Deep End Cymru: Round Table 1 delegate pack

General Practice and deprivation

1. The Inverse Care Law

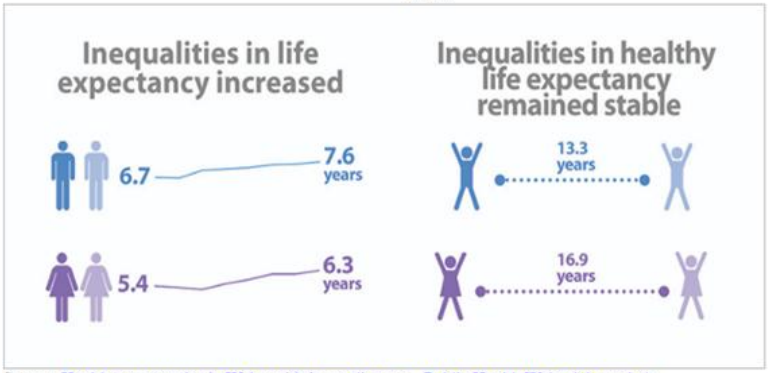
It is over half a century since Dr Julian Hart, who was based in Glyncorrwg in the Upper Afan Valley, described the Inverse Care Law. He stated: -

The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced. The market distribution of medical care is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources. (Lancet February 1971[1]).

2. Deprivation is one of the major drivers of workload in primary care.

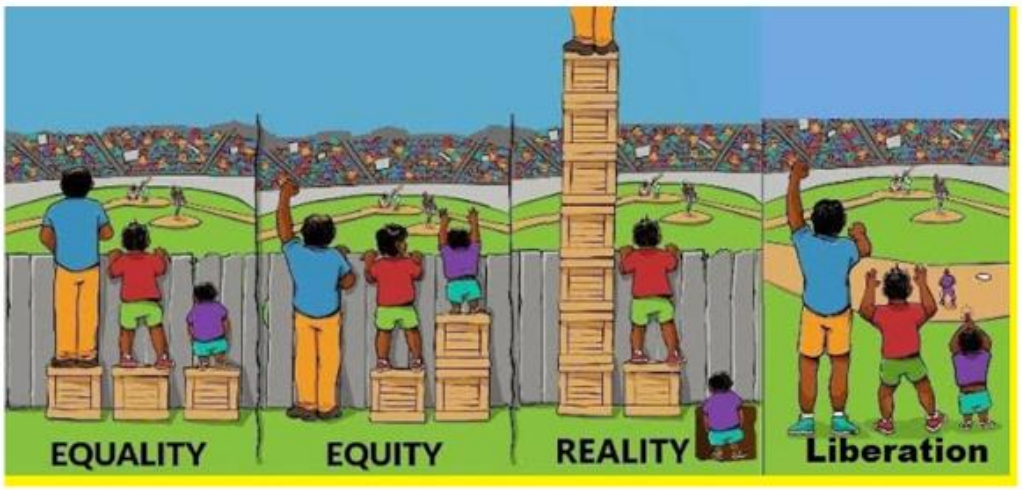
Men living in the most deprived communities spend an average of 13 more years of life in poor health than men living in the least deprived communities, as well as dying an average of 7.6 years earlier. This massive burden of poorer health has a huge impact on GP workload in more disadvantaged areas.

Figure 1: Inequalities in life expectancy and healthy life expectancy in Wales between 2011 and 2020



Source: Health expectancies in Wales with inequality gap - Public Health Wales (nhs.wales)

Figure 2: Equality is allocating everyone the same, equity is allocating according to need.

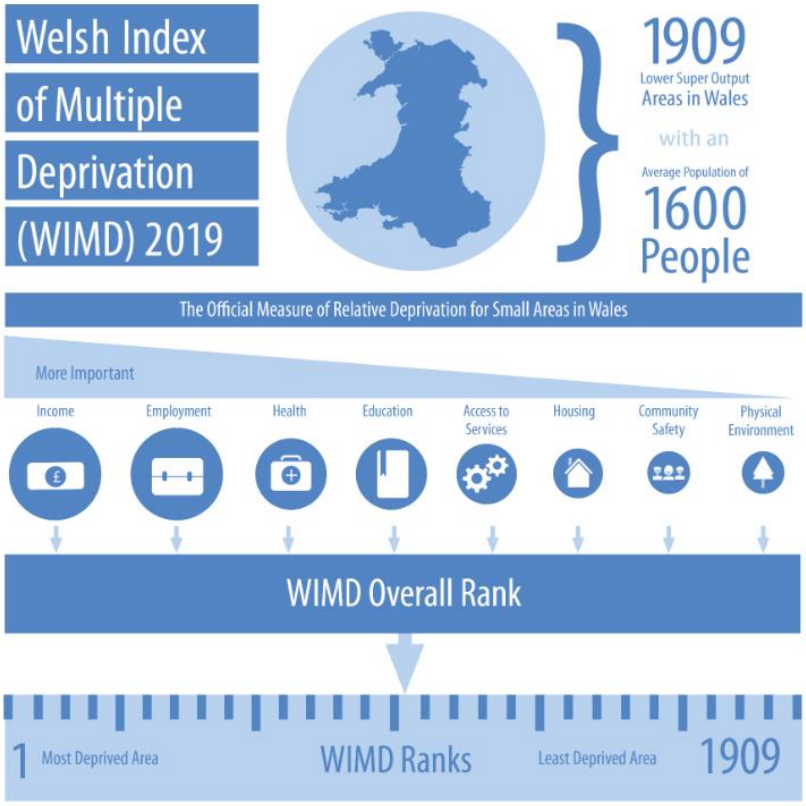


[1] 50 years of the inverse care law - The Lancet

3. Deep End Cymru GP Practices

In July 2022, there were 390 GP Practices in Wales, mostly with GMS contracts, with a few directly managed by Health Boards (we believe fewer than 20 but there is no information easily available)
The Welsh Index of Multiple Deprivation scores areas with a composite score based on data for 8 domains. This composite is therefore a measure of overall deprivation and not a measure of poverty or income alone.

Figure 3: Welsh Index of Multiple Deprivation key information



Deep End Cymru chose to include the 50 GP Practices that had the highest proportion of patients on their list that lived in the most deprived 20% of LSOAs as defined by the WIMD. This was soon extended to include 100 Practices, to ensure that more of the most deprived communities were reached.

We have publicly available data on the proportion of the Practice's registered patient population in each quintile (20%) of deprivation, from the most deprived (quintile 1) to the least deprived (quintile 5).
You can see below that about half of all GP Practices have less than 10% of their registered population living in the most deprived 20% of the population. However, this can hide small pockets of deprivation that are likely to exist in almost all GP Practices areas.

The top 50 GP Practices have more than 48% of their registered population in most deprived 20%.
The top 100 have more than 35% of their registered population in most deprived 20%

Figure 4: GP Practices by deprivation, ranked 1 to 390.

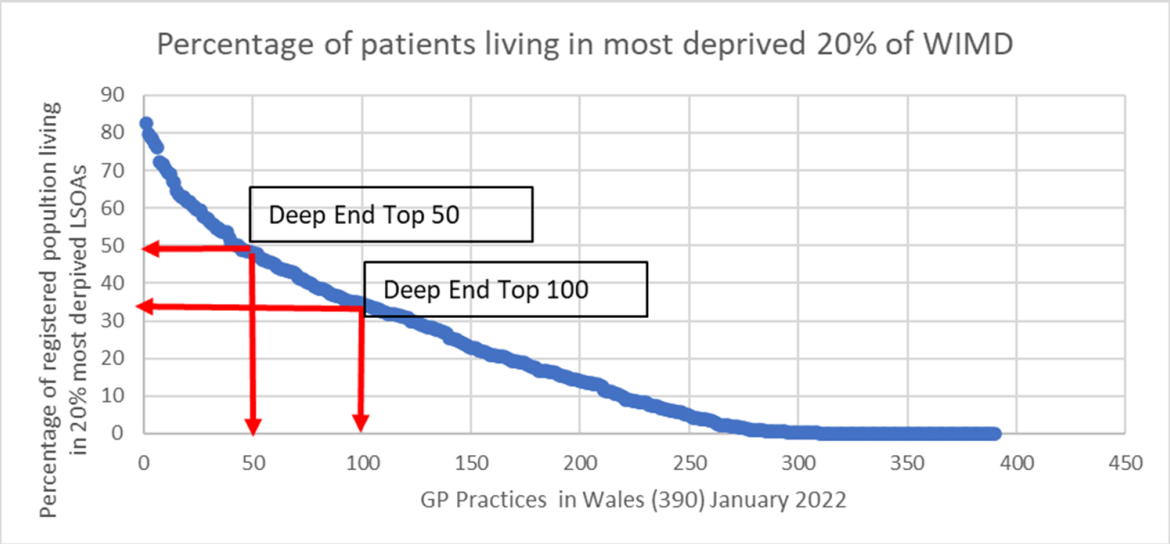
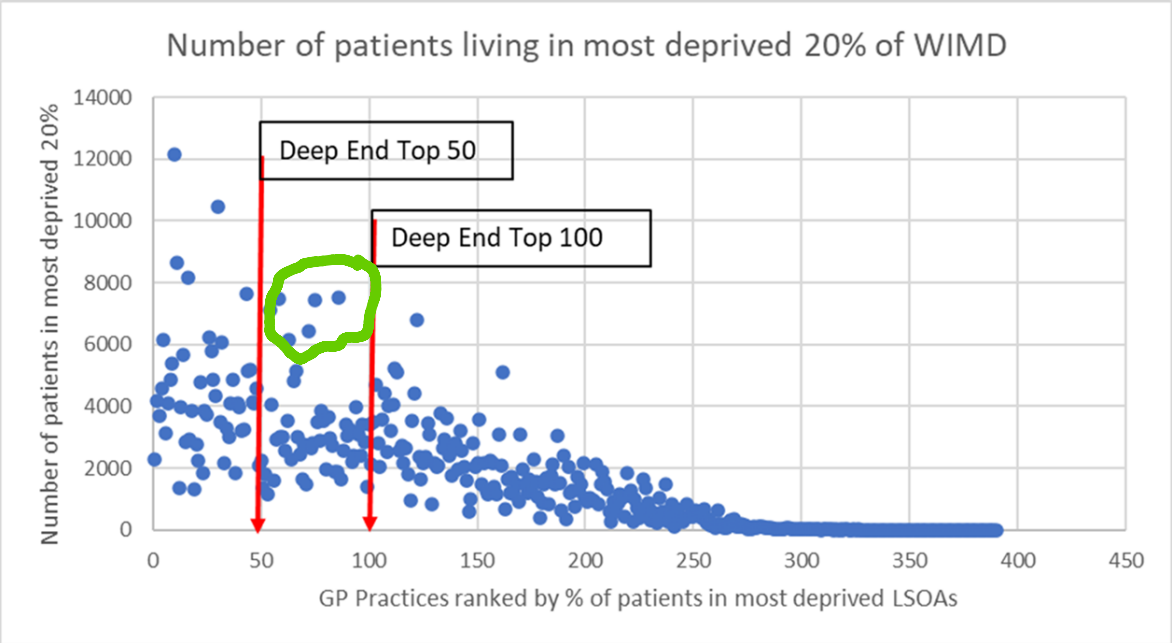


Figure 5: Number versus percentage of registered patients in most deprived 20%



The top 50 GP Practices would reach just over a third of the target population of people living in Wales's most deprived 20% of communities. However, some other Practices have relatively large numbers of their patients living in deprived areas, although this can be a relatively lower proportion of their total patient population. For example, six large GP Practices (circled in green above) each have more than 6000 patients in most deprived 20% but are not in the Deep End Top 50. Including the top 100 GP Practices by percentage of patients in deprived communities would reach almost 60% of the target population.

Table 1: GP Practice list sizes and target population reached.

	Top 50 GP Practices by % deprivation	Top 100 GP Practices by % deprivation	Number of Welsh population living in most deprived 20%
Average list size	7335	7744	8,284 (of all GP Practices in Wales)
Total number of patients in most deprived 20%	218,490	382,450	653,413
Proportion of patients in most deprived 20%	33.4%	58.5%	100%

4. Where are Deep End Practices?

The concentration of blanket deprivation is in the South Wales Valleys and cities. Across the 6 Health Boards, there is significant variation in the proportion of their population living in the more deprived communities.

Table 2: Number of LSOAs by deprivation in Health Boards in Wales

	Total LSOAs	**Most deprived 10% LSOAs**	**Most deprived 20% LSOAs**	**Most deprived 30% LSOAs**	**Most deprived 50% LSOAs**
Aneurin Bevan University Health Board	**368**	**43**	**100**	**138**	**211**
Cwm Taf Morgannwg University Health Board	**278**	**41**	**73**	**123**	**187**
Cardiff and Vale University Health Board	**293**	**42**	**69**	**89**	**133**
Swansea Bay University Health Board	**239**	**31**	**65**	**87**	**131**
Betsi Cadwaladr University Health Board	**423**	**23**	**48**	**83**	**162**
Hywel Dda University Health Board	**229**	**10**	**22**	**44**	**112**
Powys Teaching Health Board	**79**	**1**	**5**	**9**	**19**
TOTAL	1909	191	382	573	955

Source

Local Health Board Analysis (gov.wales)

So, it's not surprising that most of the Deep End Practices are in the South Wales Valleys and the cities along the M4 corridor.

Figure 6: Map of Deep End GP Practices. Red ones are in top 50, and blue are in top 50- 100

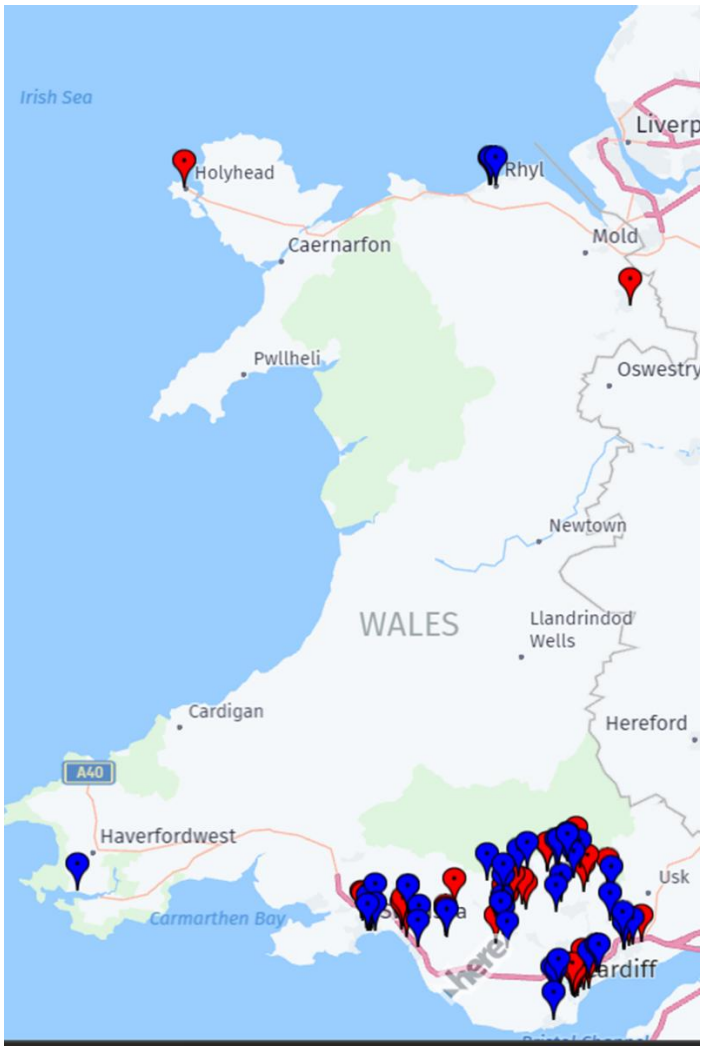
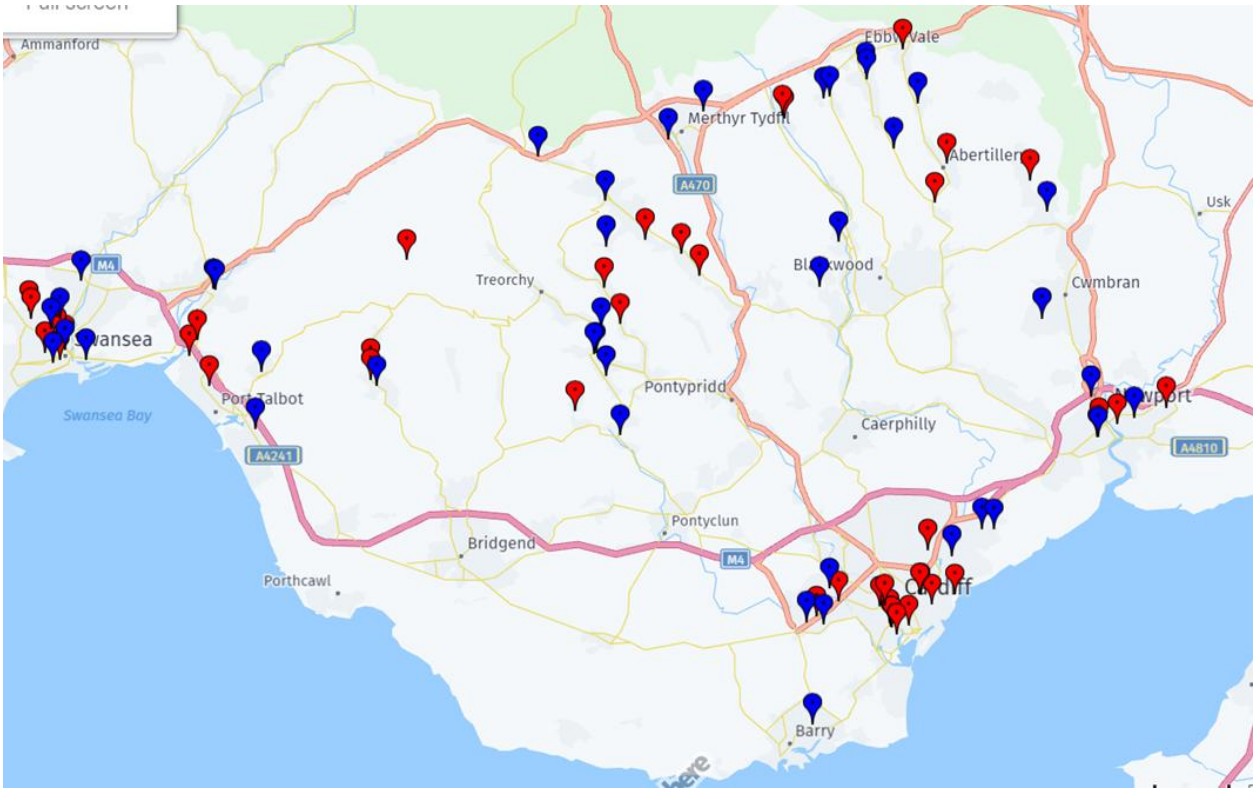


Figure 7: South Wales Deep End GP Practices. Red ones are in top 50, and blue are in top 50- 100.

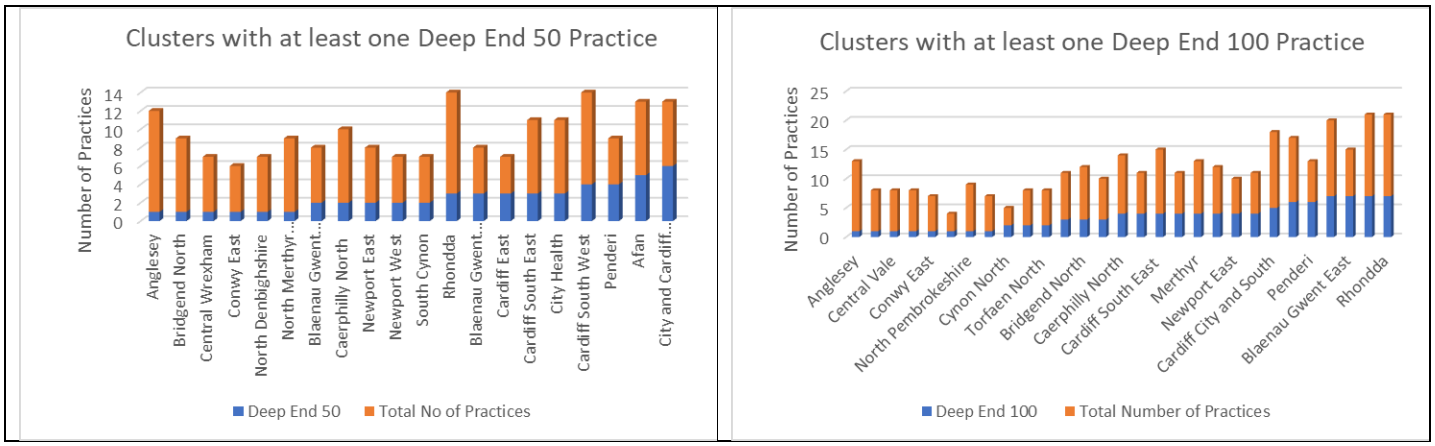


Clusters

There are [64 Clusters in Wales] of which 29 have at least one Deep End top 100 Practice, and 20 have at least one Deep End 50 Practice. Therefore, 35 will have no Deep End top 100 Practices.

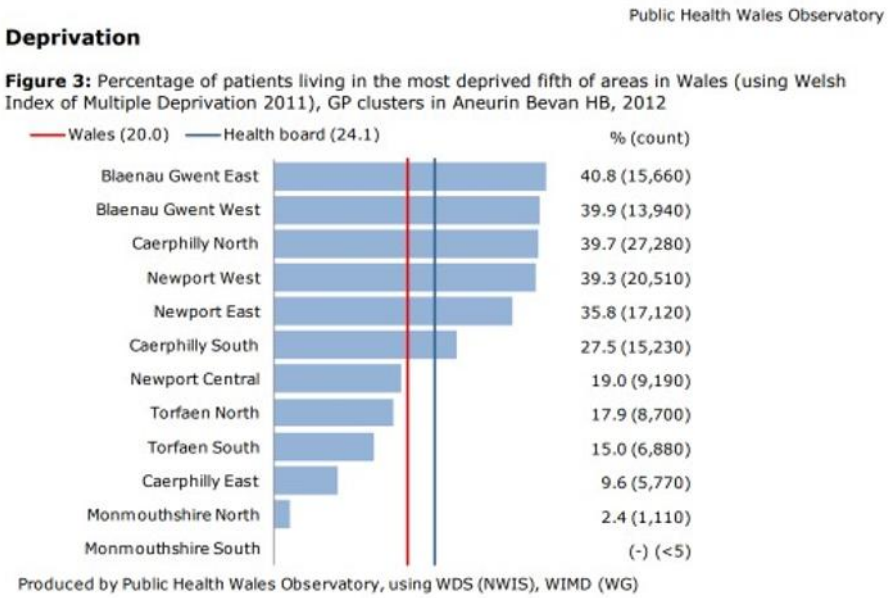
Few Clusters have a high level of deprivation across all their communities, so many Deep End Practices may be relatively isolated. They may be finding that they have less in common with their neighbouring Practices than with other Deep End Practices elsewhere.

Figure 8: Top 50 and top 100 GP Practices and their Clusters.



The last time any analysis was done on deprivation at Cluster level was more than 10 years ago, in 2013. However, the example below demonstrates the huge variation between Clusters in one Health Board. However, Cluster funding has never been weighted for deprivation, or for any other measure that may drive higher needs or workload.

Figure 9: Deprivation by Cluster for Aneurin Bevan Health Board, from Cluster Profiles 2013



Source: [Cluster Profiles 2013, Public Health Wales]

5. Resource allocation: persistent Inverse Care Law?

WARNING: this section is limited by lack of detailed and reliable data and should not be used to jump to conclusions. It may clarify what further data could be useful. Data on resource allocation and distribution is limited in the public domain in Wales.

We looked for data on the main resources that Deep End would be interested in:

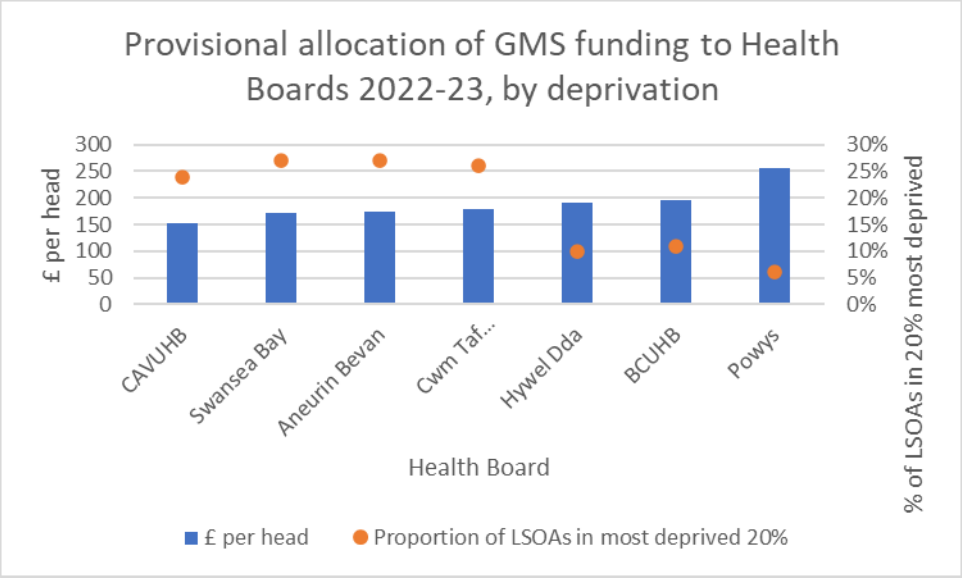
1. GMS funding via the contract negotiated between the BMA Cymru General Practitioners Committee (GPC Wales) on behalf of Independent Contractors and the Welsh Government
2. Additional primary care funding, such as to Clusters and Pathfinders
3. Workforce directly employed by General Practices

GMS funding

Unlike in England, data on GMS funding at GP Practice level is not available. (for example, see *The Inverse Care Law* report from the Health Foundation[2]) The only data in Wales is the overall allocation to each Health Board to cover the GMS payments to their GP Practices. It isn't clear whether this includes directly managed Practices. The Health Board administer GMS payments but have no role in allocation. The contract uses formulae that vary payments to account for differences in workload and expenses. This includes patient age, rurality and post code deprivation score (the Carr-Hill formula). It has been argued that the formula underestimates the impact of deprivation.

A simple division of total GMS by total population gives a range between £150 per patient in Cardiff and Vale HB, and £250 per patient in Powys. There could be many reasons for this, and we do not know how this is distributed between Practices, but it does appear that rurality scores may result in higher total GMS income than deprivation.

Figure 10: GMS funding for each Health Board versus proportion of their LSOAs in most deprived 20%



Source:

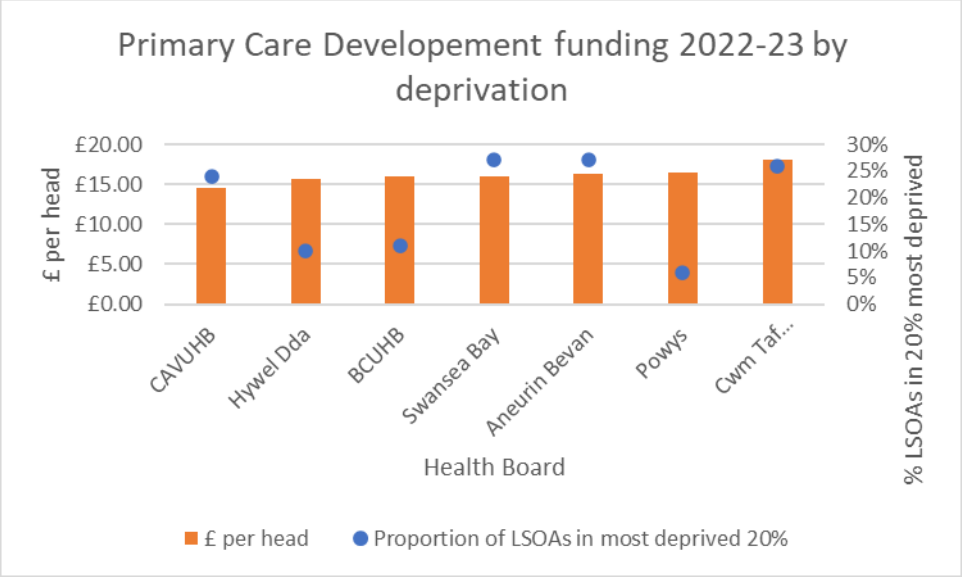
Eich cyf (gov.wales)

Additional Primary Care Development Funding

[2] Tackling the inverse care law - The Health Foundation

This is allocated to each Health Board and includes such funding streams as “IMTP and workforce”, “Cluster” and “Additional Cluster” funds and funding for Pathfinders. This is about £50 million in total across Wales for 2022-23. It works out as between £14.48 and £18.06 per patient, with no correlation with the Health Board deprivation overall.

Figure 11: Primary Care Development funding for each Health Board versus proportion of LSOAs in most deprived 20%



General Practice workforce

Again, detailed data is very difficult to find in the public domain. Workload data, such as consultation types and rates, has begun to be collected but is not routinely available yet.

A Welsh Government Statistics publication in July 2022[3] analysed GP Practice workforce collected in January 2022. This showed that there were 15% fewer GPs and 30% fewer nurses in practices in the serving the most deprived quintile as measured by patient numbers.

When similar calculations were done based on the proportion of practice population from deprived areas the figure was 10% more GPs in the most affluent practices and 28% more nurses.

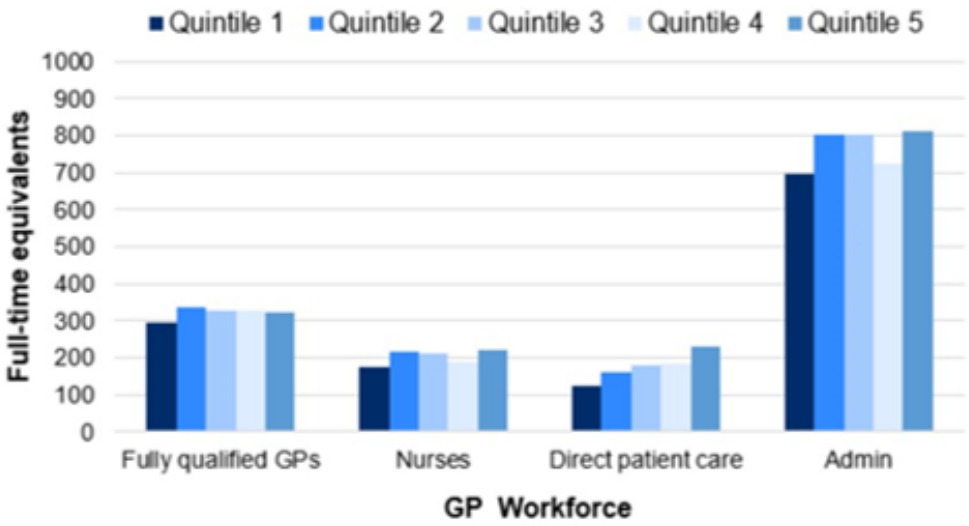
Similar patterns, with some variation, were seen at a cluster level and when other front line community health staff numbers were analysed.

The populations living in the poorest and sickest areas in Wales are more likely to have fewer GPs and other health care support staff.

[3] General practice and primary care cluster population and workforce by deprivation: at 31 December 2021 | GOV.WALES

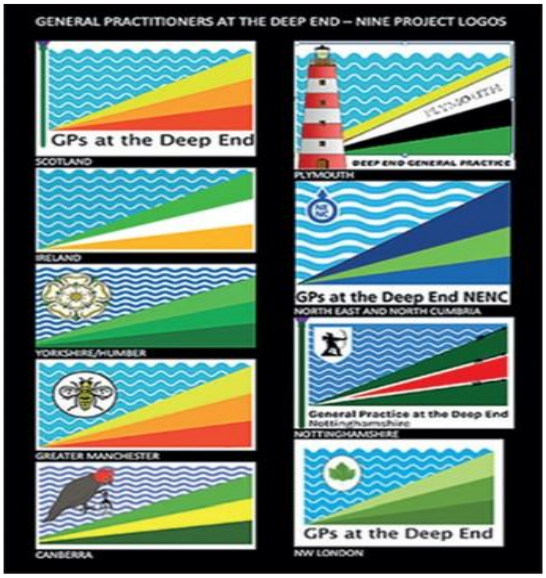
available to them.

Figure 12 GP Practice Workforce and Deprivation



Full time equivalents of General Practice workforce by quintiles of practices by percentage of practice population living in most deprived 20% (Sept 2021). Quintile 1 is most deprived and Quintile 5 is least deprived

4. Join the global Deep End movement!



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