**Brief summary of margins survey methodology**

**2014/15**

**Background**

* The new contractual framework in 2005 legitimised retained margin - but required its on-going assessment
* Funding arrangements were based on independent community pharmacy (CP) contractor’s costs and so only independents’ retained margins needed measurement

**Approach**

* The margins surveys (MS) are a joint exercise with the Department of Health (DH) and NHS Business Services Authority (BSA)
* PSNC was clear that the method had to be based on pharmacy data (not for example on data supplied by wholesalers)
* The method relies on a statistically robust sample, as a census is not feasible
* The full methodology was developed by a Professor of Statistics (and verified by another)

**Sampling**

* Perfect sampling would be picking randomly from all transactions nationally but that is not feasible
* Proxy is to sample independent community pharmacies (CPs) then sample their transactions
* 120 CPs are surveyed (10 per month, spread across 5 size bands)
* Around 300 products are surveyed (Brand = c130, Generic = c130, Special = c40)

**Data collection & verification**

* Stage 1
	+ DH provides the sample of CPs using data provided by the BSA
	+ BSA sends a letter to each CP, make follow-up calls and arranges collection (non-participation is managed carefully)
	+ BSA copies and returns invoices and statements. Copies are sent to PSNC
* Stage 2
	+ DH provides the sample of lines
	+ PSNC/BSA highlights each purchase of the sample drugs and checks for accuracy
	+ PSNC/BSA enters the purchases into a database and checks again
	+ DH audits the database with PSNC/BSA assistance
	+ Discrepancies between PSNC and BSA databases are reconciled

**Calculation**

* The calculation requires a series of inputs:
	+ Database of purchase prices and quantities from invoices
	+ Weights derived from the sampling exercise
	+ Average clawback level from BSA data
	+ Wholesaler discounts from statements
	+ Reimbursement prices from BSA
	+ Market NIC figures from BSA

**Weights and clawback**

* There are two weights applied:
	+ Pharmacy weight
	+ Stratum weight
* Clawback is the average clawback deducted in practice over the relevant period by BSA from independent CPs

**Wholesaler discount**

* Based on statements collected from sample CPs
* Calculated by wholesaler using weighted average of discounts given to sample CPs
	+ Applied to all purchases from that wholesaler, except net price lines, which are excluded

**Reimbursement prices and market NIC**

* Reimbursement prices supplied by DH using BSA data; some apportionment is required for non-listed pack sizes
* Market NIC supplied by DH using BSA data

**Calculation**

The calculation is:

Weighted margin after clawback for each drug category

x

National NIC for each drug category

**PSNC investigations**

* PSNC conducts exhaustive investigations into the results of the margins surveys. These fall into confirmations and analysis. Typical confirmations include:
	+ Sampling process
	+ NIC classification
	+ Reimbursement prices (incl NCSO)
	+ Clawback
	+ Calculations
* Typical analysis includes:
	+ Variance analysis
	+ PI contribution (mix and premium)
	+ Wholesaler discount mix and rate movements
	+ Margin by DT category
	+ Margin excluding each product
	+ Overly influential transactions

**Use of result - current**

* Typical example:
	+ Year 1 result negotiated by July of year 2
	+ DT changed in October of year 2 based on year 1 data:
		- Set delivery rate of margin to £800m pa by changes to Category M reimbursement prices
		- Adjust practice payment to ensure agreed total funding delivered by end March
* Regulatory lag benefit is due to volume growth, generic mix growth (prescribing and off patents) and CP negotiation with suppliers. Regulatory Lag has been in excess of £200m in 6 out of 7 years

**Annex - Sampling (technical)**

* Stratified random sampling (without replacement)
	+ Introduced in 2009/10,
	+ Replaced probability proportional to size (without replacement)
	+ 5 strata, equal weights within strata
	+ Rare drugs stratum was over-sampled (double the sample size)
* Modified cut off sampling
	+ Introduced in 2011/12
	+ To reduce sample weights and increase the probability of observing sampling units
	+ Adds an excluded stratum. Oversampling will continue to be applied to the low NIC/low volume stratum
	+ Cut off varied by drug type but averaged c2%