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# Healthier markets

## Drug policy and workforce planning

### DELSA Newsletter Issue 6

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The OECD Directorate for Employment, Labour and Social Affairs (DELSA) works on labour markets, social policy, international migration and health. Issue 6 of the Directorate's newsletter focuses on two key healthcare markets: for drugs, and doctors and nurses.

Effective medicines save lives and improve quality of life for people with chronic illnesses. But health gains come at a cost: affordability is a growing challenge as drug spending outstrips growth in national income in most OECD countries.

At the first OECD meeting of health ministers in May 2004, pharmaceutical-pricing policy was not explicitly on the agenda. Yet the issue was raised by a number of ministers, voicing concerns about the impact of restrictive pricing policies on the reward to investment in pharmaceutical research and development and incentives for future innovation. Others argued that their policies gave greater weight to securing affordable and accessible medicines.

Ministers called on the OECD to work on these difficult questions, to provide a basis for more informed policy-making in a changing pharmaceutical market. The report *Pharmaceutical Pricing Policies in a Global Market* is one of the outcomes of a project begun in 2005: its key findings are discussed on pages 2–4 of this newsletter. In a globalised market, national drug-pricing policies can no longer work in isolation, and policy-makers have an interest in co-operating to meet the challenges faced; for example, by collaborating to generate and share information on the relative effectiveness of new medicines.

OECD countries have to take the lead here since they account for more than 80% of global pharmaceutical sales. The attendance of ministers and senior officials from over 20 countries at the

recent high-level symposium, reported on page 5, shows OECD countries' willingness to engage with these questions.

OECD countries also face a challenge in responding to the growing demand for doctors and nurses over the next 20 years. This arises in a world which is already characterised by significant international migration of health professionals, both between OECD countries and from developing countries to the OECD area. A new report, *The Looming Crisis in the Health Workforce*, discussed on page 7, presents new evidence on the interaction of human-resource management and migration policies, and identifies ways in which countries can build a sustainable health workforce.

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### Getting hold of the DELSA newsletter

Past issues of the newsletter, on ageing [1], older workers [2] boosting jobs and incomes [3], healthcare [4] and international migration [5] are available on the internet at:

<http://www.oecd.org/els/newsletter>

To receive future issues, either electronically or in hard copy, please e-mail us at:

[els.newsletter@oecd.org](mailto:els.newsletter@oecd.org)

## Do pharmaceutical prices reflect value?

A new OECD report assesses the impact of different drug pricing and reimbursement policies on a changing pharmaceutical market. It concludes that the most widespread current practices may threaten drug access and affordability in lower-income countries, and jeopardise effective future research and development (R&D).

The new report – *Pharmaceutical Pricing Policy in a Global Market* – analyses national differences in the consumption and cost of



medicines, and identifies various distortions in the pharmaceutical market which may mean that price is not necessarily an accurate signal of the value of a new drug.

Insurance – often publicly financed -- subsidises the amount individuals spend on drugs. This reduces financial barriers to access and increases the volume of medicines used. On the supply side, patent protection provides industry with a monopoly on the market and opportunities to benefit from high prices and profits, at least during the period that the patent holds. Most countries regulate prices for at least some part of the pharmaceutical market, in response to these market characteristics.

Clearly, innovative pharmaceutical products have a big role to play in securing better health for patients. But pharmaceutical policy-making serves multiple objectives, presenting policy makers with difficult decisions, particularly in the area of pricing. The goal of ensuring **affordable access** to **effective** medicines runs up against pressures for public sector cost-containment. But policies that restrict the prices pharmaceutical firms can charge risk trading short-term efficiency against the

prospect of future health gains, if firms are deprived of the incentives to invest in the development of more and better drugs.

### How are prices set?

The most common pricing policy in use in OECD countries is ‘external referencing’, in which a price is set according to a formula based on what other countries pay.

This practice encourages firms to launch drugs in countries where they can set a price freely at market entry or negotiate high prices. Confidential rebates between buyers and firms also create a gap between the list price and the real price paid. These practices lead to a convergence towards higher list prices in general, and reduce affordability and access to new medicines in lower-income countries.

‘Internal referencing’, in contrast, sets drug prices by comparing them with prices for alternatives already on the market. Usually, a price premium is given only for products that are deemed worth the extra expenditure because of the added benefits they bring. Some countries set a cap, based on the prices of similar products, to the amount a patient is reimbursed. If patients buy more expensive products, they pay the difference themselves.

Internal referencing explicitly considers health benefits and therefore potentially provides incentives for valued innovation. About a third of OECD countries have begun to use **pharmaco-economic assessment** to decide whether a medicine

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is worth what its manufacturer wants to charge. This approach, although technically challenging, is promising because it evaluates the costs and benefits of a medicine, and explicitly links purchasing decisions to a drug's ability to deliver a desired health outcome for a particular population. It gives better signals to industry as to which new drugs are highly valued, and so could help promote the right level and type of investment in R&D.

Price-volume agreements and risk-sharing agreements (where there is provision for rebates if a drug does not deliver the desired benefits) may also provide good models for policy-makers, because they take the emphasis off unit price and focus instead upon the benefits obtained for a given level of expenditure.

### **Should drug expenditures differ?**

At present, the most widespread pricing policies appear to be encouraging a convergence of list prices, and a lack of transparency in prices. Prices of innovative products are too often defined – with inflationary effects – by reference to what other countries are prepared to pay, as opposed to the value offered. This may discourage appropriate investment in R&D by the industry by distorting the signals that the market sends about the value of new medicines.

Yet countries vary in income, healthcare costs and health needs, and it would be expected that the economic value of a new drug would vary accordingly. One possibility for the future development of

the pharmaceutical market would be for policy-makers to agree that variation in prices and expenditures is appropriate and desirable, and to define prices for a product based upon its value in that country. This may result in some countries spending more on certain kinds of drugs; and better signals to industry about what kind of investment is valued. Such a policy shift would, however, depend on manufacturers' success in limiting the extent of parallel and cross-border trade.

### **Case studies**

The policy analysis presented in the report is underpinned by detailed research that describes and evaluates the pharmaceutical market and policy environment in six OECD countries – Canada, Germany, Mexico, the Slovak Republic, Sweden and Switzerland – selected to represent a range of policy and market characteristics within the OECD. The reports assess these countries' experiences in coping with pharmaceutical policy challenges.

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### **Follow-up**

Internet:  
Full report published at  
[www.oecd.org/health/pharmaceutical](http://www.oecd.org/health/pharmaceutical)

Case study reports available for download:  
[www.oecd.org/els/health/workingpapers](http://www.oecd.org/els/health/workingpapers)

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## Pharmaceuticals: the market context

Demand for healthcare in OECD countries is growing rapidly, fuelled by heightened patient expectations, ageing populations and new technologies. Healthcare expenditures continue to outstrip the average growth of OECD economies, and, at an average 5% annual increase, pharmaceutical spending is growing faster than other types of healthcare spending.

The pharmaceutical sector accounts for about one fifth of health spending in the majority of OECD countries, rising to a third of health expenditure in Hungary and the Slovak Republic. This is equivalent to more than 2% of national income, compared with an OECD average of 1.5%. The average OECD country spent \$401 (US dollars, adjusted for purchasing power parity) per person on pharmaceuticals in 2005, with half of OECD countries spending within 20% of the average. The United States had the highest level of spending per person, at \$792, and Mexico the lowest, at \$144 per person.

France and Spain had the greatest volume of drug consumption per person in 2005, and below-average retail prices. The United States had the third highest consumption per person, but at prices 30% above the OECD average. The highest prices were in Iceland and Switzerland: more than 50% above average. Mexico had the lowest volume of consumption per person – less than one quarter of the OECD average.

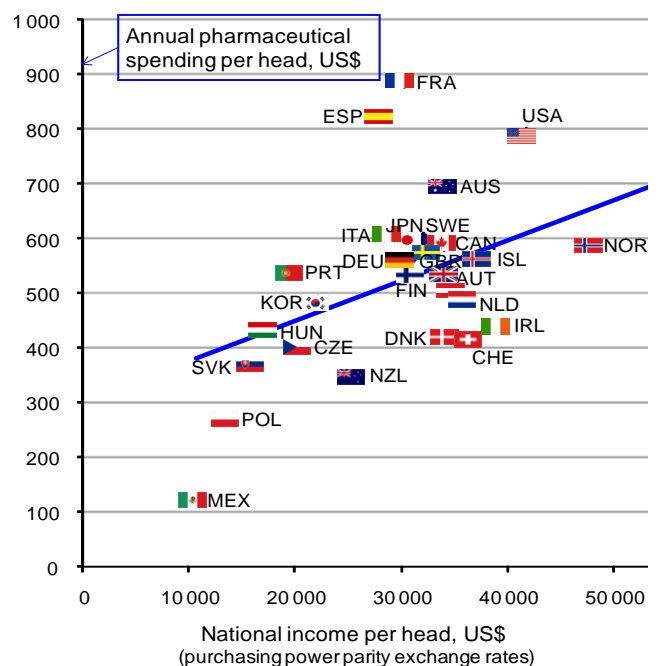
The bulk of pharmaceutical spending is publicly financed in all but four OECD countries (Canada, Mexico, Poland and the United States). However, private sources play a significant role in financing pharmaceutical spending, accounting for 40% on average. Out-of-pocket spending by individuals is generally more important than private health insurance, which is a significant source of drug financing in only a handful of countries (Canada, France, the Netherlands and the United States).

## What are OECD countries buying?

Nine OECD countries account for about 80% of the value of global sales of pharmaceuticals. The United States, with a 45% global share, is the world's largest market.

On-patent products generate most sales revenues, concentrated in a small number of classes of drugs: in 2006, just ten types of drug accounted for 36% of sales worldwide. In the same year, generic products accounted for just 14% of the global market in terms of value. Nearly half of all medicines sold in some large markets – the United States, United Kingdom and Germany, for example – are generics. That drops to less than 10% in Spain, Italy, Belgium and Portugal.

## Real drug spending and national income



Source: *Pharmaceutical Pricing Policy in a Global Market*, OECD, 2008

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## Symposium: ensuring affordable access, promoting innovation

Effective medicines should not be the sole prerogative of the wealthy. Opening a high-level symposium on pharmaceutical-pricing policy in Paris in October 2008, **Angel Gurría**, Secretary-General of the OECD, reminded delegates that, even in relatively wealthy OECD countries, many people do not get all the medicines they need.

However, Mr Gurría also highlighted over-use or misuse of medicines: for example, antibiotics prescribed for patients who do not need them. There is also too little use of cheaper generic alternatives to medicines whose patents have expired.



Only 50% of patients in developed countries comply with their long-term therapies prescribed for chronic disease, according to the World Health Organization. This is explained, at least in part, by financial barriers. Many OECD countries are also struggling to provide high-cost medicines, such as new cancer drugs. In some cases, they have to exclude effective drugs from their benefit package because of budgetary constraints.

The symposium, chaired by Julio Frenk, Dean of the Harvard School of Public Health, provided a forum to discuss potential frameworks for policy-making that would promote goals of access, affordability and valued innovation.

Bengt Jönsson of the Stockholm School of Economics showed high discrepancies in the adoption and diffusion of new drugs for cancer and other conditions between OECD countries. Although prices are not the sole determinant of adoption of new technologies, Mr Jönsson emphasised great variation in ‘affordability’ of medicines.

Elizabeth Docteur of the OECD provided an assessment of the implications of various pricing practices for future innovation and efficiency of pharmaceutical expenditure. While some practices force trade-offs between these objectives, value-based pricing is advantageous in supporting both.

Patricia Danzon of the University of Pennsylvania presented evidence of the impact of market globalisation on launches and prices of pharmaceuticals. With reduced ability to price discriminate between countries, companies tend to delay or even forgo the launch of new products in low-price countries. The aim is to influence prices that are set by international benchmarking and reduce incentives for parallel or cross-border trade.

Ms Danzon advocated **differential** pricing across countries, accomplished through use of value-based pricing to reflect each country’s priorities or by clawing back some of the costs through confidential rebates, based on take-up of the medicine.

The health minister of Mexico and state secretaries responsible for health in Hungary, Portugal and Switzerland were among the participants. They praised OECD work and called for more information-sharing and international co-operation, notably in the field of health technology assessment.

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## Small world: facing the challenge of health workforce planning

The OECD has published a new report on the link between international migration and health workforce policies. It calls for greater international co-operation and a more effective policy mix to meet global shortages of nurses and doctors. The new report builds on joint work undertaken with the World Health Organisation (WHO).

Rising incomes, new medical technology, increased specialisation of health services, and population ageing are pushing up demand for healthcare workers in OECD countries. However, the growth in the number of doctors and nurses relative to the population has not kept pace with demand for their services. The number of medical graduates in 2005 was below the level in 1985, on average. Several countries were reporting shortages of doctors and nurses. Reduced working hours, an ageing workforce and a growth in part-time working all indicate that shortages are likely to increase, in spite of improvements in productivity.

This demands a continuing policy emphasis on maintaining and improving training capacity. But training alone will not plug the gap. The UN forecasts a further fall in the number of young people available to train over the next 20 years, increasing competition for the best students. Moreover, training and education are expensive and take a long time. This policy could also conflict with the objective of containing public spending. These issues call into question whether self-sufficiency in the healthcare workforce is achievable.

### Migration: one element in the mix

The combination of rising demand and limited domestic supply caught many countries by surprise at the same time. In recent years, international recruitment of doctors and nurses has played an increasing role in OECD countries. Indeed, many countries recruited more nurses and, especially, doc-

tors through immigration than they trained at home. And even in the few countries where medical-school intake increased at the end of the 1990s, growth in the number of graduates is only now visible.

International recruitment of doctors and nurses will therefore continue to play an important role and remains an attractive option both to the individuals concerned and the countries that recruit them. It has a direct impact on the stock of health workers, without the long delays in training new clinical staff at home and so is the only response to unanticipated increases in demand for healthcare.

Migrants often accept hard-to-fill posts in their new country, evening out imbalances between regions and medical specialties. If there are countries with a surplus and others with shortages, migration is a more efficient use of global resources, particularly if the receiving country is adept at integrating migrant workers. And if the cost of training is at least partly funded by the individual, the economic loss to home countries – often called the brain drain – is minimised. Yet anxieties about the sustainability of this solution – on both ethical and economic grounds – are often justified (see box). There is a risk that OECD countries will simply export shortages.

Training and international migration need, therefore, to be included in a broader portfolio of policies designed to use the available stock of health workers more efficiently. OECD countries can, and have,

adopted a variety of strategies to make better use of the existing workforce to address future shortages. These include:

- Reducing turnover and retaining staff by improving occupational status and the working environment: flexible working arrangements, wider opportunities for education and development in post, greater autonomy and parity between professions, support for finding new clinical posts, and redesigning jobs.
- Policies to prolong the careers of older health professionals: exemption from night and weekend shifts, allowing part-time work while preserving pension benefits or combining wage and pension income.
- Improving productivity through different skill-mixes, better information technology and linking pay to performance.

### **Brain drain?**

The proportion of **all** highly-skilled professionals who are foreign-born in OECD countries is similar to that for doctors and nurses. Indeed, the degree to which shortages in developing countries' health workforces is caused by migration to OECD countries is, at times, overstated. Over three-quarters of African countries face critical shortages of healthcare professionals: WHO estimates suggest that a 140% increase in the current stock is needed to meet demand. Yet African-born health professionals working in the OECD account for only 12% of the WHO's estimated need for trained staff in the continent. So, even were the flow of trained professionals into OECD countries from regions with severe shortages came to a halt, problems would remain. Yet the loss of skilled medical workers is hard to sustain in small, impoverished nations where

### **Making it all add up**

Individual countries can do much to reduce reliance on international migration of doctors and nurses, but there is no guarantee that the mix of policies will add up across countries. There is a strong case for improving international communication about health workforce policy and planning

The WHO and the OECD jointly hosted a dialogue on migration and other health workforce issues in Geneva in October 2008, involving 150 participants from 35 countries. The meeting agreed to encourage a draft code of practice on international recruitment, better coordination of policies and improved monitoring of migration. This continuing dialogue will help policy-makers ensure a better match of supply with demand in today's global market for healthcare personnel.

health systems are already fragile, especially if much medical training is publicly funded. Migration flows can further jeopardise such countries' ability to deliver services and, ultimately, threaten global public health. Policy responses need to be sensitive to the effect of migration: reducing reliance upon international recruitment is a way of confronting these concerns. But they must also find ways of strengthening the health systems of source countries to help them retain staff and remedy imbalances – through effective aid and other policies. Some examples of good practice include:

- financial support to increase salaries and staffing, and boost incentives to work in underserved rural areas
- scholarships and grants for students from developing countries
- placements in poor countries for health workers, including volunteers, from developed nations.

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## In brief

### Mark Pearson, new head of the health division

Mark has been head of social policy since 2002, having joined the division as principal administrator in 1994. He has contributed to the full range of the division's work programme. Highlights of his time in the social policy division include the *Babies and Bosses* reports, *Pensions at a Glance* and, most recently, *Growing*



*Unequal?*

Previously, Mark worked in the OECD's fiscal affairs division and at the Institute for Fiscal Studies in London.

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### A review of studies on the distributional impact of consumption taxes in OECD countries

*Neil Warren*

Social, Employment and Migration Working Paper no. 67, OECD, 2008

This paper is a rare assessment of the impact of consumption taxes on economic well-being. It describes the large differences in these taxes between OECD countries. To estimate the distributional impact of these taxes, the paper advocates the wider adoption of the methodology that is currently used in Australia, Canada and the United Kingdom. All studies agree that consumption taxes are significantly regressive. Simulations suggest that excluding consumption taxes substantially affects estimates of the degree of redistribution through the tax system.

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### The dynamics of social assistance receipt: Measurement and modelling issues, with an application to Britain

*Lorenzo Cappellari and Stephen P. Jenkins*

Social, Employment and Migration Working Paper

no. 64, OECD, 2008

This paper models the dynamics of social-assistance benefit receipt in Britain using panel data for 1991 to 2005. Having analysed the trends in receipt of social assistance benefits over the period, the paper looks at annual rates of transition into and out of receipt. The paper provides detailed econometric analysis and highlights some lessons concerning the application of the analysis for other countries and some methodological issues.

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### Globalisation and labour markets: Policy issues arising from the emergence of China and India

*David T. Coe*

Social, Employment and Migration Working Paper no. 63, OECD, 2008

Globalisation has important implications for OECD countries' labour markets. At the same time as the emergence of China and India, technological advances have also heightened income inequality. Indeed, the nature of globalisation itself has changed, most vividly demonstrated by the rapid growth of off-shoring of business services. A key concern is that widespread perceptions of increasing economic inequality may reduce support for globalisation in OECD countries. Globalisation increases the urgency of implementing the labour-market policies set out in the *Restated OECD Job Strategy*.

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This newsletter is issued by the Directorate for Employment, Labour and Social Affairs (DELSA) of the Organisation for Economic Co-operation and Development (OECD).

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