ISSUES BULLETIN:
The impact of the economic downturn on global access to medicines

SUMMARY

- IMS Health is the gold standard in pharmaceutical and healthcare market intelligence, relied on by virtually all of the world’s largest pharmaceutical and biotech companies — along with government agencies, policymakers, researchers and financial analysts around the globe. IMS Health tracks more than one million healthcare products daily, from more than 130,000 suppliers worldwide and captures information from more than 260 million anonymised patient records. These data, integrated with leading analytical expertise, play a central role in supporting high-quality, cost-effective healthcare.

- In January 2009 IMS Health was commissioned by the World Health Organisation (WHO) to track the effect of the recent economic downturn on the pharmaceutical market. It was feared that as a result of the recession both governments and private individuals may reduce their spending on medicines with negative impacts for global health.

- IMS Health’s analysis reveals that in fact across country income categories growth in pharmaceutical consumption has continued throughout the recession.

- Only two countries showed an overall decline in pharmaceutical volume consumption: Estonia and Latvia. This decline seems to have been closely associated with a significant contraction in GDP growth in these Baltic countries.

- A number of countries including Estonia, Slovenia and Uruguay experienced an increase in the value of pharmaceutical consumption at the same time as a decline in the volume of pharmaceutical consumption, indicating that they are now paying more for their medicines than before.

- Meanwhile, in the UK, IMS Health has found an association between the decline in value of Sterling against the Euro since the beginning of the recession with a higher level of out of the ordinary demand in retail pharmacies. It is believed that out of ordinary demand is related to the export of medicines. The growth in out of the ordinary demand of medicines presents some cause for concern regarding patient access to medicines in the UK.

- However, it is the situation in the Baltic countries which is most worrying as there is evidence of a steep decline in certain groups of medicines, such as those used to treat certain mental health conditions. However, the greatest declines would appear to have been in medicines that address diseases of less immediate threat to public health or safety.

- The long term impact of the economic downturn on medicines policy remains to be seen as countries across Europe undertake various initiatives to contain the growth in the total expenditure on pharmaceuticals. In the UK, it is clear that whilst the health budget may have been ring-fenced, significant savings will need to be achieved in the medicines budget as part of the Quality, Innovation, Productivity and Prevention (QIPP) programme to deliver £20 billion of efficiencies in health spending.
1. The economic downturn

- The most recent global economic downturn began to manifest itself in the summer of 2007 when the UK bank Northern Rock became one of the first casualties of the financial crisis. The collapse of the US bank Lehman Brothers in September 2008 showed the true scale of the crisis and had repercussions which were felt around the world.

- With banks restricting lending the financial crisis soon became a global economic slowdown. Industrial production and international trade decreased leading to falling GDP around the globe. According to the National Bureau of Economic Research by December 2007 the US was already in recession¹ and by the second quarter of 2008 the UK’s GDP had began to fall².

- Economic problems were not limited to the industrialised or developed world, and as international lending and trade fell countries in the developing world also suffered. In 2009 global GDP growth as a whole is estimated to have fallen to -1.1%³, although it should be noted that many of the emerging economies such as China, Brazil and India continued to grow.

![Figure 1: Global GDP Growth⁴](image)

- Contracting growth has challenged governments across the world. With diminishing revenues many countries experienced large budget deficits and struggled to service structural debt. In 2009 the UK recorded a record government deficit of £159.2 billion (11.4% of GDP), and by the end of the year the country’s general government debt had reached £950.4 billion (equivalent to 68.1% of GDP)⁵. In countries like Greece such challenges have led to political instability.

- The economic crisis has also had a devastating personal impact. Unemployment has risen sharply, with the International Labour Organisation (ILO) warning that the economic downturn could increase the number of global unemployed by up to 50 million⁶. This has led to a contraction in personal and household incomes.

- There are signs that economies are beginning to emerge from the recession. In the fourth quarter of 2009 UK GDP returned to growth and has since risen more steeply than projected⁷. Although it is perhaps too early to say that the economic problems are over and economists continue to warn of a possible double dip recession, we can now begin to examine some of the effects of this most recent global economic crisis.
2. How economic downturns affect health and demand for medicines

- Economic downturns can affect health services and outcomes in a number of ways.

1. **Decreased Government health budgets** – Health spending represents a significant percentage of a government’s budget. In OECD countries average government health spending is equivalent to 9% of GDP, and ranges from 6% in Mexico and Estonia to 16% in the US\(^8\). The UK government spends around 8.7% of GDP on health services\(^8\), accounting for 16.3% of yearly government expenditure\(^9\). Health spending is therefore an obvious target for cuts by governments looking to reduce their budget deficit, although changes may be delayed, meaning that the effect of a recession may only be seen in the longer term.

2. **Decreased personal health spending** – As unemployment rises and personal incomes contract during a recession, many households will choose to cut spending on health services and medicines. The effect is greater in countries where a large percentage of healthcare must be paid for out-of-pocket. A recent study found that in the US 26.5% of people surveyed reported having reduced their use of routine medical care since the economic crisis began\(^10\). Meanwhile the study estimated that in the US, UK, France, Germany and Canada those who had lost between 30% and 50% of their wealth were 22.8% more likely to reduce routine medical care than people whose incomes had been unaffected\(^10\).

3. **Shift from private to public healthcare** – In some countries patients may access both public and private health care systems. In such cases, rather than cutting their use of healthcare altogether, people whose incomes have been hit by the economic downturn will switch from using private healthcare services to relying on public provision.

4. **Worsening public health** – Increased unemployment and reduced personal income during an economic downturn also result in people having less money to spend on food, fuel, housing etc. This can have a significant impact on public health, particularly amongst those already on the lowest incomes. It has also been well documented that recessions usually result in a dramatic rise in mental health problems, resulting from the stress of unemployment or financial instability. Like the impact of decreased government health budgets, the impact of a recession on public health may take some time to emerge.

3. Tracking the impact of the current economic crisis on global access to medicines

- In January 2009 a high-level meeting of the World Health Organisation (WHO) expressed concern that the health consequences of the most recent economic crisis could be disastrous. They feared that the problem was made worse by the fact that the recession so quickly followed increases in the cost of food and fuel which had tipped an estimated 100 million people back into poverty\(^11\). A programme was therefore established to monitor the effects of the recession on global health.

- As the World Bank’s Chief Economist, Maureen Lewis, has noted “a good indicator of health spending is pharmaceutical spending”.\(^12\) The WHO therefore commissioned IMS Health to track the impact of the economic downturn on pharmaceutical spending and consumption. This analysis has since helped to inform analyses for both the WHO and World Bank.\(^13\)

- IMS Health’s access to information on over a million healthcare products from more than 130,000 suppliers worldwide allowed IMS Health to track pharmaceutical consumption, prices and expenditure in 83 countries. 9 of these countries are classified by the World Bank as low income
countries, 21 as low middle income countries, 22 as upper middle countries and 33 as high income. In high-income countries, the data represent consumption or sales in both the public and private sectors (where they exist), while in low- and middle-income countries, the majority of the information relates only to the private sector, this often excluding hospital usage. IMS Health was able to compare WHO regions and countries of high, middle and low income to analyse where access to medicines may have been most affected.14

- This Issues Bulletin updates the reports provided to the WHO. Its focus is consumption rather than expenditure. Changes in expenditure are difficult to attribute to the economic downturn as governments have long adopted a variety of price controls, and expenditure is also affected by the launch of new products and a change in product mix.

- The following analyses use rolling Moving Annual Totals (MAT). Each data point on the figures presented below represents the total of 4 quarters of data. Adjacent data points are one quarter different, for example Year to June 2006, Year to September 2006, Year to December 2006. Quarter on quarter analyses were used for the WHO, not MATs. Quarter on quarter analyses are very sensitive to change, and appropriate for the identification of early signals of the impact of the economic downturn. MATs are more suitable to retrospective analysis of the type shown here as they produce fewer false alerts.

- In the work carried out for the WHO, the first quarter of 2008 was considered to be at least one quarter before the current economic crisis began. If the economic downturn is to be shown to have affected medicine volumes, then there should be a marked trend change at or around this time. In the figures shown below, this period is marked by a shaded area.
4. Medicines consumption during the economic downturn

- IMS Health’s analysis reveals that, on average, growth in pharmaceutical consumption across all World Bank country income categories continued unaffected by the economic downturn. Growth was inversely associated with income reflecting the gap being narrowed in medicine provision between the higher income countries and the lower income countries (Figure 2).

**Figure 2: Median Change in pharmaceutical volumes by World Bank Income category 2006 - 2010**

- Only three countries out of the 83 audited by IMS in the WHO study showed a decline in volumes – the retail sectors in Estonia, Mexico and both hospital and retail combined in Latvia (Figure 3).

- In 2009 Estonia’s Gross Domestic Product declined by an estimated 14.1%, and Latvia’s GDP by 17.8%. These are the two largest falls in GDP in Europe, with only Lithuania suffering similar declines. In Mexico, as we shall see, the decline in the retail sector seems to have been compensated by an upturn in the non-retail sector, this in turn being the result of the expansion of public sector healthcare provision during the economic downturn.
Average volume growth figures hide a variety of pharmaceutical consumption patterns. Some countries grew at speed, others rather less fast. IMS has compared each country’s growth to the median growth for its country income group which acts as a benchmark.

IMS Health’s analysis revealed that the following countries also experienced declines in pharmaceutical consumption relative to the benchmark that appear to be associated with the economic downturn:

- High Income: Estonia (retail), Singapore, Spain, Czech Republic
- Upper Middle Income: Lithuania, Malaysia
- Lower Middle Income: Central America group (retail), Thailand, Peru (retail)

5. Pharmaceutical volumes v. pharmaceutical values during the economic downturn

Estonia is perhaps the country whose pharmaceutical consumption has been worst affected by the economic downturn. As we have seen it is one of only three countries to show an absolute decline in volume. It is also one of only three high income countries where the growth in pharmaceutical values exceeded the growth in volumes by more than 30%. In short whilst purchases in the retail sector fell in volume terms, the total price paid grew at one of the fastest rates. It should be noted, however, that IMS data reflects the combination of both public and private expenditure on medicines. Public expenditure on medicines actually went up at this time.
Figure 4: High income countries where value growth was 30% higher than volume growth, June 2009 – June 2010

Figure 5 below shows a selection of those countries where volume growth outstripped value growth over the long term, but where value growth underwent a dramatic change following the beginning of the economic downturn. The data shown in Figure 5 for Uruguay and Slovenia demonstrates that people or payors were paying more than before for their pharmaceuticals. This in turn perhaps reflects the impact of exchange rates or a change in the types of medicines being purchased.
IMS holds information on pharmaceuticals in both the retail and non-retail sectors in certain countries. The retail sector is most commonly dominated by private out of pocket expenditure and the non-retail by either the public sector or by an insurance covered population. Figure 6 shows how public and private sector consumption changed over time in Uruguay, South Africa and Mexico during the economic downturn.

In both Uruguay and South Africa the rise in non-retail volumes coincided with a fall or flattening of growth in the retail sector. In South Africa rising unemployment appears to have led to an expansion of public sector provision. This trend was strengthened by the roll-out of public sector programmes for the treatment of HIV/AIDS. A similar pattern of pharmaceutical growth in the non-retail sector is seen in Mexico, but here it is due almost entirely to the extension of Government programmes to provide medicines for people on low incomes and measures to end supply shortages in the public sector.
Figure 6: Pharmaceutical growth in the retail and non-retail sectors in Uruguay, South Africa and Mexico

Difference from median growth rate in Upper Middle Income countries audited by IMS

Volume index (compared to 2006)

- S. AFRICA (Public)
- MEXICO (Non-retail exc. tender)
- URUGUAY (Non-retail)

- S. AFRICA (Private)
- MEXICO (Private retail)
- URUGUAY (Private retail)
6. Impact of the recession on patterns of pharmaceutical consumption in the UK

- The economic downturn in the UK, in common with most high income countries, appears to have had no immediate impact on the total volume of pharmaceutical consumption. The long-term impact of the economic downturn itself may be difficult to distinguish from the impact of Government initiatives such as the Quality, Innovation, Productivity and Prevention (QIPP) Programme launched before the recession to deliver efficiency savings in the NHS.

- The decline in the value of Sterling relative to the Euro since the onset of the economic downturn would appear to have been a key driver in the trade of pharmaceutical products.

- As reported in our previous issues bulletin on parallel trade in medicines, IMS measures imports of pharmaceuticals into the UK as well as what it considers to be out of the ordinary purchases by retail pharmacies. These out of ordinary purchases are believed to be associated with export patterns, even if not all out of ordinary purchases are destined for export.

- As Figure 7 shows, since June 2010 out of ordinary demand for medicines by UK pharmacies has been similar in value to parallel imports, a very different situation to the latter half of 2007 where the balance of trade in medicines was much more strongly skewed towards parallel imports of medicines to the UK.

- This shift has been driven by changes in the exchange rate balance emerging since the onset of the economic downturn. Its consequences are complex but as discussed in our last issues bulletin parallel export of medicines can result in delays for UK patients in gaining access to certain medicines.

Figure 7: The relationship between exchange rate and parallel trade
7. Impact of the recession on access to medicines

- Whilst it is clear that in some countries the volume of medicines purchased has been affected by the economic downturn, there are few indications that this has will have a serious impact on health.

- In conjunction with the WHO Collaborating Centre for Pharmaceutical Policy in the Netherlands, IMS conducted an analysis of reductions in consumption of particular groups of medicines in Eastern European (Romania and Poland) and the Baltic States (Estonia, Latvia and Lithuania) during the recession. Estonia was the only one of these countries where all classes of medicines were found to have declined. In other countries whilst some drug classes declined, others increased slightly.

- In general the classes of medicines which showed the greatest decrease in consumption in these countries were not those that posed a serious threat to public health or safety. They tended to include items such as vitamins, nasal preparations, and cough/cold remedies.

- However, one class of drug that experienced a decline in most countries does give more cause for concern. The consumption of psycholeptics, which include antipsychotics and sedatives, decreased by 19.72% Estonia, 15.96% Latvia, 2.43% Lithuania, 0.75% Romania and 0.73% Poland during the period 2007-2009. The use of anti-depressants also declined by 20% in Estonia. Although there is no evidence of any policy being implemented that might be responsible for such a reduction, more research would be useful to identify whether it has resulted in problems of access to medicines for those with mental health issues.

8. Government actions

- Initiatives are taking place in some countries to try and reduce expenditure on medicines as this forms a significant part of the health budget.

- In the UK such initiatives are taking part under the Quality, Innovation, Productivity and Prevention (QIPP) Programme. Their focus has been on hospital medicines where expenditure is rising at a rate of between 14%-22%, according to the Department of Health, whereas primary care medicines expenditure has remained more or less flat. Key targets for the QIPP Programme are alignment of primary and secondary care prescribing, putting appropriate medicines use at the heart of commissioning, driving the efficient use of medicines in primary care, and reviewing the use of “specials” (products made to a specification written by a prescriber)\(^{16}\). In London specific targets have been set for changes in the use of antihypertensives, lipids, inhalers, antipsychotics, depression, opioid patches, neuropathic pain, antibiotics, NSAIDs and diabetes drugs\(^{17}\).

- Meanwhile, many counties where medicines are publicly funded have frozen or cut the reimbursement prices paid to pharmaceutical manufacturers. The German Government has introduced a price freeze at August 2009 prices for all reimbursed drugs until December 2013, and has forced manufacturers to increase their rebate to health insurers for non-reference priced drugs (i.e. more expensive drugs not paid for by the public health service) from 6% to 16%. In France the reimbursement level has been reduced from 30% to 15% for 171 medicines that are deemed to have weak or insufficient medical benefit. The Spanish Government has targeted generic medicines, cutting reimbursed prices by 25%\(^{18}\).

- In Eastern Europe and the Baltic states where the drop in pharmaceutical consumption has been particularly severe, some Governments have rolled back state assistance to pay for medicines and
required more to be paid for out of patients’ own pockets. The Latvian Health Ministry, which has experienced a budget cut of 12.7 million euros, decreased reimbursement rates although at the same time the Ministry used the support funds from the World Bank and the European Union to subsidise the health service co-payments of the poor. Meanwhile, the Lithuanian Government has reduced its budget for subsidising medicines by 9 million euros.

9. Conclusion

- IMS Health’s research for the World Health Organisation shows that in general the economic downturn has not had the impact on access to medicines that many had feared. In most countries despite government budgets being stretched and pharmaceutical prices increasing, consumption of medicines has continued to grow. It has only really been in the Baltic States where we have seen a large decrease in pharmaceutical consumption and this reduction would appear largely to have been in therapeutic categories where a decline is of less immediate threat to public safety or health.

- Elsewhere governments have been able to put policies in place to effectively cushion their pharmaceutical markets and healthcare sectors from the economic crisis. Thus, countries like Ireland, Finland and Slovenia have experienced significant decline in GDP but have not experienced decline in pharmaceutical consumption. The UK is a prime example of a country where the Government has chosen to protect healthcare spending from the effects of the recession, pledging to increase the NHS budget in real terms in every year of the current parliament despite making large scale cuts elsewhere.

About IMS Health

IMS Health is the gold standard in pharmaceutical and healthcare market intelligence, relied on by virtually all of the world’s largest pharmaceutical and biotech companies – along with government agencies, policymakers, researchers and financial analysts around the globe. IMS Health tracks more than one million healthcare products daily, from more than 130,000 suppliers worldwide (representing 730,000 individual dispensing sites) in addition to capturing information from more than 260 million anonymised patient records worldwide. IMS integrates this unparalleled information with leading analytics and consulting to play a central role in supporting high-quality, cost-effective healthcare.
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