Medical Spending around the Developed World*

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Abstract

We bring together estimates of patterns of medical spending in all nine countries considered in this issue – Canada, Denmark, England, France, Germany, Japan, the Netherlands, Taiwan and the United States. Comparing estimates across countries reveals three principal findings. First, medical spending in the calendar year of death accounts for 5–10 per cent of aggregate medical spending for the whole population and 9–20 per cent for those aged 65 and over. Spending in Taiwan is a little higher, at 16 per cent for the whole population and 29 per cent for the over-65s. Second, there is a mostly negative correlation between patient income and medical spending within all countries, except Japan and Taiwan for the over-65s and Taiwan and the US for the under-25s. Third, medical spending in all countries is concentrated in a small share of the population and is persistent over time, although the degree of concentration and persistence varies across countries.

Policy points

- Medical spending on those in the last year of life is costly, and accounts for 5–10 per cent of total medical spending. This cost is not trivial but is smaller than figures that have been suggested in the past.
- The (mostly) negative correlation between income and medical spending within all countries suggests that medical systems typically act to redistribute resources from the rich to the poor. Changes in medical coverage and provision may therefore have distributional consequences.
- Perhaps surprisingly, the United States is not an outlier in patterns of individual-level medical spending in the same way that it is in levels of spending as a share of GDP. Health care spending is somewhat less concentrated in the US than in most countries, and is less concentrated at the end of life than in most countries.

I. Introduction

There are significant differences in how health services are financed and provided across the developed world. Yet relatively little is known about how these differences in health care funding affect how patterns of spending vary across countries. Documenting and understanding these differences has the potential to help explain variation in patient outcomes and aggregate spending levels and to inform policymakers about possible methods of improving the efficiency and cost effectiveness of their own health care systems.

This project measures patterns of individual-level spending across countries, from the patient upwards, using medical records made available by governments and insurers. In particular, we examine who receives health care and when they receive it. This is not the first project to attempt to address these questions,[1] but it is novel on several dimensions. First, whereas previous cross-country projects used only cross-sectional data, our project exploits data sets that track the same people over many years. This allows us to better understand medical spending from a lifetime perspective. Second, we use much better measures of medical spending. Much previous work was based mostly on survey data, using measures such as whether a respondent went to see a doctor. Our project includes high-quality administrative data on total spending from a variety of sources. Total spending likely provides a better measure of the intensity and quality of care.

The project contributes to three sets of literature. First, we complement the extensive literature on cross-country variation of aggregate spending. Second, we contribute to older cross-country work that focused on inequalities in health

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[1]See, for example, van Doorslaer et al. (1997).

care spending using less detailed survey data.[2] Finally, we add to the literature on end-of-life care in individual countries.[3,4]

This project brings together research from nine different countries: Canada (in particular, the province of Quebec), Denmark, England, France, Germany, Japan, the Netherlands, Taiwan and the US. As much as is possible, we use standardised methodology and treatment of data to document a set of consistent measures for all countries.

The rest of this paper is organised as follows. Section II describes the institutional arrangements and data for each country. Section III presents a summary of the cross-country results. Section IV concludes.

II. Institutions and measurement

In this section, we document the institutional environment and the data for the different countries within our study. Previous international comparisons of health care have mostly relied on either aggregate data or survey-level data. The main advantage of these aggregate data is that they capture all types of spending. Figure 1 shows health care spending as a share of GDP in 2012 for all the countries considered in this special issue. As is well documented, health care is a much larger share of GDP in the US (16 per cent) than in most other developed countries (typically 8–11 per cent).[5] Given that GDP per head is higher in the US than in all the other countries in our project, these differences are even larger in terms of levels of spending per person. However, what aggregate data are unable to capture is the distribution of spending across the population. A previous literature has attempted to address distributional questions using surveys that ask individuals about their medical use, but these surveys suffer from significant measurement issues. Difficulties in measuring spending are likely to be particularly severe for health care, where individuals may lack information about the full cost of their care as most of the costs are not borne by them. Thus, previous survey-based comparisons largely relied on relatively crude measures of health care consumption such as whether the respondent saw a doctor in the last year.[6] Furthermore, most surveys capture the responses only of those who are not in a hospital or residential care. We capture all hospital expenditures and often also spending on other forms of care, including long-term care both at home and in institutional settings.
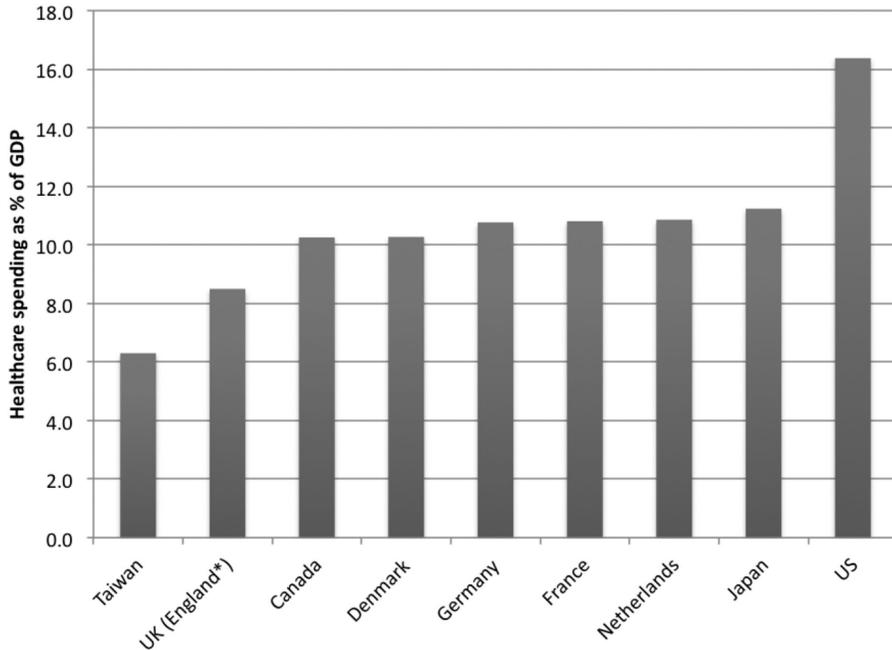
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[2]Van Doorslaer et al., 1997.
[3]Bekelman et al., 2016.
[4]See also Wagstaff et al. (1999) and Stabile and Thomson (2014) for some of the financing issues involved in medical care and Campbell, Ikegami and Gibson (2010) for international issues related to long-term care.
[5]OECD, 2014.
[6]Wagstaff and van Doorslaer, 2000.

FIGURE 1

Health care as a percentage of GDP, 2012

*Figure for England is not available, so we use the UK figure.
Note: Figure for Taiwan is for 2013.
Source: OECD, 2014; Chen and Chuang, this issue.

The papers in this study utilise administrative data used for paying providers of health care. These data give much more complete information about spending at an individual level. Most of the countries in this project have national health care systems. Because these national systems compensate hospitals and other providers based on care provided, we can measure who receives the benefits. In other countries, such as Germany, Japan and the US, we have data on private providers. These allow us to measure individual-level costs, since insurers pay providers based on individuals' expenditures. Although the details of data collection vary from country to country, we have extremely high-quality measures of medical care spending for all countries.

By focusing on the total cost of health care, rather than a specific disease or setting, we are able to provide evidence to inform the public debates around how to contain health care costs and we can draw general conclusions that are not limited to specific, and potentially unrepresentative, conditions. In all countries, we have information on hospitals, which account for the majority

of health care costs. For a subset of countries, we also have data on long-term care (LTC), which we will also refer to as social care and nursing homes.

Table 1 summarises the financing and provider institutions for both health care and LTC for the countries in this issue. When comparing the different countries, it is clear that there is no one-to-one mapping between how health care services are funded and how they are provided or between health care and LTC.

With some exceptions, US health care is privately provided. Most US hospitals are run either by non-profit institutions such as universities and religious organisations or by private for-profit companies. The majority of health care for those under 65 is funded through private health insurance, which individuals receive via their employer. The public sector provides insurance through two federal social insurance programmes – Medicaid, which covers low-income families with children (and some childless adults also) and low-income disabled people, and Medicare, which covers relatively high-income disabled and elderly individuals. The introduction of the Affordable Care Act, or 'Obamacare', in 2010 has expanded the government's role in the health care sector, increasing both Medicaid coverage and private coverage.

After the age of 65, Medicare provides health insurance to almost all. This near-universal insurance is not means tested and brings the US health care system nearer to many other systems in the OECD. Medicare pays for the majority of the cost of short-term hospital stays and doctor visits and, since 2006, most of the costs associated with pharmaceuticals. However, Medicare in general does not pay for nursing home stays. These costs are paid out-of-pocket or by Medicaid, where payments are means tested.

The project provides four studies from the US. This is because no one data set captures all the features of medical spending we wish to capture for the US, in large part because there are multiple payers for medical care. Pashchenko and Porapakkarm employ the Medical Expenditure Panel Survey (MEPS), which is a representative sample of the US population. Individual survey responses are linked to provider information. Thus, the survey has high-quality information on medical spending. However, it only has information over a two-year span and it lacks information on nursing home expenditures. To circumvent these problems for the US, we have one study (Hirth et al.) that employs administrative private insurance data with a long panel and another study (Fahle, McGarry and Skinner) that uses a long panel of self-reported out-of-pocket medical spending – the Health and Retirement Study – which includes information on those who die and enter nursing homes, for the population aged 50 and over. These studies show that those with high spending in one year have high spending many years in the future. We also have one study (De Nardi et al.) that uses a data set – the Medicare Current

TABLE 1

Health care and long-term care systems in nine project countries

Country	Papers	Funding	Provision	Data sources
Canada (Quebec)	Côté-Sergent, Échevin and Michaud	Health care: Public, through taxation LTC: Mixed public and private, with user fees	Health care: Private LTC: Both public and private	MED-ECHO database, paired with relative level of resources used (NIRRU) and cost (in dollars) of NIRRU
Denmark	Christensen, Gørtz and Kallestrup-Lamb	Health care: Public LTC: Mostly public; nursing home residents pay for rent and food	Health care: Public LTC: Mostly public	Full population administrative register data from Danish Health Data Authority (SDS) and Statistics Denmark: • DRG grouped National Patient Registry • National Health Insurance Service Registry (SSR) • Register of Medicinal Product Statistics (LSR) • LTC registers linked to demographic information from Statistics Denmark

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TABLE 1

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Country	Papers	Funding	Provision	Data sources
England	Aragón, Chalkley and Rice Kelly, Stoye and Vera-Hernández	Health care: Public LTC: Mostly private	Health care: Public Social care / nursing homes: Mostly private	Hospital Episode Statistics (HES)
France	Gastaldi-Ménager, Geoffard and de Lagasnerie	Health care: Universal public health insurance, plus private health insurance to cover additional costs LTC: Tax-funded autonomy payments, health insurance and out-of-pocket top-ups	Health care: Outpatient clinics and primary care – private; inpatient hospitals – majority public, with significant private and non-profit shares LTC: Price-regulated public and non-profit private	Permanent sample of beneficiaries (EGB)
Germany	Karlsson, Klein and Ziebarth	Health care: Mandatory insurance. For the majority, social health insurance (non-profit); high-income individuals can buy private insurance in its place. LTC: Mandatory insurance, plus out-of-pocket spending	Health care: Two-thirds of hospitals – non-profit; remainder – for-profit LTC: Mixture of for-profit and non-profit	Micro data from one private health insurer

TABLE 1

Continued

Country	Papers	Funding	Provision	Data sources
Japan	Ibuka et al.	Health care: Mandatory universal insurance, provided through employment or through the local government. Insurance is financed by both premiums and government subsidies. Additional private insurance can be purchased. LTC: Public, with individuals aged 40 and above as enrollees	Health care: Majority of hospitals and clinics – private and non-profit; remainder – public; larger hospitals tend to be public LTC: Nursing homes – public or non-profit; majority of non-institutional LTC service providers – for-profit	Citizen's health insurance plan (single insurer) from one city
Netherlands	Bakx, O'Donnell and van Doorslaer	Health care: Universal compulsory insurance LTC: Universal compulsory insurance	Health care: non-profit LTC: Nursing homes – non-profit; home help – for-profit and non-profit	Health care: Vektis LTC: Central Administration Office (CAK)
Taiwan	Chen and Chuang	Health care: Mandatory insurance, provided through employment or through the state, with top-up private insurance LTC: Mostly private	Health care: Private, public and non-profit LTC: Mostly private	National Health Insurance Universal Database (NHIUD) files Surveys of Family Income and Expenditure (SFIE)

(Continued)

TABLE 1

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Country	Papers	Funding	Provision	Data sources
United States	De Nardi et al. Fahle, McGarry and Skinner Hirth et al. Pashchenko and Porapakkarm	Health care: Under 65 – mostly private; 65 and over – mostly public (Medicare) LTC: Mostly private	Health care: Private, for-profit and non-profit Social care / nursing homes: Private	Medicare Current Beneficiary Survey (MCBS) Health and Retirement Study (HRS) Truven Health MarketScan database Medical Expenditure Panel Survey (MEPS)

Beneficiary Study – that measures total medical spending, including nursing home spending, for the population aged 65 and over.[7]

Denmark (Christensen, Gørtz and Kallestrup-Lamb) and England (Aragón, Chalkley and Rice; Kelly, Stoye and Vera-Hernández) both have health care systems where the majority of health care is funded through taxation and provided by the public sector. The main difference between the countries is in long-term care, which is mostly public in Denmark but largely privately funded and provided in England. The Danish register provides detailed data on primary, secondary and long-term care. By contrast, in England, there are only detailed data on the use of hospitals (outpatient and inpatient). In the Canadian province of Quebec (Côté-Sergent, Échevin and Michaud), health care is funded through taxation, but providers are privately owned.

A final group of countries finance health care through mandatory insurance, including France (Gastaldi-Ménager, Geoffard and de Lagasnerie), Germany (Karlsson, Klein and Ziebarth), Japan (Ibuka et al.), the Netherlands (Bakx, O'Donnell and van Doorslaer) and Taiwan (Chen and Chuang). These countries vary in the extents to which the public sector provides insurance plans and to which it provides services. In the Netherlands, all hospitals are private, whereas the majority of hospitals in France are publicly owned.

Almost all countries provide nationally representative data. The exceptions are Germany and Japan, with each relying on data from an individual insurance company; the data are therefore not fully representative, but are highly accurate and include many types of care. This should be taken into account when interpreting results.

In addition to the individual country studies, which aim to provide a common set of descriptive facts, we have a further two papers that concentrate on related issues. The first (Banks, Keynes and Smith) is a study of health, disability and mortality differences between the US and England for the population aged 50 and over. The data sets used – the Health and Retirement Study for the US and the English Longitudinal Study of Ageing for England – are structured in extremely similar fashions, making health measures directly comparable across the US and England. Given the differences in the way the health care systems are financed and delivered, this provides a useful context for understanding differences in the distribution of health care spending. Banks et al. find higher disease prevalence in the US than in England (confirming previous findings) but much smaller differences between the two countries in disability and mortality. The second additional paper (Cookson et al.) provides a detailed literature review of work on inequalities in health care provision and use in England. The authors show that although the poor consume more health care resources than the rich (because they suffer more illness), the rich consume better-quality care and achieve better health outcomes. The implications could

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[7]See also Evans and Humpherys (2015) for an analysis of monthly patterns of medical spending.

extend beyond England, and the paper provides important background for the socio-economic variation in spending that we document.

III. Findings

1. Correlation with income

Table 2 presents the ratio of average spending in the richest fifth of the income distribution to average spending in the poorest fifth. It shows that there is a mostly negative correlation between income and medical spending within all countries. There is already an extensive literature that examines inequalities

TABLE 2

Ratio of mean spending in richest quintile to mean spending in poorest quintile

	All medical care, including long-term care	All medical care, excluding long-term care	Hospital care
Aged 0–24			
Denmark			
England			0.819
Japan		0.900	0.766
Netherlands	0.531	0.742	0.897
Taiwan	1.154	1.127	
United States		1.306	0.777
Aged 25–64			
Denmark	0.409	0.445	0.406
England			0.794
Japan		0.362	0.304
Netherlands	0.310	0.563	0.725
Taiwan	0.963	0.941	
United States		0.884	0.730
Aged 65 and over			
Denmark	0.398	0.571	0.522
England			0.740
Japan		1.165	1.276
Netherlands	0.496	0.759	0.814
Taiwan	1.425	1.239	
United States[a]		0.876	0.774
United States[b]	0.714	0.908	0.739

[a]The numbers shown differ from those in Pashchenko and Porapakkarm (this issue) because of the treatment of income.
[b]De Nardi et al., this issue.
Note: France, Germany and Quebec are unable to disaggregate spending by income. Medical spending for Taiwan derives from Figure 7 of Chen and Chuang (this issue).

(not controlling for need) and inequities (controlling for need) in access to and use of health care by income. We contribute to this literature by using far more comprehensive measures of health care spending. We show that, with the exception of those aged 65 and over in both Japan and Taiwan as well as those under 25 in both Taiwan and the US, people in the bottom fifth of the income distribution consume more medical care than those in the top fifth. This is consistent with the evidence that low-income individuals are less healthy than high-income individuals.[8] As we are unable to control for need, we make no claims about whether or not this is an equitable distribution. Instead, we note that those at the bottom of the income distribution consume a larger amount of care, signifying that health care systems in most countries act to redistribute resources from rich to poor. Interestingly, the three countries where income and medical spending are positively related include a country that has a largely private care system (the US) and a country that uses patient cost-sharing (Taiwan).

This correlation between income and medical spending changes little over the life cycle on average. Different countries have different patterns, but there is little in the way of systematic patterns across countries. Perhaps the most dramatic pattern we observe is in the US, where before age 25 there is a positive relationship and afterwards it turns negative. Ozkan (2015) argues that this positive correlation between family income and medical spending is an important driver of health inequality between high- and low-income people later in life in the US. Interestingly, although income and health appear positively correlated in all countries, this correlation between income and self-reported health is greater in the US than in most European countries.[9]

Medical spending and income are especially negatively correlated when using the most complete measure of medical spending, including LTC. For many countries, we only have access to data on hospital spending. However, for the countries where we have more comprehensive measures of health care use, we calculate the relationship between income and different measures of health care spending, including LTC (which we have for Denmark, the Netherlands and the US). For example, among those aged 65 and over in the Netherlands, spending on the top quintile of the income distribution is 81 per cent of spending on the bottom quintile when using hospital medical spending, but only 50 per cent that of the bottom quintile when using the total including LTC. Similarly, in the US, the numbers are 74 per cent when using hospital spending and 71 per cent when using total. Long-term care is used heavily amongst those with low incomes in the countries where we can measure spending on nursing homes.

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[8]See Case, Lubotsky and Paxson (2002) and the references therein for the income health gradient at younger ages and De Nardi, French and Jones (2013) for the income health gradient for older ages in the US.

[9]Van Doorslaer et al., 1997; Smith, 2004; O'Donnell, van Doorslaer and van Ourti, 2014.

2. Concentration and persistence

The concentration of medical spending is high in all countries, reflecting the distribution of severe episodes of ill health, but the extent of the concentration does vary. In the US, between 50 and 70 per cent of all medical spending goes to the top 10 per cent of all spenders, regardless of whether long-term care is included or excluded. This is similar to the range for France. In Denmark, Japan and the Netherlands, estimates range from 65 to 80 per cent. It is likely that at least part of this variation reflects differences in the composition of spending available in the data. Even so, this evidence does not seem to support the assertions made by some US commentators that the US is an outlier and that the high concentration is a feature of the structure of the health care system.

Medical spending is highly persistent in all countries.[10] High medical spending in one year strongly predicts high medical spending in the following year. For most countries, the probability of being in the top spending quintile in a given year conditional on being in the top spending quintile in the previous year is approximately 50 per cent. Persistence in health spending is high because persistence in health is high. However, judging a health care system based on persistence is difficult because good care (keeping people alive longer) and bad care (failing to diagnose correctly) could both increase persistence.

3. The cost of end-of-life care

Health care spending in the last year of life has been a focus for both policymakers and the academic literature since at least the 1980s, for a number of reasons. First, at least since Scitovsky (1984), analysts have noted – and some have decried – the high cost of dying. This has prompted calls for issuing advance directives on the patient's side, where patients would list their preferences for end-of-life care in advance of life-threatening conditions.[11] It has also prompted calls for greater use of hospice and home care instead of expensive medical treatment. Finally, it has prompted calls for greater cost control on the provider's side, where hospitals would be issued with guidelines to identify and reduce futile care. Different countries have tried to use different approaches. All of these approaches have proven highly controversial. For example, the recent Affordable Care Act (or Obamacare) in the US initially included provisions to identify and eliminate futile care. These provisions were decried as 'death panels' and were removed from the final version of the Affordable Care Act. In the UK, the National Institute for Health and Care Excellence (NICE) provides guidelines for health care. These guidelines have certain similarities to the provisions eliminated from the Affordable Care Act.

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[10]This is not the case in Quebec.
[11]Murphy and Finucane, 1993.

Another motivation for better understanding the cost of end-of-life care is to help forecast future medical spending. An important part of forecasting future medical spending is forecasting medical spending at older ages, since the elderly spend more on health care than other age groups, and thus population ageing is potentially an important driver of future medical spending. Some have argued that the potential cost of population ageing will not be as big as some others expect, since a major cost of ageing is the cost of dying – incurred in the last year or few months of life – not the cost of being older per se. As people die only once, projecting health care spending based on the age profile of the population therefore overstates the impact of population ageing. This is sometimes known as the red herring hypothesis, as introduced by Zweifel, Felder and Meiers (1999). Most subsequent papers, across many different countries and settings, provide varying degrees of support for the hypothesis. The evidence tends to be stronger for medical care than for long-term care.[12]

While papers on the red herring hypothesis may differ on the relative importance of ageing and time to death, all work shows that death is expensive and that health care costs increase in the months before death. Nevertheless, there is still a debate on the share of aggregate health care spending that is spent on the last year of people's lives. Twenty years ago, Emanuel and Emanuel (1994) calculated that only about 10 per cent of US medical spending was from the year of death and thus cost savings from reducing end-of-life care would be modest. However, little follow-up evidence has emerged in the intervening period. Although there have been multiple studies of, for example, the US Medicare's expenditures in the last year of life, for certain segments of the population, there has not been a systematic estimate of the end of life's share of US health expenditures as a whole. Polder, Barendregt and van Oers (2006) estimate that the share is 11.1 per cent for the Netherlands but speculate that it may be higher for the US. Aldridge and Kelley (2015) estimate that spending in the last year of life is responsible for 13 per cent of US medical spending, although this estimate relies on imputation for many of the payers for health care and some service types.

To address this gap in the evidence on end-of-life care, we consider health care and LTC in the last year of life for countries where the data are available. Recently, Bekelman et al. (2016) measured end-of-life spending for cancer patients across a number of countries. They showed that, perhaps surprisingly, a smaller proportion die from cancer in acute care hospitals in the US and the Netherlands than in other countries. We build insights relative to that paper in the following dimensions. First, whereas Bekelman et al. showed only results for the cost of hospital stays, we have a more comprehensive measure of health care spending for most countries. We show that LTC usage before death varies greatly across countries. Second, we consider all conditions, not just cancer.

[12]Karlsson and Klohn, 2014.

TABLE 3

Spending on those in the last calendar year of life as a share of aggregate spending

	All medical care, including long-term care	All medical care, excluding long-term care	Hospital care
Aged 65 and over			
Denmark	0.141	0.153	0.080
England			0.196
France		0.103	
Japan		0.168	
Netherlands	0.102	0.093	0.112
Taiwan			0.288
United States	0.105	0.093	0.149
All			
Denmark	0.083	0.082	0.052
England			0.104
France		0.056	
Germany		0.079	
Japan		0.107	
Netherlands	0.056	0.044	0.059
Quebec			0.113
Taiwan			0.159
United States	0.049	0.039	0.068

Note: Spending is as a share of spending in that category and for that age group. For example, hospital care spending for those aged 65 and over is hospital spending of those aged 65 and over in the last calendar year of life divided by total hospital spending of everyone aged 65 and over in that country.

Third, we measure the share of aggregate health care expenditure going to those in the calendar year of death, and thus use a measure of usage that is invariant to how we handle the price of medical care, which makes our cross-country comparisons easier to understand.

The results in Table 3 suggest that medical spending in the calendar year of death accounts for approximately 5–10 per cent of aggregate medical spending in most countries. There is no strong link between this percentage and the type of health care system. The US is not an outlier on share of spending. For example, medical spending in the last year of life represents 5 per cent of aggregate medical spending in the US, 6 per cent in the Netherlands and 8 per cent in Denmark. However, the much higher level of total spending in the US means that the average cost of the last year of life is higher than in most other countries. The US spends more on health care for all age groups and stages of life, including the last year of life. But it is certainly not the case that medical care is more concentrated in the last year of life in the US than in other countries.

Dying is expensive in all countries. However, given that it represents less than 10 per cent of total medical spending in most countries, cost savings from reducing end-of-life care will be modest. One important caveat that we should note is that while spending in the year of death is not extremely high, the cost of death in the two years prior is still very high. This fact is shown in some of the particular country studies. For example, in the US, 5 per cent of aggregate spending is in the last year of life but 13 per cent is in the last three years of life.

A key determinant of cross-country differences in the share of health care spending in the last year of life is attributable to long-term care. For example, in the Netherlands, approximately half of the spending at the end of life is attributable to LTC. When using a narrower definition of medical care that excludes LTC, we can obtain measures of medical spending prior to death for more countries. For example, using this narrower measure shows that end-of-life expenditures represent 4 per cent of non-LTC spending for the Netherlands and the US, 6 per cent for France, 8 per cent for Denmark and Germany, and 11 per cent for Japan. For countries using just hospital spending, the numbers are 5 per cent for Denmark, 6 per cent for the Netherlands, 7 per cent for the US, 10 per cent for England, 11 per cent for Quebec and 16 per cent for Taiwan. In summary, the US is in no way a high-spending country for end-of-life care as a share of aggregate medical spending. In fact, it is the east Asian countries where end-of-life spending represents the highest share of total medical spending.

IV. Conclusions

This paper summarises the main findings of the nine-country project examining patterns of medical spending in the developed world. Taking all of the results together, the project reveals three principal findings. First, medical spending is almost always negatively correlated with income. This indicates that most health care systems act to redistribute resources from rich to poor. Second, medical spending in all countries is concentrated and very persistent, in large part reflecting patterns of underlying health. Finally, spending on those in the final year of life amounts to between 5 and 10 per cent of all medical spending in most countries. This is a significant share of total spending, but does show that reducing end-of-life spending would result in a very modest change in spending overall. In each of these respects, the US health care system is not an outlier in the same way that it appears to be in the level of overall spending.

Each paper in this special issue provides further details on the institutions and data available in each country and presents a core set of common results. Each can be read standalone or be used to make comparisons across countries.

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