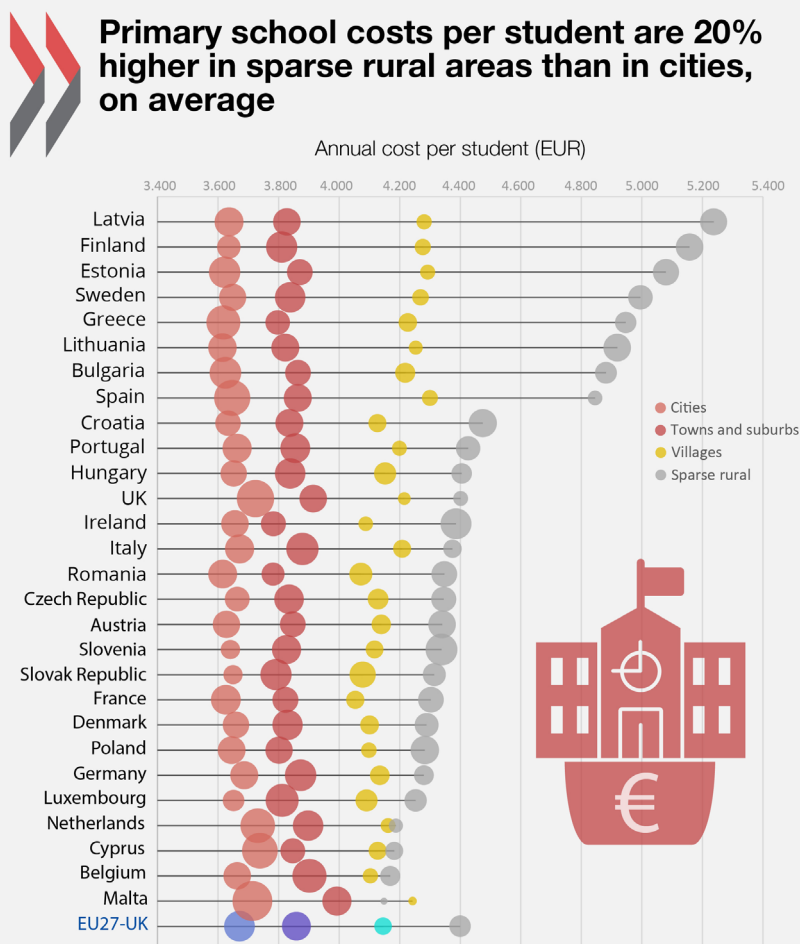
Demographic change is a structural force that can widen territorial disparities in access to services

Providing education with equity and efficiency in the future requires active policy interventions today

Today school networks in many OECD countries face constant pressure to adapt to decreasing demand in rural areas. In most OECD countries, on average only 1 in 5 children up to the age of 14 live in rural areas. Many rural communities do not have or will soon not have any children of school age.

Student numbers are projected to increase considerably in cities and decrease in rural areas in many European countries by 2035

Figure 2. Annual cost per primary school student (estimated) by country and degree of urbanisation, EU27+UK



Smaller classes and fewer students per teacher in rural schools translate into higher costs per pupil. This report estimates that in Europe, the annual costs per student in sparse rural areas are 20% higher (EUR 720) compared to cities for primary schools and 11% (EUR 681) higher for secondary schools (Figure 2). This cost difference can be higher than 40% for primary schools in Estonia, Finland and Latvia and 16% for secondary schools in Greece and Spain.

To remain efficient and equitable, school networks have to find scale economies whenever possible while ensuring access to education of similar quality for all children. School consolidation, school clusters and networks can improve educational quality while saving resources. This report shows that because of the expected decrease in the number of students, satisfying demand in 2035 while maintaining similar distances to schools can be achieved with 8% and 20% less primary and secondary schools in sparse rural areas; 5% and 13% less in villages; 3% and 5% less in towns and suburbs; and 6% and 8% more in cities. Germany, Poland and Spain concentrate more than half of the expected reductions in the number of schools outside cities.

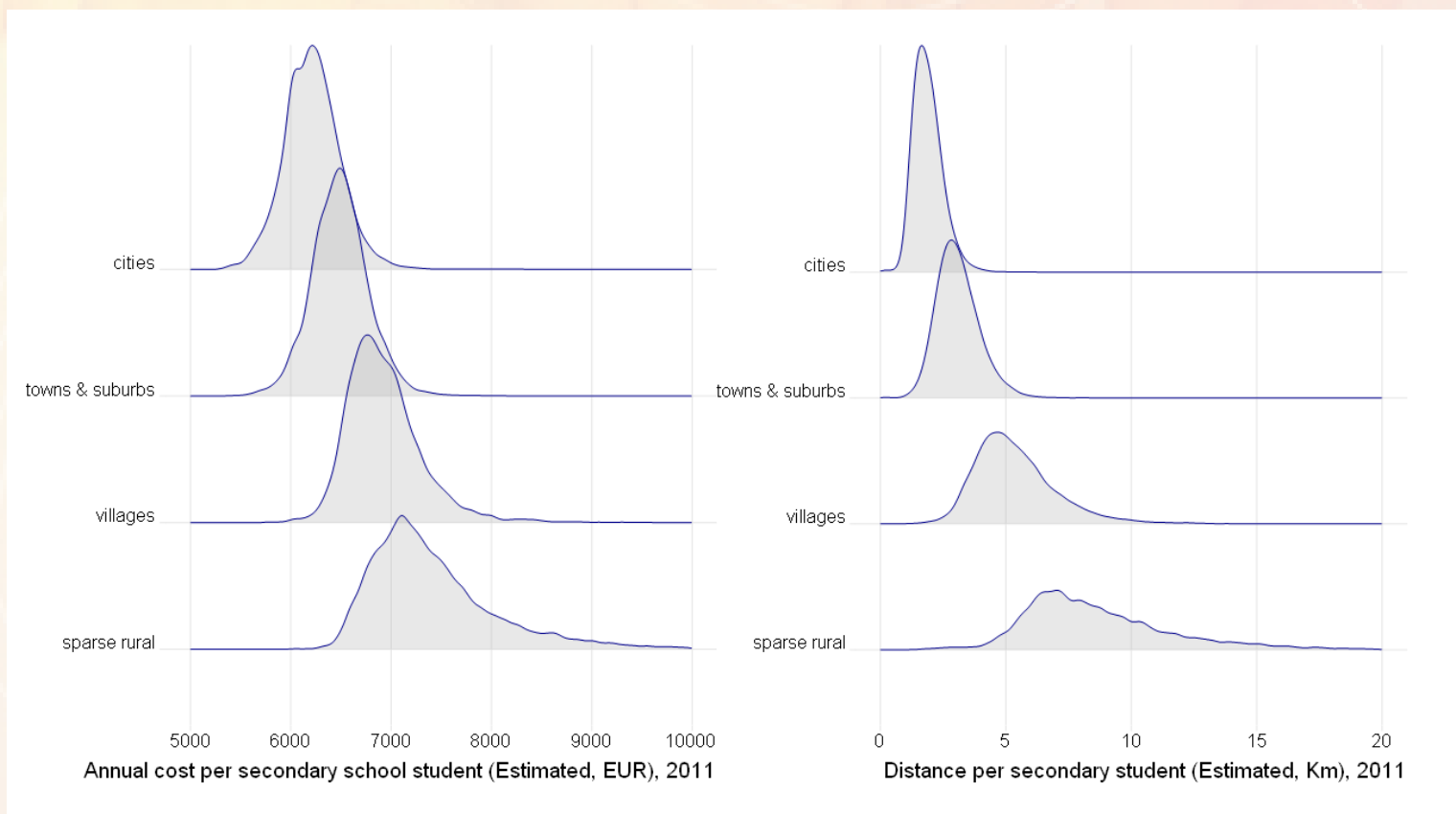
Annual cost per student in sparse rural areas compared to cities are 20% higher in primary schools and 11% higher in secondary schools

Even if supply adjusts to demand, long travel distances in rural areas pose a limit to school consolidation. This report estimates that students in sparse rural areas travel on average four to five times further compared to students in cities. This implies that some schools will need to continue to operate under capacity to ensure adequate access. Equity in provision, especially for children who cannot travel far independently dictates the need to provide solutions to students living in areas with difficult access.

Demographic change will tighten the trade-off between costs of and access to education in rural areas (Figure 3). For EU27+UK countries, this report shows that even after adjusting the school network to future demand, the costs per student in sparse rural areas are expected to increase by around 3% on average. Distance to schools is also expected to slightly increase everywhere outside cities, and proportionally more in villages. Policy simulations show that not adjusting the primary school network to demand changes in 2035 doubles the additional increase in costs per student in sparse rural areas and increases it by 60% in villages, while achieving only small accessibility gains. In countries expecting a sharp decrease in student numbers in sparse rural areas, the additional costs of not readjusting the school network to the future demand represents as much as EUR 1 243 per student in Lithuania (25% more) and EUR 741 in Latvia (14% more).

By 2035, demographic change will imply an increase of 3% in the costs per student in sparse rural areas in Europe

Figure 3. Distribution of annual cost and distance travelled per secondary school student (estimated, at schools), by degree of urbanisation



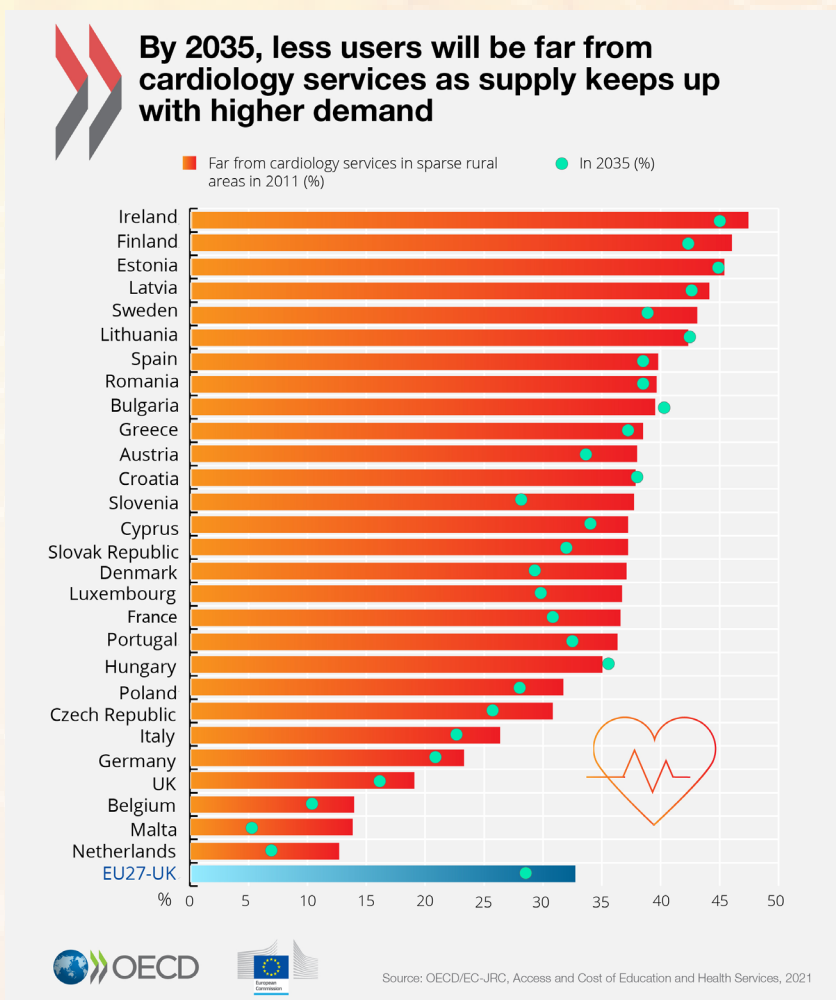
Expected changes in health services demand require continuous, substantial, and tailored policy interventions

Health spending as a share of GDP is projected to increase on average from 8.8% in 2015 to 10.2% by 2030 for OECD countries, with demographic changes accounting for about one-fourth of the overall projected change. As structural factors drive future increases in health expenditure, governments face pressure to increase efficiency while striving to achieve longer and healthier lives for everyone.

To provide services outside cities, policies need to strike a balance between accessibility and cost-efficiency. This report estimates that 1 in every 100 inhabitants use cardiology, and maternity and obstetrics services on average in Europe. In satisfying this demand, countries may have health service locations serving relatively large catchment areas that are either close to users or cost-efficient, but not both simultaneously. While in densely populated countries such as Belgium, Malta, the Netherlands, and the United Kingdom, less than 15% of the sparse rural population lives far from a health service location, in sparsely populated countries this percentage can be higher than 40% (Figure 4).

At least 40% of people living in sparsely populated areas in Europe lives far from a medium-sized health service location

Figure 4. Share of users living far from cardiology services in sparse rural areas (estimated), EU27+UK



According to the estimates, users in EU27+UK countries travel on average 32 km to access cardiology services and 36 km to access maternity and obstetrics services

Importantly, the report highlights that, because of the relatively large catchment areas of the services considered, health services placed in a given degree of urbanisation serve a mix of population coming from different areas. This is particularly true for services placed in rural areas: for instance, over 40% of users of services located in sparse rural areas travel from towns & suburbs and cities.

This report highlights the importance of tailoring strategies for facilities serving relatively sparse rural hinterlands –including those located in towns and suburbs– as they face a more challenging balance between efficiency and access. Policies face the challenge of responding to future changes in demand in an efficient and equitable manner.

Adapting to demographic change requires concentrating the provision of some services such as maternity and obstetrics that will face decreased demand in many countries, and increasing and dispersing the provision of services

such as cardiology related to ageing, especially in rural areas. By 2035, the number of cardiology service locations per user is expected to increase on average by 20%, with the highest expected increases in Slovenia (88%), Ireland (71%) and Denmark (64%) (Figure 5). In turn, the number of maternity and obstetrics service locations is expected to decrease by 4%, with the highest decreases in Latvia (-67%), Slovak Republic (-56%) and Lithuania (-44%).

Demand for cardiology services is relatively higher in rural areas compared to cities in many countries. Policies face the challenge of responding to future changes in demand in an efficient and equitable manner

Figure 5. Change in cardiology service location counts per 10 000 users (estimated) in EU27+UK countries, 2011-35

