Significant advances in surgical treatments have provided effective options to reduce the pain and disability associated with certain musculoskeletal conditions. Joint replacement surgery (hip and knee replacement) is considered the most effective intervention for severe osteoarthritis, reducing pain and disability and restoring some patients to near normal function.

Osteoarthritis is one of the ten most disabling diseases in developed countries. Worldwide estimates are that 10% of men and 18% of women aged over 60 years have symptomatic osteoarthritis, including moderate and severe forms (WHO, 2014). Age is the strongest predictor of the development and progression of osteoarthritis. It is more common in women, increasing after the age of 50 especially in the hip and knee. Other risk factors include obesity, physical inactivity, smoking, excess alcohol and injuries. While joint replacement surgery is mainly carried out among people over age 60, it is also increasingly performed among people at younger ages.

In 2014, Germany, Austria, Belgium and Finland had the highest rates of hip replacement among EU countries. Hip replacement rates were also very high in Switzerland and Norway (Figure 7.29). These countries were also those that had the highest rates of knee replacement (Figure 7.30). Differences in population structure may explain part of these variations across countries, and age standardisation reduces to some extent the variations across countries. Still, large differences persist and the country ranking does not change significantly after age standardisation (McPherson et al., 2013; OECD, 2014).

National averages can mask important variations in hip and knee replacement rates within countries. In Germany, France and Italy, the rate of knee replacement is more than two times higher in certain regions compared with others, even after age standardisation (OECD, 2014).

The number of hip and knee replacements has increased in recent years in most European countries, although the volume of knee replacements generally still remains below that of hip replacements (Figures 7.31 and 7.32). In Austria, the number of hip replacement per 100 000 population increased by about 25% between 2002 and 2014, while the knee replacement rate increased by nearly 70%. The growth rate for both interventions was lower in Germany, where these surgical activity rates appear to have stabilised in recent years, but at a high level.

The growing volume of hip and knee replacement is contributing to health expenditure growth since these are expensive interventions. In 2014, the estimated price of a hip replacement on average across EU countries was about EUR 5 600, while the price of a knee replacement was in the same range at about EUR 5 700.

References


Definition and comparability
Hip replacement is a surgical procedure in which the hip joint is replaced by a prosthetic implant. It is generally conducted to relieve arthritis pain or treat severe physical joint damage following hip fracture.

Knee replacement is a surgical procedure to replace the weight-bearing surfaces of the knee joint to relieve the pain and disability of osteoarthritis. It may also be performed for other knee diseases such as rheumatoid arthritis.

Classification systems and registration practices vary across countries which may affect the comparability of the data. While most countries include both total and partial replacement, some countries only include total hip replacement (e.g. Estonia where about 20% of all cases are partial replacement). In Ireland and the United Kingdom, the data only include activities in publicly-funded hospitals (it is estimated that approximately 15% of all hospital activity in Ireland is undertaken in private hospitals). Data for Cyprus and Portugal relate only to public hospitals (in the case of Portugal, public hospitals on the mainland only). Data for Spain only partially include activities in private hospitals.
7. HIP AND KNEE REPLACEMENT

7.29. Hip replacement surgery, 2014 (or nearest year)

Source: OECD Health Statistics 2016; Eurostat Database.

StatLink http://dx.doi.org/10.1787/888933429985

7.30. Knee replacement surgery, 2014 (or nearest year)

Source: OECD Health Statistics 2016; Eurostat Database.

StatLink http://dx.doi.org/10.1787/888933429994

7.31. Trend in hip replacement surgery, 2000-14, selected countries


StatLink http://dx.doi.org/10.1787/888933430004

7.32. Trend in knee replacement surgery, 2000-14, selected countries


StatLink http://dx.doi.org/10.1787/888933430016