

Looking Ahead: Forecasting the Medicines Bill in a Challenging Climate

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Research

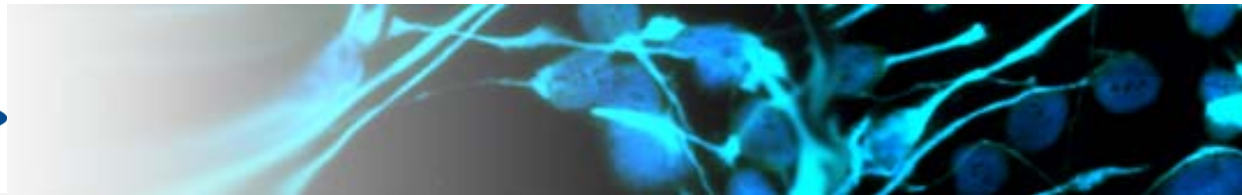
Consulting

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Research



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NHS medicines bill in Scotland

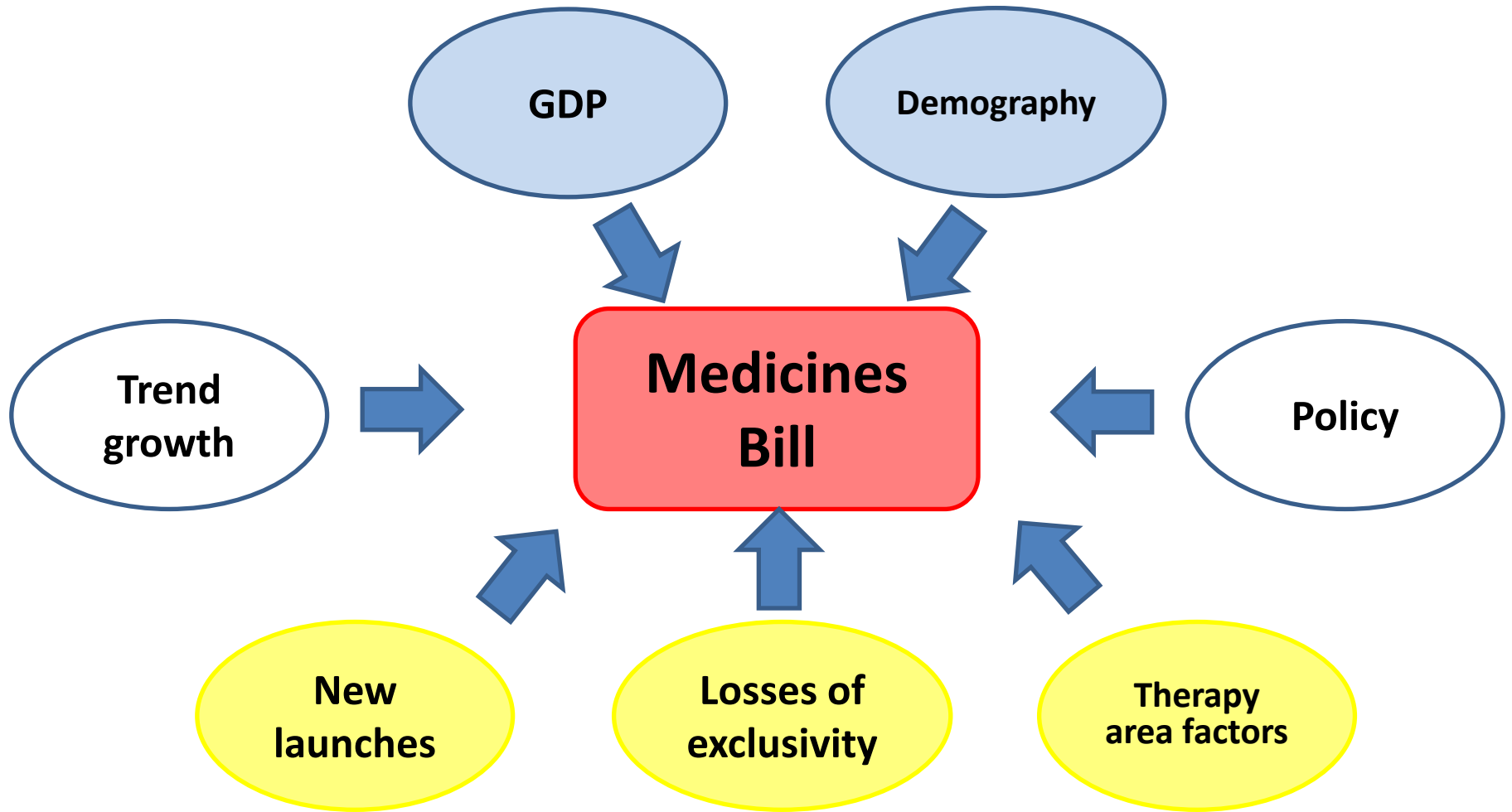
- £1.335 bn = 13.7% of NHS operating costs in Scotland in 2009/10 are medicines (cf 70% for staff)
- Down from 14.7% of NHS operating costs in 2005/06
- Medicines bill by sector, and average annual growth 2005/06 to 2009/10 (source: *ISD Costs Book 2010*):

	2009/10 £m	% CAGR 2005/06 to 2009/10
Hospital & Community	£389m	+11.2% p.a.
Primary Care	£946m	+1.5% p.a.
TOTAL	£1,335m	+3.9% p.a.

Model to project the medicines bill

1. Structure
2. Data
3. Assumptions

Top-down vs Bottom-up



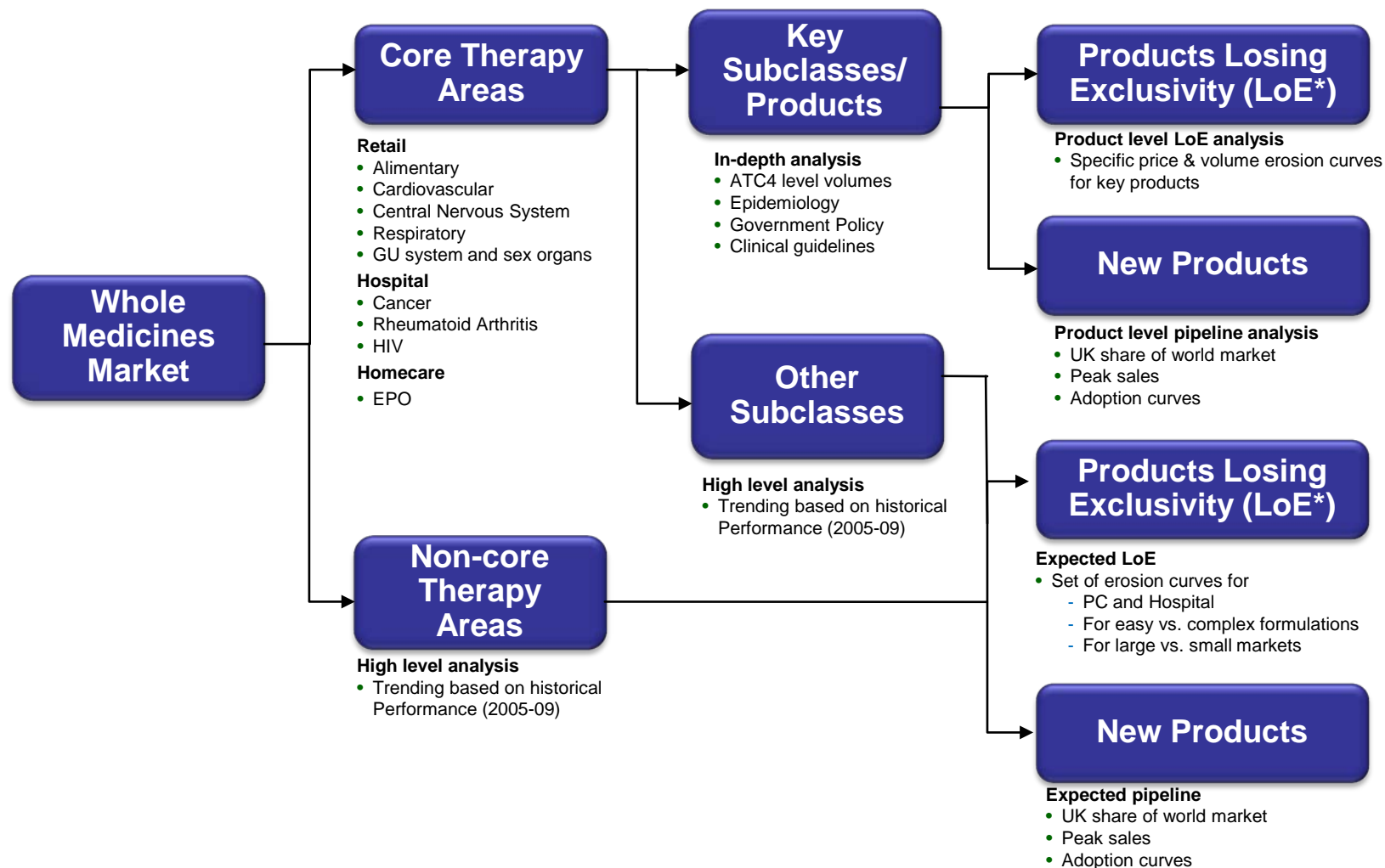
Medicines bill projection model uses a bottom up, expert driven, therapy area based approach

- Bottom-up projection starting from individual packs/medicines
- Detailed company input on more dynamic therapy areas
- Public data used to:
 - Generate current position
 - Estimate impact of generics after ‘loss of exclusivity (LoE)’
 - Estimate impact of newly launched medicines
- Community and hospital dispensing fully covered
- Home care included as far as data permit – but only about 1/3 of the market captured

'Bottom-up' means....

- Built up from pack level to total market
- But should not be used to project growth below level broad therapy area (ATC1)
- Expert opinion has been used to adjust trends in classes covering approx. 80% market
- Remaining 20% of market is trended
- Issues such as demographics, new product uptake, current targeted therapy areas are incorporated into the trending/modelling – only amended by therapy assessments where relevant

Overview of projection method



*Loss of Exclusivity (LoE) is defined as the time when a product has lost all legal protection **and** is expected to face generic competition

Therapy area expert opinions

- Therapy area experts provided with ‘trended’ figures including LoE’s and new products at ATC4 or product level where appropriate
- Discussion to determine where the past is not a good predictor of the future and whether standard LoE or new product uptake curves provide a valid template
- Adjustments made to growth rates, LoE erosions and new product uptake rates

Impact of medicines becoming generic

- Erosion curves generated for post LoE: 4 versions
- Primary-easy, Primary-hard, Secondary-easy, Secondary-hard
 - “Easy” = easy formulation (Tablets, Capsules, Pastilles, Retard Tabs, Dispersible Tabs, Soluble Tabs, Solutions, Bottles)
 - “Difficult” = difficult formulation (e.g. Syringes, Vials, Cartridges, Pens, Patches, Ampoules, Creams, Ointments, Gels, Suspensions, Eye Drops, Diskhalers, Accuhalers, Inhalers, Powders)

Impact of newly launched medicines

- For future pipeline launches, various public domain sources have been used to compile a ‘master list’ of expected new launches
- Two options for uptake curves for future pipeline launches depending on projection scenario (based on Lehman Brothers Pharmapipelines 2008):
 - Slow – *default curve applied*: based on current economic and NHS environment
 - Fast – implies more rapid dissemination than is currently the case in the NHS, on average

Approximately right rather than precisely wrong

- Range of projections – avoids point estimates
 - Baseline / Low / Medium / High
- Baseline calculated using current policies and trends
- Low, Medium and High established by adjusting:
 - UK share of global sales of new products
 - Uptake curves (i.e. speed of dissemination)
 - Impact of biosimilars
 - Additional growth reduction in core/non-core areas
 - Further genericisation of established products

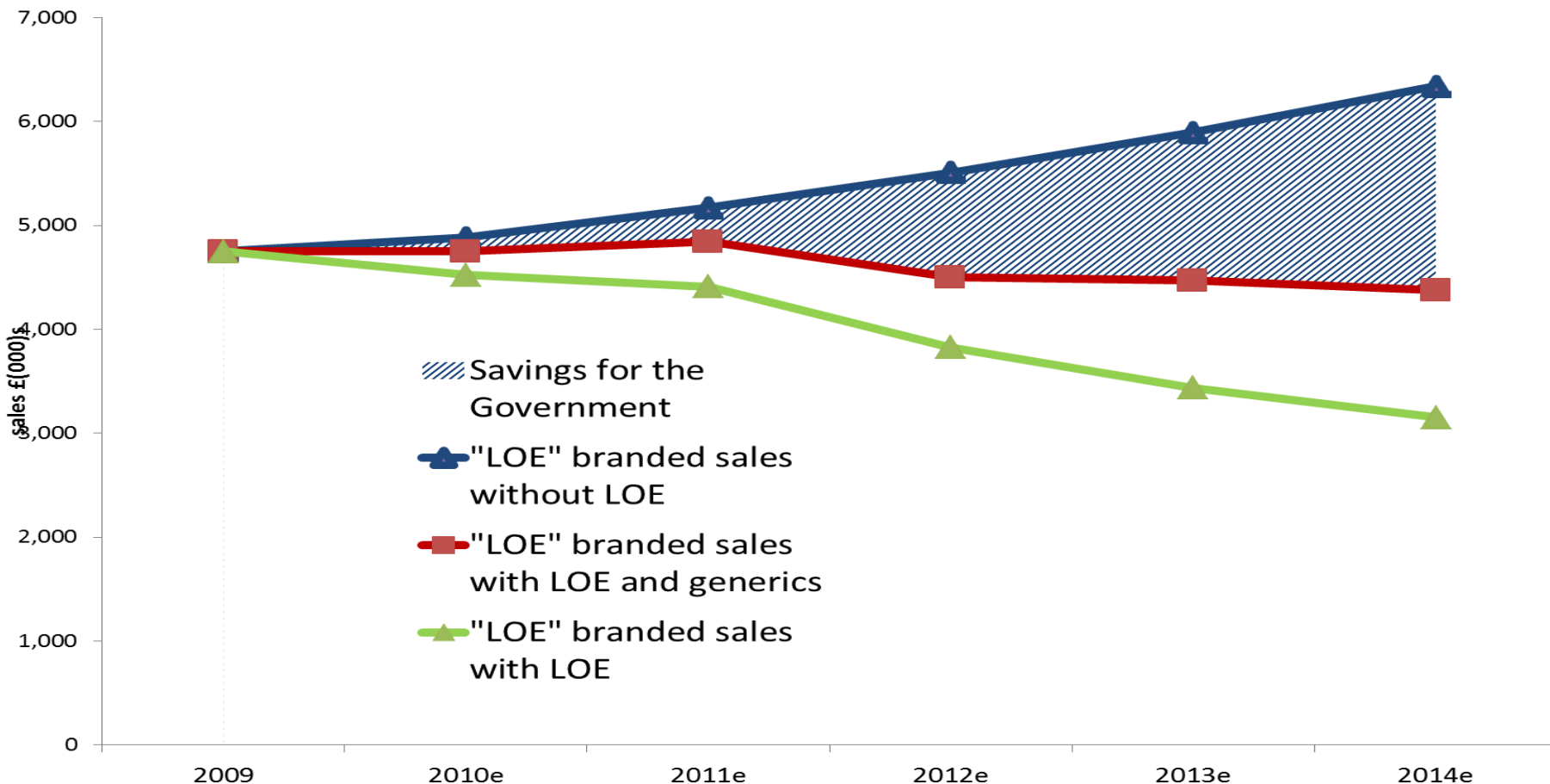
Assumptions to generate baseline and ranges

Estimate range	UK share of global sales of new products	Uptake curve	LOE biosimilars	Non-core areas/all therapy area growth	Genericisation of established products
Baseline	1.7%	Slow	Biosimilars gain lower shares than traditional generics		
Low	1.7%	Slow	Biosimilars gain shares closer to traditional generics	Both core and non-core areas growth reduced from trend by 2% p.a.	Additional 1% reduction in branded growth for key ATC4 with generics
Medium	2.9%	Slow	Biosimilars gain lower shares than traditional generics	Non-core areas growth reduced by 2% p.a.	
High	2.9%	Fast	Biosimilars gain lower shares than traditional generics		

Medicines bill likely to rise to 2014 but more slowly than before

- 2009 to 2014
 - **Total UK NHS medicines bill** projected to grow **2.2-4.8% p.a.** to between £14.4-16.3bn (2005-09 was 5.3% CAGR)
 - **Primary care by 0.2-2.7% p.a.**
 - **Secondary care by 5.7-8.3% p.a.**
 - **UK branded medicines bill** projected to increase by 0.2%-3.2% p.a. to between £10.6–12.3.bn (2005-09 was 5.5% CAGR)
 - Primary care by minus 3.2% to minus 0.2% p.a.
 - Secondary care by 5.3% to 8.2% p.a.
- New launches and growing demand for existing medicines partly offset by LoE of some major brands

Estimated savings for UK NHS 2010-2014 due to loss of exclusivity > £3bn



2010 UK NHS medicines bill growth: projected vs actual

Calendar year 2010 growth over 2009

% growth	Projection range	Baseline projection	Actual outturn
Primary care	0.9-2.6%	2.0%	2.6%
Secondary care	7.0-9.7%	8.6%	8.8%
TOTAL	2.9-4.9%	4.2%	4.7%