

INTRODUCTION

There is a 19-year difference in healthy life expectancy between deprived and more affluent populations in England.¹ These health inequities have multiple direct impacts, such as increased disease burden and reduced economic activity.² Their reduction is an important goal of the NHS Long Term Plan (LTP).³ High-quality and accessible primary care is recognised internationally as an important component of an equitable health system,⁴ yet there are 15% fewer GPs per capita in deprived areas of England.⁵

The proportion of the NHS budget spent on primary care has decreased in recent years.⁶ The LTP promised increased funding to address this.² Currently, general practice funding in England goes directly to individual practices, according to formulae that include some adjustments to account for workload variation. Rather than directing additional resources into primary care via these existing funding streams, the LTP proposed the creation of new Primary Care Networks (PCNs). These are voluntary groups of practices contracted to work together to deliver additional services for additional funding (technically called a Directed Enhanced Service).

The PCN contract offers £1.8 billion extra funding as part of the £2.4 billion increase in overall primary care funding; this is a 14% real-terms increase compared with the £9.6 billion budget in 2014/2015.⁷ To understand whether this will address or exacerbate existing health inequities and address the so-called 'inverse care law',⁸ it is important to explore how these resources will be allocated and what conditions will be applied to how they can be used.

OVERVIEW OF PRIMARY CARE FUNDING IN ENGLAND

The majority of funding for primary care is distributed through General or Personal Medical Services contracts, with additional payments paid for some specific extra activities.⁹

The core of practice income is derived

"... there is little in the current PCN contract that will address health inequities ..."

from the 'global sum', a weighted capitation payment. The average payment of £93.46 per registered patient per year is weighted for indicators of relative workload. The weighting comes from the Carr-Hill formula, which incorporates the deprivation and age of the registered population, alongside other predictors of workload. This is one of the key funding mechanisms to address inequity. While this formula has been criticised for failing to incorporate deprivation robustly as well as utilising a 20-year-old measure of morbidity,¹⁰⁻¹¹ it has proved difficult to replace. In 2016 the Accounting and Corporate Regulatory Authority created a new model that attempted to more accurately reflect workload, but it provided lower weightings for deprived practices¹¹ and was not adopted. The LTP³ suggested a new formula would be developed, but no timescale was provided.

The Quality and Outcomes Framework (QOF) is a pay-for-performance mechanism providing additional funding to GP practices when they deliver specific services, such as monitoring blood pressure in hypertension.¹² Practices receive points for achieving outcomes, with each point worth £194.83 up to a maximum of 559 points. QOF adjusts for inequity by taking account of disease prevalence, which is greater in deprived areas. However, QOF has been criticised for favouring affluent practices through weaknesses in how this is calculated.¹⁰

Practices also receive funding for additional services, known as 'Enhanced Services', which may be locally or nationally ('Directed') commissioned. Nationally commissioned services include immunisations and services outside of normal hours, while locally commissioned Enhanced Services usually focus upon quality, such as improved access.

The PCN contract implements new funding streams, which are technically a Directed Enhanced Service. They include a blended payment mechanism, which involves a combination of the above principles (Table 1).

FUNDING STREAMS FOR PCNS

Network participation payment

Each participating practice will receive £1.761 per weighted practice population from NHS England, 13% of the overall funding available to PCNs. The weighting is derived from the Carr-Hill formula.

Core PCN, clinical director, and extended hours funding

PCNs receive core funding of £1.50 per patient from their local Clinical Commissioning Group (CCG) as payment for participating, 11% of overall funding. This payment receives no weighting.

PCNs receive £0.722 per patient to pay a clinical director, proportional to the average national GP salary; this is 5.3% of the overall funding. Given that GP salaries are lower in deprived practices,¹³ this may act as a relative incentive for such GPs to put themselves forward as it will be a greater proportion of their overall salary. However, GPs in deprived practices are also likely to be under pressure and may find it more difficult to take time out from their practices, and such practices may find it difficult to recruit GPs to cover. It is thus difficult to predict the impact of this funding on inequity.

Extended hours funding is £1.45 per unweighted patient. This requires 30 minutes of appointments a week, for every thousand patients, to be delivered outside usual hours across the PCN. Extended hours can be provided by the PCN or subcontracted. It is difficult to predict how this will be implemented, with PCN priorities decided by the constituent members. Extended-hours appointments could be provided in ways that address inequities by, for example, offering additional appointments in deprived areas, but this will be at the discretion of the PCN.

"PCNs offer an opportunity to address the ... difference between ... affluent and deprived practices."

Additional roles reimbursement scheme

The sum of £430 million, rising to £1.4 billion by 2024, has been provided for additional staff roles, representing 52.6% of the additional funding. This is allocated to PCNs as a share of the national fund according to their weighted population, using the Carr-Hill formula. PCNs can claim 100% of the salary of these additional roles, such as physician associates, to the maximum of their funding share.

Historically there has been a geographical maldistribution of GPs in the UK, with deprived areas relatively under-doctored.¹⁴ The current workforce crisis is worse in deprived areas, and the opportunity to employ new types of practitioners, with weighted funding, has the potential to support practices struggling to recruit GPs. However, such practices may also struggle to recruit new workers, and they may perceive potential employer liabilities once the scheme ends in 2023/2024 as a significant risk. The impact on inequities is thus currently unclear.

Unspent funding is returned to the local CCG. A recent update to the contract has stipulated that CCGs must have a plan to spend their entire allocation, with deprivation taken into account in the distribution of unspent funds.

Investment and Impact Fund

The Investment and Impact Fund (IIF) was introduced in October 2020, after being delayed by the COVID-19 pandemic.

The IIF will follow QOF principles, but outcomes will be measured across the PCN. Deprived practices have greater disease prevalence, and so an adjustment is applied, whereby funding is in direct proportion to the practice disease prevalence. NHS England suggests this should encourage practices to undertake case finding, as increasing their practice prevalence will increase their share of funding.¹⁵ Unfortunately, evidence suggests that those in deprived areas have poorer care provision, resulting in an underestimation of prevalence compared with more affluent areas.¹⁶ Further, prevalence is difficult to accurately measure and it is harder to achieve the same performance in a higher-prevalence practice.¹⁰ Nevertheless, QOF did lead to a narrowing in the gap in point attainment between affluent and deprived practices.¹⁷

One of the IIF attainment targets explicitly addresses a health inequity.³ This offers payment to networks delivering health checks to patients with a learning disability. While this focus upon a neglected group

Table 1. Funding streams within the PCN framework¹⁹⁻²⁰

| Funding stream | Money available (yearly) | Basis of payment | Proportion of available contract funding ^a | Weighted |
|---------------------------------------|--|--|---|---|
| Network participation payment | £1.761 per weighted patient registered with practice | Prospective weighted capitation payment | 13% | Carr-Hill formula |
| Additional-roles reimbursement scheme | £7.131 per weighted patient registered with PCN practices | Weighted reimbursement for 100% of salary and employer costs for additional roles (up to maximum/role) | 52.6% | Carr-Hill Formula |
| PCN support payment | £0.27 per weighted patient registered with PCN practices. (1 April 2020 to 30 September 2020 COVID-19 payment) | Prospective weighted capitation payment — transferred from the Investment and Impact Fund due to COVID-19 pandemic | 2% | Carr-Hill formula |
| Core PCN funding | £1.50 per patient registered with PCN practices | Prospective unweighted capitation payment | 11% | No weighting |
| Clinical director contribution | £0.722 per patient registered with PCN practices | Prospective unweighted capitation payment for 0.25WTE/50 000 patients | 5.3% | No weighting |
| Extended-hours access | £1.45 per patient registered with PCN practices | Prospective unweighted activity-based payment for 30 minutes/1000 patient/week | 10.7% | No weighting |
| Care home premium | £60 per care home bed (rising to £120 from 1 April 2021) | Prospective unweighted capitation payment per care home bed linked to the PCN | Variable | No weighting |
| Investment and Impact Fund | £111 per point (initially 194 points available per PCN starting 1 October 2020) | Activity-based payment dependent on points gained adjusted for prevalence and list size | 5.3% | No weighting — prevalence and list size adjustments |

^aAn estimate based upon an assumed PCN combined list size of 30 000, with all available payments received. Care home premium removed because of variability between PCNs. Proportions will differ depending on Carr-Hill calculated practice index. Arrangements as at 15 December 2020. Changes for 2021/2022 were subject to negotiation. PCN = Primary Care Network.

is welcome, this represents a limited approach to health inequities, and is unlikely to make much impact on improving care in deprived areas.

INTERNAL DISTRIBUTION OF PCN FUNDING

PCNs are diverse collections of practices that will all function differently, including how they distribute funding internally.¹⁸ PCNs covering deprived populations will be relatively disadvantaged, because not all payments to PCNs are weighted and

their workload is likely to be higher. PCNs are not homogeneous and some cover both deprived and affluent populations.¹⁸ Networks could use this as an opportunity to support their deprived populations by redistributing the funding they receive, providing additional funding to deprived practices. This will depend upon PCNs taking an active approach to 'levelling' up within their network.

Deprived practices often find it more difficult to meet targets, and under the IIF this will potentially reduce payments to

the network as a whole. How a network distributes its IIF payments is an internal matter, and some networks may decide that only practices which contribute to meeting targets should receive the rewards. On the other hand, networks may decide to differentially support struggling practices to improve their performance.

Such decisions will be guided by the inter-practice network agreement, and our analysis would suggest that, if health inequities are not to be exacerbated by the introduction of PCNs, it is important that such agreements ensure that deprived practices will receive the additional support needed. However, it is not yet clear how this will play out in practice.

CONCLUSION

PCNs are a new approach to general practice in England, representing a chance to rethink how funding is distributed to reduce inequities. Our analysis suggests that there is little in the current PCN contract that will address health inequities across England.

As currently designed, the incentive part of the payment scheme, the IIF, would seem to be the funding stream with most potential to address inequities, but this would need careful design, including mechanisms to ensure that the workload burdens associated with deprivation are appropriately recognised. For the other funding streams, the mechanism by which weighting of payments to account for deprivation takes place could usefully be reconsidered in the light of the enduring health inequities further exposed by the COVID-19 pandemic.

How effectively health inequity is addressed will ultimately depend on the services provided, including factors beyond funding such as practice integration and teamwork. PCNs offer an opportunity to address the historical difference between the services provided by affluent and deprived practices; however, this will in part depend on individual practices going beyond self-interest and agreeing to the redistribution of funds to support populations outside their practice boundary.

It is important that the financial underpinning for the networks acts to drive this change, and that PCNs receive the support they need to draw up meaningful and supportive inter-practice agreements.

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REFERENCES

- Williams E, Buck D, Babalola G. *What are health inequalities?* London: King's Fund, 2020. <https://www.kingsfund.org.uk/publications/what-are-health-inequalities> [accessed 14 Jul 2021].
- Engelgau MM, Zhang P, Jan S, Mahal A. Economic dimensions of health inequities: the role of implementation research. *Ethn Dis* 2019; **29**(Suppl 1): 103–112.
- NHS England. *The NHS Long Term Plan*. Version 1.2. NHS England, 2019.
- World Health Organization. *Building the economic case for primary health care: a scoping review*. WHO/HIS/SDS/2018.48. Geneva: WHO, 2018. https://www.who.int/docs/default-source/primary-health-care-conference/phc---economic-case.pdf?sfvrsn=8d0105b8_2 [accessed 14 Jul 2021].
- Gershlick B, Fisher R. A worrying cycle of pressure for GPs in deprived areas. 2019. <https://www.health.org.uk/news-and-comment/blogs/a-worrying-cycle-of-pressure-for-gps-in-deprived-areas> [accessed 14 Jul 2021].
- King's Fund. Understanding pressures in general practice. 2016. https://www.kingsfund.org.uk/sites/default/files/field/publication_file/Understanding-GP-pressures-Kings-Fund-May-2016.pdf [accessed 14 Jul 2021].
- NHS England. *General practice forward view*. 2016. <https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf> [accessed 14 Jul 2021].
- Watt G. The inverse care law today. *Lancet* 2002; **360**(9328): 252–254.
- Burch P. Funding in primary care. *InnovAiT* 2018; **12**(2): 100–104.
- Kontopantelis E, Mamas MA, Marwijk H, et al. Chronic morbidity, deprivation and primary medical care spending in England in 2015–16: a cross-sectional spatial analysis. *BMC Med* 2018; **16**(1): 19.
- Gardiner L, Everard K. *Primary medical care — new workload formula for allocations to CCG areas*. Version 1.0. London: NHS England, 2016. <https://www.england.nhs.uk/wp-content/uploads/2016/04/5-primary-care-allctns-16-17.pdf> [accessed 14 Jul 2021].
- Gillam SJ, Siriwardena AN, Steel N. Pay-for-performance in the United Kingdom: impact of the quality and outcomes framework: a systematic review. *Ann Fam Med* 2012; **10**(5): 461–468.
- Health and Social Care Information Centre. *GP earnings and expenses by deprivation score: England 2011–12 and 2012–13*. Version 1.0. 2015. <https://files.digital.nhs.uk/publicationimport/pub17xxx/pub17057/gp%20earnings%20by%20deprivation%20score%20england%202011-12%20and%202012-13%20v1.0.pdf> [accessed 14 Jul 2021].
- Hann M, Gravelle H. The maldistribution of general practitioners in England and Wales: 1974–2003. *Br J Gen Pract* 2004; **54**(509): 894–898.
- NHS England. *Investment and Impact Fund 2020/21: guidance*. 2020. <https://www.england.nhs.uk/wp-content/uploads/2020/09/IIF-Implementation-Guidance-2020-21-Final.pdf> [accessed 14 Jul 2021].
- Dixon A, Khachatryan A, Tian Y. Socioeconomic differences in case finding among general practices in England: analysis of secondary data. *J Health Serv Res Policy* 2012; **17**(Suppl 2): 18–22.
- Roland M, Guthrie B. Quality and Outcomes Framework: what have we learnt? *BMJ* 2016; **354**: i4060.
- Morciano M, Checkland K, Hammond J, et al. Variability in size and characteristics of primary care networks in England: observational study. *Br J Gen Pract* 2020; DOI: <https://doi.org/10.3399/bjgp20X713441>.
- NHS England, NHS Improvement. *Network Contract Directed Enhanced Service: contract specification 2020/21 — PCN requirements and entitlements*. Version 2. 2020. <https://www.england.nhs.uk/wp-content/uploads/2020/03/Network-Contract-DES-Specification-PCN-Requirements-and-Entitlements-2020-21-October-FINAL.pdf> [accessed 14 Jul 2021].
- NHS England, NHS Improvement. *Primary care networks: amendment to the Network Contract Directed Enhanced Service for 2020/21*. 2020. <https://www.england.nhs.uk/wp-content/uploads/2020/09/Cover-note-for-GPs-and-commissioners-2020-21-Amended-Network-Contract-DES-FINAL.pdf> [accessed 14 Jul 2021].