Primary Care Systems: A review

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Primary Care and Community Services Academy, Hywel Dda University Health Board, 2025

Introduction

The current draft of this paper is mainly focussed on General Medical Services. It is acknowledged that a Primary Care Model will need to reflect a broader picture of service provision, including the three additional contractor services.

Additional best practice information and input from Community Pharmacy, Dental and Optometry services is being sought for addition, and to shape the final Model.

This paper is intended to explore some of the basic principles of primary care systems, complexity theory and the primary and secondary care interface. This is supported by summary examples of primary care systems from the UK and internationally. It is a submission from the Hywel Dda University Health Board's (HDdUHB) Primary Care strategic plan. This paper does not provide an exhaustive list, but highlights some examples which offer learning for HDdUHB and has been produced collaboratively within the task and finish group membership prior to staff and patient engagement. This paper focuses on the delivery of primary medical care and is not intended to provide a review of our other contractor professions. However, the principles described in the model provide a basis for us to explore an interface and integration with all other aspects of health and community care.

Defining Primary Care

In the UK, definitions of primary care are inextricably linked to definitions of general practice. UK general practice has deep historical roots but remains grounded in the 'independent contractor model' devised at the advent of the NHS. This model for primary care services is not clearly defined in terms of clinical provision and organised because of historical precedent rather than evidence.

International research can, however, give us a clear definition of the core functions of primary care including how they relate to a host of positive patient outcomes and cost reduction. This evidence can in turn provide a benchmark for the current independent contractor system in the UK along with emerging models. The key research which underpins the definition of general practice was conducted in the 1990s by American academic Barbara Starfield [1] and comprised the **4cs** of primary care.

- **First Contact (access):** Primary care services as the main entry point and interface between the population and health system. People go to primary care first for each new need or problem.
- **Continuity:** Primary care emphasizes the relationship over time between a patient and provider. This can be viewed through the domains of relational continuity, informational continuity, management continuity and possibly team based continuity[2]. In recent times extensive evidence has been produced in the UK demonstrating the importance of continuity of care to health outcomes[3].
- **Comprehensiveness:** Primary care offers a comprehensive range of services, with capacity to manage common health conditions at all stages of a person's life.

- **Coordination:** Primary care brings together different elements of the health system for the care of a patient. It coordinates with secondary and tertiary care clinicians, as well as community and social services.

Over subsequent years, Starfield and colleagues were able to establish and replicate research which confirmed that primary care systems with these characteristics, were associated with a wide variety of improved health outcomes including all-cause mortality and reduced cost of healthcare[4]. These key elements of primary care function have remained the benchmark for international organisations such as the World Health Organisation and OECD [5],[6]. Strong primary care systems reduce overall health costs and numerous examples of this follow in this paper.

While the independent contractor model has dominated provision of services it is not the exclusive provider and there are both historical and recent examples of integrated or commissioned services which are not considered in detail here. Examples include, out of hours services and more recently urgent care hubs and walk in centres.

Who provides primary care services is also a question of much debate and discussion in recent times as a result of the well documented crisis in recruitment and retention. While this paper is not intended to provide comprehensive analysis of non-medical service provision it does include some examples from the UK and elsewhere which demonstrate the diversity primary care provision delivered by a wide range of team members both clinical and non-clinical. The proportion of non-medical staff delivering clinical care in the UK is rising and the effect on service provision and quality of care is a subject of active debate[7]. Despite this rise, a cross sectional study of general practice in England published this year demonstrated a reduction in the number of GPs, access to appointments and continuity of care all of which are associated with lower life expectancy[8].

In response to the changing landscape of UK general practice the Royal College of General Practitioners (RCGP) currently offer the following definition of a GP:

- *"A GP is a doctor who is a consultant in general practice. GPs have distinct expertise and experience in providing whole person medical care whilst managing the complexity, uncertainty and risk associated with the continuous care they provide. GPs work at the heart of their communities, striving to provide comprehensive and equitable care for everyone, taking into account their health care needs, stage of life and background. GPs work in, connect with and lead multidisciplinary teams that care for people and their families, respecting the context in which they live, aiming to ensure all of their physical and mental health needs are met." RCGP UK Council 2023*

A recent review of the independent contractor model in England found that the current independent contractor system of primary care provision provides close theoretical alignment to the Starfield 4C framework. It also concludes that[9]:

'Underlying causes of current challenges in general practice in England appear more closely linked to under-resourcing than the fundamental design of the system'.

Analysis
The HDdUHB primary care strategy should consider the evidence base for a strong primary care system and use these criteria to benchmark service planning and delivery going forward. Alignment of these principles with A Healthier Wales strategy allows for a clearer definition of primary care and form the basis for engagement with public and staff. In turn the evidence base for primary care systems provides a vision for person centred care that may both support or challenge the planning of services via disease pathways in the clinical services plan. Crucially, a strong primary care system reduces overall spending on healthcare and should be considered a core component of a move towards financial sustainability.

Complexity in Primary Care

"What happens between a patient and a general practitioner within a single consultation is also infinitesimal but nonetheless infinitely important. The tragedy is how poorly this is understood…"

From the foreword to Complexity in Primary Care, Iona Heath 2006

Much attention has been paid to the management of complex patients in primary care. There is extensive interest in how clinicians can use the principles of the emerging complexity science in the management of patients, but this is outside the scope of this paper. Instead, we have referenced some of the available research and ideas to be applied to workforce planning for complex patients in practice teams and some high level principles of complexity theory in primary care systems.

Workforce Planning for Complex Patients

Significant attention has been paid in recent years to the concept of complexity in general practice as the number of our patients with multiple conditions rises. In the Welsh context this has related to the concept of 'working at the top of your licence' in healthcare[10]. This idea was first developed in the US hospital sector to reduce costs[11]. The primary focus here was to increase productivity by ensuring that highly skilled (and highly paid) practitioners focused only on the tasks that they could perform. In general practice, this has led to initiatives to free GPs to focus on more complex cases. Indeed, the need to face complexity is referenced in the RCGP's definition of a GP above. However, research suggests that this can increase the risk of burnout in primary care doctors[12].

Our existing descriptors for high quality primary care suggest a role for practitioners to deal with complexity under the guise of co-ordinated or comprehensive care. However, it is possible that both access to care and continuity could be disrupted if we ask primary care clinicians (particularly GPs) to focus on complexity (or simplicity) alone. Anecdotally many GPs would observe that their ability to deal with complexity comes from spending time with the same group of patients being accessible and providing continuity for several years.

We may suppose, therefore, that newly qualified GPs and those new to our region may require more support to manage complexity. Furthermore, our current training pathways for MDT colleagues, particularly those in nursing, can, anecdotally, lead to disease focused specialisation in career progression. High level initiatives that seek to free up practice time and direct patients to a service designed around a specific disease pathway (such as UTIs or ear syringing) often exclude complex patients. This, in turn, risks the provision of continuity of care and denies clinicians the opportunity to build meaningful relationships in non-complex cases. As recent research on remote working has shown, the adoption of new technologies also risks the disruption of the functioning of general practice teams unless they have the capacity and autonomy to implement those systems themselves[13]. All these factors may result in fragmentation of care for complex patients and significant inefficiency in primary care delivery.

Considering these factors alongside our ambition to care for complex patients closer to home requires significant clinical leadership using the principles of primary care.

Summary analysis

- GPs should be freed to focus on team leadership (alongside other senior clinicians) not only to manage complex patients on their own.
- Disease focused workforce planning, training programmes and service delivery can undermine the core values of primary care.

Complex Primary Care Systems

The new science of complexity theory challenges not only our traditional notions of basic scientific processes but can positively influence our understanding of how health care systems work[14]. The following ‘Stacey diagram’ has been used to demonstrate complexity in primary care along with multiple other applications[15]. Many of the concepts described will be familiar to clinicians and healthcare leaders. Best practice and ‘complicated’ (pathway type) planning of systems have dominated planning within the system in recent years[16]. For primary care in Wales, the locality cluster leads will be familiar with working on innovation, dialogue and trial and error, and the framework has given them scope to work in this realm of healthcare delivery. Although, concerns remain around rolling out cluster projects at scale.

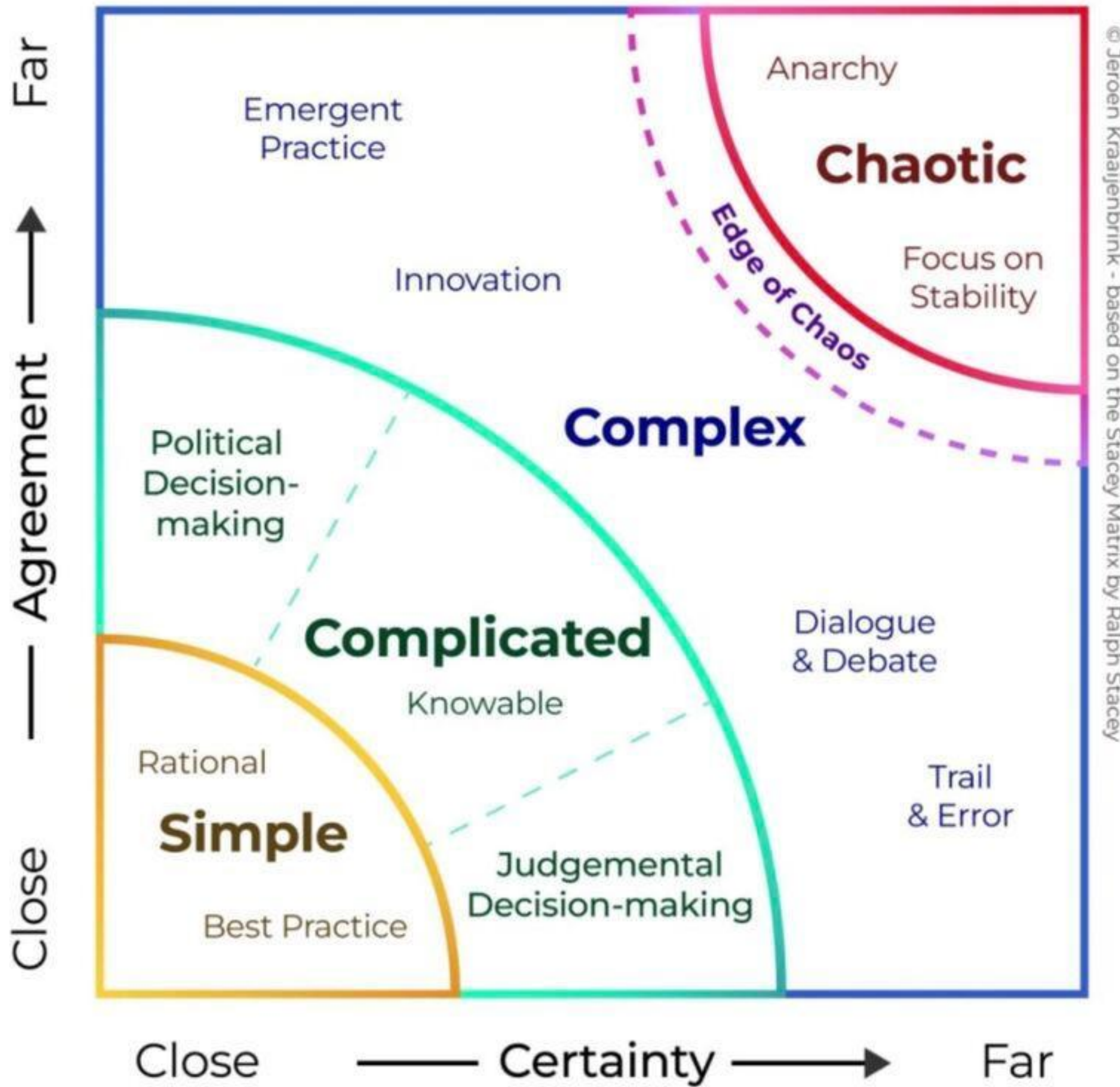
Less commonly discussed, and therefore the focus of this section, is on the theory of ‘emergence’. Emergent phenomena have been extensively measured in science for many years and challenge our received theories of reductionism and mechanics[17]. They may also allow us permission, in planning healthcare delivery, to trust local teams to run their services. In very simple terms an emergent phenomena (or practice) is a measurable output from a system which is not explained by the parts of the system. These effects can be positive or negative. It may be supposed that continuity of care could be considered a positive emergent practice of the traditional GP delivered primary care system. In a similar sense GP burnout could be an emergent element of asking them to focus on complex care only.

Given the shifts we have seen in healthcare pressure and modes of delivery in recent years, it is important for us to understand this principle for two reasons. Firstly that our attempts to reduce primary care delivery to small components may disrupt existing emergent phenomena. Secondly that primary care teams, particularly GP practices, should be trusted to respond to local need by being asked to follow the basic principles of primary care. In doing so we are more likely to see those positive emergent phenomena retained and we should, as healthcare leaders, put in place systems to monitor for new emergent practices.

Summary analysis

- Complexity theory can help us better understand and plan our current system.
- Emergent practice should be considered alongside pathway design and cluster working.
- Local teams should be trusted to care for their patients around a few simple principles.
- High level monitoring for emergent practice should be put in place.

The Stacey Matrix



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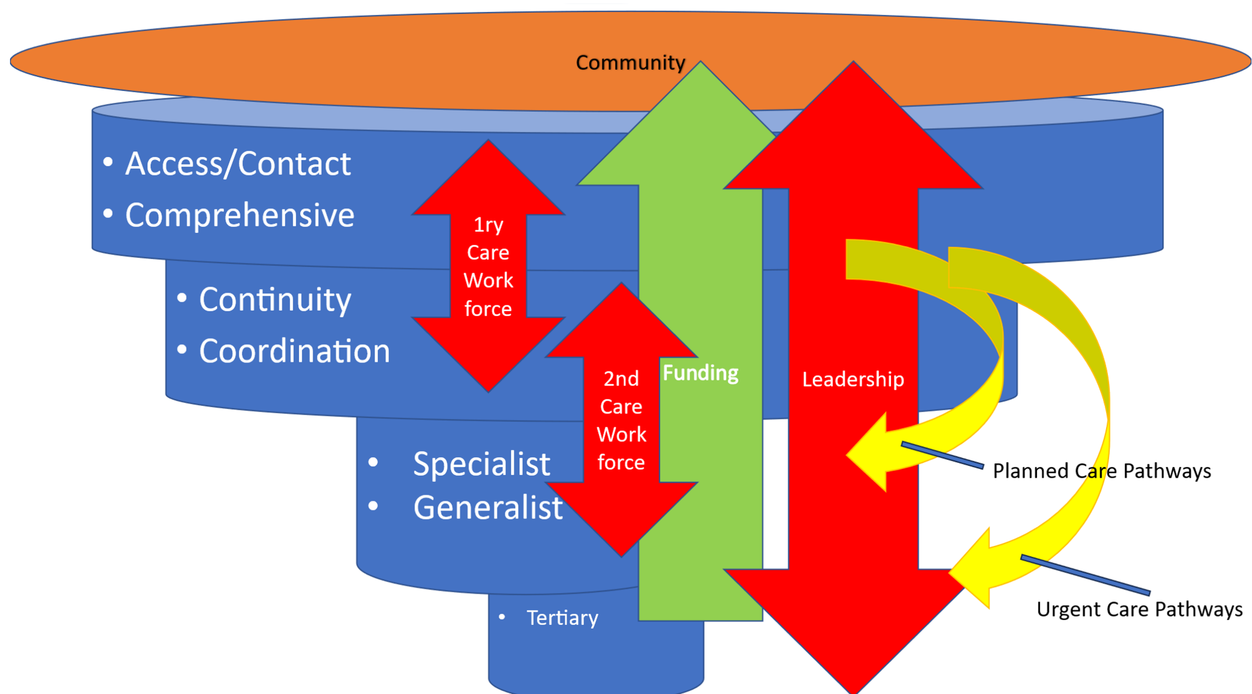
Primary and Secondary Care Interface

The primary and secondary care interface is often cited as an important focus for improvement in health systems. The most notable UK example of improvement project in this area is in Merseyside, where they have focused on improving the communications between primary and secondary care through a variety of methods[18]. Much of this work focuses on good communication between hospital and community teams and continues to focus on patient pathways.

An understanding of primary care evidence base and complexity theory can help us better understand the interface. The use of disease pathways in a secondary care setting where disease processes are more clearly defined; efficiency can be found in division of labour, scale and process management leading to reduced variation.

Person centred practice in the community is more efficient when it focuses on the whole person. In some cases this involves prudent avoidance of patient pathways in the interest of holistic care. As a result, sole reliance on pathway design could undermine the primary care model, stretches the available workforce and increase costs when deployed in community settings. The following graphic demonstrates the point at which disease pathways requiring specialist input emerge from the system and could be better integrated with a robust primary care model.



International Models

By setting the context for the current UK system of primary care provision, we can explore primary care landscape in other nations against the criteria set out by Starfield. Despite the presence of high-quality evidence to inform policy and

governance the World Health Organisation estimates that around half the world's population lack the essential health care they require[19]

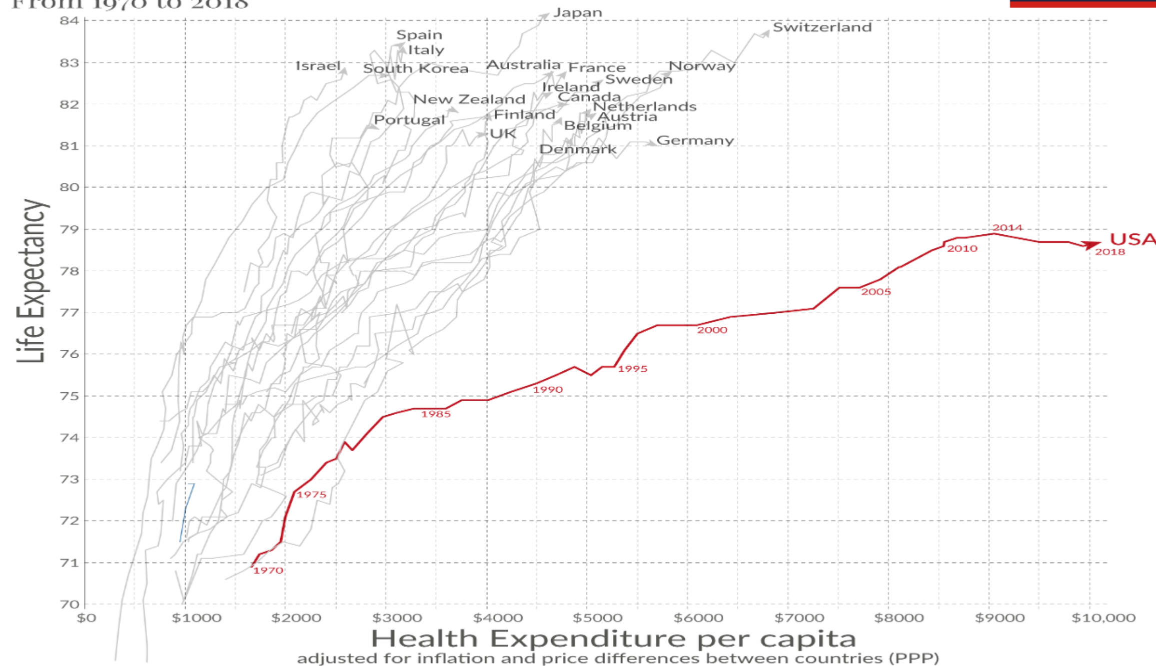
The United States of America

In a national consensus report published in 2021, the National Academies of Sciences, Engineering and Medicine produced a highly comprehensive review of primary care systems in the USA[20]. They produced a helpful definition of primary care as follows:

> *High quality primary care is the provision of whole person, integrated, accessible, and equitable healthcare, by multi professional teams that are accountable for addressing the majority of an individual's health and wellness needs across settings and through sustained relationships with patients, families and communities.*

They also highlight primary care as *'the essential element for improving the health of the US population… Yet in large part due to chronic underinvestment, primary care in the United States is slowly dying'*.

Unlike the UK, the USA does not have universal access to primary healthcare. Poor health outcomes are primarily driven by wider social inequalities. However, the lack of primary care provision compounds this problem and leads to excessive use of healthcare resources in specialist settings lacking in person focused care. The following graph demonstrates how increasing use of health care resources does not lead to improved health outcomes in the US system.



The size and diversity of the USA mean that while their overall outcomes are poor there are pockets of good practice which align with the Starfield principles. The most notable of these is the **Patient Centred Medical Home (PCMH)** which are accredited by several providers in the USA and was initially devised in the 1960s to improve the care of children with special needs. There are a wide variety of providers under this model though core characteristics include interdisciplinary working, care coordination by a named individual and person/family focused care. Some studies have found that this model is associated with reduced levels of staff burnout and improved patient outcomes[21],[22].

Analysis
In HDdUHB we can learn much from the US system about how not to deliver a primary care strategy. The limited success of the Patient Centred Medical Home (PCMH) model provides a basis for positive engagement with staff and patients about the organisation of multi-disciplinary teams.

Norway

In contrast to the USA (which often ranks worst in the world for healthcare provision), Norway has previously been regarded as the best healthcare system in the world and continues to be ranked as the highest in Europe.[23] Like the UK, Norway has an independent contractor model for provision of primary care which remains staffed primarily by doctors and nurses. There is a closer and more flexible relationship between the 'municipality' (overarching health provider) and the individual contractors. In some cases, GPs are obliged to do 7.5 hours of work per week directly for the municipality including locally organised provision of out of hours care. Contracts incentivise preventive care and continuity of care particularly for the elderly and those with chronic disease. There is a recognition of the need to expand MDT

working in order for GPs to focus on continuity of care[24]. Norway has a relatively low level of hospitalisations compared to other European countries.

One of the most important recent studies demonstrating the benefits of continuity of care (including reduced hospitalisation and mortality) was conducted in Norway in 2022[25].

Analysis
The similarities between the UK system and Norway are striking but incentives to focus on continuity and coordination of care appear to be associated with better patient outcomes and reduced costs. In particular, the provision of a 'Named GP' (which is mandated in Norway) may be an important engagement question for staff and patients as part of the primary care strategy.

The Netherlands

Primary care provision in the Netherlands is similar to that of the UK, but along with Norway has drawn attention in recent years because of the high level of happiness experienced by GPs working in that system compared to other European nations[26]. The Netherlands has an insurance-based system, but every Dutch citizen is required to register with a GP who acts as gatekeeper and coordinator of their care. GPs are expected, by insurers, to control costs by reducing specialist referrals. 72% of the population visit their GP every year and 82% have a high level of confidence in their GP according to the Dutch association of GPs[27].

There are likely to be several subtle factors that enhance the Dutch system of primary care compared to the UK. The notable features include the Dutch College of GPs' patient education website, which has become the most popular website about health and disease in The Netherlands. Unification of primary care records and data sharing allow Dutch GPs to do research. This is enhanced by longer and more flexible speciality training in general practice and, as a result, GP training schemes are oversubscribed and there are a large number of primary care academics in the country.

Practice list size in the Netherlands is relatively small with 40% of practices having one or two partners. Smaller practices are incentivised by the government. In data from 2018, 19% of Dutch citizens failed to get a same day appointment compared with 41% in the UK[28].

Analysis
There may be strategic lessons for HDdUHB which could inform staff and patient engagement from the Dutch system. These include the potential benefits of scaling up the 'Pocket Medic project' which could form the basis for dynamic ongoing engagement with primary care teams in health literacy. There may also be diverse benefits in the health board considering an enhanced offer for GPs to become involved in research. Our analysis of GP fellowships may support an expansion of this model. In HDdUHB in recent years we have associated small list size of practice with unsustainability. The Dutch system of primary care encourages

smaller practice size and data from the UK suggests patient satisfaction is lower with larger practice list size[29] Further learning in HDdUHB may be available from the consultation with patients and staff on this question.

Israel

Israel is one of the most progressive and successful healthcare systems in the world. It spends 7.2% of GDP on health care (OECD average of 9.2%) and yet achieves a wide range of positive outcomes including relatively high life expectancy, low levels of infant mortality and good outcomes from chronic disease. Israel's success is underpinned by a progressive primary care system and focus on public health rather than hospital-based care[30]. Nationally mandated insurance schemes are delivered by four 'non-profit' providers across the country known as health maintenance organisations (HMOs).

The largest of the four HMOs is the Clalit organisation which runs 1,400 primary care clinics and just eight hospitals. They also run an extensive network of dental services and laboratories. This organisation has invested intensively in technology including remote consulting and shared records. It also co-locates specialists and generalists in the community. The strength of their primary care focused model has allowed them to conduct successful centrally directed initiatives, to tackle health inequalities in a very diverse population. This has included agreeing a measurable outcome disparity reduction strategy and delegating responsibility for delivery to local teams[31].

Israel has 1 full-time equivalent GP to 1600 patients[32] compared to 1 to 2290 in the UK.[33]

Analysis
Israel's health system can provide inspiration for a primary care strategy for HDdUHB. It demonstrates the outcomes that can be achieved from a primary care focused system by a non-profit provider. In contrast to the UK model of independent contractor delivery, the model is run centrally and crucial to its success is the use of technology, shared records, co-locating clinicians in the community and delegating responsibility to GP-led local teams. The latter view is supported by a recent King's Fund paper on care closer to home[34].

Singapore

Singapore consistently ranks highly in the World Health Organisation rankings of healthcare systems[35]. For a population of 5.5 million people, Singapore has 1,800 GP clinics which provide universal healthcare to the population through a mandatory insurance system. Singapore spends just 4.6% of its GDP on health. It has 16 acute and community hospitals.

During the early 2010s, the Singaporean system contended with increased stress on its hospital system due to rises in non-communicable disease and an ageing

population. A plan in 2012 to expand the number of hospital beds and increase investment into primary care was considered insufficient and, in 2016, the Health Ministry developed (and is implementing) a strategy called the three Bs[36].

- Beyond health care to health.
- Beyond hospital to community.
- Beyond quality to value.

Analysis

Singapore's system demonstrates the importance of socioeconomic factors in the health of the population and the success of the healthcare system it provides. It invests heavily in the provision of universal primary care and has a high ratio of community services compared to hospitals in comparison to both HDdUHB and Wales.

The Singaporean strategy of the three Bs provides a helpful example of public messaging which mirrors the strategy adopted by HDdUHB and may provide inspiration on how to expand the 'care closer to home' message.

Alaska - Nuka

While we have already covered the USA above, the Nuka model of healthcare delivery deserves closer scrutiny because it is an important example of multi-professional primary care delivery which builds on the primary care home model[37]. The Nuka model was co-created with the local population of 60,000 Alaska Native and American Indian people. The redesign focused on the population becoming 'owners' of their services rather than recipients. The unique feature of their multidisciplinary teams is the inclusion of psychologists in their practice MDTs who support both patients and staff development. There is a strong focus on the wider determinants of health including collaborative working to tackle issues like domestic abuse.

The Nuka model has achieved a number of positive results including:

- Improved access to primary care services.
- A reduction in a variety of hospital activity metrics.
- Very high levels of patient satisfaction.

Analysis

The Nuka model was included in an evidence submission as part of the first phase of HDdUHB's launch of transforming clinical services. It demonstrates how radical redesign of services, with a primary care focus, can improve outcomes. It also highlights that a strong primary care system can play an enhanced collaborative role in tackling issues affecting wider determinants of health.

The focus on psychological support for teams also appears to be a key aspect of their success and may form the basis for engaging on this question with staff.

Estonia

What is notable about the primary care system in Estonia is that they have been successfully reforming their healthcare system over the last two decades around an independent contractor model for general medical practice which improved recruitment and retention of staff[38]. The core of their GP contract contains job descriptions for their GPs which reference the core principles of primary care and offers autonomy to doctors in practice. Improvements in their primary care system have also been built on simple consistent targets, a focus on improving quality and digitization. They have also successfully used financial incentives to achieve their goals.

Analysis
A detailed understanding of Estonia's use of financial incentives and standardised job descriptions may be useful points of engagement with primary care teams in Hywel Dda. Their recent implementation of an independent contractor model demonstrates the potential for our own to be maintained and strengthened.

Denmark

Denmark has a successful health system and the approach the take to urgent and emergency care has influenced HDdUHB's approach to UEC transformation. What is most striking in primary care is the great similarity between the GMS contract and the system of delivery in Denmark. There are a couple of notable differences which are that their system allows for a more flexible payment by results and for emergency work[39]. The second is that they have about one full time equivalent GP to approximately one thousand five hundred patients (1:1500) , compared to the UK average of approximately 1:2300. The ratio of specialists to generalist is about 1:1 where in the UK this is closer to 1:2 with twice the number of specialists to generalists.

Analysis
The Danish system of primary care highlights the importance of the number of GPs present in the community. It is likely from the evidence base presented in this paper that a move to reduce the ration of GPs to population is likely to be associated with a significant number of emergent system benefits including reduce patient mortality and reduced costs. A more dynamic and accurate process for measuring workforce numbers, skills and location per cluster would assist in this regard.

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Primary Care Systems in the UK

Despite the primarily uniform model that exists for provision of primary care services in the UK, there are some notable examples of targeted improvement to systems which can provide helpful information for the health board to consider:

Deep End GP

In 2009 the RCGP helped fund a project which targeted the 100 most deprived practices in Scotland. The work was inspired by the pioneering GP Julian Tudor-Hart and was focused in the first instance to listen and respond to the views of the GPs running the practices in the 'deep end'[40].

The group began to work together to develop reports and publications and has grown into a group with firm academic connections. A variety of projects have been developed as part of the collaborative which include a link worker programme, integration of health and social services in Glasgow, financial advice programme and alcohol nursing projects. The project has also secured funding for additional doctors to work in some practices ranging from more GP locums to academic fellows[41]. Deep End GP has projects set up in Greater Manchester, Yorkshire, Ireland and in Wales.

The Deep End projects are likely to be the most notable examples in the UK of a sustained effort to target improvements in care to the most vulnerable in society. The academic work of Michael Marmot supports this approach and can be summarised in two ways. Firstly, there is an obligation on those of us providing healthcare to question why we should treat patients only to return them to the conditions that made them sick. Secondly, unequal health care systems bring down outcomes for even those in the most affluent 5%. A fairer system improves outcomes for the whole population.

A summary of the work of Michael Marmot can be found by following this link: Health Inequalities

Analysis
An understanding of the social determinants of health and primary care's key role in collaboration with other community services in addressing them are central elements in developing a primary care strategy. This is a key opportunity for us to intgreate with the 'social model for health' initiative and contribute to 'Marmott@ status of the health board. A specific consideration for staff and public engagement could be to explore the potential benefits of targeted projects in areas of deprivation.

Cuckoo Lane Surgery – Nurse Led Primary Care Leadership

Following the retirement of GP partners, Cuckoo Lane surgery in Ealing, West London was transformed in 2005 into a nurse led social enterprise[42]. The leaders of the social enterprise are a practice nurse, advanced nurse practitioner and practice

manager. The practice serves 5,000 patients and employs 3 salaried GPs along with other team members. The practice was rated as outstanding by the Care Quality Commission (CQC) in 2015.

Analysis
This example of general practice provision demonstrates the possibility of services delivered outside of a GMS model being facilitated by clinical leaders who are not necessarily GPs. However, the practice is not run without GPs which is also an important consideration. This may inform enhanced work to identify and train a wide range of clinical leaders in primary care organising local services in the community.

Additional Roles Reimbursement Scheme (ARRS)

The ARRS began in 2019 in primary care networks in England and was introduced in order to improve access to general practice by reimbursing practice costs for recruiting ‘additional roles’ into patient facing care.

The scheme has been subject to much controversy and debate which has centred around workforce planning and concerns around clinical supervision of the new roles[43]. The ARRS scheme has been subject to very little empirical research however one study found that the scheme could possibly improve access to general practice for patients but expressed concerns about appropriate funding, estates and management of staff[44]. There is currently a lack of clarity around ongoing provision of the scheme beyond 2024.

Further qualitative data from Scotland has demonstrated that their more modest plans to enhance MDT working (similar to those in the ARRS plan) had not yet led to a reduction in workload and the care of complex patients. These difficulties were particularly highlighted in rural or deprived areas[45].

Analysis
The ARRS scheme can provide interesting insights for primary care providers outside of England including HDdUHB. At the time of writing there is anecdotal evidence of significant and complex workforce planning implications of the scheme which has created job shortages for GPs in some parts of England. In addition, it demonstrates (by its absence) the key importance of a shared vison for primary care within organisations supported by strong clinical leadership in local teams.

Services should not be planned around tackling specific diseases but around whole person care. This insight may inform questions to our staff and patients about who should be delivering care.

Northumberland Primary Care

Northumberland Primary Care (NPC) is an important example of primary care delivery at large scale while retaining the GMS contract. They have an expanding group practice of up to one hundred thousand patients covering a diverse geography not dissimilar to HDdUHB. The practices retain autonomy over clinical delivery around a ‘salaried partner’ model. They all have a consistent approach to access via a ‘digital front door’ which is similar across England. While workload and clinical pressure remain significant, the model allows for scale of back office functions, including complaints handling and reduced risk and workload for senior GPs in employing staff and finances[46].

Analysis
GMS ‘at scale’ models are possible and have strengths and weaknesses that should continue to be monitored. In this model there are significant benefits which may form helpful consultation points with primary care teams.

NB: At the time of writing an RCGP paper is to be published shortly summarising UK partnership models in more detail’

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Radical solutions

While the analysis sections of this document provide insights which may inform the strategic plan process and engagement with staff, the nature of the challenge facing our health board in transformation calls for a radical grass roots change. In the course of this work on international models there are several high-level radical changes the health board could consider which could enable system transformation in its engagement with primary care staff:

- Include the basic principles of primary care into core values of the organisation.
- To establish the first centre of excellence for multi professional primary care training in the UK
    - Promote, teach and evaluate clinical leadership in primary care
    - Develop primary care staff to lead at the operational interface of primary care
    - Develop unique quality metrics for services based on our primary care model
    - Create the environment for clinicians to work together in clearly defined interface space
- At scale, integration of contractor services under a unified contract including a standard contract for all staff embedding primary care system and social model for health standards
- Realise the emergent benefits to the system by reducing FTE GP to patient population through setting up new and smaller practices along with disinvestment in specialist services
- Develop a clinically led contractor professions forum to integrate services around the basic principles of primary care systems rather than disease areas

Conclusion

This summary paper has covered the evidence-based characteristics of high quality primary care systems including complexity theory in PC. It also provides summary examples and analysis from selected examples of PC systems from around the UK and the world. It concludes some radical solutions for the health board to consider from the evidence provided.

The lead author and the HDdUHB Primary Care Academy Team along with the PC Strategic Plan team welcome further discussion or correspondence from stakeholder in our region and beyond. We also wish to acknowledge the contributions of the whole primary care team in particular the task and finish group for workforce and sustainability.

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Summary of analysis – International and UK models

Section	Analysis
Defining Primary Care	The HDdUHB primary care strategy should consider the evidence base for a strong primary care system and use these criteria to benchmark service planning and delivery going forward. Alignment of these principles with A Healthier Wales strategy allows for a clearer definition of primary care and form the basis for engagement with public and staff. In turn the evidence base for primary care systems provides a vision for person centred care that may both support or challenge the planning of services via disease pathways in the clinical services plan. Crucially, a strong primary care system reduces overall spending on healthcare and should be considered a core component of a move towards financial sustainability.
International models – USA	In HDdUHB we can learn much from the US system about how not to deliver primary care strategy. The limited success of primary care home models provides a basis for positive engagement with staff and patients about the organisation of multi-disciplinary teams.
International models – Norway	The similarities between the UK system and Norway are striking but incentives to focus on continuity and coordination of care appear to be associated with better patient outcomes and reduced costs. In particular, the provision of a 'Named GP' (which is mandated in Norway) may be an important engagement question for staff and patients as part of the primary care strategy.
International models – The Netherlands	There may be strategic lessons for HDdUHB which could inform staff and patient engagement from the Dutch system. These include the potential benefits of scaling up the 'Pocket Medic project' which could form the basis for dynamic ongoing engagement with primary care teams in health literacy. There may also be diverse benefits in the health board considering an enhanced offer for GPs to become involved in research. Our analysis of GP fellowships may support an expansion of this model.

	In HDdUHB in recent years we have associated small list size of practice with unsustainability. The Dutch system of primary care encourages smaller practice size and data from the UK suggests patient satisfaction is lower with larger practice list size. Further learning in HDdUHB may be available from the engagement with patients and staff on this question.
International models – Israel	Israel's health system can provide inspiration for a primary care strategy for HDdUHB. It demonstrates the outcomes that can be achieved from a primary care focused system by a non-profit provider. In contrast to the UK model of independent contractor delivery, the model is run centrally and crucial to its success is the use of technology, shared records, co-locating clinicians in the community and delegating responsibility to GP-led local teams. The latter view is supported by a recent King's Fund paper on care closer to home.
International models – Singapore	Singapore's system demonstrates the importance of socioeconomic factors in the health of the population and the success of the healthcare system it provides. It invests heavily in the provision of universal primary care and has a high ratio of community services compared to hospitals in comparison to both HDdUHB and Wales. The Singaporean strategy of the three Bs provides a helpful example of public messaging which mirrors the strategy adopted by HDdUHB and may provide inspiration on how to expand the 'care closer to home' message.
International models - Nuka, Alaska	The Nuka model was included in an evidence submission as part of the first phase of HDdUHB's launch of transforming clinical services. It demonstrates how radical redesign of services, with a primary care focus can improve outcomes. It also highlights that a strong primary care system can play an enhanced collaborative role in tackling issues affecting wider determinants of health. The focus on psychological support for teams also appears to be a key aspect of their success and may form the basis for consulting on this question with staff.

International models – Estonia	A detailed understanding of Estonia's use of financial incentives and standardised job descriptions may be useful points of engagement with primary care teams in Hywel Dda. Their recent implementation of an independent contractor model demonstrates the potential for our own to be maintained and strengthened.
International models – Denmark	The Danish system of primary care highlights the importance of the number of GPs present in the community. It is likely from the evidence base presented in this paper that a move to reduce the ration of GPs to population is likely to be associated with a significant number of emergent system benefits including reduce patient mortality and reduced costs. A more dynamic and accurate process for measuring workforce numbers, skills and location per cluster would assist in this regard.
UK models – Deep End GP	An understanding of the social determinants of health and primary care's key role in collaboration with other community services in addressing them are central elements in developing a primary care strategy. A specific consideration for staff and public engagement could be to explore the potential benefits of targeted projects in areas of deprivation.
UK models - Cuckoo Lane Surgery	This example of general practice provision demonstrates the possibility of services delivered outside of a GMS model being facilitated by clinical leaders who are not necessarily GPs. However, the practice is not run without GPs which is also an important consideration. This may inform enhanced work to identify and train a wide range of clinical leaders in primary care organising local services in the community.
UK models - Additional Roles Reimbursement Scheme (ARRS)	The ARRS scheme can provide interesting insights for primary care providers outside of England, including HDdUHB. At the time of writing there is anecdotal evidence of significant and complex workforce planning implications of the scheme which has create job shortages for GPs in some parts of England. In addition, it demonstrates (by its absence) the key importance of a shared vison for primary care within organisations supported by strong clinical leadership in local teams. Services should not be planned around tackling specific

	diseases but around whole person care. This insight may inform questions to our staff and patients about who should be delivering care.
UK models - Northumberland Primary Care	GMS ‘at scale’ models are possible and have strengths and weaknesses that should continue to be monitored. In this model there are significant benefits which may form helpful consultation points with primary care teams.

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