

7. HEALTH EXPENDITURE AND FINANCING

7.5. Expenditure by disease and age

Attributing health care expenditure by disease and age is important for health policy makers in order to analyse resource allocations in the health care system. The information provided can play an important role in assessing the impact of ageing populations and changing disease patterns on spending. It can also provide input into the modelling of future health care expenditures (Heijink *et al.*, 2006). Furthermore, the linking of health expenditures by disease to appropriate measures of outputs (*e.g.* hospital discharges by disease) and outcomes (*e.g.* survival rates after heart attack or cancer) can provide useful input in monitoring the performance of health care systems at a disease-based level (AIHW, 2005).

Consistent “functionally defined” boundaries of health care spending and an accepted methodology for expenditure allocation are necessary for the production of comparative estimates of expenditure by disease. The data presented here come primarily from pilot studies in a number of OECD countries, supplemented by additional country data where similar methodologies have been used. There are significant data limitations in allocating health expenditure according to categories of disease, age and gender – especially in relation to household expenditure and out-patient categories. In order to maximize the comparability between countries, the figures provide a breakdown of hospital in-patient care – an area where administrative records are generally complete with the necessary diagnostic and patient information.

Figure 7.5.1 shows the distribution of hospital in-patient expenditure according to six main diagnostic categories. The countries show similar patterns, with circulatory diseases, cancers and mental and behavioural disorders accounting for close to 40% of total hospital in-patient expenditure. The differences between countries can be influenced by many factors, including demographic structure and disease patterns, as well as institutional arrangements and clinical guidelines for treating different diseases. Hungary allocates almost a quarter of hospital in-patient expenditure to the treatment of circulatory disease; this is not surprising since Hungary also reports the highest mortality rates among OECD countries due to ischaemic heart disease and stroke (see Indicator 1.4 “Mortality from heart disease and stroke”). Those countries allocating less to circulatory disease, such as Australia and France, also report lower mortality rates from such diseases.

The different cost patterns observed can be due to demographic factors. Figure 7.5.2 shows the relative

allocation of hospital spending across three broad age groups. The share of hospital expenditure allocated to an age group is shown as a ratio to the size of that population. As expected, the population aged 65 and above consumes proportionally much more of hospital resources than those aged between 15-64. Australia and Korea allocate the greatest share of hospital expenditure to the elderly population. The organisation of care between different health care providers, particularly for the elderly population, is a significant factor in determining the level and share of hospital expenditure allocated between age groups. For example, the higher rates in Korea may be explained by the use of acute care beds for long-term care treatment (Hurst, 2007).

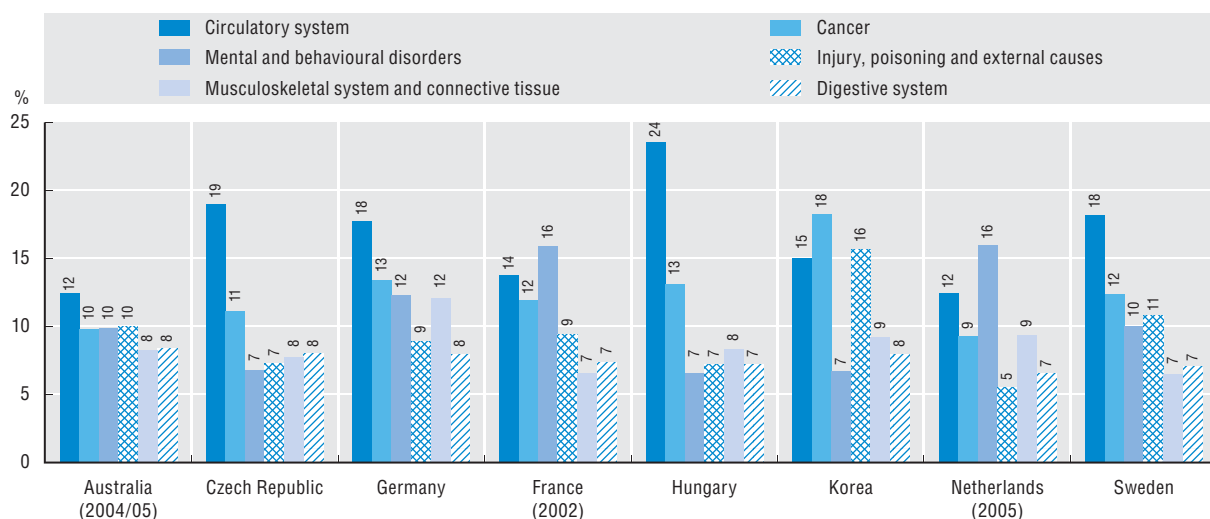
Figure 7.5.3 gives an indication of expenditure by hospital discharge for the two disease categories that consume the greatest share of hospital in-patient expenditure – circulatory disease and cancers. For circulatory disease, France, Germany and Sweden show the highest cost per discharge, while Sweden and Australia are highest for cancer treatment.

Definition and deviations

Expenditure by disease and age allocates current health expenditure by dimensions of patient characteristics. Guidelines currently being developed propose disease categories according to ICD-10 (with a mapping to ICD-9). Expenditures are also linked to one or more of the SHA dimensions of function (HC), provider (HP) and financing agent (HF). To ensure comparability between countries, a common methodology is proposed advocating primarily a top-down, main diagnostic allocation of expenditures.

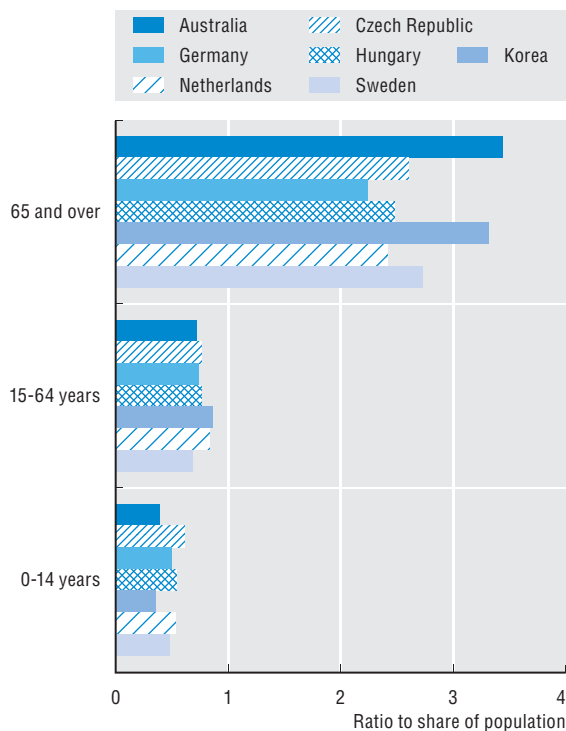
The main comparability issues relate to the treatment of non-allocated and non-disease-specific expenditures. In the former case this is due to data limitations (often in out-patient and pharmaceutical expenditure) and in the latter case regarding some prevention and administration expenditure. For more meaningful comparisons a subset of expenditure can be used, such as in-patient care, where administrative records tend to be more complete.

7.5.1 Share of hospital in-patient spending by main diagnostic category, 2006

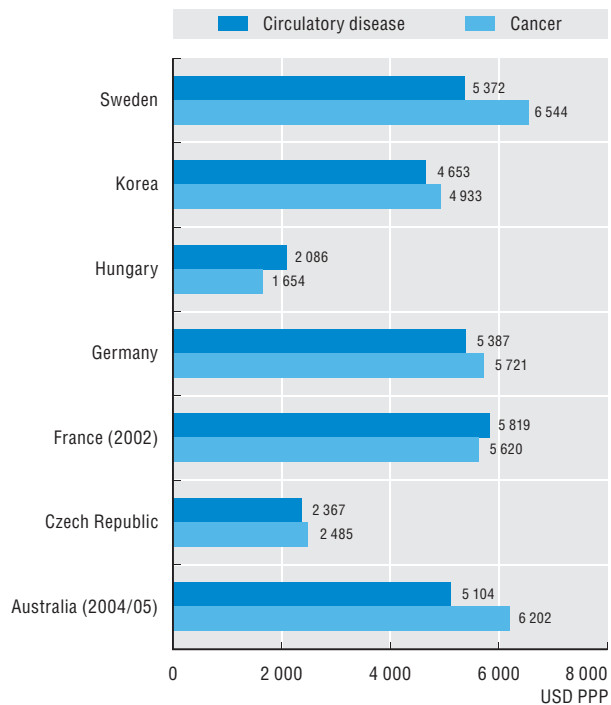


Note: Refers to share of total allocated expenditure. Czech Republic: Health Insurance Fund only. Germany: Total hospital expenditure. France: Curative care in hospitals. Hungary: Health Insurance and some local and central government expenditure. Netherlands: Curative care in general and specialty hospitals.

7.5.2 Relative hospital in-patient expenditure by age group



7.5.3 Expenditure per hospital discharge for two diagnostic categories



Source: Australia, Germany, Hungary, Korea and Sweden: OECD (2008), "Estimating Expenditure by Disease, Age and Gender under the System of Health Accounts (SHA) Framework"; Czech Republic: Unpublished data provided by Czech Statistical Office, May 2009; France: Fénina et al. (2006); Netherlands: Poos et al. (2008).

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