**Brief summary of margins survey methodology**

**2020/21**

**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
* 240 CPs are surveyed (20 per month, spread across 5 size bands and 2 location types, each with weighting)
* Around 400 products are surveyed (Brand = c150, Generic = c200, Special = c40)
* Drugs are ranked by NIC, and divided into 5 strata, each with weighting

**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
  + BSA copies and returns invoices and statements. Copies are sent to PSNC
* Stage 2
  + DHSC sends drug sample to BSA and PSNC
  + Invoices are highlighted and checked by BSA and PSNC
  + Data inputted (BSA) and checked (PSNC)
  + Discrepancies resolved
  + Initial results calculated, PSNC investigate
  + Adjustments calculated and applied
  + Learnings considered
  + Final answer used to inform negotiations

**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
* Concession products/months accounted for
* 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 concessions)
  + Clawback
  + Calculations
* Typical analysis includes:
  + Variance analysis
  + PI contribution
  + Margin by DT category
  + Margin excluding each product
  + Overly influential transactions
  + Cat C products with multiple brands available

**Price concessions process**

* Concession lines typically have lower margin % than other generics
* They inflate the generic NIC figure, and thus leads to higher margin result
* A separate concessions survey addresses the issue:
  + Any concessions removed from main survey, generic margin recalculated
  + Data gathered from invoices for all concessions for period they are on concession, plus shoulder periods
  + Margin calculated on all concessions using MS method
  + Concession margin added to recalculated generic margin

**Use of result - current**

* Any adjustments based on the margin survey results are now made on a quarterly basis, with a two-quarter lag
* Typical example:
  + Q1 margin result agreed during Q2 and Q3
  + Result used to negotiate any change in the Drug Tariff in January (start of Q4) based on Q1 data, with the aim to:
    - Set delivery rate of margin to £200m per quarter by changes to Category M reimbursement prices
    - Recoup/repay any margin over/under delivery

**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%