

## Volumes of hip and knee replacements

Hip and knee replacements are amongst the most frequent elective (non-urgent) surgical procedures in the EU. Until the pandemic, hip and knee replacement rates were growing fairly steadily, driven by increases in osteoarthritis and other types of arthritis caused by ageing populations and growing obesity rates.

Before the pandemic in 2019, Germany, Austria, Finland and Belgium had the highest rates of hip and knee replacement among EU countries. Outside the EU, Switzerland and Norway also had relatively high rates (Figure 7.26 and Figure 7.27). While differences in the population structure and the share of older populations explain part of the variation in hip and knee replacement rates across countries, earlier OECD work has shown that large differences persist even after taking into account such differences in population structure and the country ranking does not change significantly (McPherson, Gon and Scott, 2013<sup>[1]</sup>).

In the first year of the pandemic, the volume of hip and knee replacements fell sharply in many EU countries as elective surgery was suspended for many weeks to free up resources to deal with COVID-19 patients and avoid people being infected while seeking care. Across 23 EU countries for which data are available, over 240 000 fewer hip and knee replacements were performed in 2020 compared with 2019. On average across these 23 EU countries, the volume of hip replacements reduced by 13% and knee replacements by 22%. Belgium, Hungary and Romania experienced particularly steep reductions in hip and knee replacements during the first year of the pandemic. Outside the EU, the drop in the United Kingdom was even larger (over 45% for hip replacement and 65% for knee replacement). These reductions in the volume of orthopaedic procedures have generated a backlog of patients waiting for treatment and an increase in waiting times (see indicator “Waiting times for elective surgery”).

Initial data for 2021 from a few countries indicate that hip and knee replacement rates increased at least moderately in Ireland, but rebounded more strongly in some countries to come back to their pre-pandemic level in Portugal or close to their pre-pandemic level in Norway. However, to address the backlog generated during the pandemic, it may not be sufficient to simply return to pre-pandemic activity levels. To illustrate this simply, if the volume of hip replacements in a given country fell by 15% in 2020 and if the volume went back to the pre-pandemic level in 2021, the volume would have to be at least 5% higher for three consecutive years to catch up with the initial drop if the demand for this surgical procedure remains unchanged.

Many countries have taken actions to reduce the backlog of elective surgery created during the pandemic by providing additional funding to boost supply. This additional funding has been used to pay overtime for additional sessions and increase the use of operating theatres, and contract private providers in countries where public and private systems co-exist (see Chapter 2 for further discussion on national strategies to reduce backlogs).

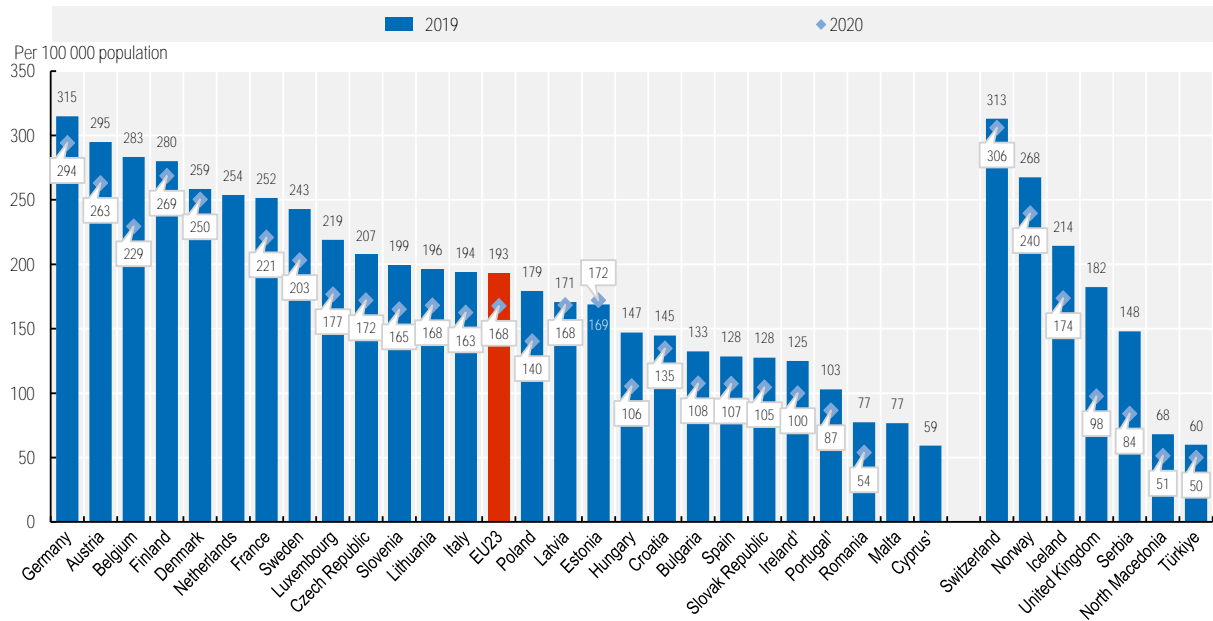
### Definition and comparability

While most countries include both total and partial hip replacement, some countries only include total replacement. Data for some countries do not cover all hospitals. In Cyprus, Ireland and the United Kingdom, the data only include activities in publicly-funded hospitals, thereby underestimating the total number of procedures (for example, approximately 15% of all hospital activity in Ireland is undertaken in private hospitals). Data for Portugal relate only to public hospitals on the mainland.

### References

- McPherson, K., G. Gon and M. Scott (2013), “International Variations in a Selected Number of Surgical Procedures”, *OECD Health Working Papers*, No. 61, OECD Publishing, Paris, <https://doi.org/10.1787/5k49h4p5g9mw-en>. [1]

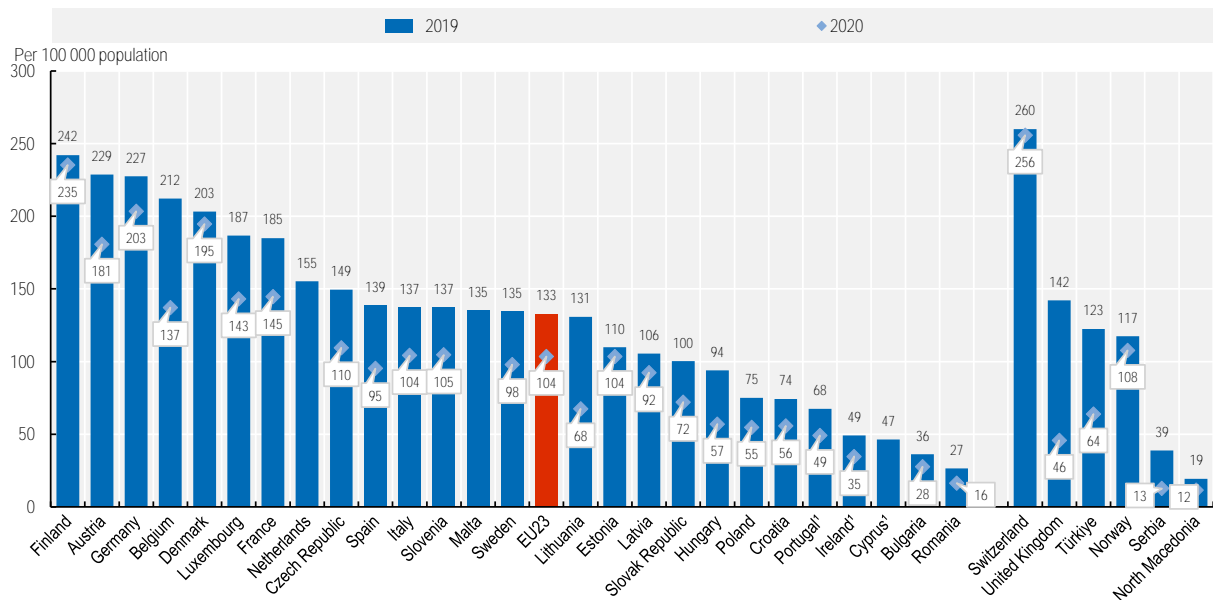
Figure 7.26. Hip replacement, 2019 and 2020



Note: The EU average is unweighted. 1. Data cover only surgical operations carried out in public hospitals. In Ireland, the inclusion of private hospitals would almost double the volume of operations in 2020 (197 per 100 000 population).  
 Source: OECD Health Statistics 2022; Eurostat Database.

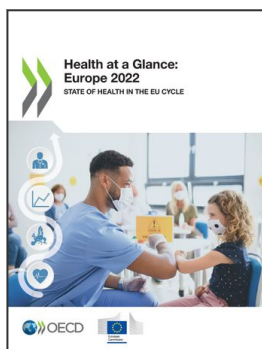
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Figure 7.27. Knee replacement, 2019 and 2020



Note: The EU average is unweighted. 1. Data cover only surgical operations carried out in public hospitals. In Ireland, the inclusion of private hospitals would more than triple the volume of operations in 2020 (110 per 100 000 population).  
 Source: OECD Health Statistics 2022; Eurostat Database.

StatLink <https://stat.link/shrlp8>



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