Health inequalities, multimorbidity, and primary care in Scotland

Abstract

Scotland has an ageing population and the widest health inequalities in Western Europe. Multimorbidity develops some 10-15 years earlier in deprived areas than in affluent areas. General practice is central to the effective and safe management of such complex multimorbidity, but the inverse care law has permeated deprived communities ('Deep End' general practices) for the last 50 years. A new, radical, Scottish GP contract was introduced in April 2018, which has a vision to improve quality of care through Cluster working and expansion of the multidisciplinary team (MDT), enabling GPs to deliver 'expert generalism' to patients with complex needs. It states a specific intention to address health inequalities, and also to support the integration of health and social care. In this commentary, we discuss recent evidence on whether the ambitions of the new GP contract, reducing health inequalities and the wider agenda of integration of care are being achieved.

[149 words, max 150]

Keywords: Scottish GP contract; Integration; multimorbidity; health inequalities

Background

Health Inequalities in Scotland

Scotland has the widest health inequalities in Western Europe, with recent data showing that the gap between rich and poor is widening[1, 2]. As shown in Figure 1, life expectancy is on average 12 years lower in the most deprived decile of the Scottish population compared with the most affluent decile. The gap in healthy life expectancy is even larger than this, meaning that people living in the most deprived areas spend over a decade longer in poor health than those living in the least deprived areas, before dying prematurely.

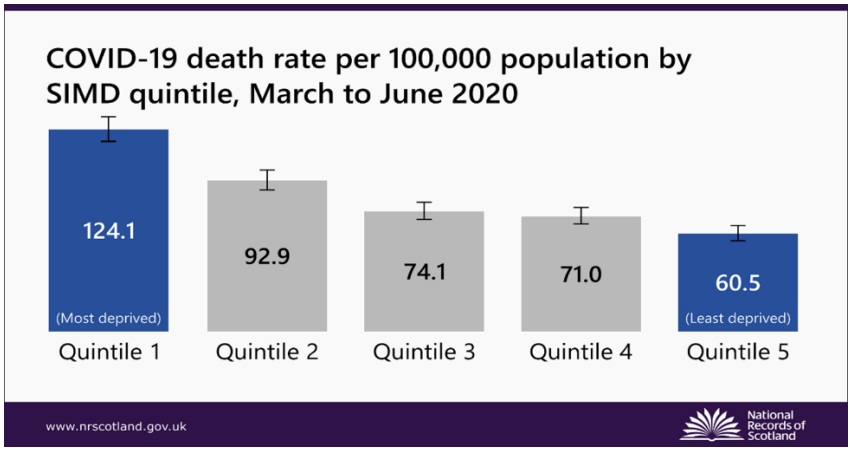
Figure 1. Life expectancy and healthy life expectancy in rich and poor areas of Scotland

	HEALTHY LIFE EXPECTANCY years	YEARS IN POOR HEALTH years	TOTAL LIFE EXPECTANCY years
MEN			
RICHEST 10%	72	11	83
POOREST 10%	47	22	69
DIFFERENCE	25	11	14
WOMEN			
RICHEST 10%	72	14	86
POOREST 10%	50	26	76
DIFFERENCE	22	12	10

(Sources: https://www.nrscotland.gov.uk/files//statistics/healthy-life-expectancy/19-21/healthy-life-expectancy-19-21-report.pdf; https://www.nrscotland.gov.uk/files/statistics/life-expectancy-in-scotland/19-21/life-expectancy-19-21-report.pdf)

The COVID-19 pandemic also hit the poor the hardest, with death rates in the most deprived 20% of the population being double that of the least deprived (Figure 2).

Figure 2. COVID-19 death rate and deprivation

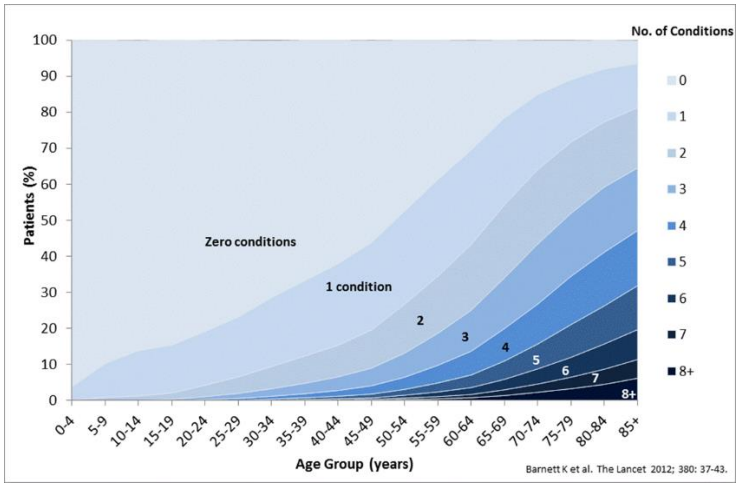


Source: https://www.nrscotland.gov.uk/files/statistics/covid19/covid-deaths-23-report-week-6.pdf

Multimorbidity and health inequalities

The prevalence of long-term conditions by age is shown in Figure 3, based on a nationally representative sample of 1.74 million people in Scotland. As age increases, very few people have no long-term conditions, and many have more than one (multimorbidity).

Figure 3. Prevalence of number of long-term conditions by age in Scotland



When broken down by deprivation, it can be seen that those living in the most deprived areas develop multimorbidity some 10-15 years younger than those in the most affluent areas (Figure 4). Furthermore, the prevalence of mental health disorders increases with a higher number of physical conditions in individuals. This is also socially patterned, with those living in more deprived areas developing more mental health conditions for any given number of physical health conditions (Figure 5).

Figure 4. Prevalence of multimorbidity by deprivation in Scotland

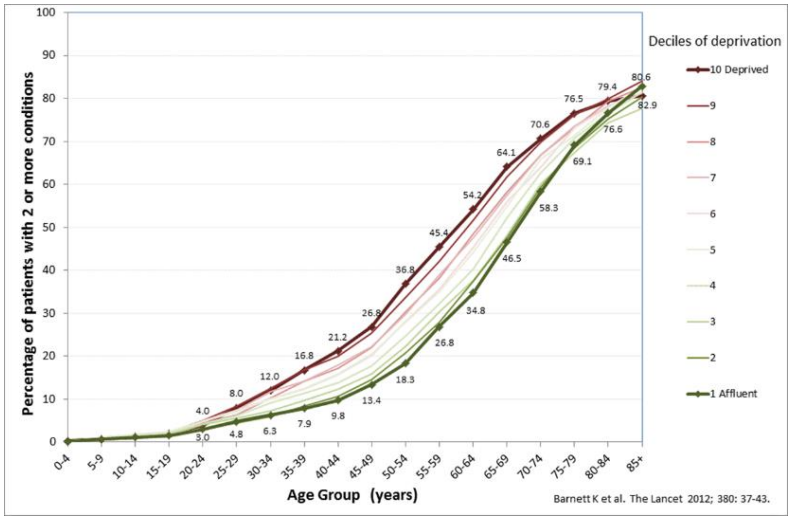
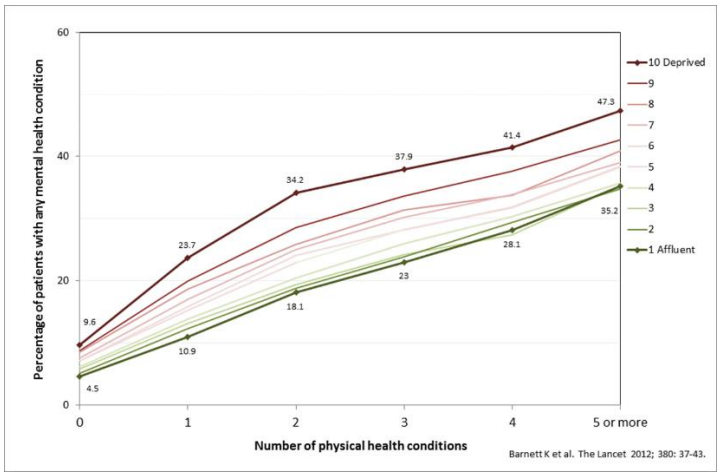


Figure 5. Prevalence of mental and physical health conditions by deprivation



The role of general practice

General practice and primary care plays a key role in the management of multimorbidity, being the hub for open-access, generalist-led, holistic care (Figure 6). The key features of a strong primary system are:

- Contact – patients regularly consult their GPs and other primary care staff, and those with multimorbidity consult substantially more than those without.
- Coverage – the vast majority of the population is registered with a single practice, giving population coverage
- Continuity – general practice provides both informational continuity and interpersonal continuity, and is highly valued by patients with multimorbidity
- Comprehensiveness – general practice provides expert generalist care in the prevention and treatment of both mental and physical conditions, across the life-course
- Coordination – general practice helps coordinate multidisciplinary and specialist care which can be very fragmented, especially for multimorbid patients.

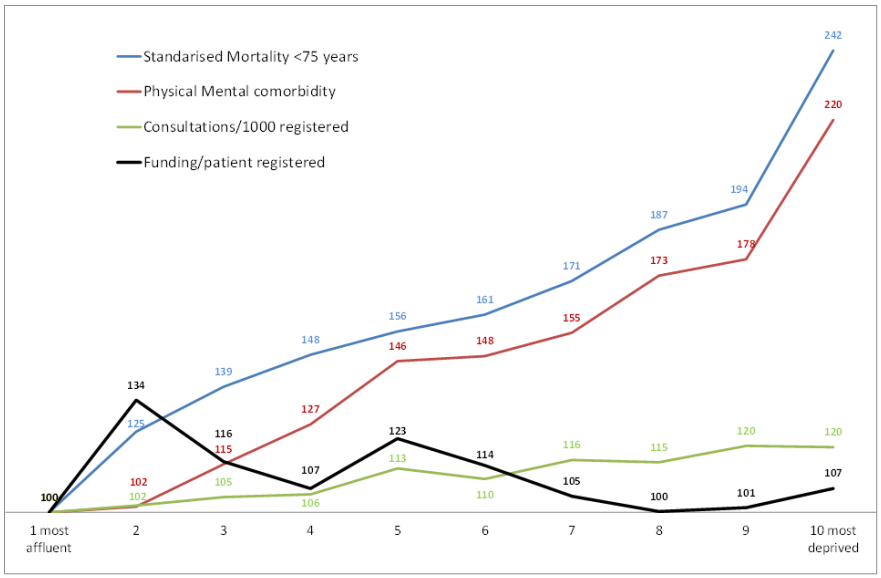
Figure 6. The role of general practice in the care of patients with multimorbidity

Source: Graham Watt, with permission

The inverse care law

Despite the crucial role of general practice and primary care in caring for the population, Scotland, like England and many other countries, has long suffered from an inverse care law whereby the 'availability of good medical care tends to vary inversely with the need for it in the population served'[3]. Figure 7 shows the mismatch of need in deprived areas with the funding and activity of general practice by deprivation deciles. Despite a 2-3 fold increase in need (as indicated by premature mortality and comorbidity of physical and mental conditions) from the least to the most deprived areas, the funding of general practice is flat (tending to be higher in more affluent areas) event though consultation rate increases with deprivation.

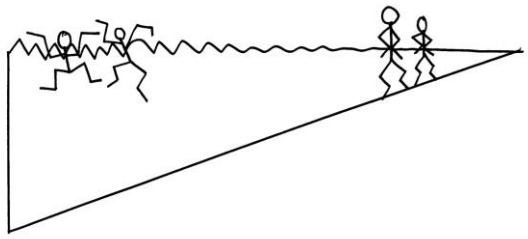
Figure 7. The inverse care law in Scotland (2015)



Source: McLean G, Guthrie B, Mercer SW, Watt GC. General practice funding underpins the persistence of the inverse care law: cross-sectional study in Scotland. Br J Gen Pract. 2015 Dec;65(641):e799-805. doi: 10.3399/bjgp15X687829.

This high burden of poor health and multimorbidity in deprived areas results in higher demand on such practices, with more complex consultations (spanning mental, physical, and social problems), more problems to discuss, yet less time to do so than in affluent areas[4]. This results in high GP stress and low patient enablement for those with complex needs, and poorer consultation outcomes[4, 5]. The inverse care law in general practice has been likened to a swimming pool, where GPs and patients in the deep end (in deprived areas) struggle to keep their head above water (Figure 8).

Figure 8. GPs at the deep end due to the inverse care law

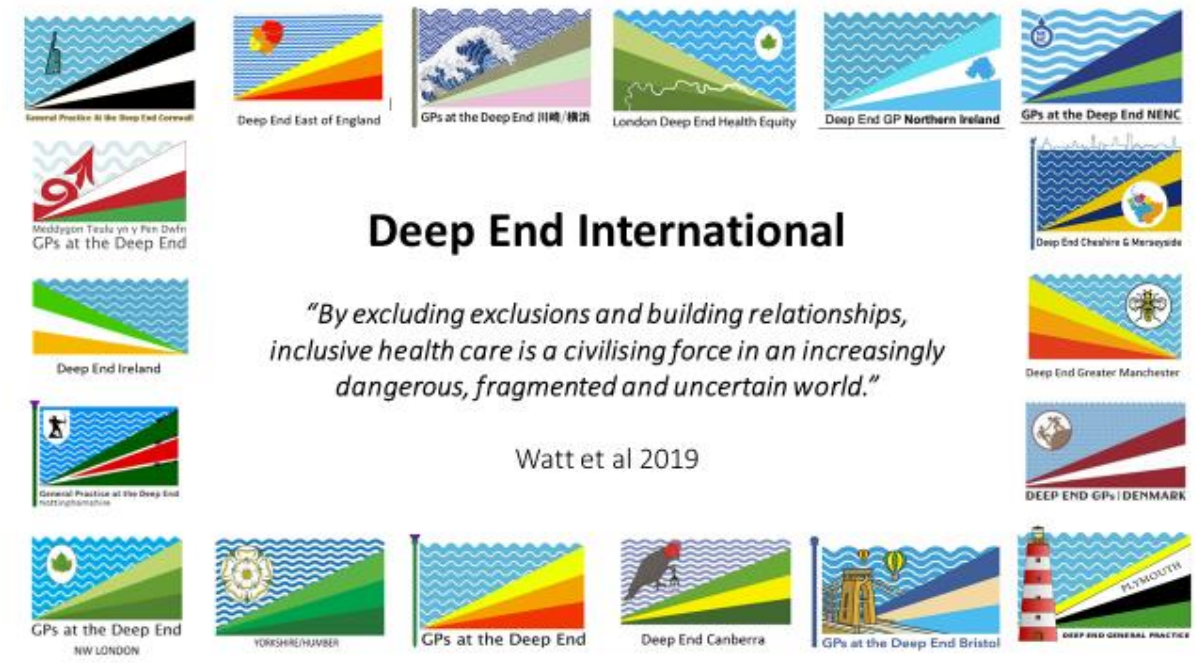


Source: Graham Watt, with permission

GPs at the Deep End

In an attempt to respond to the inverse care law, the Royal College of General Practice held a short-life working group on health inequalities in Scotland in 2009, out of which grew the 'Deep End' movement. The Deep End comprises GP clinicians and academics, working in the 100 practices in Scotland serving the most deprived communities. Deep End GPs work together to advocate on behalf of their patients across a wide-range of issues[6]. The swimming pool analogy was used to create the Deep End logo (Figure 9). Since its formation the Scottish Deep End movement has grown across the UK and internationally, with 14 Deep End groups across seven countries.

Figure 9. GPs at the Deep End logos



Since its inception, the impact of the Deep End project on policy development and the inverse care law in Scotland is unclear, and work funded by the Health Foundation is currently underway to assess this. One development which did come out of the Deep End project was the addition of community link workers to the primary care team in practices serving deprived areas in order to support social prescribing. Link workers take referrals from GPs and other clinical members of the primary care team and spend time with patients who have social needs to identify these needs and then 'link' them with local community third sector resources. The Scottish Government set a target of having 250 link workers in general practice in deprived areas, initially in the SNP's 2016 manifesto and reaffirmed in the 2020 programme for government.

The new Scottish GP contract and integration of care

The policy landscape

The policy landscape for health and social care differs between Scotland and England following devolution in 1999, which transferred control of these policy areas to the Scottish Government. In terms of meeting the needs of an ageing population, a recent review found that although there are differences in the structure of care, including more competition, financial incentives, and consumer-based care in England compared to Scotland, there are similarities in policy vision around delivery/processes of care (e.g. person-centred care) and performance and patient outcomes[7]. In terms of primary care, a critical analysis paper found that primary care reform has tended to progress more gradually in Scotland and with significant scope for local discretion, whereas primary care policy in England has been subject to repeated 'big bang' structural reorganisations[8].

Integration of Health and social care in Scotland

The Public Bodies (Joint Working) (Scotland) Act 2014 came into force in April 2016[9]. This legislation brings together health and social care into a single, integrated system. Its aim is to ensure that health and social care provision across Scotland is joined up and seamless, especially for people with longer term and/or complex needs. This legislation was followed by the formation of integrated authorities (IAs) - initially called integrated joint boards - and Health and Social Care Partnerships (HSCPs) in 2016. The HSCPs are the organisations formed as part of the integration of services and are jointly run by the Health Boards and local authorities in Scotland. There are 31 HSCPs in total and each has the lead responsibility for strategic planning, commissioning and management of integrated health and social care services at a local level. Each IA oversees the work of a HSCPs and is responsible for managing funding for local services which had previously been managed separately by NHS boards and local authorities.

A National Care Service for Scotland

Commissioned with the remit to "recommend improvements to adult social care in Scotland", the Scottish Government published the Independent Review of Adult Social Care (IRASC) in September 2021[10]. One of the main recommendations was the creation of a National Care Service (NCS) for Scotland. The Scottish Government accepted this and is in the process of implementing the NCS via legislation with the National Care Service (Scotland) Bill introduced in 2022. The bill proposes that Care Boards are introduced to replace IAs with overall accountability residing with Scottish Ministers which would mean a transfer of functions from local authorities (via IAs) to central government[11] – the most fundamental change in social care delivery since the creation of the welfare state. It is

expected that Care Boards will be constituted in a similar fashion to current NHS boards with the ability to appoint staff, which IAs are currently unable to do.

The new Scottish GP contract

In April 2018, a historic Scottish GP contract was formally introduced (though elements of it began in 2016). This was the first time that Scotland had negotiated its own GP contract[12]. A key aspect of the contract was the abolishment of the Quality and Outcomes Framework (QOF) which had been in place across the UK since 2004, and was a pay-for-performance scheme that incentivised GPs to meet a range of indicators of quality in the management of patients with a range of specified long-term conditions. The QOF in Scotland was stopped in April 2016, and replaced with the formation of GP clusters, in which groups of geographically located practices (typically 5-8) were expected to work together to improve the quality of care for their local population. Each Cluster elects one GP from the practices to be a cluster quality lead (CQL) and each participating practice also has a GP practice quality lead (PQL). Both receive a small amount of protected time to advance the quality improvement (QI) agenda. This involves an 'intrinsic role', where the CQL and PQLs develop and deliver QI , and an 'extrinsic role', whereby the CQL provide local leadership in terms of working with the HSCP to improve the integration of local services[13].

A second major strand of the new GP contract was the expansion of the extended multidisciplinary team (MDT), which again, though formalised in the contract in April 2018, began to be operationalised from 2016 through a Primary Care Transformation Fund of over £30 million from the Scottish government for general practices and HSCPs to conduct 'tests of change' of new models of care using additional MDT staff. The stated aims of the new GP contract are to:

- Improve access for patients, address health inequalities and improve population health including mental health
- Provide financial stability for GPs, and reduce GP workload through the expansion of the primary care multidisciplinary team
- Redefine the role of the GP as an expert medical generalist focusing on complex care

The implementation of the Scottish GP contract 2018 GMS consists of two Phases. Phase 1 commenced in April 2018, and included the further roll-out of Cluster working, and the roll-out of the extended MDT. Phase 2 was due to commence in 2023, but this has not happened due to a number of factors including delays in progress of implementation of Phase 1 and the impact of the COVID-19 Pandemic. One of the intentions of Phase 2 was to match workforce (capacity) to workload (demand). How workload is to be measured has yet to be defined, but could theoretically have a positive impact on addressing health inequalities if measured in a way that captures the additional complex workload of deprived-area general practice. However, it is not known if and when Phase 2 will be implemented, and indeed whether it will have the intended impact on reducing health inequalities.

Progress to date

Integration of health and social care

Many parts of the NCS Bill introduced in 2022 aim to address issues with the implementation of the Public Bodies (Joint Working) (Scotland) Act 2014 including ambiguity about: leadership and accountability, information sharing, financial integration, and governance[14]. The Bill is currently at

stage 1 of the legislative process and there is no clear picture yet of how the service will run or what difference it will make for service users[15]. There has been cautious approval of the acknowledgment that systematic change is required for the social care sector in Scotland, but also concern about the scale of change proposed and the implications for primary care, secondary care, and other public services[16]. The NCS proposals include taking over the management of general practice contracts from the NHS, which has been fiercely rejected by BMA Scotland. There is also resistance from local authorities who are concerned that the proposed transfer of functions to central government will have implications for their overall budgets, unintended consequences across other areas of local government, and risk of over-centralisation at the expense of locally designed and delivered services[17]. Acknowledging these issues, the newly-elected First Minister of Scotland requested an extension from the Scottish Parliament for the scrutiny process of the NCS bill in April 2023[18]. It may be some time before the exact make-up of the NCS becomes clear.

Integrated Authorities

In terms of progress of the IAs and HSCPs, a 2018 report from Audit Scotland reported that while some improvements had been made to the delivery of health and social care services, IAs, local authorities and NHS boards needed to show a stronger commitment to collaborative working to achieve the real long-term benefits of an integrated system[14]. In their recent review of social care, as Scotland grapples with establishing a National Care Service, the Auditor General highlighted the importance of learning from previous Scottish public sector reform (including health and social care integration), recommending that one of the next steps for the Scottish Government should be 'strong, consistent strategic leadership from the outset'[19].

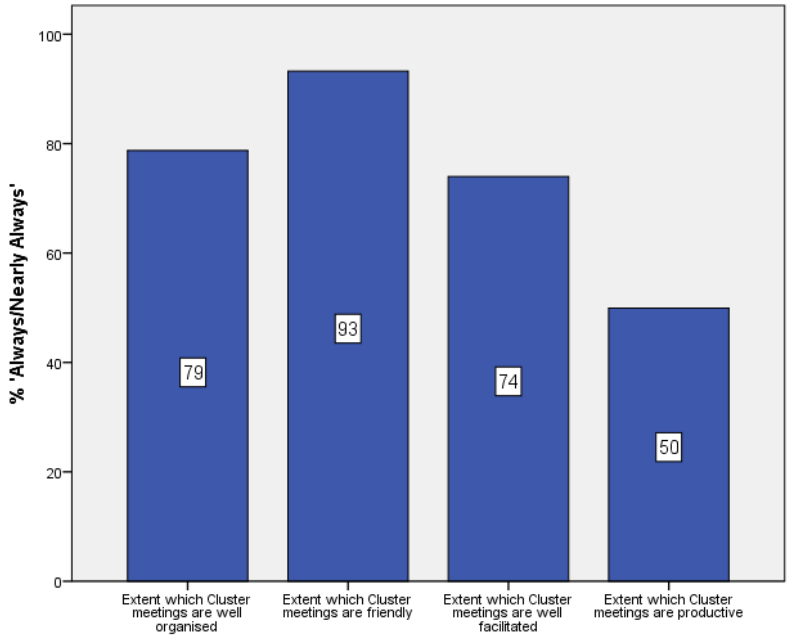
Scottish GP contract

Cluster Working: In terms of the progress of the new Scottish GP contract, a national GP survey in 2018[20] – two years after the initiation of Cluster working – found that the clusters were up and running throughout Scotland, and were regarded as well-organised, friendly, and well-facilitated, though only 50% of those who responded felt they were productive (Figure 10). A qualitative study conducted just before the Covid-19 pandemic in 2019, and then continued in 2020 after the first lockdown found very similar results[21].

More recently a qualitative study with senior primary care national stakeholders and CQLs conducted between March and May 2021 found that although there was general support for the initial aims of the contract, interviewees unanimously felt that progress on cluster working had been slow, even prior to the pandemic. Clearly the pandemic then slowed progress further. Lack of time, poorly developed relationships, and insufficient infrastructure and wider support were the key barriers[22]. These findings are consistent with both recent and past reports on GP cluster working by Healthcare Improvement Scotland[23, 24].

"I think it would be useful to revisit the joint guidance on Clusters which the Government, BMA, RCGP signed up to….. I don't think anything has particularly happened with that in terms of saying, okay, so where are we now, has that been implemented? Have all CQLs got a minimum amount of time? Has everyone got data support? Has everyone got admin support? Is everyone having more opportunities to influence in their extrinsic roles? …….There's a real need to revisit that because otherwise what happens is the clusters feel a bit disillusioned and start to burnout , CQLs resign in a system that doesn't support them to do what it is they're intended to do". [Primary Care Stakeholder 02]

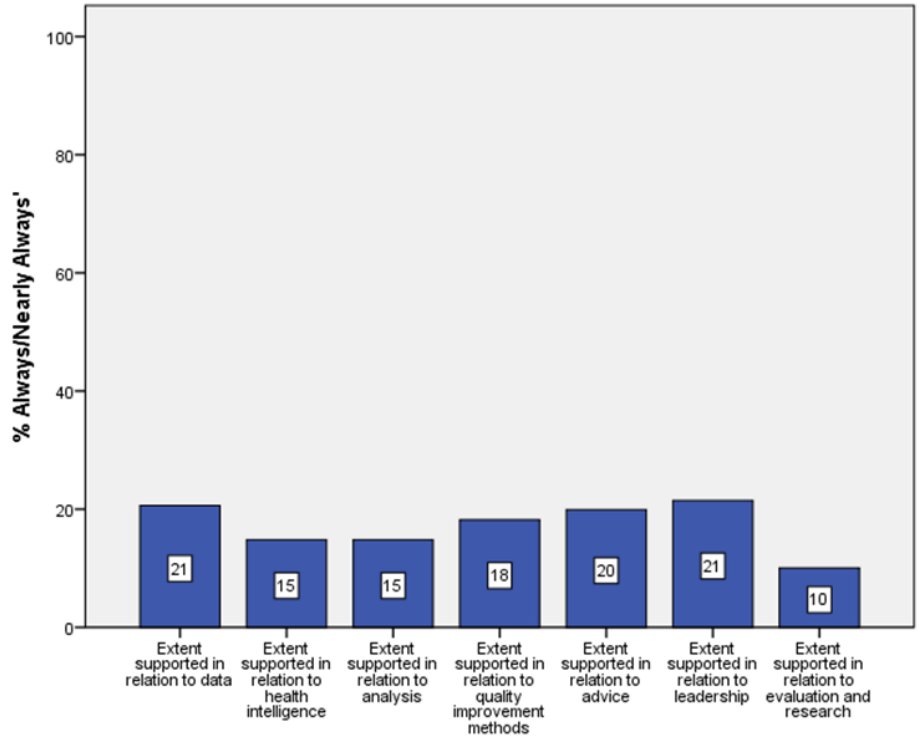
Figure 10. GP Cluster Quality Leads views on Cluster meeting in 2018



Source: Mercer S, Gillies J, Fitzpatrick B. Progress of GP clusters 2 years after their introduction in Scotland: findings from the Scottish School of Primary Care national GP survey. BJGP Open. 2020;4(5):bjgpopen20X1011.

However, levels of support for Cluster working was felt to be inadequate (Figure 11).

Figure 11. GP Cluster Quality Leads views on level of support for Clusters in 2018



Source: Mercer S, Gillies J, Fitzpatrick B. Progress of GP clusters 2 years after their introduction in Scotland: findings from the Scottish School of Primary Care national GP survey. BJGP Open. 2020;4(5):bjgpopen20X1011.

Interestingly, a comparison of the view of senior stakeholders conducted in 2016 with those reported in 2021 found that all of the barriers reported in 2021 had been predicted in 2016, with the exception of the Covid-19 pandemic[25].

MDT working: The study on senior stakeholders and CQLs and a recent qualitative study with non-CQL GPs and a range of MDT staff conducted in May-June 2022 found that although most GPs welcomed the expansion of the MDT, there were many challenges to the effective implementation of integrated MDT working in primary care. Most reported that GP workload had not decreased (and in many cases had increased)[26].

It is helpful having all these different MDT staff here. It frees up time to do more of the call-backs, face to face slots, and the admin side. However, we are still swamped. I still feel like the multi-morbid population are not benefiting necessarily from that. It's not as if GPs have now got all this extra time to be able to spend with them. We're still firefighting all the rest that's coming in…….. The workload has gone up quite considerably in terms of patient contact to the practice….There's also the supervision of the new AHPs [Allied Healthcare Professionals] on top of everything we're asked to do…….We're also dealing with a lot more angry patients and that really just saps your motivation and feel-good factor when you're trying your hardest and someone's just shouting at you.[P23 GP, Deep End Practice]

Again, a national evaluation of over 200 new models of care pilot projects supported by the Primary Care Transformation Fund from 2016-2018 predicted many of these issues - teams felt unsupported in terms of data availability and evaluation and there was a perceived increase in GP workload due to the need for training and clinical supervision of new members of the multidisciplinary team[27].

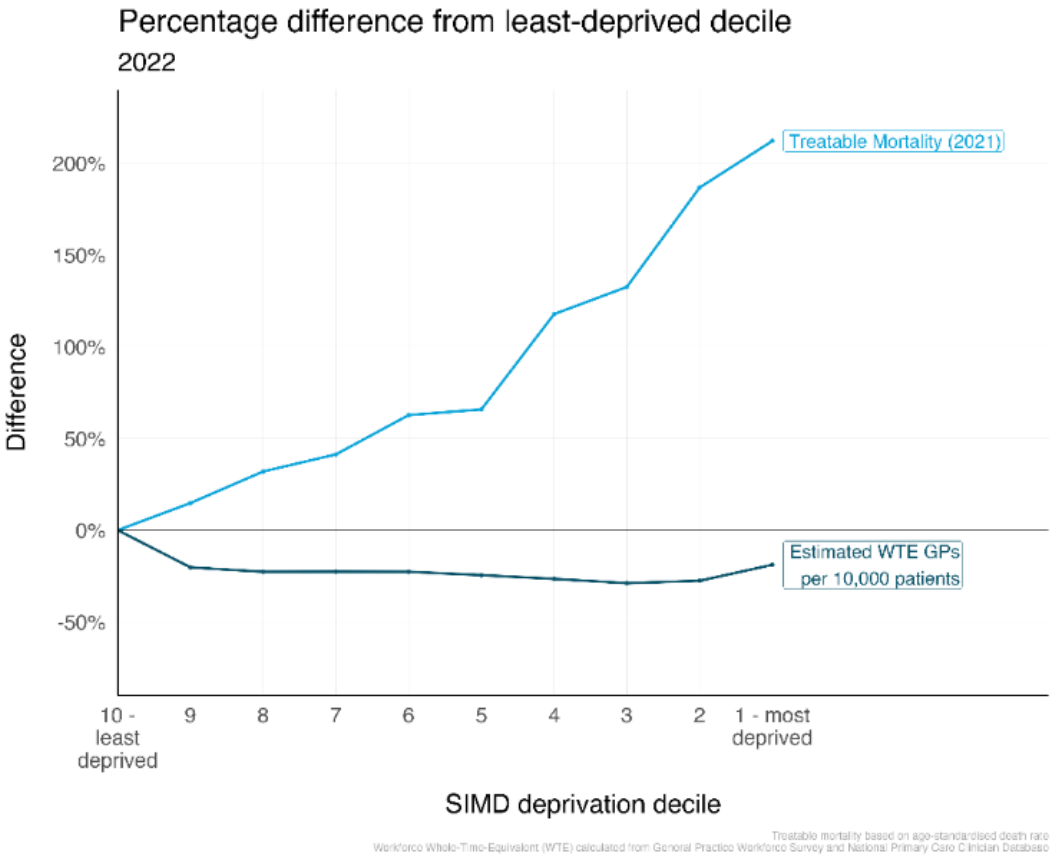
The inverse care law

Workforce: Given that a stated aim of the new GP contract was to reduce health inequalities, it is important to examine whether there is any evidence to suggest a reduction in the inverse care law. Figure 12 shows recent data (2022) on treatable mortality and estimated whole-time-equivalent (WTE) GPs in Scotland by deprivation decile, using decile one (least deprived) as the baseline. As expected there is a steep social gradient in treatable mortality across the deprivation deciles. However, the distribution of GPs does not match this need, and indeed shows an opposite trend, with more GPs in the most affluent decile.

The accompanying paper in this edition shows other measures of healthcare need by deprivation, and the absolute numbers of WTE GPs and practice-employed primary care staff, for 2019 and 2022, which shows the same trends as in Figure 12. As discussed in detail the accompanying paper, a caveat in term of the distribution of primary care staff, other than GPs, is that these data do not include the new MDT staff negotiated under the 2018 GMS contract, employed by the HSCPs. There was no national directive to allocate this new workforce on the basis of deprivation, leaving decisions on how workforce would be allocated to a local level. Additionally, data on the extent to which these new staff are distributed by deprivation across Scotland is not available. However, in Glasgow city, where more almost 80% of Scotland's Deep End practices are located, the majority of new MDT staff appear to be providing their services through 'hubs' rather than being based within individual GP practices. Without a specific allocation according to practice deprivation the new MDT staff deployment is unlikely to help address health inequalities and may actually worsen the inverse care law.

Link workers: In contrast, Link workers have been specifically deployed according to practice deprivation (at least in some Health Boards), with all Deep End practices in Glasgow, for example, being allocated a link worker service. However, the impact of link workers on health inequalities is still unclear[28]. A quasi-experimental cluster randomised controlled trial (RCT) evaluation of the first wave of the Deep End link worker project found no benefit to patients outcomes overall, although sub-group analysis suggested that those who engage with a link worker several times (< 50% of the number referred) are more likely to then take up local community resources suggested, and subsequently show improvements in mental health and quality of life[29]. However, link workers will generally only deal with a small caseload of patients compared with GPs, and thus it is highly unlikely that the addition of link workers to the primary care teams will significantly reduce GP workload or impacted on the inverse care law in a meaningful way[30]. Whether the link worker model as it is currently configured and resourced can mitigate health inequalities is also contested[31].

Figure 12. The inverse care law in Scotland (2022)



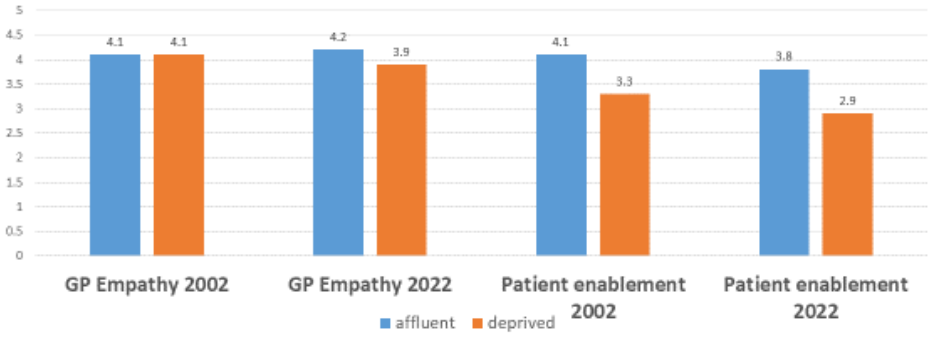
Source:

GP consultations: A l 2022 survey of over 1,000 patients in practices in affluent urban, deprived urban, and remote and rural settings, who had consulted a GP in the previous four weeks, found

higher levels of multimorbidity, more problems to discuss, and more complex problems within consultations in deprived urban areas than in either affluent urban or remote and rural areas. It also found lower levels of perceived GP empathy, patient enablement, and symptom improvement[32].

These results are almost identical to a similar survey conducted twenty years ago in 2002-2003, which found similar levels of both need and demand[4]. Figure 13 compares the results of these two studies on consultation quality of patients with complex problems (defined as a combination of mental, physical, and social problems) as measured by patients' perception of GP empathy using the Consultation and Relational Empathy (CARE) Measure, and patient enablement, using the patient enablement instrument (PEI). As shown, in 2002, perceived GP empathy was similar in affluent and deprived areas, whereas in 2022, perceived GP empathy was lower in deprived areas. Patient enablement was lower in deprived areas than in affluent areas in both 2002 and 2022, but was slightly lower overall in 2022 than 2002. These findings give a stark illustration that the inverse care law, and its impact on patient consultation quality appear not to have changed in the last twenty years, and may even have worsened.

Figure 13. Twenty year comparison in GP consultation quality for patients with complex needs in affluent and deprived areas

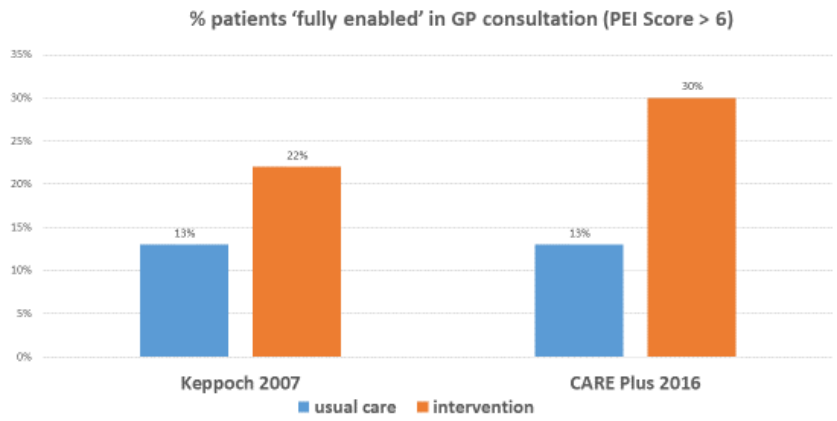


If the inverse care law was reversed would GP consultations improve?

Previous research in Scotland suggests that reversing the inverse care law would not only be effective but would be cost-effective. In the Keppoch Study (in the most deprived practice in Scotland) GPs introduced a system of extended consultation length (up to 20 minutes) for patients with complex needs[33]. A before and after evaluation found that the longer consultations led to higher levels of patient enablement (Figure 14). The longer consultations were also associated with reductions in GP stress in the consultations. The CARE Plus study[34] was a cluster RCT in which patients in deprived areas with multimorbidity were given extended consultations (of 30-40 minutes) and as shown in Figure 14, even larger increases in enablement were observed. CARE Plus

also showed improvements in wellbeing and quality of life at 12 months, compared with the control group, and the intervention was highly cost-effective.

Figure 14. Can GP consultation quality in deprived areas be improved?



Conclusions

Scotland has widening health inequalities and an enduring inverse care law that limits what GPs and patients can achieve in consultations in deprived areas. A stated aim of the new Scottish GP contract is to reduce health inequalities through primary care but there is no evidence as yet that this is happening. New strategies are required to tackle the inverse care law, including ways of enabling GPs to provide better quality holistic care through targeted longer consultations with patients with the most complex needs. Better informed primary care policy decisions and services are unlikely without better collection and use of robust and reliable primary care data, which remains a challenge in Scotland, and better workforce planning is essential to the long-term success of the reforms. Ongoing data collection is required to track whether the efforts of GP Clusters are improving care for patients overall, and for patients with multimorbidity in particular, and whether any such QI is socially patterned. Similarly, the distribution of the MDT by practice deprivation, and its effectiveness in improving patient outcomes needs to be established. The integration of health and social care, and the implementation of the National Care Service (NCS) both need to be evaluated through a health inequalities lens. If, as has been the case to date, health and social care services are not at their best where they are needed most, and are not organised on the basis of 'universal proportionalism', then the NHS and the NCS may inadvertently function to widen rather than narrow health inequalities in Scotland.

Acknowledgement

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