

High variations in health care use for knee replacement and cardiac procedures, suggest more effort is needed to improve the appropriateness of health care activities in Germany

According to a new OECD report, variation in rates of health care activity across geographic suggests that governments should step up efforts to ensure better use of health services. Wide variation suggests that whether or not you will receive a particular health service depends to a very great extent on the region where you live within Germany.

Variations such as those documented in Table 1 suggest that either unnecessary care is being delivered in areas of high activity, or that there is unmet need in regions of low activity. Other factors like beliefs and attitudes of providers or socio-economic status of patients may influence rates in ways that differ from appropriate care. In either case, this raises questions about the efficiency and equity of health care services delivered in Germany.

Rates for cardiac procedures and knee replacement in high intensity areas are twice those in low-intensity areas. There are smaller variations for hospital medical admissions, caesarean sections and hysterectomy.

Table 1. Overview of variation in medical activities/procedures across Spatial Planning Regions, Germany, 2011

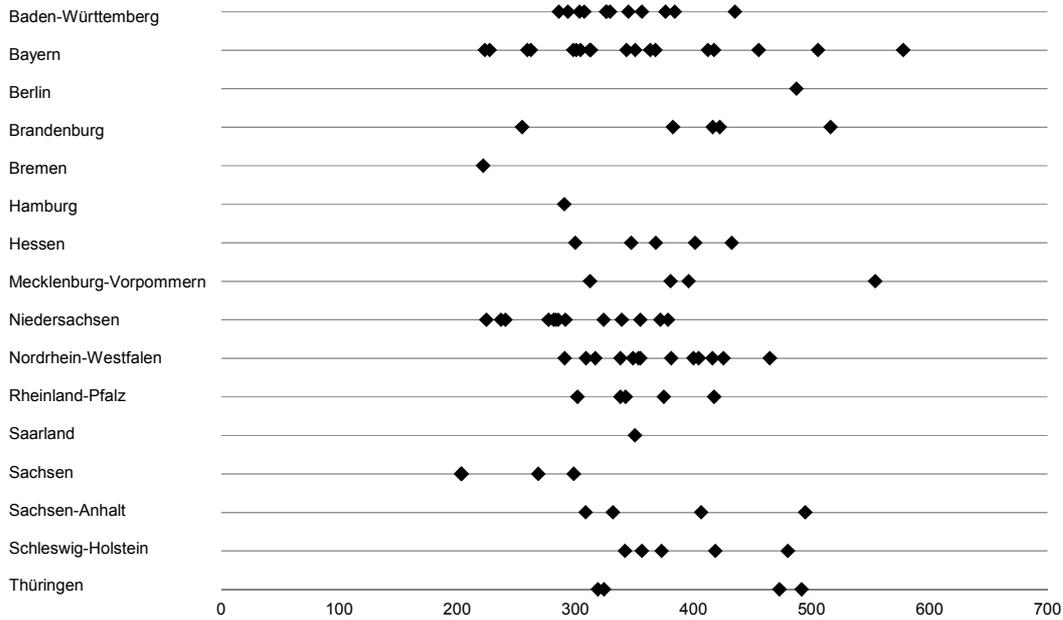
	Hospital medical admissions (per 100 000 pop.)	CABG (per 100 000 pop.)	PTCA (per 100 000 pop.)	Surgery after hip fracture (per 100 000 pop.)	Knee replacement (per 100 000 pop.)	Cesarean sections (1 000 live birth)	Hysterectomies (per 100 000 female pop.)
Crude rate	13 342	66	358	196	215	314	330
Standardised rate [median]	13 359	67	344	190	218	323	340
Standardised rate (Q10)	11 213	45	261	167	180	266	290
Standardised rate (Q90)	15 856	87	460	215	271	359	410
Coefficient of variation	0.13	0.24	0.22	0.11	0.16	0.13	0.14
Systematic component of variation	1.79	5.74	4.74	1.11	2.91	1.63	2.29

Note: Unless specified, all rates are for age/sex standardised rates per 100 000 population.

Source: Storz-Pfennig (2014). Chapter 8 Germany: Geographic variations in health care, in *Geographic Variations in Health Care: What do we know and what can be done to improve health system performance?* OECD Health Policy Studies, OECD Publishing.

If you live in the south of Germany, you may be about three times more likely to have an angioplasty, particularly in some parts of Bayern (Bavaria) (rates up to 600 per 100 000 population over 15-years old) compared for example to Sachsen (Saxony), Bremen and other parts of Bayern (around 200 per 100 000). Figures also show that geography on some wider territorial level (e. g. the Länder) is not necessarily a reliable guide, as the variation in smaller territorial units within larger areas is often considerable.

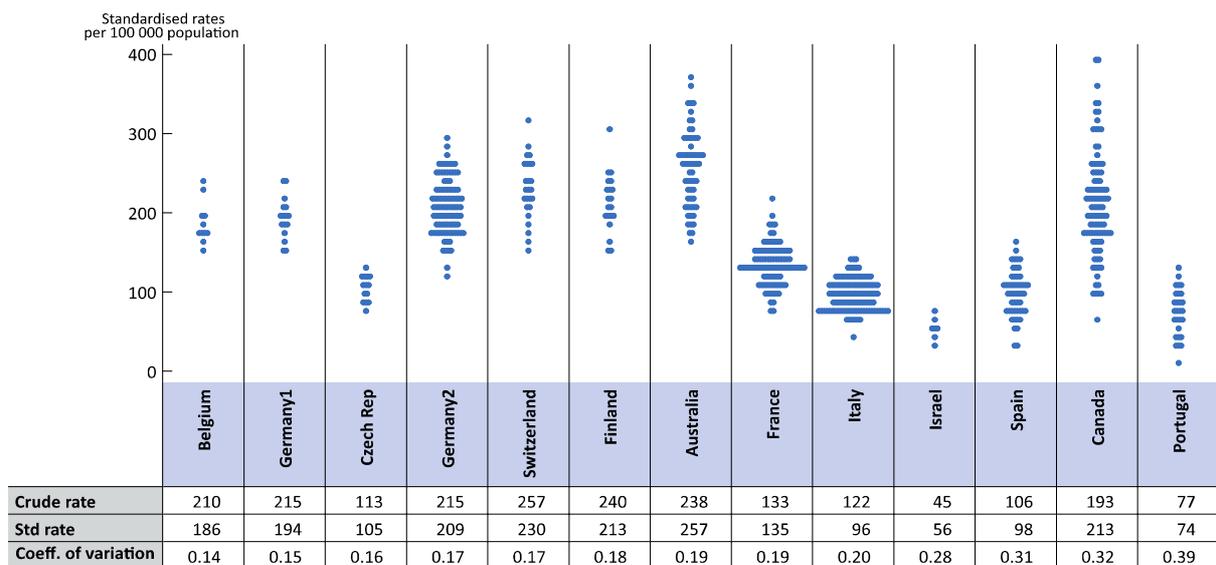
Figure 1. Angioplasty (PTCA) standardised rate per 100 000 population by Länder and Spatial Planning Regions, Germany, 2011



Source: Storz-Pfennig (2014). Chapter 8 Germany: Geographic variations in health care, in *Geographic Variations in Health Care: What do we know and what can be done to improve health system performance?* OECD Health Policy Studies, OECD Publishing.

Like Australia, Switzerland, Finland and Canada, Germany has knee replacement rates (above 200 per 100 000 population over 15-years old) that are four times higher than Israel (56 per 100 00). Within countries, knee replacement rates vary by two-to three-fold, but more than five-fold in Canada, Portugal and Spain.

Figure 2. Knee replacement rate across and within selected OECD countries, 2011 or latest year



Note: Each dot represents a territorial unit. Countries are ordered from the lowest to highest coefficient of variation within countries. Data for Portugal and Spain only include public hospitals. Germany 1 and 2 refers respectively to Länder and Spatial Planning Regions.

Source: Srivastava et al. (2014). Chapter 1 Geographic variations in health care use in 13 countries: A synthesis of findings, in *Geographic Variations in Health Care: What do we know and what can be done to improve health system performance?* OECD Health Policy Studies, OECD Publishing.

Germany has a high rate of caesarean section (above 300 per 1000 live births) and hysterectomy (more than 350 per 100 000 females) compared to other OECD countries in the report, though variation across geographical regions in Germany is relatively low compared with other countries. All countries in this study have seen a reduction in hysterectomy, but this reduction was not uniform within countries. For example, rates fell by 11% in France and 40% in Finland.

Several factors can explain some of these *variations*, such as medical practice styles, socio-economic status of patients, low or excess availability of hospitals, doctors and technology.

Germany has for a number of years made efforts to collect quality indicators, predominantly in a number of surgical areas, but more effective action is still needed. Further efforts are under way regarding quality improvement and could promote the delivery of more appropriate care. More systematic public reporting of high-cost, high-volume procedures might help to raise awareness among providers and the public. There is scope to move towards policies that target providers through providing feedback and maybe financial incentives (e.g. as in France, Korea and the United Kingdom), and setting targets for specific health care activities (e.g. as in Canada, Belgium and Italy). In addition to providing more reliable evidence of benefit for interventions, patients would be better engaged through tools of shared decision-making and measurement of outcomes. The latter is done for example for knee replacement in Sweden and the United Kingdom.

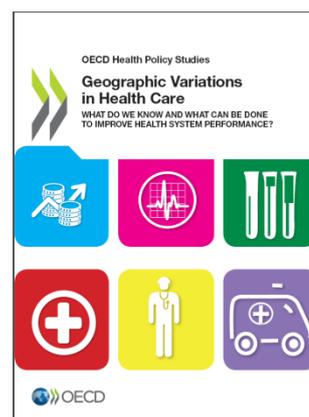
The OECD report will be released at a joint conference organised by the OECD and the Bertelsmann Foundation on 16th September in Berlin to discuss the report's findings among German stakeholders (www.faktencheck-gesundheit.de).

The report **Geographic Variations in Health Care: What do we know and what can be done to improve health system performance?** is available at <http://dx.doi.org/10.1787/9789264216594-en>.

More information on is Germany is available in the report in **Chapter 8, Germany: Geographic variations in health care.**

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The **OECD press release, country notes and further information** are available at <http://www.oecd.org/health/health-systems/medical-practice-variations.htm>.