Title: Senior clinical and business managers' perspectives on how different funding mechanisms and models of employing General Practitioners in or alongside Emergency Departments influence wider system outcomes: Qualitative Study.

Authors and Affiliations: Mazhar Choudhry (Cardiff University, School of Medicine), Michelle Edwards (Cardiff University, Division of Population Medicine), Alison Cooper (Cardiff University, Division of Population Medicine), Adrian Edwards (Cardiff University, Division of Population Medicine), Pippa Anderson (Swansea Centre for Health Economics)

CRediT Statement: *Please fill as appropriate*

Mazhar Choudhry (Conceptualisation, Methodology, Software, Formal Analysis, Writing – Original Draft, Visualisation), Michelle Edwards(), Alison Cooper (), Adrian Edwards (), Pippa Anderson ()

Further co-authors tbc

Corresponding Author: Michelle Edwards, edwardsm28@cardiff.ac.uk

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Abstract:

Purpose

Health policy in England has advocated for the use of primary care clinicians in emergency departments to address pressures from rising attendances. This study explored senior managers' perspectives on different funding mechanisms used to implement the policy and their experiences of success or challenges in introducing GPs in or alongside emergency departments.

Methods

A qualitative study was performed to investigate the perspectives of senior clinical and business managers with intimate knowledge of funding structures, regarding this policy's implementation. Between February 2018 and September 2019 thirty-one managers were recruited for semi-structured interviews at 12 type 1 (major) emergency departments in England and Wales, each operating one of three different GP models or none. Interviews were coded and thematically analysed.

Results

Funding mechanisms were frequently reported as complex, but the perceived most efficient mechanisms were described at sites where funding had been unified at the service level, in collaboration with adjacent health and community care services. Themes around staffing indicate that the locality and experience of GPs are important. There were also cautions stemming from experiences with private providers.

Conclusion

Successful models of employing GPs in emergency departments appears to be reliant on well-organised and unified funding mechanisms, appropriate staffing and governance, and careful consideration of population demands and needs. These findings will contribute to debates about the continued implementation of policy about how primary care clinicians are deployed in emergency departments and how local perspectives are included in the policy..

Word Count = 218 (absolute limit =220)

Highlights: *to be submitted in a separate file, maximum 12 words per bullet*

- Emergency department waits and crowding have been increasing over the last ten years in the UK.
- The evidence base for the policy to tackle this by employing GPs in emergency departments is uncertain.
- This study explored the perspectives of senior managers on this policy.
- Success of policy is often reliant on unified funding across primary and secondary care and appropriate staffing.
- One size does not fit all, with variation in providers, governance and population needs and demands.

Classification of keywords: *MeSH subject headings for Index Medicus*

- Emergency Services, Hospital
- General Practitioners
- Primary Health Care
- Health Policy

- Leadership

Introduction

Emergency Departments (EDs) across England and Wales have been facing increasing pressures, with attendances rising, crowding increasing and waiting time targets being missed [1]. As one approach to tackling this, NHS policy in England encouraged.introducing General Practitioners (GPs) in or alongside emergency departments to see non-urgent patients and free up emergency department staff [2]. However, there is little evidence to support this policy [4-6].

Currently the evidence on different models of GP utilisation in or alongside emergency departments is scarce and weak. A Cochrane Review in 2018 reported high heterogeneity in the four eligible studies, concluding that there was insufficient evidence to support claims that such models were effective [4]. This is supported by a narrative review of 20 studies, which also described anincrease in emergency department attendances due to "provider-induced demand" when GPs were introduced [5]. A rapid realist review of 96 studies found significant evidence gaps in health economic evaluations and wider system outcomes [6].

Implementing large systemic changes such as placing GPs in or alongside emergency departments requires significant funding, the appropriate workforce and appreciation of previous experiences. Capital investment of around £100 million was provided by the UK government in 2017 to develop onsite GP streaming s in EDs in Englandervices [7], but wide variation exists in the funding streams used for the continued operational costs of these services, how they are operationalised and what outcomes they achieve.

In Wales, the devolved government provides direct funding to seven Local Health Boards (LHBs), which both plan and provide health services in line with ministerial policy. In contrast, NHS England operates on an internal market with 191 Clinical Commissioning Groups (CCGs). These commission hundreds of NHS Trusts (organisational units of healthcare providers), including an ~~increasing number of~~ NHS Foundation Trusts which are semi-autonomous, and thousands of GP Practices to provide, and sometimes fund, care in local areas [8]. This model focuses on financial incentives for ~~independent~~ purchasers and providers to improve healthcare. In recent years this model has evolved with an increasing number of CCGs collaborating or merging to provide system level care for wider populations [9].

Recruiting the right staff to work in these models is also important, however this is a challenge given the difficulties the NHS is facing with increasing pressure on limited staff, particularly GPs. The NHS spent £5.4 billion on temporary staffing in 2017/18 but this has in certain cases resulted in poorer patient experiences [10,11].

This study aims to better understand how, and to what extent, the models of using GPs in or alongside emergency departments work effectively, through exploring the perspectives and experiences of those with intimate knowledge of the organisation of funding and staffing – the senior clinical and business managers. By examining the experiences of senior clinical and business managers, this study will add to the wider, growing evidence on the real effects and experiences of adopting these models to inform service development and improve the healthcare provided to patients.

Methods

The Cardiff University "GPs-in-EDs" study is a nationwide, multi-centre mixed-methods study commissioned by NIHR HS&DR (2017-21; reference number 15/145/04). Its aim is to evaluate the clinical and cost-effectiveness of different models of employing GPs in emergency departments, and to understand the ways in which service design and setting influence how services function to generate variations in outcomes [3].

Early in the project, a taxonomy to describe the different models of GPs working in or alongside EDs found in practice was developed [12]. The taxonomy provided a basis for evaluation by characterising service models into four distinct groups as shown by Figure 1.

The fourth category - "Outside Offsite" – describes GP services outside the hospital, and as such was not in scope of this study.

Figure 1: The FORM of primary care service models in or alongside emergency departments

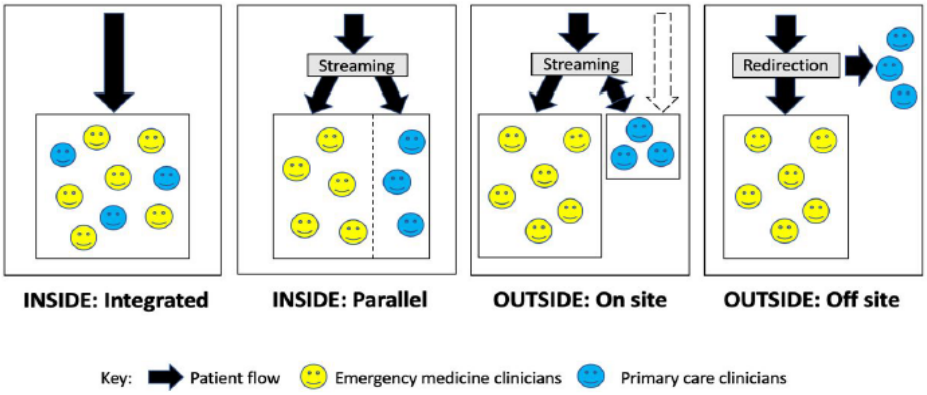


Figure 1 - Cooper et al. 2019[12]

An online survey was distributed in September 2017 (www.onlinesurveys.co.uk) to clinical directors of all 185 type 1 emergency departments (consultant led 24-hour services with full resuscitation facilities) in England and Wales. Seventy-seven respondents (40%) (clinical directors, medical directors and emergency department consultants) completed the national survey and agreed to be contacted for a follow-up telephone interview [12]. From this a purposive sample of 13 sites was derived: composed of three Inside Integrated, four Inside

Parallel, three Outside Onsite and three 'controls'. The controls were included to provide outcome data where no GPs were employed. The purposive sampling framework also covered regional differences, rurality and public and private providers of GPs. This allowed the sample to cover a range of variables that could influence the research question, and thus provide greater transferability of study findings [3].

This study sought to generate theories on how and to what extent these different service models functioned, exploring the perspectives and experiences of those closely involved in planning and delivery to gain an understanding of the impact of the intervention on its providers and users [13]. A second level of sampling of key informants, senior business and clinical managers with intimate knowledge of services' funding structures and experience of providing a primary care service in the emergency department, was also undertaken for research seeking to contextualise our health economic evaluation. Qualitative methods for data collection and analysis are best suited for the provision and interpretation of such rich and in-depth data [14].

Between February 2018 and September 2019, each site was visited by a research team (ME AC, PA) and clinical directors, service and finance managers within the sample sites were interviewed, either individually or in groups. The semi-structured interviews were conducted by a single interviewer (PA), following an interview guide (Appendix 1) which was informed by theories that were iteratively developed and refined from an earlier realist review [6]. Each interview was audio-recorded and transcribed verbatim. Transcripts were entered into NVivo 12 (QSR International) for coding by MC; 50% of the coded transcripts were checked by ME and there was a high consistency of agreement. Data were analysed using Braun and Clarke's six phases of thematic analysis [15].

Ethical approval for the survey and follow-up interviews was granted by Cardiff University's School of Medicine Ethics Committee (reference 17/45). Ethical approval for study site visits and interviews was granted by the Wales Research Ethics Committee (reference 17/WA/0328). Informed consent was gained from participants before each interview (see Appendix 2). Information was stored securely in line with Cardiff University Security Information guidelines. A review of themes in the coded order identified that no new themes had emerged from the ninth interview onwards, therefore data saturation was deemed to have been achieved [14].

Results

Data were collected from 12 of the 13 sites in the sample. One of the control sites (GPED15) did not respond when followed up to arrange an interview. Within this sample, there were three sites operating Inside Integrated, four sites operating Inside Parallel, three sites

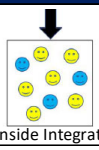
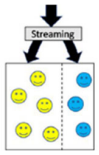
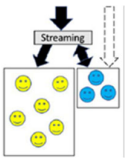
Model	Number	Type	Roles	Manager
 Inside Integrated	GPED03	Individual	Clinical Director	Clinical
	GPED08	Individual	Clinical Director	Clinical
	GPED14	Group	Care Group Manager for Unscheduled Care	Business
			GP consultant	Clinical
			Clinical Director for Unscheduled Care	Clinical
			Chief of Medicine	Clinical
 Inside Parallel	GPED04	Group	Clinical Director for Emergency Medicine	Clinical
			Assistant Director of Operations for Acute and Emergency Care	Business
	GPED06	Group	Service Reform Manager CCG	Business
			ED consultant	Clinical
	GPED07	Group	Senior Legal and Commercial Manager	Business
			Head of Business Development Trust	Business
			Finance Manager	Business
			Finance Manager	Business
			Clinical Lead Urgent Care	Clinical
			Finance Manager Estates, RD and HST	Business
	GPED09	Group	Clinical Director	Clinical
			General Manager (18/19)	Business
 Outside Onsite	GPED10	Group	Contract Manager	Business
			Finance Business Partner	Business
			General Manager Urgent Care	Business
			Clinical Lead Urgent Care	Clinical
	GPED11	Group	Operational Manager for Urgent Care	Business
			ED consultant	Clinical
			Matron for ED and Walk in Centre	Clinical
	GPED13	Group	Clinical Director	Clinical
			Service Manager	Business
			Emergency Department Manager	Business
Control	GPED02	Individual	Clinical Director	Clinical
	GPED12	Group	Information Manager	Business
			ED consultant and research lead	Clinical
	GPED15	N/A	No one interviewed	N/A

Table 1 – Sample Characteristics

operating Outside Onsite and two control sites (Table 1). In total 31 managers were interviewed, 16 of whom were business managers and the remaining 15 worked as senior clinicians. Nine interviews were conducted in groups and three were individual. The interviews lasted between 23-72 minutes. The main themes centred around funding, staffing and experiences of the intervention, with sub-themes listed in Table 3. These are discussed in turn.

Themes	Subthemes
Funding	Overlapping funding streams
	Move to unified ED funding
	Value of GPs
Staffing	Local GPs
	Private Providers
	Governance
	Experience
Context	One size does not fit all

Table 2– Themes and sub-themes

Funding

Overlapping funding streams

A key theme which emerged from the data was the complex nature of funding GPs in or alongside the emergency departments.

> *"This is a pot of money that is being talked about more in terms of so well what is its history, where's it come from, what's it doing? Is that a pot of money that is doing urgent care or is it a pot of money that's doing something different? Hospital admission avoidance … improved access to GPs?" (GPED14)*

A range of funding mechanisms was evident, including being funded directly by one or more local CCGs. However, managers also reported experiences where the CCG was funding multiple urgent care services separately, despite them performing largely the same function. In some case multiple CCGs were funding multiple separate services in the same community.

Managers recognised that due to a shifting landscape in primary care services, whereby the separation between community and urgent care had become less clear, decisions around allocation of funding and evaluations of service performance had become more complex. This applied especially to sites operating the Inside Parallel model, where managers reported inadequate funding streams, as this model sits neither fully inside nor outside the emergency department.

Similarly, it was thought that separate funding streams disincentivised cooperation between these primary and secondary care, since certain services were concerned they would loose income if they were signposted to another service.

Furthermore, concerns were raised that if too many services were funded individually, they would inevitably become redundant as there would be insufficient numbers of patients seen by each distinct service.

Move to unified emergency department funding

> *"Any budget always goes over, just because of the nature of the beast, we do see more and more patients every year, it has exponentially grown, we've now entered into a block contract arrangement for this year, just to allow us just to stabilise." (GPED06)*

Managers felt that more unified emergency department funding would be better in facilitating the changes necessary for effective models of employing GPs in or alongside the

emergency department. Managers at sites being paid through Payment-by-Results (PbR) tariffs reported rapidly rising costs, above the designated budgets, alongside increasing demand on services. PbR is based on funding contracts where providers receive payments for each patient seen, and according to the complexity of the case. Many had therefore switched to block contracts as a means to stabilise finances. In particular, 'aligned incentivised contracts' (AIC) were seen as favourable. These were block payment contracts aligned with expected performance and activity outputs, incentivised through non-payment measures. At sites operating the Outside Onsite models, there was evidence for the creation of single 'health economies' whereby community and urgent care were jointly funded and governed by Hospital Trusts. However, managers at control sites felt that without distinct investments, implementing such models based on unified emergency department funding would simply be an additional drain on their emergency department budgets.

Value of GPs

Managers at control sites were apprehensive about employing GPs in or alongside the emergency department. This was mainly for financial reasons, since it was thought that expensive GPs could be replaced with cheaper alternatives, such as Advanced Nurse Practitioners (ANP) or Physician Associates (PA). However, at intervention sites, managers felt that employing only ANPs or PAs might increase the supervision load on emergency department doctors and hence it was perceived that GPs, who required no supervision, could have a vital role to play.

Staffing

Local GPs

Managers were unanimous in expressing the view that local GPs should be recruited to work in any of the models. GPs had mostly been provided by local federations (groups of practices) rather than private providers or agencies which employed doctors from a wider geographical pool.

Managers recognised that patients coming to the hospital with primary care type problems were rarely simple cases, and just as in the community, usually had complex physical and psychosocial problems. There was a recognition that they should be treated accordingly, ensuring long-term care planning, rather than with the sole aim of discharging them from the emergency department. Local GPs were perceived to offer a more consistent approach to treating patients and they were also felt to effectively replicate the less risk averse role they usually took on in the community. Managers felt this ability to manage risk was crucial for the success of the GP model.

> *"They know how things work locally and they're even better because they're providing a service for their patients, or patients of their colleagues." (GPED07)*

Managers valued employing local GPs, with their knowledge of community care services facilitating more complete management at the point of presentation. Managers also thought that local GPs had a greater desire for delivering a good and comprehensive service as they had a vested interest to ease the workload in their own community.

One of the main explanations for why shift 'fill rates' were sometimes, below 100% was that multiple different services within the same hospital or trust were drawing from the same pool of GPs. However, sites which had used both local and agency GPs in the past all reported better shift fill rates with the former. Drivers behind this were the aforementioned positive motivations, and that local GP federations tended to provide GP cover for the area. Thus,

different communities were not in competition for the same pool of GPs. This was seen as particularly beneficial for more rural and smaller hospitals, which may have had difficulties attracting a workforce.

Private Providers

> *"We have kind of a strange arrangement whereby the CCG pay an external company and they then run the in hours service. But then they sublet the out of hours service to yet another external provider …they probably ran the whole year at about two thirds of our slots being filled … there seems very little that the CCG could kind of hold [company name] to account for that." (GPED09)*

Most of the sites with experience of working with private providers of GP services had reported difficulties with them. The most significant reasons for this were poor shift fill rates, with no accountability or financial penalty for filling shifts meaning the workload had to be borne by the emergency department doctors. The interventions (GP models) were found neither financially viable nor operationally sustainable, and CCGs involved often needed to retender the contracts.

Governance

Compounding these issues were a lack of accountability and poor governance. Managers from one site explained how private providers were sub-letting a GP service which they had been commissioned to provide, resulting in poor outcomes and little cooperation with the emergency department. At another site, emergency department managers were unaware of key decisions by private providers regarding the delivery of GP services. Poor communication was also a recurrent experience, particularly among those operating either the Inside Parallel or Outside Onsite models. These issues created poor working environments which made it harder to recruit GPs, thereby further increasing the number of unfilled shifts.

The issue of indemnity came up frequently. Managers reported difficulty recruiting GPs when they had to pay their own indemnity, as the financial benefits from being in emergency departments as contractors were diminished. Conversely, sites which paid for GP indemnity had much better shift coverage.

Experience

> *"These are fully qualified GPs, they're senior decision makers, they're autonomous, they're not coming back to ask you information, they're not coming back to ask how to manage patients all the time, and actually they can just crack on and knock through the patients, so the amount of time the A&E consultant is spending down doing queue busting has massively dropped, and we can focus on the resus majors patients more." (GPED03)*

Managers felt that the unique nature of the role which GPs working in or alongside the emergency department must perform could only be fulfilled by a specific type of clinician. Experienced GPs were thought to be less risk averse, so that they were thought less likely to over-investigate or over-treat patients. They were also seen as autonomous, senior decision-makers, meaning they would require help less regularly from emergency department consultants. Managers at one site using the Inside Integrated model explained how experienced GPs were also having a positive educational impact on their emergency department trainees and this role provided added benefits.

Context

One size does not fit all

Managers felt that government policy for primary care streaming in emergency departments misunderstood the drivers of increasing emergency department attendances and the variation in demand across the country. Managers felt that increased acuity and complexity

of cases were driving rising pressure on emergency department services rather than simply increased population and numbers of attendances, but that several local contextual factors influenced this. Demand stemming from primary care type patients was variable and ultimately dependent on a number of wider population and healthcare system factors. For example, transient populations who were reluctant or unable to access GPs were reported to be using these new models as their first access point for primary care in larger cities.

Moreover, the resilience and consistency of community care services was pivotal in managing these demands. Managers in areas which had good provision of GP services reported stable services, whilst those where the surrounding GP services were failing saw large increases in demand. This was particularly true for emergency departments in areas near CCG boundaries, where one area was performing better than the other, or at national borders, where patients unable to access emergency department services in a timely manner in Wales or England might cross to the other country and health system.

> *"Is it's not just about the money, it's about the relationships and how everything's been built together. It's not something you can just do, it's taken eight years but behind that there's a history of, of collaboration and integrated working as well."(GPED06)*

Hence, managers thought the success of different models of employing GPs in or alongside the emergency department in meeting demands within the wider primary care setting was heavily dependent on the environment, local workforce and working culture rather than a simple commitment of investment.

Discussion

Main Findings

Funding mechanisms for employing GPs in the emergency department were frequently reported as complex with confusion about the source and purposes of the money provided. The most efficient mechanisms were reported from sites where funding, whether from the Trust or the CCG, was unified at the service level in collaboration with adjacent services and community care. Themes around staffing indicate that local knowledge and level of experience of GPs were considered important for implementing an effective and sustainable service. This contrasted with experiences of those private providers which provided GPs who lacked experience or local knowledge. Across the different contexts and models, experiences from implementing the "primary care streaming" policy did not always align with its intention, reflecting variations in the drivers and nature of demands across England and Wales.

Strengths and Limitations

The interviewer (PA) was not involved in the coding or the analysis, in order to maintain an objective approach to the data and reduce bias from interpretations based on the interviewer's experience of the interview rather than the data themselves. The interviewer's notes were referenced to give context when necessary. After the analysis, the findings were discussed with PA for guidance in linking back to the wider system and policy contexts.

Obtaining prior consent may have influenced the selection of the sample, as some individuals who fit the eligibility criteria may have nevertheless been uncomfortable to express their views and not given consent. Differences in the number of interviewees and the relative proportion of senior business and clinical managers at each site may have influenced the way different models were viewed. For example, the Inside Integrated model group had six clinical managers and only one business manager within its sample. It was also observed that in

interviews where clinical directors were involved, they dominated discussions which may have consequently influenced the findings.

One control site was not available for interview, so caution was exercised when making inferences around intentions to implement GP models in departments with no prior experience.

WE ONLY INTERVIEWED HOSPITAL BASED MANGERS AND SO ONLY GOT ONE SIDE OF THE STORY, NO GP MANAGERS OR CCGS WERE INTERVIEWED. SO THIS STUDY GIVES THE ACUTE SECTOR PERSPECTIVE.

Comparison with other literature

The findings about complex funding mechanisms are consistent with problems identified by the National Audit Office, which viewed current mechanisms as presenting hindrances to managing rising emergency department demands [16]. Moves towards more integrated funding models have already been adopted in NHS policy and by April 2021 all healthcare commissioning will occur through Integrated Care Systems (ICS). These have the option to adopt single pooled budgets in the form of Integrated Care Provider (ICP) contracts [17], which our data indicated would be valued by managers. To this end, collaboration between commissioners, trusts and staff – emphasised by managers as a key determinant of success – will be even more important going forward to achieve such integrated funding models [18].

The importance of local GPs in providing the primary care services in emergency departments has not been previously examined, however Uthman et al. also found that experienced GPs were more likely to deliver the intended primary care service within a secondary care setting [19]. NHS England's regulatory body, the Care Quality Commission (CQC), has also raised

concerns around governance and effectiveness issues with private providers within the NHS [20].

Policy Implications and Future Research

These experiences from business and clinical managers from implementing different models of using GPs in emergency departments contribute to an evidence base that addresses the uncertainties around primary care streaming [21]. Our findings could add to guidance for successful mechanisms of funding and strategies for employing GPs in or alongside emergency departments. The findings generated in this study should be further tested, firstly for their generalisability, and for whether implementing unified funding achieves improvements in key performance indicators. These findings are largely independent of the choice of model, although lack of clarity in funding sources and governance were particularly noted in sites employing the Inside Parallel model. These findings will be reported as part of the 'GPs in EDs' study [3] and could subsequently inform NICE guidelines [22] and NHS policy about implementing models of GPs in emergency departments.

Conclusion

The experiences of senior clinical directors and emergency department business managers show that successful models of employing GPs in or alongside the emergency department are possible. Their perspectives indicate that this success depends on a well-organised and unified funding mechanism, a local and experienced GP workforce, and careful consideration of the intervention's place within the wider context of geography, community services and population needs.

Word Count – 3579, excluding tables

References

[1] NHS Digital. NHS Performance Statistics. 2019.Available from: https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2019/09/Combined-Performance-Summary-September-July-August-data-2019.pdf

[2] NHS. Next Steps on the NHS Five Year Forward View. London: 2017. Available from: https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf

[3] Edwards A, Cooper A, Carson-Stevens A, Porter A, Evans B, Davies F, et al. A realist evaluation of effectiveness, safety, patient experience and system implications of different models of using GPs in or alongside Emergency Departments. NIHR HS&DR programme 15/145/04. Available from: https://njl-admin.nihr.ac.uk/document/download/2026506

[4] Gonçalves-Bradley D, Khangura JK, Flodgren G, Perera R, Rowe BH, Shepperd S. Primary care professionals providing non-urgent care in hospital emergency departments. Cochrane Database Syst Rev 2018. Available from: https://doi.org//10.1002/14651858.CD002097.pub4

[5] Ramlakhan S, Mason S, O'Keeffe C, Ramtahal A, Ablard S. Primary care services located with EDs: a review of effectiveness. Emerg Med J 2016;33:495 LP – 503. Available from: https://doi.org/10.1136/emermed-2015-204900.

[6] Cooper A, Davies F, Edwards M, Anderson P, Carson-Stevens A, Cooke MW, et al. The impact of general practitioners working in or alongside emergency departments: a rapid realist review. BMJ Open 2019;9:e024501. Available from: https://doi.org/10.1136/bmjopen-2018-024501.

[7] HM Treasury. Spring Budget 2017. London: HM Government; 2017. Available from: www.gov.uk/government/publications

[8] National Assembly for Wales. The organisation of the NHS in the UK: comparing structures in the four countries. Cardiff: 2015. Available from: www.assemblywales.org/research

[9] NHS Clinical Commissioners, NHS Providers. Driving Forward System Working. 2018. Available from: https://nhsproviders.org/driving-forward-system-working

[10] Nuffield Trust. Doomed to repeat? 2018. Available from: https://www.nuffieldtrust.org.uk/files/2018-10/learning-from-history-web.pdf

[11] Sizmur S, Raleigh V. The risks to care quality and staff wellbeing of an NHS system under pressure. 2018. Available from: https://www.picker.org/wp-content/uploads/2014/12/Risks-to-care-quality-and-staff-wellbeing-VR-SS-v8-Final.pdf

[12] Cooper A, Edwards M, Brandling J, Carson-Stevens A, Cooke M, Davies F, et al. Taxonomy of the form and function of primary care services in or alongside emergency departments: concepts paper. Emerg Med J 2019;36:625 LP – 630. Available from: https://doi.org/10.1136/emermed-2018-208305.

[13] Pawson R, Tilley N. Realistic evaluation. London: SAGE Publications Ltd; 1997.

[14] Green J., Thurgood N. Qualitative methods for health research. 4th edition. Los Angeles; 2018.

[15] Braun V, Clarke V. Thematic analysis. APA Handb. Res. methods Psychol. Vol 2 Res. Des. Quant. Qual. Neuropsychol. Biol., Washington, DC, US: American Psychological Association; 2012, p. 57–71. Available from: https://doi.org/10.1037/13620-004.

[16] Morse A. NHS financial sustainability. London: 2019.Available from: https://www.nao.org.uk/wp-content/uploads/2019/01/NHS-financial-sustainability_.pdf

[17] NHS. The NHS Long Term Plan. London: 2019.Available from: www.longtermplan.nhs.uk

[18] Timmins N. Leading for integrated care. London: 2019.Available from: https://www.kingsfund.org.uk/sites/default/files/2019-11/leading-for-integrated-care.pdf

[19] Uthman OA, Walker C, Lahiri S, Jenkinson D, Adekanmbi V, Robertson W, et al. General practitioners providing non-urgent care in emergency department: a natural experiment. BMJ Open 2018;8:e019736. Available from: https://doi.org/10.1136/bmjopen-2017-019736.

[20] Care Quality Commission. The state of care in independent doctor and clinic services providing primary medical care. London: 2019.Available from: https://www.cqc.org.uk/sites/default/files/20190321_stateofindpms_report.pdf

[21] Cooper A, Carson-Stevens A, Hughes T, Edwards A. Is streaming patients in emergency departments to primary care services effective and safe? BMJ 2020;368:m462. Available from: https://doi.org/10.1136/bmj.m462.

[22] Emergency and acute medical care in over 16s: service delivery and organisation. NG94. London, UK: 2018. Available from: https://www.nice.org.uk/guidance/ng94

Part A Appendix 1

Interview Guide PA, adapted from GPED14 group interview

- What is the history of having GPs in or alongside EDs in your hospital?
- What differences have you seen in financing through this time?
- How has, and is the service evolving?
- What are the operational hours?
- What type of GPs work in your service?
- Are your GPs local?
- Who provides the GPs?
- Do you get good shift coverage?
- There is a theory that GPs are less risk averse, does this hold true from what you have experienced in your service?
- What is the character of the population in this area?
- Is there increased housing development or significant migration into your area?
- Is there extra funding in response to this?
- What is the rate of increase in ED activity?
- What attracts GPs to work in this area?
- Do you serve multiple CCGs?
- Explain your funding streams in more detail?
- Does the way the service is funded cause you any problems?
- Do you have any other adjacent primary care services onsite?
- What are your thoughts on the performance indicators that are required to access funding?
- Do you think the policy is realistic?
- How can you access data for marker conditions?
- What electronic system is used within the ED and by the GPs?
- Given what we are trying to accomplish with this study, is there anything that I've missed or you feel that I should understand about your centre?
- Have you been dealing with the same people at the CCG for some time or different people?

Part A Appendix 2

Division of Population Medicine

Cardiff University

5th Floor Neuadd Meirionnydd

Heath Park, Cardiff

Email: GP_ED Study@cardiff.ac.uk

Consent form for Finance and Management Staff

Project Title: Evaluating effectiveness, safety, patient experience and system implications of different models of using GPs in or alongside Emergency Departments

		Please initial each line
1.	I confirm that I have read and understand the information sheet dated 05/02/2018 (version 3) for the above study and have had the opportunity to consider the information, ask questions and have had these answered	_____
2.	I agree to take part in the above study and taking part in an interview which includes talking to researchers about how the department operates, funding arrangements, the financial structuring and management of the department.	_____
3.	I consent for the interview to be audio recorded	_____
4.	I consent for use of anonymised verbatim quotes in publications relating to this study	_____
5.	I understand that my participation is voluntary and that I can withdraw from the study at any time, without giving a reason	_____
6.	I agree for my contact details to be kept for up to 3 years to allow for any follow-up interviews in a further study	_____

Please select **one** of the below options:

		Please initial your choice
1.	I agree to be interviewed in a mutually agreed location and time at the hospital site, or in my office in person.	_____
2.	I would prefer to be interviewed by telephone at mutually agreed time	_____

Name of participant Date Signature

_____ _____ _____

Name of Researcher Date Signature

_____ _____ _____

Please turn over and complete the rest of the form

Contact number Email address

If you selected the telephone interview option, please provide contact details and let us know which day(s) during the week would be best to contact you to make arrangements for a telephone interview?

_____ Day(s) _____ Time(s)