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Cymru | Wales



Health and the Use of Medicines in Primary Care in Wales

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Glossary

ABPI – Association of the British Pharmaceutical Industry

AWMSG – All Wales Medicines Strategy Group

CHD – Coronary Heart Disease

COPD – Chronic Obstructive Pulmonary Disease

CSA – Central Services Agency Northern Ireland

DH – Department of Health (England)

GVA – Gross Value Added - GVA measures the contribution to the economy of a producer, industry or sector in the United Kingdom

HTA – Health Technology Appraisal

IC – Information Centre for Health and Social Care

IMS – Intercontinental Medical Statistics

ISD – Information and Services Division of the NHS in Scotland

LOE – Loss of Exclusivity - Defined as loss of all legal protection by the originator brand and entrance on to the market of at least one generic competitor

MTA – Multiple Technology Appraisal

NAFW – National Assembly for Wales

NHSBSA – NHS Business Services Authority

NIC – Net Ingredient Cost - In England this refers to the total of basic prices, in Wales this relates to the basic price, in Scotland it is the value of ingredients while in Northern Ireland it relates to the ingredient cost; in all cases it is the cost of the ingredients before any discount

NICE – National Institute for Health and Clinical Excellence

NWIS – NHS Wales Informatics Service

OECD – Organisation for Economic Co-operation and Development

OHE – Office of Health Economics

ONS – Office for National Statistics

Per capita – relates to per head of population

PPRS – Pharmaceutical Price Regulation Scheme

QOF – Quality and Outcomes Framework

SHA – Strategic Health Authority

STA – Single Technology Appraisal

TIA – Transient Ischaemic Attacks

Foreword

The availability of new, innovative medicines through NHS Wales continues to attract a great deal of interest from patients, clinicians and the public at large, leading to on-going political debate and media interest. Terminology such as “post-code prescribing”, “NICE blight” and “access to medicines” have become regular talking points – from conversations over coffee or the school-gate, to friendly banter in ‘pubs and clubs’, to not so friendly debate across the floor of the ‘Senedd’. To inform and encourage this conversation ABPI Cymru Wales has commissioned the Office of Health Economics (OHE) to provide a snap-shot view of the past, current and forecast use of medicines in Wales. This report provides a contextualised and comparative view of medicines use in Wales. What are the similarities, and where are the obvious differences in trends and patterns compared to the use of medicines across the rest of the UK?

It may not be common knowledge that over recent years Wales has developed a high volume, low cost approach to medicines – where the average cost of a medicine prescribed in Wales is over 10% cheaper than the alternatives dispensed in England. Further, most people do not realise that the proportion of the NHS budget spent on medicines prescribed in the community has fallen steadily since the establishment of the National Assembly for Wales in 1999 – down from 13% to under 10% today; or that dispensing and associated costs are one quarter of the value of the medicines dispensed. NHS Wales deserves to be congratulated on achieving an improved level of generic prescribing, but the need for some medicines to be consistently prescribed and dispensed as the brand – to ensure consistency and familiarity of supply for the patient – should not be overlooked or ignored. However, the relatively slow and low use of NICE fully approved medicines in Wales, as compared to across the border in England, must be a disappointment to all concerned. Three years after licensing, for those new medicines that NICE recommends without restriction, use per person in Wales is less than half that in England. Surely we must do more to encourage more routine use of medicines recognised by AWMSG or NICE as having a proven cost and clinical evidence base?

The demographics of ageing and chronic disease are a significant factor within any medicines bill, with 65% of all medicines prescribed to the over 65’s. As nearly one fifth of the population of Wales is aged 65 and over, and with its high prevalence of common chronic diseases, compared to the rest of the UK, an increase in the medicines bill seems inevitable. However, there does not appear to be an affordability issue for the use of medicines in Wales, with most Health Boards regularly underspending the budget allocated to them by the Welsh Government. On top of these regular underspends, this report also highlights that Wales is set to benefit from a financial windfall of over £180 million in the next 3 years as a number of ground-breaking and popular medicines lose their patent and exclusivity of supply. Surely patients would benefit if these savings were invested in encouraging routine use of medicines recognised by AWMSG or NICE as having a proven cost and clinical evidence base?

The pharmaceutical industry acknowledges that NHS Wales must consider all areas of expenditure and judge how efficiencies can best be delivered. However, it is also appropriate to recognise that the incremental benefits of innovative medicines, such as reduced side effects or improved compliance or simplified routes of administration, can also reduce demand on NHS resources by reducing waste or allowing the provision of care in the community, closer to home, rather than in a hospital setting. The medicines budget, as an easily identifiable area of expenditure, is often amongst the first considered for cuts. However, as this report highlights a trend - and several examples - where patients in Wales do not reach recognised health outcome targets, we would urge caution about continuing an approach that may have appeared at first to be attractive and apparently straight forward. Indiscriminate cost containment measures for medicines could inadvertently have a negative impact on waste, patient compliance and longer term improvements in health outcomes. Surely medicines recognised by AWMMSG or NICE as having a proven cost and clinical evidence base should be viewed as part of the solution to the financial challenges facing the NHS in Wales, allowing patients to manage long-term conditions, outside expensive hospitals?

Like every part of the NHS budget, the use of medicines should be considered carefully and as a result of a full and open dialogue between clinicians, patients, the pharmaceutical industry and those with budget responsibility. The value of medicines should not be evaluated only in terms of acquisition costs or without reference to the evidence base and costs attributable to alternative health service provision. Efficient and effective patient care pathways take a holistic approach to deliver patient outcomes and medicines should be viewed as a critical component of the solution. Surely the Welsh Government, NHS Wales and the pharmaceutical industry should be encouraged to collaboratively develop patient pathways that deliver the best outcomes for patients?

Medicines have played – and continue to play – a pivotal role in maintaining and improving the health, well-being and productivity of the country, although this can often be under-estimated or even forgotten. A 2006 report for ABPI Wales by NERA Economic Consulting found that innovations in medicines to tackle Coronary Heart Disease (CHD) were likely to bring substantial benefits to patients in Wales. Lipid lowering medicines (statins) have offered significant benefits to patients and the health sector by reducing the consequences of CHD such as angioplasty, hospitalisation from stroke and heart by-pass operations. The NERA report estimated that this could save in the order of 112,000 bed days over 5 years. However, the biggest benefit of statins was found to be the lives saved – in Wales this was estimated to be almost 3,000 lives saved over five years. The NERA report also estimated that the economic benefit to Wales of such a large reduction in mortality was in excess of £3.5 billion.

Our aim has to be to optimise the contribution of medicines to the achievement of world class health outcomes for the people of Wales. The right medicines, to the right patients at the right time!

Richard Greville
Director ABPI Cymru Wales

Summary

In this paper, we examine the comparative use of medicines in primary care in Wales in the context of health related demographics and medicines management initiatives and policy.

Generally the trend in the use of primary care medicines in Wales, measured as the number of prescriptions dispensed, has been increasing in Wales faster than the rest of the UK. However, this volume growth has been more than off-set by decreases in average cost per prescription, which have fallen at a greater rate than the other countries in the UK. The overall impact has been that the rate of growth in the primary care medicines bill has been lower in Wales than in the rest of the UK, consistent with the observed increase in the generic prescribing rate in Wales both absolutely and relative to the rest of the UK.

Growth in the medicines bill should be seen in the context of the UK having one of the lowest levels of expenditure per capita on medicines among high income countries. In addition to expenditure on medicines being relatively low, prices for medicines in the UK are among the lowest for high income countries.

The slow rate of growth in primary care medicines expenditure in Wales in recent years has been in the context of fast growth in total NHS spending in Wales. The difference between growth in medicines expenditure and NHS expenditure as a whole is greater in Wales than any other country in the UK. This trend may explain the results of recent analysis by HM Consulting for ABPI Cymru Wales (2011) which calculated that Health Boards in Wales had consistently underspent their medicines allocations. As a consequence the share of total NHS expenditure used on medicines has been declining.

The ABPI has projected the NHS medicines bill in the UK to 2014. Expenditure on primary care medicines is expected to continue the recent trend of slow growth. A major factor explaining the projected slow rate of future growth in the total UK NHS medicines bill is the impact of medicines moving off-patent and facing generic competition.

The age distribution of the population in Wales has, and will continue to have, a greater share of elderly citizens than the rest of the UK. This means that Wales also has, and is expected to continue to have, a higher proportion of its population suffering chronic illness.

The prevalence of chronic disease in Wales is generally higher than the average for the rest of the UK. The NHS in Wales, England and Scotland benchmark whether GPs are targeting and treating patients with a range of chronic conditions. This data suggests that although a greater proportion of patients with key chronic illnesses in Wales are receiving treatment, the percentage of patients "not to target" (QOF) are generally higher in Wales than in either England or Scotland. With a faster growing share of elderly citizens and a health system improving in its ability to target patients with chronic illnesses it would be reasonable to expect that Wales will continue to have higher volume usage of medicines than the rest of the UK.

Medicine appraisal in Wales is carried out by the All Wales Medicines Strategy Group (AWMSG), with National Institute for Health and Clinical Excellence (NICE) guidance crossing the border when finalised. Despite NICE technology appraisal decisions being applicable in Wales and the higher prevalence of chronic disease there, the uptake of primary and secondary care medicines with positive appraisals from NICE is slower in Wales, lagging behind the rate of usage in England.

For medicines only appraised by AWMSG, the impact of their decisions on usage is not yet clear.

1. Introduction

In this paper, we examine the use of medicines in primary care in Wales compared to the other countries of the UK, in the context of health related demographics and medicines management initiatives/policy.

Chronic disease is placing increasing demands on the NHS in Wales and demographic trends suggest that these pressures are likely to grow further. The proportion of elderly people, who are most susceptible to chronic illness, is increasing faster in Wales than in the rest of the UK.

In 2007, prescription charges in Wales were abolished. This contrasts with England, where there continues to be annual increases in the prescription charge. Initial research (Cohen et al (2010) and Groves et al (2010)) suggests that there was a small increase in the dispensing rates of some medicines: a fall in the number of non-prescription medicines purchased and a larger proportion of patients collecting prescribed items; but that there was little or no impact for patients with lowest incomes.

NHS Wales has undergone a fundamental reorganisation of services in recent years, which has brought together primary and secondary care, and removed any remnants of the internal market. In *Setting the Direction* (2010), the previous Welsh Government reinforced its ambition to move from an NHS in Wales which is hospital-led to a community-based organisation, with patient care delivered as close to home as practicable. Central to this strategy has been a remodelled approach to long-term conditions, based on the delivery of chronic disease management by an extended primary care team, including an increased emphasis on early diagnosis, treatment and monitoring. This has been piloted, in part, by Chronic Conditions Management Demonstrators (see: <http://www.ccmdemonstrators.com/>).

The Welsh Government's 2005 health care strategy document *Designed for Life* set various targets or 'milestones', some of which are directly relevant to quality prescribing and the use of medicines:

- ▶ 80% of GP practices to achieve at least 700 points in the General Medical Services Quality and Outcomes Framework (QOF);
- ▶ all prescribing organisations and practices to meet the high level All Wales Medicines Strategy Group (AWMSG) prescribing indicator targets (see Table 1);
- ▶ formal audited and appropriate medicines management systems for older people in community and hospital settings.

Table 1: National Prescribing Indicators 2011/12

Endorsed by All Wales Medicines Strategy Group December 2010

Indicator	Unit	Target
Statins	Items of low cost statins (simvastatin and pravastatin) as a percentage of all statin prescribing (including combinations of ezetimibe with statins)	Maintain performance levels within the upper quartile or show an increase towards the quartile above
ACE inhibitors	Items of ace inhibitors as a percentage of drugs affecting the renin-angiotensin system	Maintain performance levels within the upper quartile or show an increase towards the quartile above
Dosulepin	DDD per 1000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
Hypnotics and anxiolytics	DDD per 1,000 patients (measured separately and as a combined entity)	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
NSAIDs	Average Daily Quantity (ADQ) per 1000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Ibuprofen and naproxen as a percentage of NSAID items	Maintain performance levels within the upper quartile or show an increase towards the quartile above
Antibiotics	Antibacterial items per 1000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Top nine antibacterials (penicillin V, flucloxacillin, amoxicillin, oxytetracycline, doxycycline, erythromycin, clarythromycin, trimethoprim, nitrofurantoin) as a percentage of antibacterial items	Maintain performance levels within the upper quartile or show an increase towards the quartile above
	Quinolone items per 1000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Trimethoprim 200mg 3 day treatment courses as a percentage of trimethoprim treatment	Maintain performance levels within the upper quartile or show an increase towards the quartile above
Proton pump inhibitors (PPIs)	DDD per 1000 PUs	Maintain performance levels within the lower quartile or show an increase towards the quartile below
	PPI items of low acquisition cost (LAC PPI) as a percentage of all PPIs	Maintain performance levels within the upper quartile or show an increase towards the quartile above

Ref: <http://www.wales.nhs.uk/sites3/Documents/371/Indicator%20paper%202011-12%20website.pdf>

Designed for Life target milestones have formed the basis for informing health policy delivery. However, following the election of a new Welsh Government in May 2011 and a change of Health Minister, whether this will continue to be the case is unclear. The Health and Social Services Minister, Lesley Griffiths, AM has recently¹ set out her priorities for NHS Wales over the coming five years. She reiterated commitments, first made under the last Government, to concentrate on outcomes, whilst “managing the money”. She also announced three headline commitments for the coming years:

- ▶ High-standard NHS services for all;
- ▶ Treat patients as individuals;
- ▶ Work with other public services.

The implementation of these policies, and what they mean in practice, will be seen over the coming months. Despite the existence of policies and targets, neither *Designed for Life* nor any of the strategies or publications which have come since, makes direct reference to the role of medicines.

Looking at total NHS net expenditure per capita in Wales and comparing it to the other countries of the UK (Table 2), we can see that up until 2007/08 Wales spent more per person on the NHS than England and the UK overall but now spends slightly less.

Table 2: NHS net expenditure (revenue and capital) per capita, by country 2000/01 – 2009/10

Financial Year	England	Wales	Scotland	Northern Ireland	UK
NHS net expenditure per capita (£ cash)					
2000/01	891	990	1,063	901	911
2001/02	990	1,079	1,224	1,051	1,016
2002/03	1,148	1,187	1,323	1,222	1,167
2003/04	1,285	1,367	1,454	1,349	1,305
2004/05	1,376	1,470	1,515	1,427	1,393
2005/06	1,500	1,573	1,679	1,521	1,519
2006/07	1,584	1,678	1,763	1,637	1,606
2007/08	1,744	1,778	1,889	1,741	1,758
2008/09	1,834	1,833	1,979	1,830	1,846
2009/10	1,978	1,948	2,134	1,920	1,988

Source: OHE Guide to UK Health and Health Care Statistics, 2011.

¹Speech to Public Health Wales – delivered 21/09/2011

In a recent report by HM Consulting for ABPI Cymru Wales (2011), the author found that Local Health Boards underspent their medicines allocation from the Welsh Assembly Government by over £70 million in 2009/10. It remains unclear as to how these resources were spent by the NHS in Wales.

Appleby (2011a) has compared health expenditure plans by UK country and his findings imply that spending in Wales will fall further behind that in the rest of the UK over the next three years. Using 2010 as an index he calculates, in real terms, that if proposed plans are adhered to the health budget in England will fall by 0.9% by 2014/15 and will fall in Northern Ireland by 2.2% by 2014/15, compared to a fall in Wales of over 8% by 2013/14 (Appleby 2011b), and a fall in Scotland of 1.3% by 2011/12 (Appleby 2011c), see Table 3. Such significant reductions in overall health expenditure in Wales demand a clear, joined-up, evidence-based and holistic strategy to maintain comparable and acceptable health outcomes.

Table 3: Change in real NHS spending, 2011 – 2015, by country

	Country	Real change in Spending
2010/11 – 2013/14	Wales	-8.3%
2010/11 – 2014/15	Northern Ireland	-2.2%
2010/11 – 2011/12	Scotland	-1.3%
2010/11 – 2014/15	England	-0.9%

²Appleby 2011b and 2011c are amendments to the original Appleby 2011a paper due to revisions in data.

2. Medicines expenditure and use in primary care in Wales

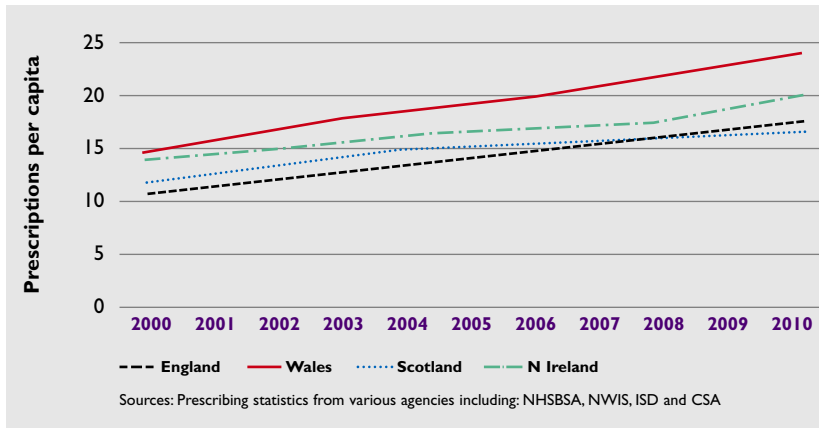
In this section we discuss trends in the use of primary care medicines in Wales compared to the rest of the UK. Generally the trend has been that usage, measured as the number of prescriptions dispensed, has been increasing faster than the rest of the UK (Figure 1). However, this volume growth has been more than off-set by decreases in average costs per prescription, which have fallen at a greater rate than in the other countries of the UK (Figure 2). The overall impact has been that the rate of growth in the primary care medicines bill has been lower in Wales than in the rest of the UK (Figure 3). This is consistent with the observed increase in the generic prescribing rate in Wales both absolutely and relative to the rest of the UK (Figure 4).

Aside from the cost of the medicines dispensed, medicines expenditure includes dispensing and related costs. In Wales, these additional costs have been increasing, alongside the increasing volume of prescriptions dispensed (Figure 5).

2.1. Comparative use of primary care medicines in Wales

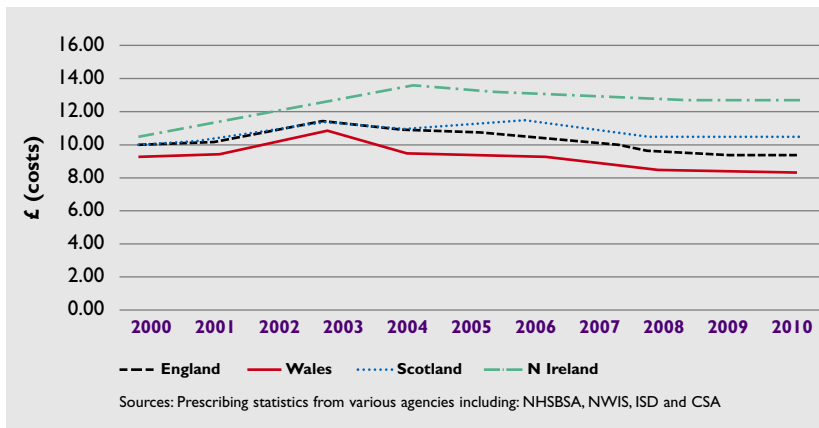
There are more prescriptions per capita dispensed in Wales than in any of the other countries of the UK. In 2010, the number of prescriptions per capita was almost 24 in Wales, compared with 19 in Northern Ireland, 18 in England and 17 in Scotland. This compares to the year 2000, when the number of prescriptions per capita in Wales was almost 15, in Northern Ireland it was 14, in Scotland 12 and in England the number per capita was 11 (Figure 1).

Figure 1: Prescriptions dispensed per capita, by country, 2000 – 2010



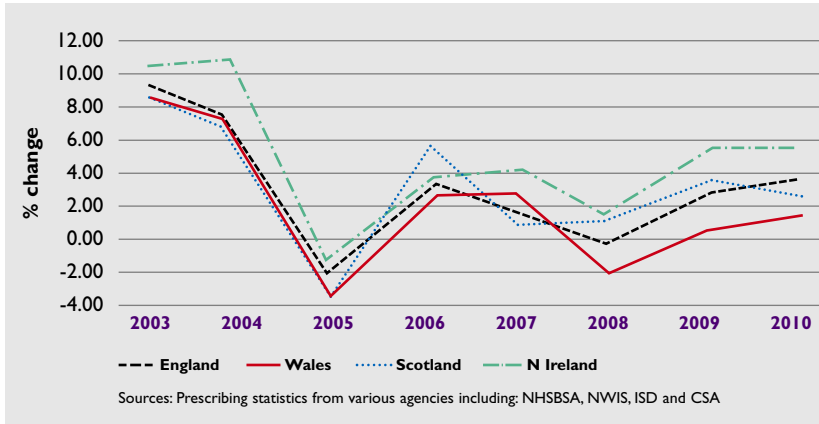
The average Net Ingredient Cost (NIC) of a prescription in Wales in 2010 was £8.16, compared with £9.27 in England, £10.33 in Scotland and £12.23 in Northern Ireland (see Figure 2). Over the period 2000 to 2010 the NIC per prescription has been consistently lower in Wales than in the other countries of the UK. For all countries, since 2005, the average cost of prescriptions has fallen. This reduction in average cost per prescription has been achieved through the greater use of lower priced, mainly generic, medicines.

Figure 2: Net Ingredient Cost (NIC) per prescription dispensed



As a consequence of the relatively low NIC of medicines prescribed in Wales expenditure on medicines dispensed in the community has grown by an average of less than half of one per cent per year in the five years to 2010. This rate is a little over one percentage point below the average growth rate for England (1.64%) and Scotland (1.67%) (see Figure 3).

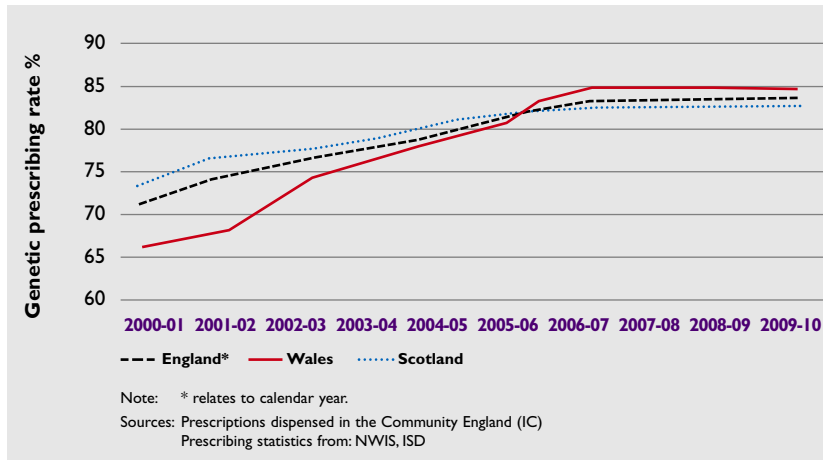
Figure 3: Prescribing in the community: annual percentage change in Net Ingredient Cost (NIC)



The Pharmaceutical Price Regulation Scheme (PPRS) price cut applied to branded medicines throughout the UK in 2005 and measures taken to control prices of generic medicines have meant that in 2005 and 2008 the community (primary care) component of the medicines bill fell.

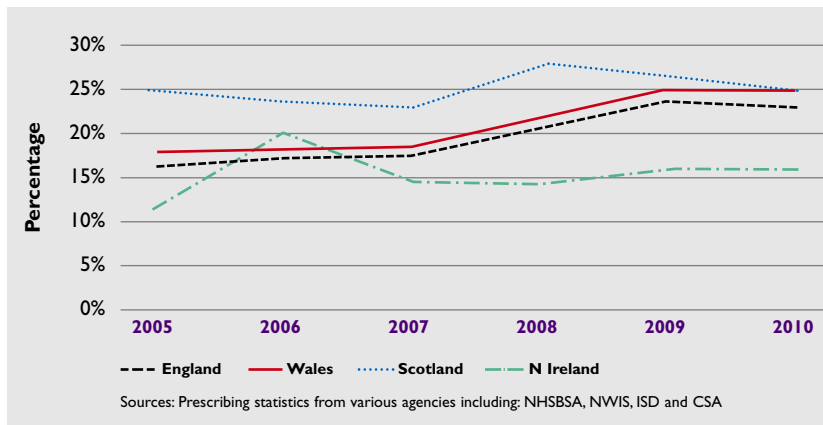
Figure 4 illustrates how generic prescribing rates have increased fastest in Wales compared to England and Scotland (generic prescribing rates for Northern Ireland are not available).

Figure 4: Generic prescribing rates by country 2000/01 – 2009/10



Expenditure on pharmaceuticals dispensed in primary care comprises three components: the cost of the medicines dispensed (called either Net Ingredient Cost or “basic prices”); less a discount based on the value of medicines dispensed; and the fees and other costs paid to the pharmacist or dispensing GP for providing the various services associated with dispensing. Figure 5 below illustrates the total value of dispensing fees and other costs expressed as a percentage of cost of the medicines dispensed. For England and Wales this percentage has increased significantly between 2005 and 2010. In Wales, £45 per head was spent in 2010 on the costs of primary care pharmacy excluding the costs of the medicines.

Figure 5: Fees and other costs paid for dispensing as a percentage of basic prices

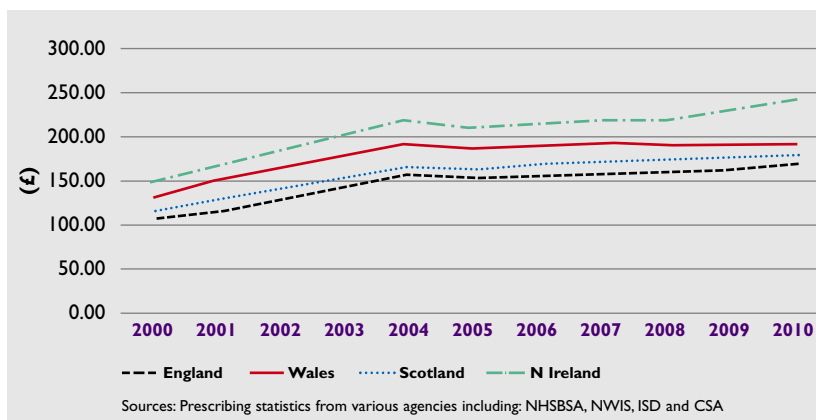


2.2. Medicines expenditure per capita

The cost per capita for medicines used in primary care in Wales increased significantly in the early part of the last decade but since 2005 this growth has slowed (Figure 6). Throughout the decade 2000-2010 average prescription costs per person in Wales were above the English and whole UK levels, similar to Scotland, but below the cost per person in Northern Ireland. This should be seen in the context of the UK having one of the lowest levels of expenditure per capita on medicines among high income countries (Figure 7). In addition the prices of medicines in the UK are among the lowest for high income countries (Table 4).

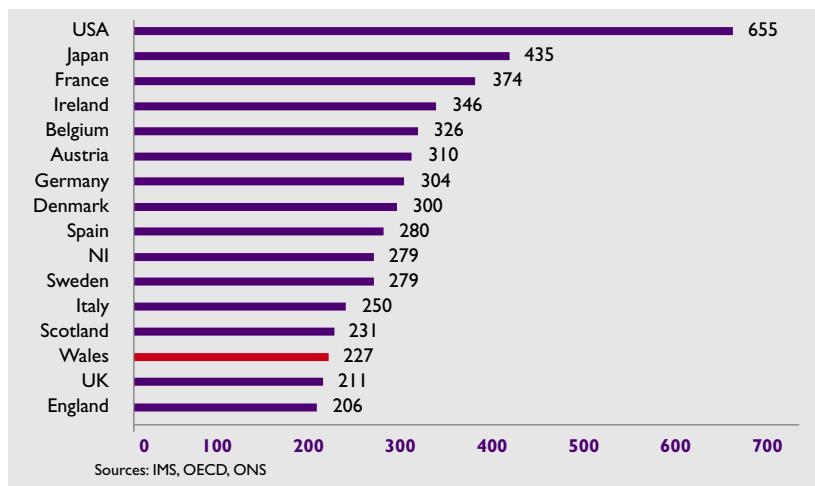
In 2010, combining the consequences of high volume prescribing in Wales with the trend to use cheaper medicines, £193 was spent on primary care medicines per capita. This compares with £243 spent per person in Northern Ireland and £180 in Scotland. England was the lowest at £167 per capita (Figure 6).

Figure 6: Prescription costs (NIC) per capita



The UK has relatively low medicines expenditure per capita compared to other high income countries. Northern Ireland is the only UK country with medicines expenditure per capita that is greater than some other high income European countries (Figure 7). The chart below compares total expenditure on medicines (primary and secondary care) and hence will show higher expenditure per capita than Figure 6.

Figure 7: Total expenditure on medicines per capita £ for selected countries 2010 in primary and secondary care



The prices of branded medicines in the UK relative to those in other high income countries have been falling due to the combination of price negotiation with the Westminster Government under the PPRS and the fall of the Sterling exchange rate against the Euro. When compared to a set of comparator countries chosen by the Department of Health in England, in 2000 the UK had the second highest branded medicine prices of comparator countries, but by 2008 and into 2009 the UK's prices were the lowest (see Table 4).

Table 4: Price index for top 150 UK branded medicines (UK = 100) - Bilateral comparisons of ex-manufacturer prices

	2000 DH estimate	2000 Rank	2006 DH estimate	2006 Rank	2008 DH estimate	2008 Rank	2009 ABPI estimate	2009 rank
USA	209	1	188	1	252	1	272	1
Germany	91	3	105	2	142	2	149	2
Ireland	83	4	105	2	134	3	140	3
Belgium	78	9	97	6	122	4	125	4
Finland	83	4	96	7	119	5	115	8
Netherlands	81	6	94	8	115	6	122	6
Austria	77	10	94	8	111	7	119	7
France	80	7	89	10	108	8	117	8
Sweden	NA		103	4	116	9	123	5
Spain	64	11	85	11	109	10	113	10
Italy	79	8	78	12	101	11	109	11
UK	100	2	100	5	100	12	100	12

Note: NA = Not available.

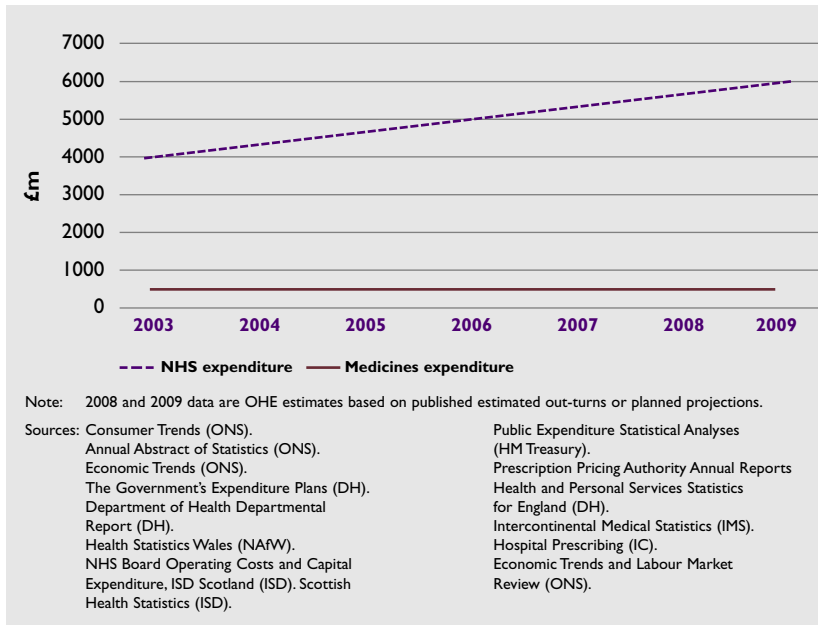
Sources: Department of Health "PPRS Report to Parliament" 6th and 10th reports. 2009 ABPI calculations using "PPRS Report to Parliament" methodology.

2.3. Medicines as a proportion of NHS spending

The slow rate of growth in medicines expenditure in Wales in recent years is set against the context of a faster growth in total NHS spending in Wales (Figure 8). The difference between growth in medicines expenditure and NHS expenditure as a whole is greater in Wales than any other country in the UK (Figure 9). This trend is consistent with the results of a recent analysis by HM Consulting for ABPI Cymru Wales which calculated that Health Boards in Wales had consistently underspent their medicines allocations. The share of total NHS expenditure used on primary care medicines has been declining (Figure 10).

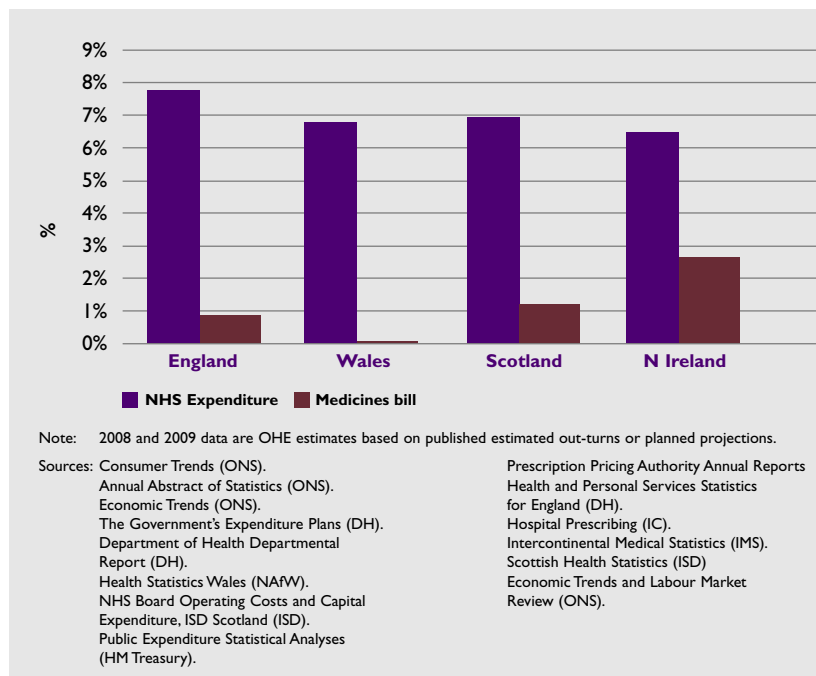
In recent years primary care medicine spending has risen more slowly than total NHS expenditure, see Figure 8. This is true for all countries of the UK. In Wales NHS expenditure rose by 33% in real terms between 2005 and 2010, compared to only a 6% real terms rise in the total cost (NIC) of medicines over the same period.

Figure 8: Total NHS expenditure and primary care medicines expenditure, Wales, 2003 – 2009



Whilst concerns are often raised by politicians and media about growth in the medicines bill in Wales, only moderate increases have been seen. Specifically looking at the average annual growth figures, over recent years Wales has the lowest growth in expenditure on medicines among the countries of the UK (Figure 9).

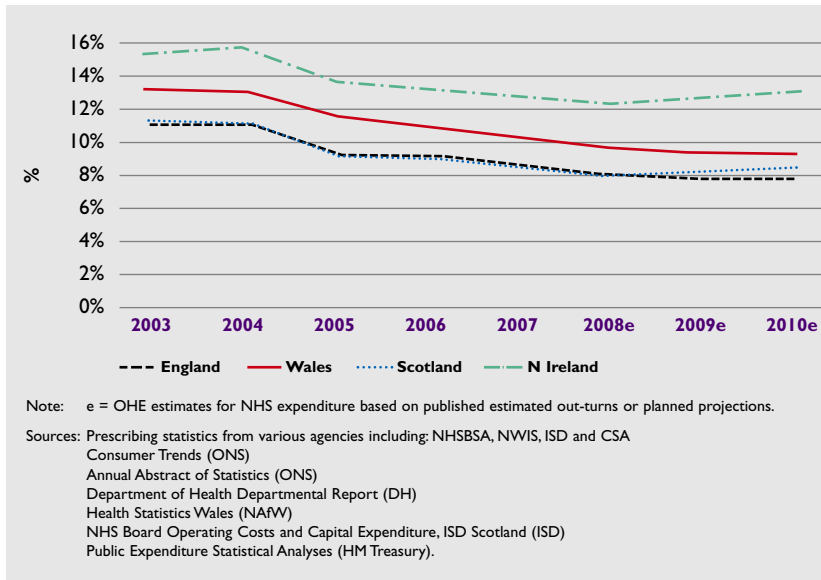
Figure 9: Average annual growth in NHS total expenditure and primary care medicines expenditure by country, 2004-2009



The drive for more efficient and effective ways of delivering better health for the people of Wales should not ignore the potential benefits of using innovative, cost-effective medicines – many of which help to support patients at home, instead of in hospital. The clinical and cost effectiveness of medicines is rigorously examined, by AWMSG and NICE, to a much greater extent than other areas of health care services into which public money is invested.

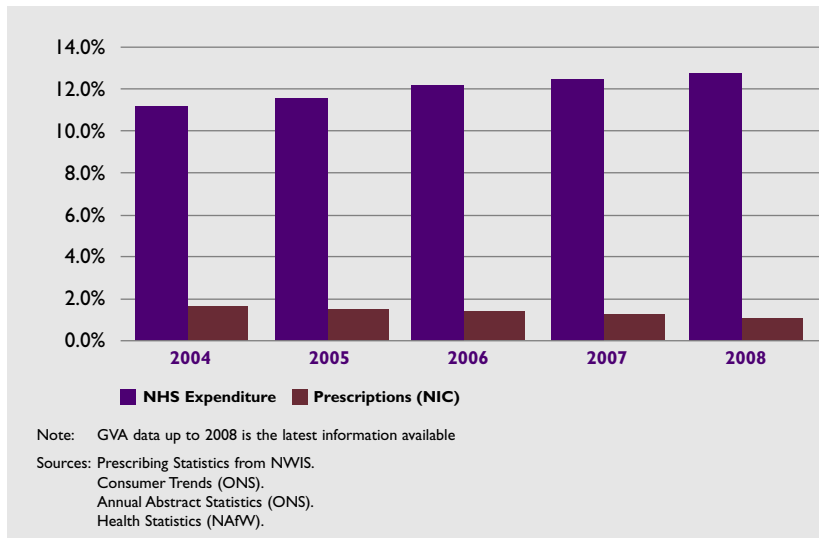
Since 2003, prescribing in the community (as measured by NIC) as a % of total NHS expenditure has reduced consistently across the UK. The cost of prescribing in the community in Wales reduced to 9% of total NHS expenditure in 2010, (see Figure 10).

Figure 10: Prescribing in the community as a share of NHS expenditure



To put NHS expenditure in the context of overall economic activity, Figure 11 shows both total NHS spending and the NIC of medicines prescribed in the community as proportions of total economic output in Wales (measured by gross value added (GVA)). In Wales, NHS expenditure rose from a little over 11% of GVA to almost 12.5% between 2004 and 2008, while prescribing in the community fell from 1.4% to 1.2% of GVA, over the same period.

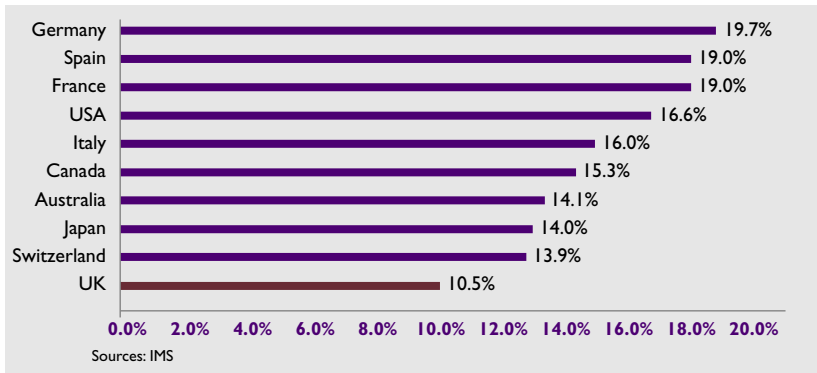
Figure 11: Wales NHS expenditure and community prescribing (NIC) relative to GVA



2.4. Uptake of new medicines in the UK

The uptake of new medicines in the UK tends to be low compared with that of other high income nations. This has been a long term trend. In 2009, the share of the UK medicines bill accounted for by products launched within the previous five years was the lowest compared to a range of other countries (Figure 12). Note that this data includes secondary care – where the majority of new medicines are used.

Figure 12: International uptake of new medicines in 2009 (market share for medicines launched in the previous five years)



In recognition of the relatively poor uptake, by international standards, of new cancer medicines in the UK (Richards, 2010) and specific concerns about the validity of HTA methodology to appraise the value of cancer medicines, a Cancer Drugs Fund was announced for England by the Westminster Coalition Government in May 2010. Following interim arrangements from 1 October 2010, full funding became available in April 2011, with £200 million set aside annually to pay for innovative cancer medicines used in the NHS in England which are clinically effective but have not been recommended by NICE for use in the NHS in England and Wales.

2.5. The medicines bill in future

The ABPI has projected the NHS medicines bill in the UK to 2014. Expenditure on primary care medicines is expected to continue the recent trend of slow growth (Figure 13). A major factor explaining the projected slow rate of future growth is the impact of medicines moving off-patent and facing generic competition (Figure 14).

The ABPI has been developing a model for projecting expenditure on medicines up to 2014 under a variety of scenarios. The next two graphs present UK figures adjusted for Wales. Figure 13 plots the baseline forecast for the value of the total medicines bill (primary and secondary care) in Wales. The baseline assumes a continuation of current policies.

Figure 13: Projected medicines bill in Wales (2009 – 2014)

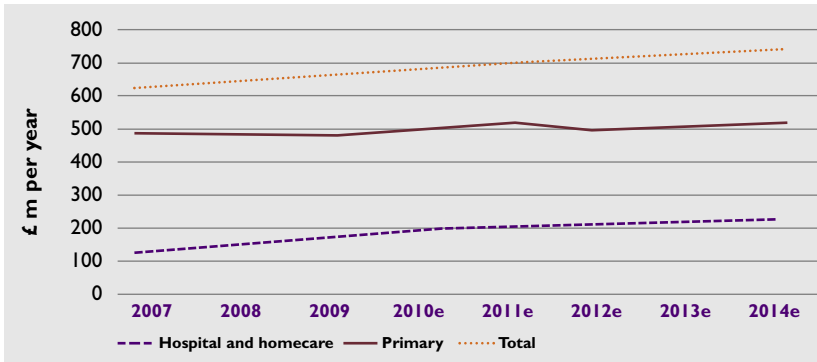
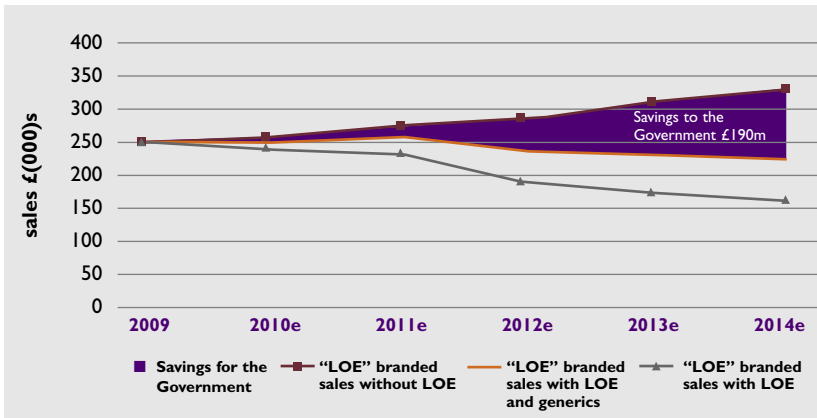


Figure 14 plots the estimated savings to the Welsh government through the loss of exclusivity (LoE), in essence the point at which a medicine moves off patent and faces generic competition. Specifically, Figure 14 plots the impact on the medicines bill of products moving into LoE over the period 2009-2014 and the savings that are expected to be generated through the use of cheaper generic versions of the originator branded medicine.

Figure 14: Projected savings due to LoE for Wales 2009-2014



Sources: ABPI, OHE

3. Health demographics

The age distribution of the population in Wales has, and will continue to have, a greater share of elderly citizens than the rest of the UK. This means that Wales also has, and is expected to continue to have, a higher proportion of its population suffering chronic illness.

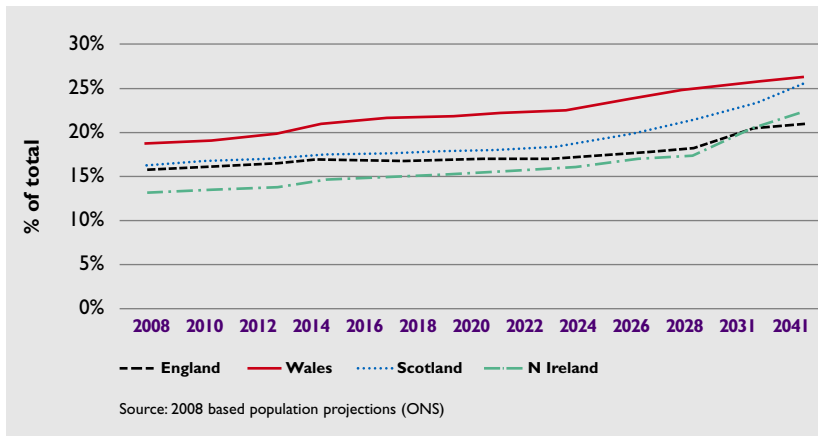
The percentage of the population aged 65 and over with one or more illness, according to the Welsh Health Survey 2009, was 82%.

The prevalence of chronic disease in Wales is broadly in line with that in the North of England. In notable disease areas such as hypertension and asthma, prevalence rates in Wales are higher than the average for the rest of the UK. The NHS in Wales, England and Scotland benchmark whether GPs are targeting and treating patients with a range of chronic conditions. These data suggests that, although over time a greater proportion of patients with key chronic illnesses in Wales are receiving suitable treatment, it is often behind the proportions being suitably treated in England and Scotland.

Further details can be found in Appendix 2.

AI. Age distribution of the population

Figure AI: Per cent of population aged 65 and over, base year 2008



4. Quality and Outcomes Framework (QOF) targets

The QOF measures GP practices' achievement against a range of evidence-based indicators, with greater achievement implying higher quality care. Having a higher proportion of patients 'to target' is thus preferable. QOF statistics for England, Wales, Northern Ireland and Scotland provide information on achievement against a series of indicators for a range of conditions. Box 1 lists some important indicators related to the use of medicines in primary care. The numbers of patients 'not to target' has been calculated for these QOF indicators and are presented in Figures 15 – 18. (It was not possible to provide this information for Northern Ireland as the relevant statistics are not published in a form which readily permits the calculation of the number of the patients 'to target').

Box 1: Definitions for the QOF indicators

BP5	The percentage of patients with hypertension in whom the last blood pressure (measured in the previous 9 months) is 150/90 or less
CHD6	The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less
CHD8	The percentage of patients with coronary heart disease whose last measured total cholesterol (measured in the previous 15 months) is 5 mmol/l or less
DM12	The percentage of patients with diabetes in whom the last blood pressure is 145/85 or less
DM17	The percentage of patients with diabetes whose last measured total cholesterol within the previous 15 months is 5mmol/l or less
Stroke6	The percentage of patients with a history of TIA or stroke in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less
Stroke8	The percentage of patients with TIA or stroke whose last measured total cholesterol (measured in the previous 15 months) is 5 mmol/l or less
CKD3	The percentage of patients on the CKD register in whom the last blood pressure reading, measured in the previous 15 months, is 140/85 or less
CKD5	The percentage of patients on the CKD register with hypertension and proteinuria who are treated with an angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blocker (ARB) (unless a contraindication or side effects are recorded)

The following figures all relate to the percentage of patients 'not to target'. In 2009/10, Wales has consistently higher percentages of patients not to target than in Scotland for all the disease areas considered (see Figure 15) and, more often than not, worse achievement of these targets than in England. When looking over time Figure 16 shows that the number of patients not being reached, in Wales, improved for most targets between 2004/05 and 2006/07 but has not shown further improvement since then. This has enabled Wales to close the gap with England but not with Scotland in respect of the proportion of patients with key chronic illnesses who are receiving treatment (see Figures 17 and 18).

Figure 15: Percentage of patients not to target – 2009/10

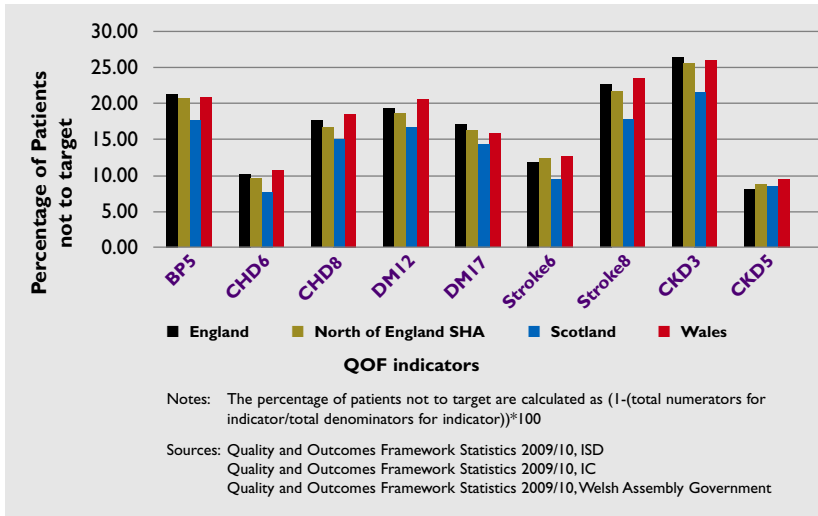


Figure 16: Percentage of patients not to target – Wales

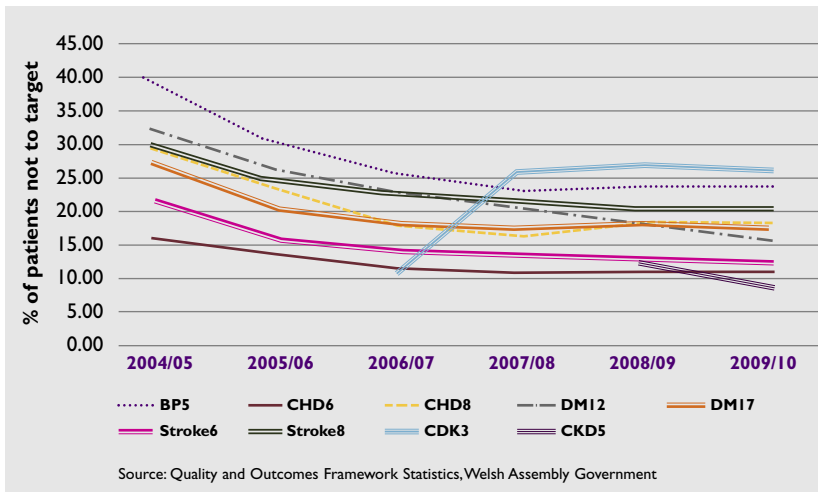


Figure 17: Percentage of patients not to target in Wales relative to England (minus figure = lower percentage of patients to target in Wales)

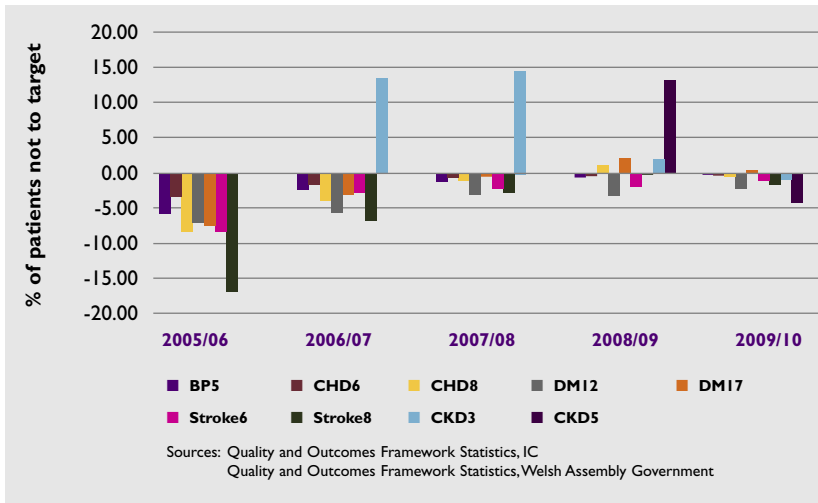
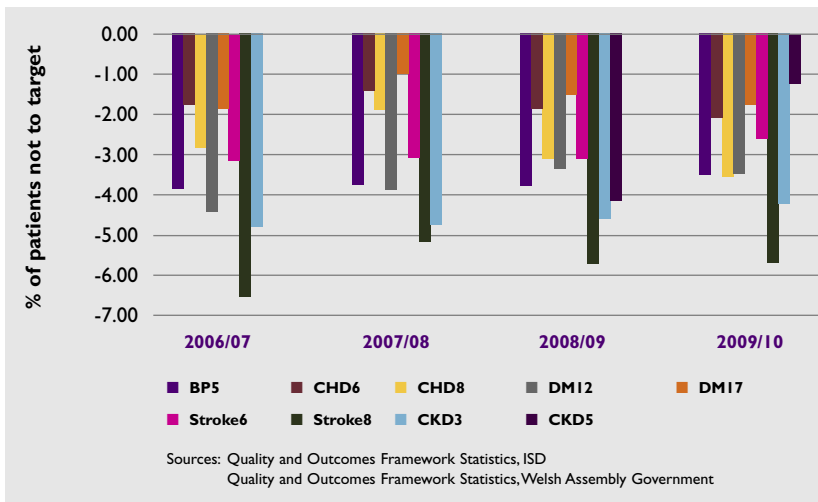


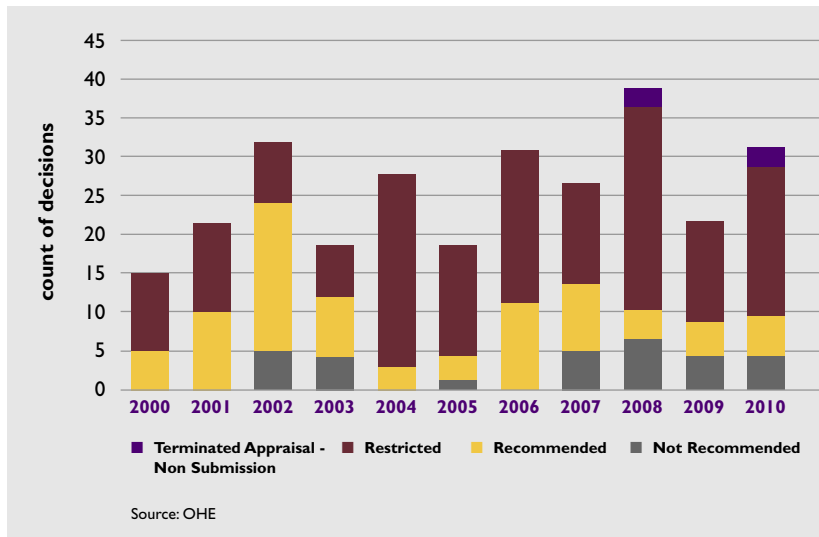
Figure 18: Percentage of patients not to target in Wales relative to Scotland (minus figure = lower percentage of patients to target in Wales)



5. Trends in NICE and AWMSG health technology appraisals

Decisions published by the National Institute for Health and Clinical Excellence (NICE) as part of their health technology appraisal process are applicable to the NHS in Wales. Since the inception of NICE in April 1999 its HTA process has considered various classes of medicines for chronic illnesses including statins, anti-epileptics and bone-density regulators. Many significant new medicines for both chronic and acute conditions have been assessed over the period. Figure 19 summarises the outcomes of NICE technology appraisals for primary and secondary care medicines between 2000 and 2010, in terms of recommended (for use in the NHS), restricted or not-recommended decisions.

Figure 19: NICE technology appraisals (primary and secondary care medicines)



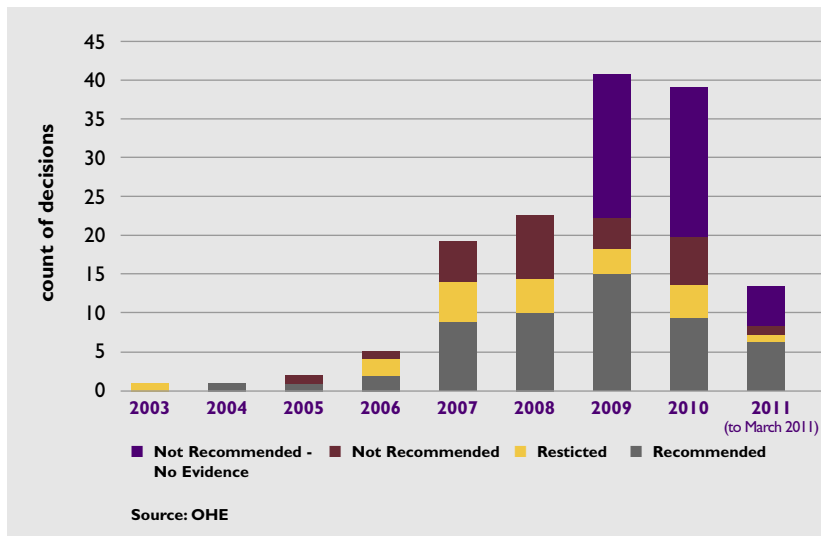
NICE has undertaken approximately 25 Technology Appraisals (TAs) for medicines per year since 1999. Since the introduction of single technology appraisals (STA) in 2006, the number of TAs per year for medicines has slightly increased to a combined total of around 30 STAs and multiple technology appraisals (MTAs) per year:

Since 2000 around 60% of NICE's TA decisions have limited the use of the medicine or medicines under consideration by only recommending use for a sub-group of potential patients relative to the scope of the appraisal. In 12% of TAs NICE has not recommended use of the medicine or medicines considered. In 27% of the decisions, NICE recommends use of the medicine or medicines without restrictions.

The trend since the introduction of the STA process in 2006 has changed. Since then, only 19% of HTAs have resulted in a recommendation without restriction, 15% were not recommended and 62% have a restricted recommendation. The remaining 4% of decisions are for technology appraisals that have been terminated, usually due to insufficient evidence on which to develop an appraisal.

Since 2003 the All Wales Medicines Strategy Group (AWMSG) has assessed 99 products (Figure 20). The intention is to provide timely advice on new medicines prior to the publication of NICE guidance or where NICE has not included the medicine in their work programme. The number of products looked at in the earlier years was small. This has since changed, and from 2010 the majority of medicines not appraised by NICE will be added to the AWMSG work programme.

Figure 20: AWMSG medicines appraisals



Figures 21 and 22 plot the uptake of medicines per capita in UK countries at one, two and three years from launch, for all medicines launched since 2006 that have received either a recommended or a restricted decision respectively from NICE. This analysis demonstrates that uptake of new, NICE recommended medicines in Wales is lower compared to England, though not for medicines about which NICE made a restricted decision.

AWMSG is monitoring usage of medicines it recommends for use with and without restrictions (AWMSG, 2010; 2011). The results of these reports are not yet conclusive but further analysis and reports are expected to better understand the challenges of implementing both AWMSG and NICE guidance.

Figure 21: Uptake per capita for medicines launched since 2006 and which have received a recommended use decision from NICE, first 3 years from launch

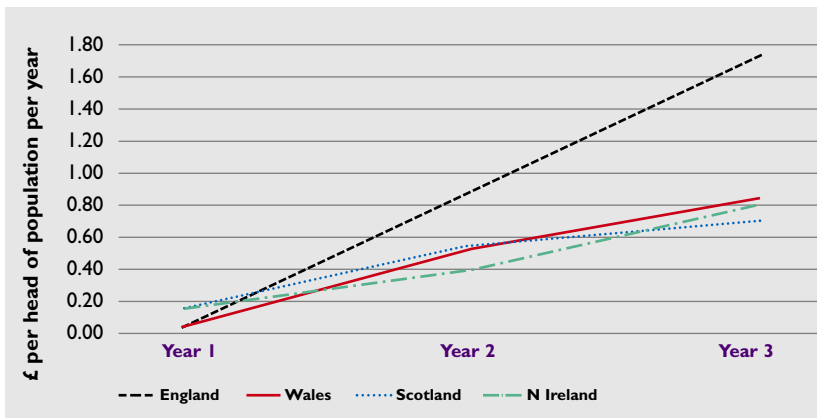
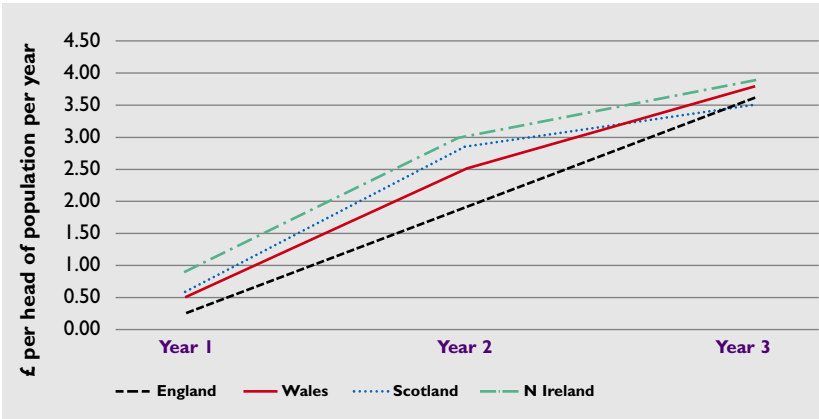


Figure 22: Uptake per capita for medicines launched since 2006 and which have received a restricted use recommendation from NICE, first 3 years from launch



6. Conclusions

The number of prescriptions per capita is significantly higher in Wales, and the average Net Ingredient Cost per prescription is significantly lower, as compared to the rest of the UK. International data shows that although medicines expenditure per capita in Wales is higher than in the UK overall, it is still lower than in a number of other high income countries. This may relate to the high prevalence of chronic conditions in Wales.

Medicine expenditure as a proportion of total NHS expenditure has declined in recent years for all countries of the UK and an increasing proportion of the medicines budget is being spent on dispensing and associated costs. Approximately £45 per capita was spent in 2010 on the dispensing of medicines in Wales, equivalent to 25% of the cost of the medicines themselves – a similar proportion to England and Scotland but a significant increase compared with five years earlier.

Significant savings in medicines expenditure over the next few years have been identified due to the impact of branded medicines becoming generically available in the near future. Such savings could be utilised to improve the current poor uptake of new, NICE and AWMMSG recommended, medicines in Wales.

The health profile of Wales sets the context for the higher frequency of prescribing per capita in Wales than in other parts of the UK. The prevalence estimates from QOF for major diseases such as CHD, stroke, hypertension, COPD and asthma are higher in Wales than England and for hypertension, diabetes, COPD and asthma are higher in Wales than in Scotland. The higher percentages of patients 'not to target' in Wales identified within QOF may benefit from further investigation and analysis.

Uptake of new medicines positively recommended by NICE is lower in Wales, compared to England. An evidence-based approach to tackling chronic disease, including the appropriate use of new and established medicines, is fundamental to reducing hospital admissions and improving health outcomes for the population of Wales. It should be recognised that the full and consistent adoption of the recommendations of NICE and AWMMSG appraisals may be consistent with an increasing share of the NHS budget being spent on the optimum use of cost-effective medicines.

A related demographic factor likely to influence the requirements for health care is the high proportion of the population aged 65+. In Wales this proportion is higher than elsewhere in the UK and is expected to remain above the rest of the UK well into the future. Continued growth of the older age groups is likely to exert further upward pressure on health care use, including medicines expenditure. This evolving demographic will pose a challenge for health care delivery in an environment in which health care expenditure is likely to grow more slowly than in the recent past. Policy makers need to consider the implications of their plans for the balance between different services, particularly between primary and secondary care, and how their goals are to be achieved within the available health care budget.

Appendix 1: Calculation of the fees and discounts for community pharmacy

For all countries data collection for primary care dispensing is well established and valid. All countries report at a national level total cost, net ingredient cost (total of basic prices) and discounts applied. Dispensing and other costs are not consistently reported by countries and therefore these have been imputed using the following formula: (total cost) less (total of basic prices) plus (discount). The figures used to calculate the figures for Wales can be found in table A1.

Table A1: Calculation of fees and discounts - Wales

	Total cost	Total of basic prices	Discount	Dispensing and other costs	All other costs/ total of basic prices	(Dispensing and other costs less discounts)/ total of basic prices
	(£)	(£)	(£)	(£)		
2005	555,817,291.17	516,268,471.74	48,214,302.28	87,763,121.71	17%	8%
2006	580,084,900.63	530,915,928.98	47,725,889.91	96,894,861.56	18%	9%
2007	601,476,213.94	546,643,613.53	47,573,311.62	102,405,912.03	19%	10%
2008	606,309,355.29	535,652,691.18	44,487,312.72	115,143,976.83	21%	13%
2009	632,228,446.91	540,352,324.50	44,028,312.51	135,904,434.92	25%	17%
2010	639,087,556.69	547,032,519.02	44,071,570.00	136,126,607.67	25%	17%
population	3,010,620	3,010,621	3,010,622	3,010,623		
per head £	212.3	181.7	14.6	45.2		

Source: NWIS

Appendix 2: Health demographics

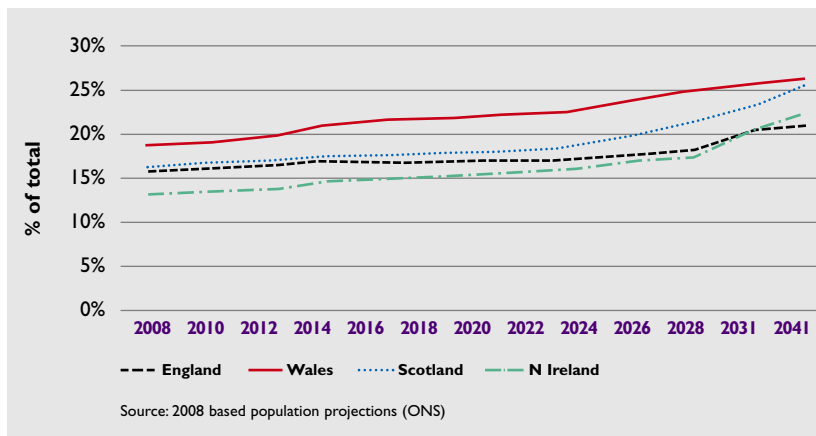
To consider possible reasons behind differences in primary care medicines use in Wales compared to the other countries of the UK, it is of interest to contrast levels of (ill-) health, which may in turn relate to increased health care need. In this section we explore in turn the age distribution of the population, differences in the prevalence of limiting long term illness, and differences in the prevalence and treatment of key chronic diseases.

A1. Age distribution of the population

The population of Wales has a relatively high proportion aged 65 and over compared to England, Northern Ireland and Scotland (Figure A1).

The population projections presented here suggest that, as the population of the UK ages, the 65+ age group is expected to remain proportionately highest in Wales until around 2030, at which point it is projected that Scotland will be on a par with Wales.

Figure A1: Per cent of population aged 65 and over, base year 2008



A2. An increasing challenge to health in Wales

The percentage of the population aged 65 and over with one or more illness, according to the Welsh Health Survey 2009, was 82%, i.e. 458,000 individuals in 2010. It is possible that this percentage may change over time, but assuming that it remains constant, the number aged 65 and over with one or more illness in 2020 would be 568,000, an increase of 24% in just ten years (based on the ONS's projected increase in the number of the population aged 65 and over), see Table A2.

Table A2: Predicted change in Welsh population and incidence of chronic conditions 2010 to 2020

	Number in thousands		
	2010	2020	Predicted change (%)
Total population	3,011	3,171	160 (5.3)
Aged 65 and over	558	693	134 (24.1)
One or more chronic illness	458	568	110 (24.1)

Notes: Based on Welsh Survey 2009 data that found 82% of the population aged 65 and over had one or more illnesses (illnesses listed in the questionnaire or another chronic condition or long term condition as defined by the survey).

Figures are based on the assumption that there will be no change in prevalence.

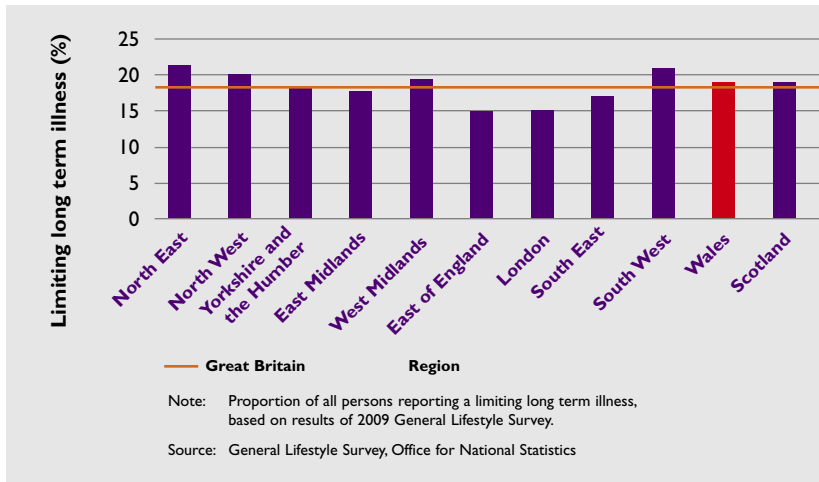
The percentage with a limiting long term illness was lower, 55% of those aged 65 and over.

Sources: ONS and Welsh Health Survey 2009.

A3. Limiting long-term illness

The Office for National Statistics (ONS) General Lifestyle Survey collects data relating to long standing illnesses, based on people's subjective assessments of their own health. As such, measured changes over time may reflect changes in people's expectations of their health as well as changes in incidence or duration of chronic sickness. Geographical inequalities in health are evident across the regions of England and between them, Wales and Scotland (see Figure A2). The percentage of the population who report limiting long-term illness in Wales is at a similar level to Scotland and above the percentage in England overall.

Figure A2: Percentage reporting limiting long term illness 2009



The overall percentage of individuals reporting limiting long term illness in Wales was 19%. For some regions of England there was a higher level of self-reported limiting long term illness than in Wales, and in others a lower level; this was true for both males and females. For example across the different regions the percentage reporting limiting long term illness ranged from 15% in the East of England and London to 22% in the North East². Wales was joint 4th worst of the 11 regions and countries.

A4. Chronic conditions

The prevalence of chronic conditions can be estimated from data collected in the General Medical Services Quality and Outcomes Framework (QOF). There are some known issues with disease prevalence estimated from QOF data, for example, that it is only based on the set of GP-registered patients, which may not be fully representative of the whole population. That said, prevalence estimates from QOF for a range of major diseases/illnesses, CHD, stroke, hypertension, COPD and asthma can be seen to be similar in Wales to the North East SHA in England, based on the 2009/10 QOF data published for the different countries (Table A3). In general, chronic disease prevalence is higher in Wales than in England as a whole, the only exception is that the prevalence estimate for diabetes is lower in Wales than in England. Compared to Scotland, the estimated disease prevalence in Wales is higher for hypertension, diabetes, COPD and asthma and lower for CHD and stroke.

²The North East of England is commonly used by the NHS in Wales as the UK region against which Wales is compared, because it is the English region that most closely resembles Wales in socio-economic characteristics. For example, in October 2010 the Welsh Medicines Partnership in collaboration with Health Solutions Wales undertook a review of benzodiazepine and “z” drug prescribing in Wales using the North East of England as a comparator.

Prevalence in Northern Ireland, according to the QOF data, is lower than for Wales for all of the disease areas considered.

Table A3: Disease prevalence estimates for the countries of the UK, 2009/10

% of population	Wales	England	Scotland	N Ireland	North East SHA
CHD	4.1	3.4	4.4	4.0	4.7
Stroke	2.0	1.7	2.1	1.7	2.2
Hypertension	15.2	13.4	13.4	12.4	15.2
Diabetes	4.9	5.4	4.1	3.7	-
COPD	2.0	1.6	1.9	1.6	2.4
Asthma	6.7	5.9	5.9	5.9	6.2

Notes: Data for Scotland are based on the Final ISD calculated prevalence from QOF, using register submissions from practices.

Sources: Quality and Outcomes Framework Statistics 2009/10, ISD.

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Appendix 3: Uptake of new medicines positively appraised by NICE

This section provides a description of the data and methodology used to produce the charts in Section 5 comparing the uptake of new medicines positively appraised by NICE for each of the four countries of the UK.

All medicines that had been launched between January 2006 and August 2010 and which had received a NICE appraisal were identified. Launch dates were identified using the IMS British Pharmaceutical Index database. NICE appraisals and outcomes were identified using HTAInSite (www.HTAInSite.com). Forty-two medicines were identified. Ten medicines were excluded as the decision by NICE was to not recommend use. Four medicines received a recommended decision and the remaining twenty eight a restricted decision.

IMS supplied sales data per year per medicine for each of the five years to August 2010 (i.e. 12 months to August 2006, 12 months to August 2007 etc.). Sales were expressed in pounds. The calendar data was adjusted to years from launch. Annual sales data was not adjusted for launch month as each medicine was launched in each country on the same month. Medicines were grouped into decision and sales by each year from launch total sales for each group of medicine by year from launch were calculated for each country.

The results can be used to compare uptake of NICE positively appraised medicines but not the impact of individual NICE decisions on medicines usage. Under the terms of the agreement for supply of data individual medicines have not been identified.

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