The public history

The Scottish Workload Allocation Formula (SWAF) was first made public in late 2017 during the run-up to the ballot of GPs concerning the acceptance of the new general practice contract (also called the Contract Variation) in Scotland. This proposed new contract had been recently agreed between negotiators from the BMA Scottish General Practitioners Committee (SGPC) and Scottish Government (SG). A series of meetings for GPs, hosted by the BMA and with the support of Scottish Government officials, was held around the country in November, at which selected elements of the SWAF were presented. A consistent message was given that SG had made substantial new funds available to support primary care, and that some practices would gain financially but “no practice would lose”. The financial impact of SWAF on individual practices was revealed to practices a few days before the ballot papers were issued in early December. It later became clear that around 68% of GPs (and 63% of practices) would gain financially, with the average funding gain among the gaining GPs being around £10,000 per annum.

Enclosed with the voting papers was a document entitled ‘Frequently Asked Questions’. This document stated: “The new formula was developed as part of a 2016 review of the SAF and is a methodological improvement to the previous SAF. It is based on the best available evidence and now more accurately reflects the workload of GPs.” The document did not say anything about which practices would lose and which would gain following the formula, though it was stated repeatedly that income support measures would be implemented to ensure that no practice would lose.

On Thursday 18th January SGPC endorsed the new contract for GPs despite only 28% of practising GPs voting for it: there can be little doubt that the potential for a substantial increase in remuneration would have contributed to the number of votes in favour of the contract.

Winners and losers

Public discussion about which practices would gain and which would not only began on 8th December, after voting had begun. The principal effect of SWAF was to allocate almost all of the additional GP funding to practices in the Central Belt of Scotland – the practices in green are “SWAF gainers” and those in red are “SWAF losers”:

https://fusiontables.google.com/DataSource?docid=13SLV8fjU8S5LvhiMcmbUWpK8imuntSl2f1f1r_g7#map:id=3. There is not only an unfair allocation of funding to urban Central Belt practices, but the additional funding fails to reach may of the poorest “Deep End” practices in Scotland too: for example practices in Milngavie receive substantial funding while practices in Govan and Gorbals do not.

Although it has been repeatedly stated that no practice would lose financially following SWAF implementation, it is clear that “SWAF loser” practices are finding it increasingly difficult in a competitive employment market to attract GPs to work in
them. Given that it is rural practices and those in the most deprived areas that have historically found it most difficult to recruit, SWAF therefore further disadvantages the practices that already have greatest problems in recruiting and retaining doctors.

**The history of SWAF**

The SWAF adopted in the contract followed a review completed in August 2016 by Deloitte economists ([http://www.gov.scot/Resource/0052/00527541.pdf](http://www.gov.scot/Resource/0052/00527541.pdf)). This was in fact only one of three Deloitte reports commissioned by SG: one addressed unit costs¹ and another addressed GP income and expenses². GPs voting in the ballot were not made aware of these other two reports.

The SWAF report is fatally flawed. The Deloitte team made minimal efforts to obtain an informative representative source of patient-level workload data: they asked my research group for information and were told that data protection legislation prevented access. They were told that fresh information could easily be obtained and they were told how to do it – but they failed to make the effort. Instead they used an outdated non-representative sample based on data from Practice Team Information (PTI) practices. These were a very atypical set of 56 practices which covered 5.4% of the Scottish population. There was marked under-representation of both deprived and remotely located practices. PTI stopped collecting data in 2013 because they were considered irrelevant to current practice.

Overall the Deloitte statistical/econometric methods are reasonable but their assumptions are not. The basic problem is that “practice workload” is measured by the number of disease (Read) codes and by the number of consultations by patient, and it is this definition of “practice workload” that Scottish Government and the BMA used to make their resource allocation recommendations. They were not able to access any information about, for example, consultation time or detailed content (eg minor surgery, immediate/urgent care). They also say in the executive summary “Health inequalities related to … geographical shortage of GPs are, by and large, beyond the control of existing practices and therefore could not be significantly addressed through the workload model. Addressing these sources of health inequalities requires a separate analysis and potentially allocation mechanism.” Under-doctored areas where GP recruitment is difficult will inevitably record fewer Read codes per patient and consultation numbers and so will be interpreted falsely in their model as being ‘low workload’ areas. In such cases ‘workload’, as defined in the allocation formula, will be roughly inversely proportional to need. There is no attempt in the model to address unmet need and thus health inequalities are likely to be maintained or increased.

The Deloitte team decided not to incorporate remoteness into their models because it was too difficult from a statistical point of view (ie “too big a risk of bias in the estimates”). They were obliged to use a simple binary variable in their model: ‘urban’ or ‘rural’ because they had not made the effort to obtain their own representative dataset including the full range of remote and rural practice. The Deloitte report thus represents a facile piece of modelling, based on a historical dataset from an

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unrepresentative group of practices and uses a definition of workload which poorly reflects need for care or indeed workload as we would understand it. It also fails to account for the additional per-capita costs of running small practices in remote areas providing comprehensive emergency and intermediate care as well as general medical services.

It is notable that page 1 of the report states “Deloitte accepts no responsibility for its use …, including its use by the Scottish Government for decision making or reporting to third parties”. They go on to say: “Deloitte has neither sought to corroborate this information nor to review its overall reasonableness” which is a curious statement in a report funded by Scottish taxpayers.

**Impact on rural areas and the poorest populations.**

Arguably it is patients in rural and remote areas that are most reliant on their general practices to deliver health care. They have no option to register with a nearby practice or attend an A&E department if their practice collapses. Over 90% of practices in the northern Health Boards are in the income support category. It is rural practices that have the biggest problems recruiting GPs and there are already large swathes of Caithness, Sutherland and the Isles where patients cannot access a doctor without travelling huge distances. The problem in recruitment not only relates to GP partners and salaried GPs but also to locum doctors. There are simply not enough GPs in Scotland. Urban practices with increased funding are now able to make more generous offers to potential partners, salaried doctors and locums and consequently it has become increasingly difficult to attract any doctor to work in the remote regions. The Deloitte Earnings and Expenses report made it clear that rural doctors earn less on average than urban doctors so the allocation of more money to urban doctors has exacerbated GP income inequality between rural and urban areas.

The primacy of age over deprivation in the SWAF formula exacerbates a problem that a new funding formula was designed to solve. Areas which have the lowest life expectancy will lose out – so the practices in the most deprived urban areas that deal with patients in the poorest health will also be placed in the income support category and will have to face the same recruitment challenges that remote practices do. This does a profound disservice to our sickest populations.

**Why did SG allow SWAF to make the most disadvantaged practices more disadvantaged?**

It has been normal practice for many years for any important health resource allocation decisions in Scotland to be scrutinised carefully and validated by Technical Advisory Group on Resource Allocations in Scotland (TAGRA). This does not appear to have happened in the case of SWAF. The most notable change resulting from the SWAF is that it completely abandoned the “Excess cost of supply” adjustment previously applied particularly to rural and remote practices which inevitably have higher costs per capita. A letter dated 17th January 2018 written by the eminent public health consultant Dr Helene Irvine and made public a few weeks later describes this process. She refers to an “accounting raid” on rural practice designed to yield votes in the contract ballot. This letter states: “It was clear during
the TAGRA meetings that the civil servants took the advice from the SGPC chair not to explore and address unmet need in primary care and ways to measure it in the context of the SAF formula, the way TAGRA experts ... had done in the context of the NRAC formula. This very different approach to the two formulae needs justification, as does the authority of one person in the BMA to unilaterally make such a fundamentally important decision without having to account for it. Despite assurances by negotiators that additional resource will be shifted to the practices in deprived areas, the actual sums involved for the 50 most deprived practices in GG&C average out to a modest 3.2% increase, according to the allocation file released by the SG."

**How could SWAF be improved?**

The achievement of a perfect resource allocation formula is unattainable, but there is no doubt that SWAF has made the problems of primary care in Scotland very much worse. A detailed analysis of workload, income and expenses, along with simple measures of health inequalities such as life expectancy, is required to level the playing field. This analysis would have to take into account the provision of services that are generally provided in primary care in rural areas but generally in secondary care in urban areas – for example A&E, minor surgery and a range of ‘shared care’ services. A small working group with statistical and health economic expertise, having access to a comprehensive recent primary care dataset as well as information on population health, earnings and expenses should be able to deliver sound recommendations for a fairer formula within a reasonable timescale.