National Audit Office

Mapping between different commissioners of healthcare

Summary

This paper sets out how we created look-up files to map between different commissioning geographies. This enabled us, for example, to estimate overall health funding at an area-level despite the different geographical bases of the various commissioners. We provide links to these look-up files.

Background

In September 2014, our report *Funding healthcare: Making allocations to local areas* (HC 625, Session 2014-15) examined how £79 billion of central funding was allocated to local bodies to commission healthcare. As part of this, we wanted to understand how funding had changed over time, and the overall position of different local areas across various funding streams. This task was complicated by the fact that health commissioning is split across a number of different types of organisation, and that these organisations changed as part of the reforms to the health system.

Following the reforms to the health system in April 2013:

- 211 **clinical commissioning groups** (CCGs) commission hospital, community and mental health services;
- 152 **local authorities** commission public health services; and
- 25 NHS England **area teams** commission primary care and specialised services.

Previously, 151 **primary care trusts** (PCTs) received a unified allocation to commission these health services.

Method

We needed to map the different types of commissioner against one another to understand how local areas were affected by changes to the funding system.

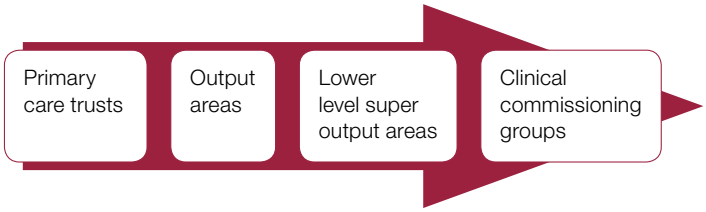
Look-up tables were already available from the Office for National Statistics (ONS) for some of the mappings, including between CCGs and local authorities.

However, there was no straightforward look-up between PCTs and CCGs. We therefore used ONS population data (mid-2012 estimates) on much smaller geographical areas, and mapped these to the different commissioners using the existing ONS look-ups.

To map the PCTs to the CCGs, we matched:

- Lower layer super output areas (LSOAs, average population 1,600) to the different clinical commissioning group areas;
- Output areas (average population 300) to the different primary care trust areas; and
- Output areas to lower layer super output areas.

We then linked the datasets as follows:



From here we created a set of matrices, as illustrated in Figures 1 and 2. **Figure 1** shows how we mapped populations between PCTs and CCGs, and **Figure 2** overleaf shows what proportion of each CCG's population was included in the different PCT areas, calculated directly from the data in Figure 1. Note that both figures are for illustrative purposes only and do not contain real data. Please see the links below for the complete mapping using ONS data.

Figure 1

Mapping LSOA populations across PCTs and CCGs (figures in thousands)

	CCG 1	CCG 2	CCG 3	→ etc	Total per PCT
PCT 1	250	–	–		250
PCT 2	–	312	–		312
PCT 3	–	19	302		321
↓ etc					
Total per CCG	250	331	302		53,494

Figure 2
Mapping CCGs to PCTs (showing what proportion of a CCG's population falls within each PCT)

	CCG 1	CCG 2	CCG 3	→ etc
PCT 1	100%	–	–	
PCT 2	–	94%	–	
PCT 3	–	6%	100%	
↓ etc				
Total per CCG	100%	100%	100%	

Results

The PCT and CCG mappings we created are available on our website (www.nao.org.uk/audit-insights). These should be used in the context of the limitations set out below.

Limitations

Certain output areas fall on the boundaries of higher geographical groupings. The Office for National Statistics uses a 'best-fit percentage' to allocate the output areas. This means that in some cases an output area will have its whole population allocated to a higher geography, when the reality is that only part of its population is actually in that higher geography because the output area falls across a boundary. Due to the size of output areas – with an average population of 300 – any error arising from this approach is likely to be small.

A further limitation is that the look-ups are based entirely on mapping populations, giving each person an equal weighting. Funding allocations are weighted to take account of health inequalities and relative need, which will not be uniform across the population. This limitation will not affect areas where there is a one-to-one or many-to-one mapping of PCTs to CCGs.

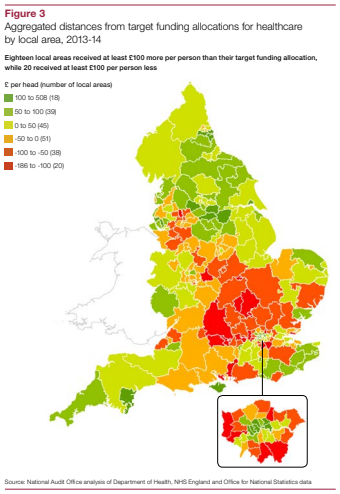
Caution should also be taken when comparing PCTs and CCGs as they have different responsibilities, for example only the former commissioned GP services.

Example of use

As part of our report on *Funding healthcare: Making allocations to local areas*, we looked at the aggregate relative funding position of different local areas in 2013-14. For this, we compared – across the three health funding streams – an estimate for each CCG area's target funding allocation (based on health needs with an adjustment to address health inequalities) and its actual funding allocation. The difference between these two amounts is known as the 'distance from target'.

We used the existing ONS look-ups to combine CCG and local authority funding, and the PCT to CCG mappings described above to add in primary care funding. Although primary care is now dealt with by NHS England area teams, in 2013-14 allocations were based on previous PCT targets and funding, plus an inflationary amount.

From this work we were able to calculate, for example, that the most under-target area (Corby) was below target by £186 per person (12.8%), while the most over-target area (West London) was above target by £508 per person (39.3%) (**Figure 3**).



Click to enlarge

Other uses

The PCT to CCG matrices could potentially be used to compare a range of things. For example, it would be possible to use financial information to see if the same local areas were in surplus or deficit before and after the reforms to the health system.

The method could also be used to map different streams of government spending. It may, for instance, be useful to map local authorities' overall budgets against CCGs to see if the same areas receive relatively low or high levels of funding when looking at the wider determinants of health.

Other resources

ONS Geography maintains a large number of look-up files which relate one or more geography to another. These look-up files are available to download free of charge from the Open Geography portal.

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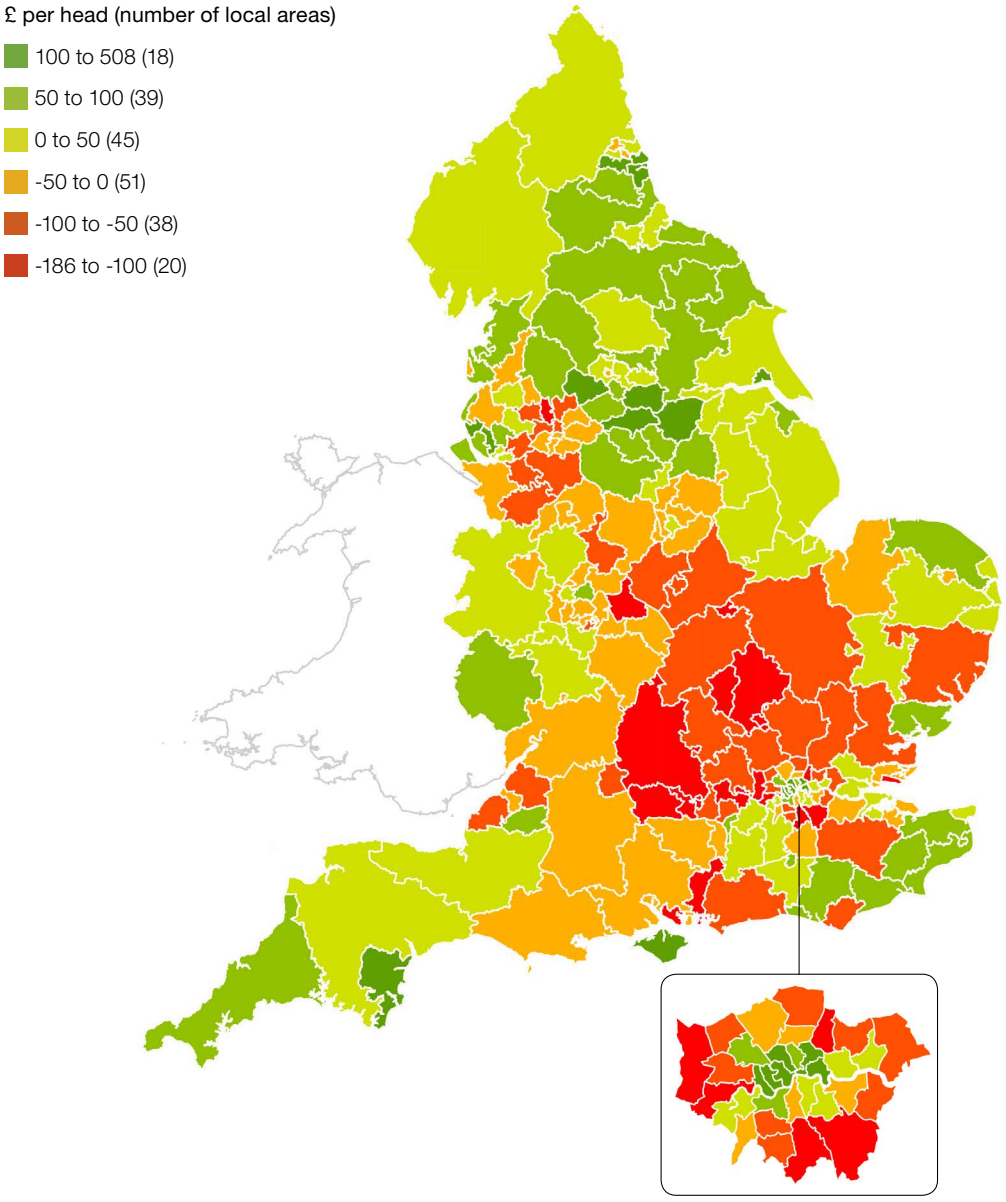
Figure 3

Aggregated distances from target funding allocations for healthcare by local area, 2013-14

Eighteen local areas received at least £100 more per person than their target funding allocation, while 20 received at least £100 per person less



Source: National Audit Office analysis of Department of Health, NHS England and Office for National Statistics data