

Free Prescriptions

Following abolition in April 2007, the Welsh Assembly Government provided £29.5 million to Health Boards to cover this loss of revenue from the prescription charge in 2008. At that time an estimated 968,000 individuals who would have paid the prescription charge pre abolition were able to directly benefit from not paying. The cost of free prescriptions therefore equated to around £30 per individual with the potential to benefit.

Charging was undertaken per prescription item (as opposed to a prescription which could contain several items) and prior to abolition had been decreasing over a period of years;

- 2001 £6.00 per item
- October 2004 £5.00 per item
- April 2005 £4.00 per item
- April 2006 £3.00 per item

The estimated total cost to the NHS of free prescriptions now stands at £33m per year. This is based on uplifts in 2007-08 (7 per cent), 2008-09 (7 per cent - £24m = net uplift 2.4 per cent), 2009-10 (6.7 per cent - £24m = net uplift 2.2 per cent). Nil uplift in 2010-11 and in 2011-12 the allocation was transferred to the HCHS allocation. There have been no formal inflationary uplifts to the HCHS & Prescribing allocation since the allocation was combined in 2011-12.

Prior to the introduction of free prescriptions in Wales, prescriptions were only free for those people under 25 and 60 or over or who had certain medical conditions. The prescription exemption criterion in place at the time was inconsistent and had been in place, virtually unchanged, since 1968. For example, a patient with diabetes was exempt from prescription charges but an individual with rheumatoid arthritis was not. Not only that, but the patient with diabetes would receive exemption from all prescription charges irrespective of whether these were related to the diabetes or not. In effect, charges acted as a tax on certain illnesses.

Before the policy was introduced, people with conditions like asthma, cardiovascular disease (including heart disease and high blood pressure) or those who had received an organ transplant were not entitled to free prescriptions, despite being able to benefit significantly from them. In 2014, drugs for the treatment of cardiovascular disease made up the largest group in terms of prescription items dispensed – almost a third of the total – accounting for 23.6 million items out of 78.5 million items.

Undoubtedly this is the more complex of all the Universal Benefits to model given the significant and serious ramifications in amending this system. However 4 scenarios have been modelled:

- Restore previous system with same eligibility criteria and £3.00 per prescription item
- Restore previous system with same eligibility criteria, but charge £8.20 per prescription item as in England
- Restore previous system but amend single criteria to over 65 and £3.00 per prescription item
- Restore previous system with eligibility criteria, but only charge £3.00 per prescription item for 'non-essential medication' based on Irish study.

It should be noted that other scenarios were considered. However, it was not possible to model these in the timescale. These included different ways of seeking efficiencies through targeting prescribing behaviours where the cost of administering prescriptions for 'over the counter' medication where the administration cost outweighs the cost of the medication (e.g. paracetamol or aspirin). There was also consideration given to a scenario where more expensive branded drugs are substituted by cheaper alternatives. However in both of these instances there is a question to the extent to which these already occur and the difficulties in modelling these scenarios.

The conclusion of this modelling is that under certain conditions, it may be possible for direct savings. This would require eligibility criteria to be carefully set and prescriptions costs to be set high enough to offset any fall in prescriptions, changes in drug costs, administrative costs and fraud prevention. However, there are significant indirect costs with serious impacts for quality of patient care based around the costs associated with people who are unable to meet the costs of prescriptions subsequently presenting at hospital. Under all models this indirect cost significantly outweighs the direct savings, suggesting that these impacts would need to be explored and understood in much greater detail, otherwise the risks outweigh the benefits.

Assumptions

Assumptions - Population

The modelling is reliant on several key assumptions. Foremost, to model the impacts of changing the current system, data has been used relating to provision prior to the introduction of free prescriptions. In particular the eligibility criterion of the previous system has been used; in particular exemption has been defined as follows:

- 0-24 year olds
- those aged 60 and over
- Of those aged 25-59 group, those claiming tax credits, income support (not as unemployed), income based jobseekers allowance, War Disablement Pension or War Widow's pension (including any related allowances).
- Those holding a medical HC2 certificate or those on maternity

It should be noted that this set of criteria relate far more to socio-economic status than health need. This set of criteria also doesn't take into account changes to the benefit and welfare system such as the introduction of Universal credit.

However, based on available estimates for 2012 (based on projections from the position in 2007, just before free prescriptions were introduced), the ratio of exempt to non-exempt people aged 25-59 was 25.9 per cent exempt from charging versus 74.1 per cent non-exempt. Although it should be noted that the non-exempt category may include those who are also exempt for either medical HC2 certificate or maternity that were classified as exempt under the system.

To forecast the number of the population who might be charged if the old system were reinstated it was assumed that despite changes to the benefit and welfare system these proportions from 2012 have held true and using population projections

Forecast for number of the population not-exempt for charging under previous system

Source: population projections and 2012 estimates

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	2015-16	2016-17	2017-18	2018-19	2019-20
25-59 not exempt	1,013,057	1,017,157	1,019,818	1,021,851	1,022,397

Another important point is that the need and use of prescriptions is not uniform across the different groups.

Percentage of total by group

	Popn (2012)	Items (2003-04)	Net Ingredient cost (2003-04)
Under 25	30%	7%	6%
Over 60	25%	59%	55%
25-59 exempt	11%	23%	25%
25-59 not exempt	33%	11%	14%

From the above you can see that those population groups exempt from paying prescription fees represented a far higher share of total prescriptions and associated ingredient cost based on data available from 2003-04. For example, despite accounting for only 25 per cent of the population in 2012, the 60 or over year olds accounted for 59 per cent of total prescriptions items and 55 per cent of the total ingredient cost of prescriptions in 2003-04.

In contrast the section of the population who would be eligible to pay accounted for a third of the total population in 2012, yet only accounted for 11 per cent of all prescription items and 14 per cent of total ingredient cost in 2003-04. This suggests that charging this section of the population would recover lower costs and therefore diminish the potential to achieve savings.

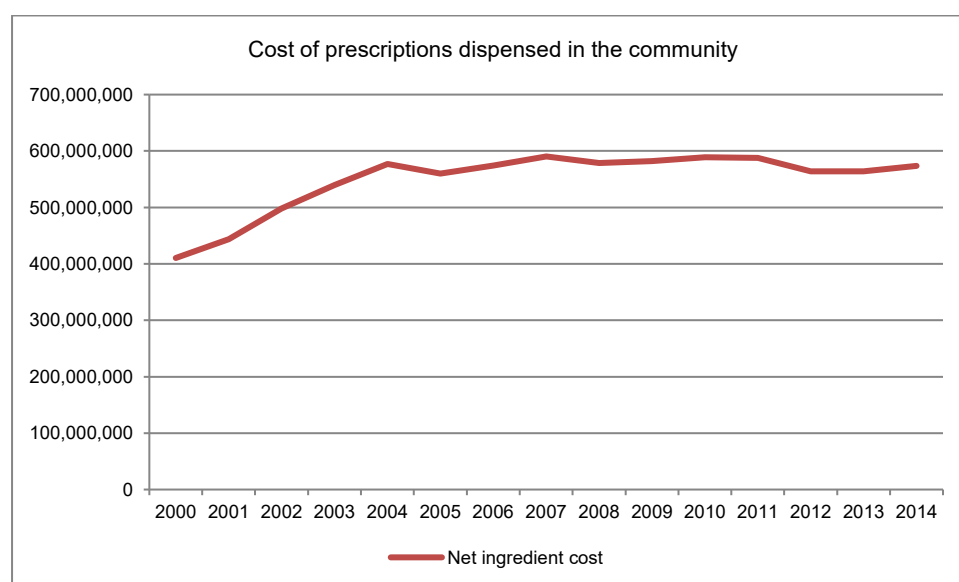
Assumptions - Cost

The next area considered was forecasted cost of free prescriptions which in terms of the model could be considered as the money you could withdraw from the NHS allocation i.e. a nominal savings. Three cost scenarios were considered, shown in the chart below.

Forecast Cost (£m)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
2011-12 flat price	33.0	33.0	33.0	33.0	33.0	165.0
GDP cost inflation	35.0	35.6	36.3	37.0	37.8	181.7
av ingredient cost change	33.0	33.0	33.0	32.9	32.9	164.8

The first scenario shown above relates to a flat cost scenario. The cost of free prescriptions stands at £33m based on nil uplift to the NHS allocation in 2010-11 and in 2011-12 and assuming that this nil uplift has rolled forward to 2015-16. In absence of detailed information relating to the methodology behind the uplift, you could justify that a scenario based on a flat price up to 2019-20 is plausible based on changes to the costs of prescriptions dispensed in the community in Wales.



From the chart above it can be seen that the costs of prescriptions dispensed in the community in Wales have remained broadly unchanged between 2004 and 2014 following a period of increase between 2000 and 2004. This is in part due to drug patent arrangements suppressing costs, although there is a question as to whether these arrangements will continue to suppress costs into the future. However, costs could reasonably be assumed to remain flat up to 2019-20.

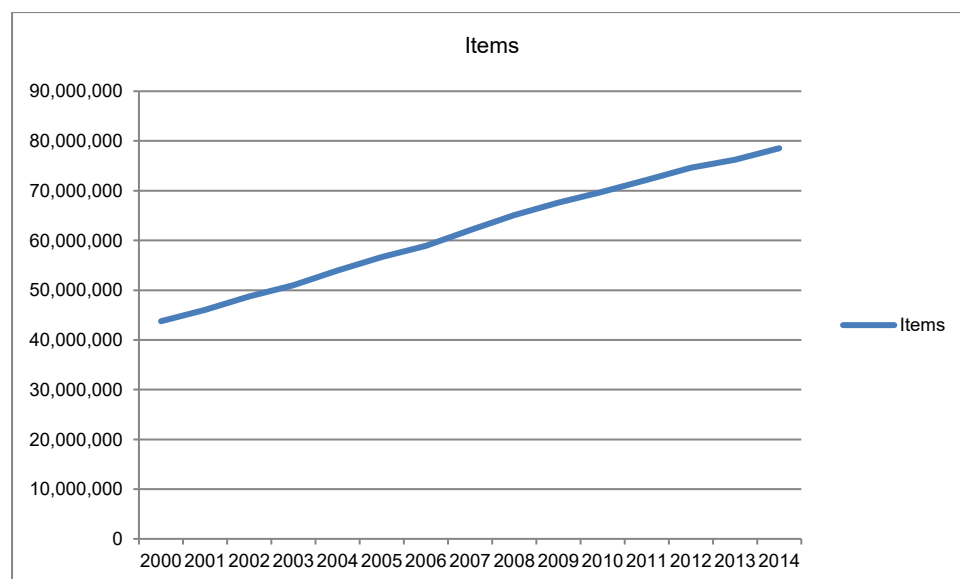
Alternatively a second cost scenario was modelled, based around free prescription costs increasing in line with broad government expenditure. Under this modelling it was assumed that costs would increase using HM Treasury GDP deflators and OBR forecasts. Under this assumption the 2011-12 cost was increased in line with inflation to £35m in 2015-16 and rises to £37.8m in 2019-20.

To test this cost scenario other inflation measures were examined. While not taken forward into the modelling, using the Consumer Price Index sub-components for Health it was noted that health costs more generally had increased faster than GDP recorded inflation between 2011-12 and 2014-15. Similarly Pharmaceuticals (a further breakdown of health) had also increased, but at a slower rate over the same period. This suggests that broader health costs and in particular pharmaceutical costs do not behave in line with broader government expenditure. As such, this scenario may overestimate the cost of free prescriptions and subsequently increase the amount of money you would withdraw from the NHS.

The final cost scenario attempted to take on board the fact that prescription ingredient cost has decreased slightly between 2004 and 2014 (down 1 per cent) and forecast cost on this basis. From this scenario it can be seen that the free prescription cost is broadly the same as the first scenario.

Assumptions – Prescription forecast

Prior to the introduction of free prescriptions, 88 per cent of all prescription items were dispensed free of charge.



From the chart above it can be seen that the number of all prescription items dispensed in the community in Wales has been increasing since 2000. Between 2004 and 2014 prescription items have increased by 46 per cent (3 per cent per year) to 78.5m.

Assuming that this trend will continue it projected that the total number of all items dispensed in the community in Wales will increase to 81m in 2019-20, or an increase of 3 per cent between 2015-16 and 2019-20. If you also assume that 88 per cent of all prescription items will continue to be dispensed free of charge based on the previous system's eligibility, by 2019-20 this is projected to account for around 9.8m prescription items which could be chargeable.

Alternate based on prescription items dispensed free - 2007 88% of all presc items were dispensed free

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Total items	78,538,625	81,263,434	81,263,434	81,263,434	81,263,434	403,592,363
exempt items (2007 basis)	69,113,990	71,511,822	71,511,822	71,511,822	71,511,822	355,161,279
non exempt items (2007 basis)	9,424,635	9,751,612	9,751,612	9,751,612	9,751,612	48,431,084

Model 1: Restore previous system with same eligibility criteria and £3.00 per prescription item

Based on all of the assumptions described above, this model assumes you reintroduce the previous system's eligibility criteria including the £3.00 prescription charge. Also using the flat cost forecast scenario you deduct £33m per year from the HCHS allocation to the NHS. This model then explores the potential for the NHS to recoup its shortfall.

However, in reintroducing the previous system it is assumed that running this system will cost an estimated £2m per year in administration.

Additionally the Finance Committee of the National Assembly for Wales estimated in 2003 that the cost of counter-fraud activities, which included payments to pharmacists for point-of-dispensing eligibility checks, was £0.83 million. Therefore, a flat cost of £0.83m per year is assumed to still hold true.

However, prior to the introduction of free prescriptions it was estimated in a MORI survey that 7 per cent of individuals who had to pay for prescriptions had failed to have them dispensed. In this model it is assumed that this will hold true.

Based on data from 2007 (prior to the introduction of free prescriptions) it is also estimated that on average there are approximately 10 prescription items per person per year.

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Prescription Items	7,862,398	8,183,053	8,178,951	8,175,815	8,174,973	40,575,190
Recouped Cost (£)	23,587,195	24,549,159	24,536,852	24,527,445	24,524,919	121,725,571
Admin cost - £2m	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
Fraud cost (2003)	830,000	830,000	830,000	830,000	830,000	4,150,000
Shortfall (+) surplus (-)	12,242,805	11,280,841	11,293,148	11,302,555	11,305,081	57,424,429

Modelling this it is estimated that between 2015-16 and 2019-20:

- There are 40.6m chargeable prescription items after reducing demand for 7 per cent of people eligible not being able to pay at an average of 10 items per person.
- At £3 per prescription item this recovers £121.7m.
- However, admin cost and fraud recovery costs total £14.2m.
- Assuming you have deducted £165m from the NHS allocation (£33m per year), the NHS is in a shortfall of £57.4m.

However, it is possible to take this modelling a stage further to consider the wider impacts and associated costs. Research shows that 3-4 per cent of UK hospital admissions are as a result of medicine related illness.

In Wales there were 756,000 hospital admissions in 2013-14. If you assume 4 per cent of these related to medicine related illness, this would suggest around 30,000 hospital admissions.

Taking this a step further, if you assume that as a consequence of the old system, of the 7 per cent of people who are estimated to pay for prescriptions and are assumed to no longer be able to pay, just under half of these end up being admitted to hospital. Assuming that 3 per cent of people who are estimated to pay for prescription then attend hospital for medicine related illness, this too is around 30,000 people. Effectively a doubling of the number of people attending hospital for medicine related illness.

It is simplistic to assume that these people will immediately attend hospital, as it may take a period of years for their health to worsen to the point where they would attend hospital. However, for the purposes of modelling and illustrating potential cost impacts we will model these patients attending hospital.

Also, simplistically, we will assume that a hospital admission will relate to an attendance at A&E rather than another form of (potentially) cheaper form of attendance. Based on analysis from the National Audit Office in 2013, it was estimated that in England it cost £2,358 per attendance at A&E. Also for the purposes of modelling we can assume this is also a reasonable approximation for Wales.

Illustratively building on the previous estimate, we could model what this might cost the NHS.

Research shows that 3-4% of UK hospital admissions are a result of medicine-related illness						
	2015-16	2016-17	2017-18	2018-19	2019-20	Total
2013-14 Wales Hospital Admissions	756,082	756,082	756,082	756,082	756,082	3,780,410
2013-14 Admissions medicine	30,243	30,243	30,243	30,243	30,243	151,216
Assume of 7% impacted 3% attend hospital	30,392	30,515	30,595	30,656	30,672	152,828
Impact on medicine hospital admissions	50%	50%	50%	50%	50%	
Assume cost of £2,358 per patient to NHS based on English A&E NAO analysis from 2013	71,663,681	71,953,712	72,141,894	72,285,730	72,324,362	360,369,378
Adjusted shortfall	83,906,486	83,234,553	83,435,042	83,588,284	83,629,443	417,793,807

Due to the high cost of per patient attendance at A&E, between 2015-16 and 2019-20 this could illustratively cost the NHS £360.4m. This would increase the shortfall of the NHS to £417.8m over this period.

As mentioned, this aspect of the model is highly speculative, but illustrates the potential for significant cost to be incurred elsewhere, which significantly offset any savings as well as worsening the outcomes for those individuals impacted.

Model 2: Restore previous system with same eligibility criteria, but charge £8.20 per prescription item as in England

This model is almost identical to Model 1, but instead assumed you increase the charge from £3 to £8.20 per prescription item as in England. Again you can assume

a more simplistic model factoring in 7 per cent of individuals who had to pay for prescriptions had failed to have them dispensed.

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Prescription items	7,862,398	8,183,053	8,178,951	8,175,815	8,174,973	40,575,190
Recouped Cost (£)	64,471,667	67,101,035	67,067,396	67,041,684	67,034,778	332,716,560
Admin cost - £2m	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
Fraud cost (2003)	830,000	830,000	830,000	830,000	830,000	4,150,000
Shortfall (+) surplus (-)	-28,641,667	-31,271,035	-31,237,396	-31,211,684	-31,204,778	-153,566,560

Modelling this it is estimated that between 2015-16 and 2019-20:

- There are 40.6m chargeable prescription items after reducing demand for 7 per cent of people eligible not being able to pay at an average of 10 items per person.
- At £8.20 per prescription item this recovers £332.7m.
- However, admin cost and fraud recovery costs total £14.2m.
- Assuming you have deducted £165m from the NHS allocation (£33m per year), the NHS is in a surplus of £153.6m i.e. prescription charges exceed the money deducted.

However, you can also apply the illustrative modelling used in model and again assume 3 per cent of people who are estimated to pay for prescription then attend hospital at a cost of £2,358 per patient.

Research shows that 3-4% of UK hospital admissions are a result of medicine-related illness						
	2015-16	2016-17	2017-18	2018-19	2019-20	Total
2013-14 Wales Hospital Admissions	756,082	756,082	756,082	756,082	756,082	3,780,410
2013-14 Admissions medicine	30,243	30,243	30,243	30,243	30,243	151,216
Assume of 7% impacted 3% attend hospital	30,392	30,515	30,595	30,656	30,672	152,828
Impact on medicine hospital admissions	50%	50%	50%	50%	50%	
Assume cost of £2,358 per patient to NHS based on English A&E NAO analysis from 2013	71,663,681	71,953,712	72,141,894	72,285,730	72,324,362	360,369,378
Adjusted shortfall	43,022,014	40,682,677	40,904,498	41,074,045	41,119,583	206,802,818

Again due to the high cost of per patient attendance at A&E, between 2015-16 and 2019-20 this could illustratively cost the NHS £360.4m. This could speculatively offset any surplus generated by prescription charging introducing a shortfall to the NHS of £206.8m over this period.

As mentioned, this aspect of the model is highly speculative, but illustrates the potential for significant cost to be incurred elsewhere, which significantly offset any savings as well as worsening the outcomes for those individuals impacted.

Model 3: Restore previous system but amend single criteria to over 65 and £3.00 per prescription item

Similarly this model is almost identical to Model 1, but instead assumed you amend one of the eligibility criteria from those aged 60 and over being exempt to those aged over 65 – in line with changes to pension age.

This change requires estimation of the potential 'need' for those aged between 60 and 64 i.e. what proportion of this group might be exempt from charges and the potential number of prescriptions this group may need which may be chargeable. There were two scenarios considered for 60-64 year olds either;

- Due to increases in healthy life expectancy, you assume their need is no greater than the rest of the population aged between 25-59 who were eligible for free prescriptions. On this basis you could model this at 26 per cent of 60-64 year olds being eligible for free prescriptions; or
- Based on a range of health conditions captured in the 2014 Welsh Health survey, you could assume a much higher need for this group. On this basis you could model this at 35 per cent of 60-64 year olds being eligible for free prescriptions.

If you assume the second scenario to be the more likely i.e. the smaller number of 60-64 year olds would be eligible for prescription charging, this increases the total projected number who might be eligible for prescription charging to around 1.1m, as shown below.

	2015-16	2016-17	2017-18	2018-19	2019-20
25-64 not exempt (Health)	1,132,738	1,136,395	1,139,878	1,142,833	1,144,765

Again you can assume a more simplistic model factoring in 7 per cent of individuals who had to pay for prescriptions had failed to have them dispensed.

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Prescription items	10,412,700	10,723,922	10,737,355	10,753,861	10,782,549	53,410,388
Recouped Cost (£)	31,238,101	32,171,767	32,212,066	32,261,582	32,347,646	160,231,163
Admin cost - £2m	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
Fraud cost (2003)	830,000	830,000	830,000	830,000	830,000	4,150,000
Shortfall (+) surplus (-)	8,490,454	7,526,712	7,502,950	7,475,470	7,432,048	38,427,634

Modelling this it is estimated that between 2015-16 and 2019-20:

- There are 53.4m chargeable prescription items after reducing demand for 7 per cent of people eligible not being able to pay at an average of 10 items per person.
- At £3 per prescription item this recovers £160.2m.
- However, admin cost and fraud recovery costs total £14.2m.
- Assuming you have deducted £165m from the NHS allocation (£33m per year), the NHS is in a shortfall of £38.4m.

However, you can also apply the illustrative modelling used in model and again assume 3 per cent of people who are estimated to pay for prescription then attend hospital at a cost of £2,358 per patient.

Research shows that 3-4% of UK hospital admissions are a result of medicine-related illness

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
2013-14 Wales Hospital Admissions	756,082	756,082	756,082	756,082	756,082	3,780,410
2013-14 Admissions medicine	30,243	30,243	30,243	30,243	30,243	151,216
Assume of 7% impacted 3% attend hospital	33,982	34,092	34,196	34,285	34,343	170,898
Impact on hospital admissions	53%	53%	53%	53%	53%	
Assume cost of £2,358 per patient to NHS based on English A&E NAO analysis from 2013	80,129,887	80,388,604	80,634,998	80,844,035	80,980,699	402,978,223
Adjusted shortfall	88,620,341	87,915,317	88,137,948	88,319,505	88,412,747	441,405,858

Again due to the high cost of per patient attendance at A&E and a projected increase in numbers compared to model 1, between 2015-16 and 2019-20 this could illustratively cost the NHS £403.0m. This could speculatively increase the shortfall of the NHS to £441.4m over this period.

As mentioned, this aspect of the model is highly speculative, but illustrates the potential for significant cost to be incurred elsewhere, which significantly offset any savings as well as worsening the outcomes for those individuals impacted.

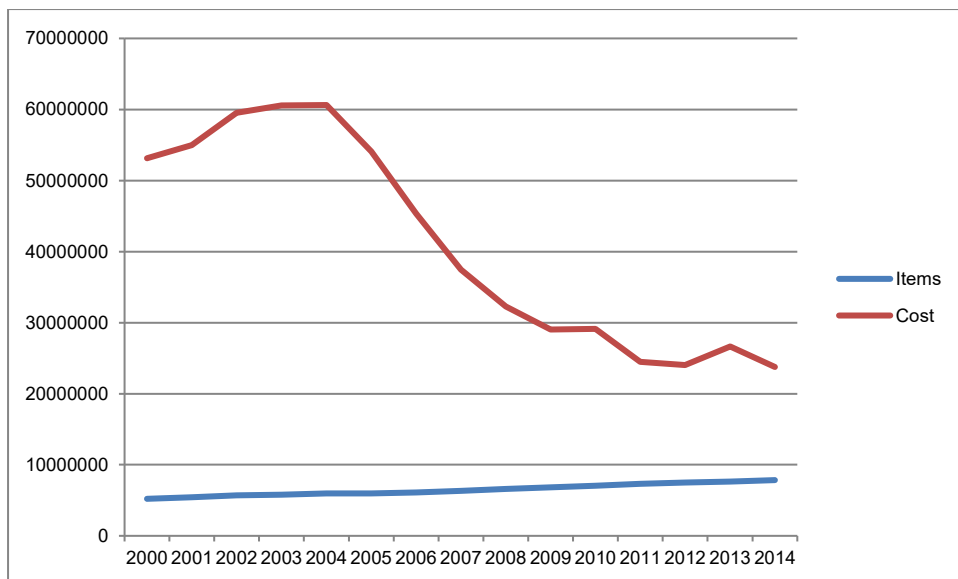
Model 4: Restore previous system with eligibility criteria, but only charge £3.00 per prescription item for 'non-essential medication' based on Irish study.

This final model considers the same eligibility criteria as the previous system, but attempts to introduce a charge, only for those medications deemed to be 'non-essential'. This is an attempt to explore the impact of introducing a charge for medication which is readily available at a cost lower than the cost of administering the prescription e.g. over the counter medication.

This model assumes that even if you were to introduce a charge for certain medications, you would still have a set of exemption criteria. For ease of modelling it is assumed that these will be the same exemption criteria as the previous system.

In their paper an 'International Experience of Conditional Entitlement to Healthcare: a Rapid Review' from August 2015 the Public Policy Institute for Wales highlighted a study of the Irish health care model. In this Irish study a definition was put forward for 'non-essential medication', defined as proton pump inhibitors, H2 receptor antagonists, Non-steroidal anti-inflammatory drugs (NSAIDs), anxiolytics/hypnotics.

Using available data for Wales it is possible to analyse trends for these drug types to explore the viability for charging.



However, in undertaking this analysis, between 2004 and 2014:

- Total ingredient cost for 'non-essential' medication has decreased by 61 per cent, as opposed to 1 per cent for net ingredient cost of total prescription items dispensed in the community;
- Total prescription items has only increased by 31 per cent, as opposed to 46 per cent for all prescription items dispensed in the community;
- 'Non-essential' medications only accounted for around 10 per cent of total prescription items and due to cost decreases, by 2014 only accounted for 4 per cent of total net ingredient cost of total prescription items dispensed in the community.

On this basis, it suggests these prescription categories are getting cheaper to prescribe, but more importantly prescription items aren't rising as quickly. This would suggest that there may be less prescription items which could be chargeable, therefore restricting the ability for the NHS to recover its costs. Additionally, given that a significant proportion of the population would already be exempt from charging under this model, this model is likely to project a shortfall to the NHS.

Consequently this model hasn't been expanded in detail, but does illustrate how this system might function.