



Research report February 2018

# **Divided we fall**

## Getting the best out of general practice

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## About the report

This report explores the effect of recent policy to segment general practice into different types of service tailored to the needs of different patients. It looks at the tensions between this new approach and the traditional GP role of ‘medical generalism’ in a service with constrained resources and argues that if medical generalism is undermined, the value that general practice achieves for the NHS will reduce. The work draws on themes from a recent Nuffield Trust seminar, relevant literature and earlier work carried out by the Trust.

## Acknowledgements

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# 1 Introduction

The prevailing narrative about general practice is of a broken, out-of-date, cottage industry that needs to be pulled into the 21st century. Repeated face-to-face consultation with a doctor is increasingly seen as the wrong approach to clinical need, with technology-enabled consultations with a variety of health professionals offering new options for assessment, review and treatment.

Policy-makers are convinced that the nation's 'corner shop' GP practices need to think big – somewhere between 7–11 stores and hypermarkets – and think differently (NHS England, 2016a). They need to meet patient expectations of quick and easy access to appointments, make use of new technology and become big enough to invest in the managerial capacity and equipment to put all this in place.

Recent initiatives to improve access and scale up general practice are driving services towards a segmented model of care – one that emphasises splitting out different patient groups and adapting services to meet their particular needs. For relatively healthy patients, video and email consultations and access hubs are emerging to deliver care as quickly as possible. For the sickest patients with multiple illnesses, multi-professional teams linked to GP practices are starting to offer a combination of clinical consultations, community therapies, care planning and care coordination.

This report looks at various forms of 'segmentation' and reviews evidence on the impact of this deconstruction of general practice. It then considers the implications that this has for the traditional 'medical generalist' model of general practice, where professionals take a holistic view of an individual's symptoms and conditions, interpreting and managing them with deep knowledge of their wider social and family context.

With staff and money in short supply, new services for patients who want easier access create an opportunity cost, pulling a growing number of GPs into rapid access services and leaving traditional general practice – which relies on people seeing the same doctor or team over time – understaffed.

This report explores what we might lose if this trend continues and argues that having the ability to see patients ‘in the round’ helps doctors to manage their care in the community and to avoid making referrals that may have limited benefit. The deconstruction of general practice as described arguably risks losing some of the value this generates for the wider health system.

The report concludes by setting out a new vision for general practice that combines the best of the old and the new, and describes what local and national NHS leaders could do to support this.

## 2 Key points

- Policies designed to segment general practice often emphasise faster access to quick, transactional, 'see and treat' encounters. The rapid growth of these services is pulling GPs away from the expert 'medical generalist' role of general practice that is a defining characteristic of list-based primary care.
- Medical generalism involves using deep contextual knowledge of patients and their family and social situation to understand and interpret symptoms and problems. It enables GPs to hold clinical risk in the community without onward referral to other services. For around a quarter of patients, it can help to 'de-medicalise' problems for which medicine may be unable to find an answer.
- Health systems like the NHS, which feature strong primary care with GP-registered lists and a gatekeeper function, generally have better health outcomes at lower cost. Evidence suggests that GPs contribute to this by requesting fewer tests and procedures and, where there is continuity with a lead GP, they refer to hospitals less. These approaches are characteristic of the medical generalist role.
- At a time when staff and money are in short supply, it is essential to clarify what we want from general practice and the role we want it to play in the wider NHS. There are opportunity costs associated with the current emphasis on timely and convenient access because fewer resources are left to deliver medical generalist and multi-disciplinary care.
- Focusing too much attention on using technology to improve access may exacerbate supply-induced demand and distract us from thinking more broadly about where technology adds value (for example in long term conditions surveillance or risk factor monitoring) and where it adds extra layers of work with limited benefit to patients.

- It is important to distinguish patients who will achieve good outcomes from the transactional encounters of access services from those who will benefit from medical generalist or multi-disciplinary care and research is needed to work out how to do this. Software that analyses clinical data and patterns of service use can help to identify who falls into which category in order to steer them to the type of clinical encounter that will deliver the greatest overall value.
- Traditional general practice has not always delivered good medical generalist care, especially with growing numbers of part-time doctors. Working with nurses and other professionals to provide ‘team-based continuity’ could provide an answer, and medical training should change to teach aspiring GPs how to do this.
- Comparisons are needed of the overall outcomes and costs of care for specific conditions for people treated in different forms of segmented primary care.
- Future models of general practice should aim to offer enhanced access and medical generalist care, within a single integrated organisation and supported by systems to steer patients seamlessly between different forms of clinical encounter according to need.

# 3 Segmentation: the deconstruction of general practice

Segmentation involves splitting up the population receiving general practice into different groups and arranging different services for them. This section presents different examples of segmented services from England and elsewhere in order to demonstrate how and why this has taken place.

## The recent history of patient segmentation in England

Segmented services first emerged through the introduction of new contract types for general practice. For example, bespoke services for homeless people and refugees (who were seen as groups with distinct needs that were poorly met by traditional general practice) were commissioned through the new Primary Medical Services contract introduced in 1998 (Lewis, 2001).

Public frustration with slow access to GP appointments is a longstanding issue for the health service, and subsequent forms of segmentation were particularly focused on easier access for relatively healthy working-age people. By the late 1990s a market had emerged in private walk-in clinics – many situated in train stations and next to high street retailers – offering unscheduled access to private GP consultations. To address the inequalities associated with paying for rapid access to GPs, 36 pilot NHS walk-in centres were launched in 1999 (Chapple and others, 2001). They were mainly staffed by nurses and were similar to the model of ‘minute clinics’ that was emerging in US retail settings in order to provide low-cost, convenient access to health care for minor illness and minor injury (see, for example, CVS, no date).



Over time, NHS commissioners have invested in other forms of direct access to unscheduled primary care, including minor illness centres, minor injury units, and access to telephone advice through NHS Direct and, later, NHS 111. Some of these were provided in established general practices, while others were in separate facilities. All were open to the whole population and not just those registered with the providing GP.

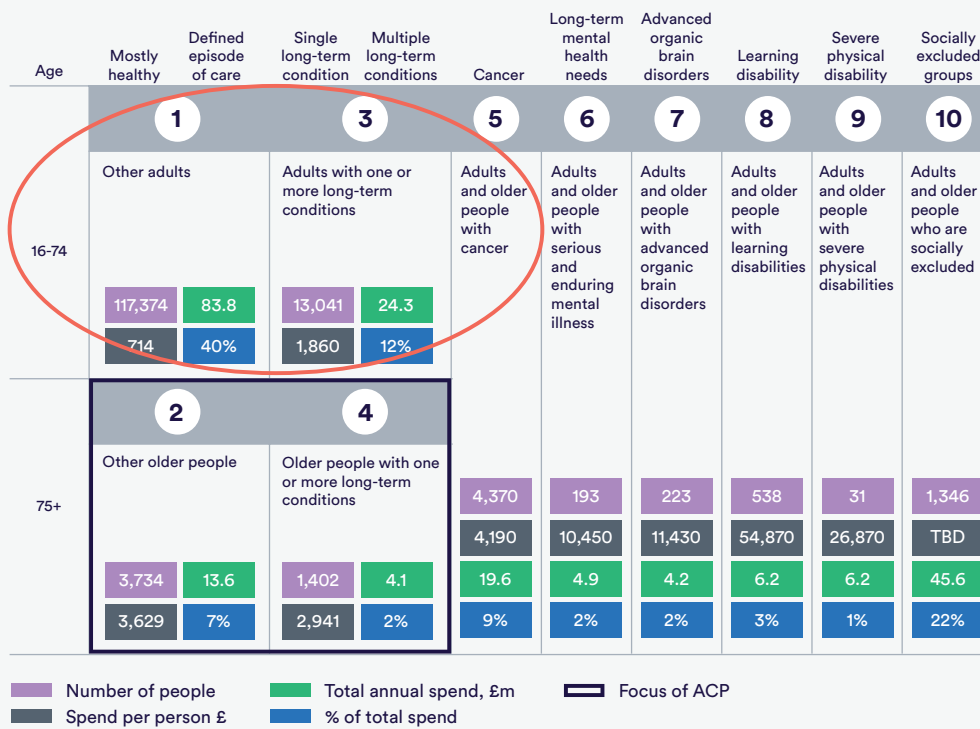
More recently, standalone video consultation services have appeared – some provided by the private sector and some delivered by NHS GPs – offering timely and convenient access to GP care. The new ‘GP at Hand’ service turns traditional general practice on its head – creating rapid 24-hour access to GPs via phone apps and video consultations, but weakening the links between general practitioners, the communities they serve and other local health and care services.

A different form of segmentation focuses on patients with ongoing complex health and care needs for whom continuity and care coordination are particularly important. Policy initiatives have included named GPs for patients over 75 to encourage continuity of care; incentive payments for care planning and care coordination; and multi-disciplinary team reviews of complex patients. More recently, new ‘segmented’ practices have emerged to deliver care to defined patient groups with long-term complex needs. Examples include the ‘Care 1000’ practice in North East London (Sherlaw-Johnson and others, 2018a) and practices specialising in care home residents (Lloyd and others, 2017).

## Segmenting whole populations

While these two segmented forms of general practice have become more common, other population segments have also been described. Figure 1 illustrates a whole-population segmentation model describing the cost of care and percentage of health expenditure attributable to different segments in one area of North West London (North West London Integrated Care, 2015). Of particular relevance to this report are the circled segments 1 and 3, which highlight that the adult population, including the ‘mostly healthy’ and those with one or more long-term condition, constitute 82% of the total and consume 52% of total spend. It is on these patients that the rationale for easy access, technology-enabled GP services is often focused.

**Figure 1: Service use and total cost of care for different population segments in a North West London community**



Source: North West London Integrated Care (2015)

But this segment also contains patients with more complex clinical and psychological symptoms for whom the ‘medical generalism’ (see ‘Defining medical generalism’ below) of traditional general practice is also important. Episodes of significant illness (such as depression or abdominal pain) may not need specialist input, but patients living with these conditions typically value continuity of care while their symptoms are assessed, a diagnosis is reached and treatment is started.

Others may present frequently with symptoms that cannot be medically explained after multiple investigations. There is evidence that these cases may account for around 25% of contacts with GPs (Kroenke and Mangelsdorff, 1989). Another subgroup of high users experience health anxiety and seek repeated reassurance for relatively minor conditions. Here, the deep personal knowledge of medical generalists is important for de-medicalising the management of physical symptoms and holding patients in the community without further referral.

It is these more complex members of the ‘rest of the population’ segment, who can consume significant health resources without improved outcomes, which traditional general practice is well placed to manage – often without costly onward referral to other services.

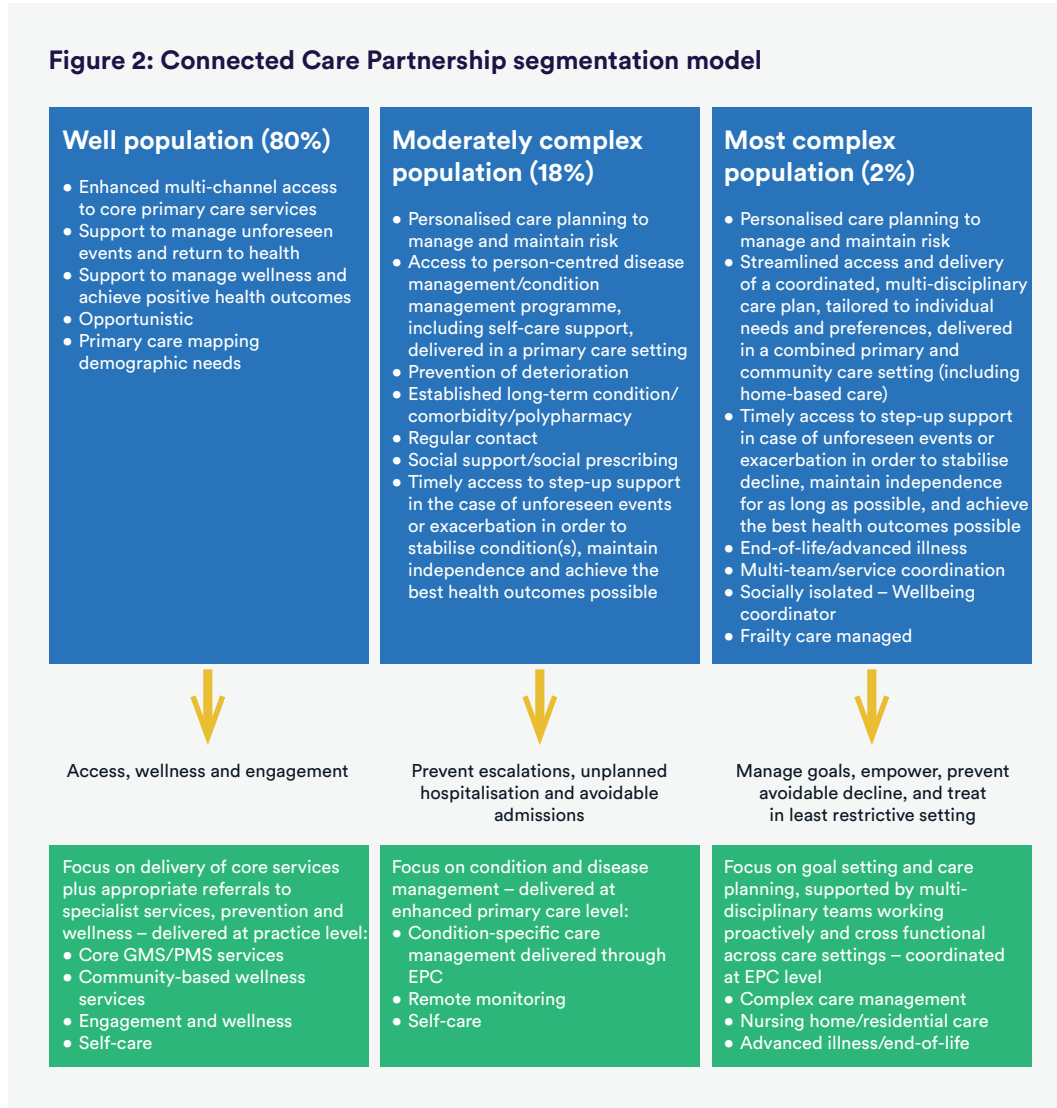
Segmentation can also be used to create an organising logic for general practice. Two different models are described below, with one further model outlined in the [Appendix](#).

## The Connected Care segmentation model

The Connected Care segmentation model was developed to guide the delivery of primary and community services in a ‘multi-speciality provider’ organisation linked to a large GP partnership. The organising logic for population segmentation is complexity of need, with three different segments identified (see [Figure 2](#)).

It places the majority of people into a ‘well population’ that is estimated to include 80% of those on GP lists. Those affected by issues like established long-term conditions, polypharmacy, social needs and frequent use of GP services are then split out into a ‘moderately complex’ group – another 18% of the population. The remaining 2% of the population form the ‘most complex’ population. This is intended to cover people with the most extensive needs, such as requiring care for multiple chronic illnesses, or end-of-life care.

The green boxes at the bottom of Figure 2 describe the kinds of services offered to each population segment.



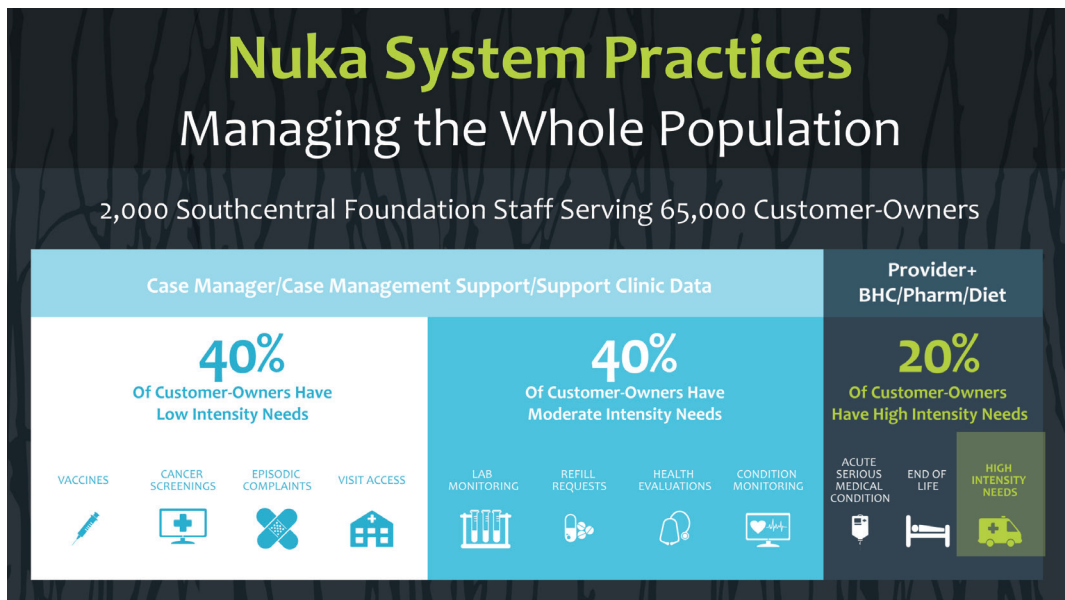
Source: Connected Care Partnership

## The Southcentral Foundation segmentation model

The Southcentral Foundation serves the Native and American Indian people of an area of Alaska that includes the state’s largest city, Anchorage. It has developed a systematic way of segmenting its 65,000 ‘customer owners’ organised around patterns of service use and ‘intensity of need’.

As well as picking out the minority with higher needs as Connected Care does, this model also introduces a distinction within the majority of the population. In Figure 3, the 40% of the population shown on the left-hand side require mainly standardised preventative interventions such as smears and immunisations, which are provided by trained medical assistants. The middle 40% are considered to have moderate needs including support to manage stable long-term conditions and to promote health and wellbeing. Much of this can be delivered by appropriately trained nurses or health care assistants working to standardised evidence-based protocols with support from a doctor if unusual symptoms occur.

Figure 3: Southcentral Foundation 40:40:20 segmentation model



Source: Southcentral Foundation

Both of these groups will have episodes of acute illness that are always assessed and managed by a doctor who will opportunistically use a clinical consultation to check on alcohol, cigarette and drug intake, family issues and other lifestyle and social factors that might affect health and wellbeing in the longer term.

It is through these consultations that ongoing relationships are built between clinician and patient which underpin the management of people, symptoms and conditions in the 20% segment on the right-hand side. This group includes people needing end-of-life care, people with significant acute illness and a final subgroup – typically 2–5% of the registered population – with a diverse mix of complex problems including physical, psychological and social needs (Tierney, 2016).

Consultations for this 20% of the population take many forms: they are typically face-to-face for new problems and by phone, text or email where possible for follow-up. A multi-professional team including pharmacist, dietician, psychologist and care coordinator all contribute as necessary. This team-based care delivery means that, instead of separating out the different groups to different services, all patients use the same clinic and team and are steered to the team member best equipped to manage their current problem. Doctors typically undertake preliminary assessments and create management plans, other clinicians follow up and doctors are called back in if needed.

There is no widely accepted methodology for segmenting populations and no established way of predicting which patients will do best in different types of service. One further model is presented in the Appendix to illustrate how the dimensions of age, type of illness and severity can be combined into a segmentation model.

## How well do current services meet the needs of different patient segments?

Participants in the Nuffield Trust seminar (experts or leaders relating to this field) were asked to consider how well emerging models of primary care address the diverse needs of different patient segments in ways that maximise value. Box 1 summarises the key points made.

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### Box 1. How can emerging models of general practice address the needs of different patient groups? Seminar comments

- There is significant variation between practices in terms of the population segments seen in each registered population. This raises questions about whether segmentation is best done within practices or across groups of practices.
  - Some emerging large-scale practices are offering different types of service for different patient groups, but others are providing neither sufficient access nor continuity for complex problems, so people are choosing to obtain care elsewhere.
  - It is hard to define a standard organisational model for some patient segments as their needs change. A primary care initiative for deprived communities in Baltimore tried various models including community outreach, but found that individual needs changed over time so individualised responses were needed.
  - Emerging care models must include a focus on population health needs and the wider determinants of health. Primary care homes are taking this approach as they adapt their emerging care models to promote health and manage illness in different population segments.
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## 4 Evidence on the impact of segmented services

There is a growing body of research about new models of primary care that describes the impact of various segmented services on overall costs; use of wider health services; and patient outcomes. In addition to various positive effects, the research highlights potential problems, including the risk of duplication of care and ‘supply-induced demand’, such that new services mean total use of health care increases. The research also alerts us to the need to steer patients to the service which best meets their needs. However, to date, there is little clarity on how best to triage patients and assign them to different services. We discuss these issues in detail below.

### Access services for acute problems

Various justifications have been put offered for easy access schemes in general practice, whether based on technology or longer opening hours. A case has been made for improving access as a goal in its own right, addressing public dissatisfaction with the availability of GP appointments and increasing patient convenience. Initiatives have also aimed to create an alternative to A&E attendance for acute clinical problems (Hunt, 2015), with Health Secretary Jeremy Hunt describing longer opening hours as “what we need to do to reduce the pressure on hospitals” (Roberts, 2017). Access clinics shared by groups of practices and staffed by a mix of different clinicians (including GPs, nurses and others) are also intended to enable GPs to spend more time with complex patients in their own surgeries.

An evaluation of 20 GP access pilot sites covering over 1,000 practices and 7.5 million patients reported a 6% increase in GP appointments in participating areas and a 15% reduction in type 3 A&E attendances (that is, minor injury units and urgent care centres) (Mott McDonald, 2015).



It also described the use of a more diverse clinician skill mix and novel channels for consultation including phone, Skype video chat and texting, which were reported to be cheaper than GP slots but may have been duplicative. However, a National Audit Office (2017) review found that these appointments were relatively expensive to deliver, at £200–£280 per hour of clinic time compared to £154 for traditional general practice. A study of enhanced access to GP appointments in North East London showed reduced use of A&E services by patients in practices linked to an access hub (Sherlaw-Johnson and others, 2018b). However, the study also described disconnections between the access hub and local GP practices which resulted in additional work and duplicated appointments if tests or referrals were needed (Sherlaw-Johnson and others, 2018b).

## Continuity for complexity

Approaches to segmenting services to proactively address needs and avoid admissions for people with more complex illnesses include virtual wards (Rankin, 2010); GP-led nursing home services (NHS England, 2016b); bespoke GP practice for older people and the Health 1000 practice established in North London (Sherlaw-Johnson and others, 2018a).

There have been only a few methodologically rigorous evaluations of these initiatives and not all of these include a cost analysis. One study reported increased service use and costs in the early phase of a new care coordination services – associated with identifying additional patients or responding to previously unmet need (Gravelle and others, 2007). However, a study that followed successive cohorts of patients over several years reported longer-term cost reductions (Ferris and others, 2014). An overview of research on the impact of care coordination on shifting care out of hospitals found that evidence was generally weak, with virtual wards having least impact (Imison and others, 2016). Evaluation of a new care model providing multi-faceted support to care homes, including enhanced GP services, reported an initial reduction of 29% in A&E attendances and 24% in emergency admissions (Lloyd and others, 2017), although the costs of this intervention were not reported and it is too early to know whether the reduction can be sustained over time.

## Technology-enabled access

Telephone access is increasingly used as part of routine general practice to manage people whose needs can be met over the phone and to triage those who need to be seen. There is also growing use of video and email consultations, with an array of pay-to-use services delivered by private companies emerging alongside those delivered by established NHS providers.

A systematic review of research on telephone consultation and triage (Bunn and others, 2005) reported mixed results, with some services increasing subsequent face-to-face consultation and other studies reporting decreased follow-up visits. Campbell and others (2014) reported an increase in the mean number of contacts per patient after phone triage of requests for appointments (a 33% increase after GP phone triage and 48% after nurse triage). Newbould and others (2017) found that some problems could be managed over the phone, but not all; phone consultations did not suit all patients; and there was no evidence that 'phone first' would reduce costs.

Armfield and others (2012) reviewed evidence for the safety and effectiveness of Skype video consultations, concluding that there was, at that time, insufficient evidence on the risks and benefits to shape its effective deployment. Greenhalgh and others (2016) reviewed the published research on video consultations used to follow up a variety of specific conditions, but there was little research on its use in general practice. An evaluation of e-consultations in a large GP consortium in Bristol (Banks and others, 2017) reported that 38% of e-contacts resulted in a face-to-face encounter and 32% in a phone consultation. Patients valued the system and clinicians reported that while it was good for simple and routine enquiries, face-to-face consultations were better for new and complex symptoms. To date, there has been no evaluation of the new 'GP at Hand' NHS GP practice in which the first points of contact are a smartphone app or video consultation. A large-scale evaluation of various alternatives to face-to-face consultation led by the University of Bristol will be published in early 2018.

## Unintended consequences of enhanced access

It is also important to consider the impact of increasing ease and timeliness of access on overall levels of demand. Various studies of unscheduled, direct access primary care services have shown that up to 46% of patients attending walk-in clinics and 33% of those attending urgent care centres had additional encounters that they would not have had if the direct access services was not available (Rosen, 2014). In a study of 'telephone first' (wherein all contacts with a GP surgery are initially assessed by phone), Newbould and others (2017) reported wide variations in the total number of contacts, ranging from a doubling of total consultations to a two-thirds reduction in face-to-face contacts and a large increase in telephone contacts.

## 5 ‘Medical generalism’: where does traditional general practice add value?

A potential problem of deconstructing general practice into services targeting different population sub-groups is that, by moving patients around between different services, it reduces the likelihood of developing a deep understanding of individual patients in the context of their social and family circumstances. This feature of general practice is essential for what the Royal College of General Practitioners (RCGP) calls ‘medical generalism’ and underpins the value added by general practice to the wider NHS.

### Defining medical generalism

General practice is often described in terms of the functions it fulfils: diagnosis, referral, prescribing and so on (The King’s Fund, 2011). Or it may be described in terms of the characteristics of the care it provides, such as holistic and comprehensive (Agency for Healthcare Research and Quality, 2013).

The RCGP (2012) has gone further in describing the essence of the profession. They describe its expertise in whole-person medical care as ‘medical generalism’: seeing each patient as a whole and in the context of their family and wider social environment; dealing with illness whose cause is unknown or unknowable; and taking continuity of responsibility across many disease episodes and over time.

Drawing on evidence submitted to a 2011 inquiry into medical generalism, the RCGP report described two further characteristics: practice style and impact.

### **Practice style:**

“Characterised by a perspective on the whole rather than the parts, on relationships and processes rather than components and facts; and on judicious, context-specific decisions on how and at what level (individual, family, system) to consider a problem”  
(Trish Greenhalgh quoted in RCGP, 2012, p.7)

### **Impact:**

“The interpretive function is and should be at the heart of general practice, because it is through this activity that people are helped to understand and live with their illnesses and disabilities, to integrate them into their life narratives, and within the confines of the options available to them to make this a narrative of flourishing  
(Peter Toon quoted in RCGP, 2012, p.7)

GPs are risk managers and recognise that not all symptomatology requires investigation, referral or treatment but requires...the allaying of fears and explanations of the problem”  
(BMA, quoted in RCGP, 2012, p.10)

Reeve and Byng (2017) describe two dimensions of generalism in primary care.

One axis reflects how ‘generalist’ interactions with individual patients are. At the less generalist end are standardised, task-based interactions (such as annual blood pressure checks or childhood developmental screening). At the more generalist end are interpretive, highly individual assessments (such as assessing chronic pain or mental health problems) in which understanding personal and family context are important.

The other axis shows the role primary care plays in the overall health care system. It runs from accessible contacts for single diseases through to proactive, multi-disciplinary care to coordinate multiple problems.

The two axes require different forms of clinical reasoning and behaviour, both of which form core elements of speciality training in general practice, but it is this interpretive aspect of medical generalism that helps to explain the contribution of well-resourced general practice to the efficient use of the wider health system.

The generalist makes decisions in the round, *after preliminary investigation to rule out serious illness*, about the value of further medical treatment in terms of potential patient outcomes and effective use of NHS resources. This involves using contextual knowledge of patients to decide when it is safe to observe them without further referral and investigation, and whether to de-medicalise responses to patients with symptoms that cannot be explained or that suggest health anxiety.

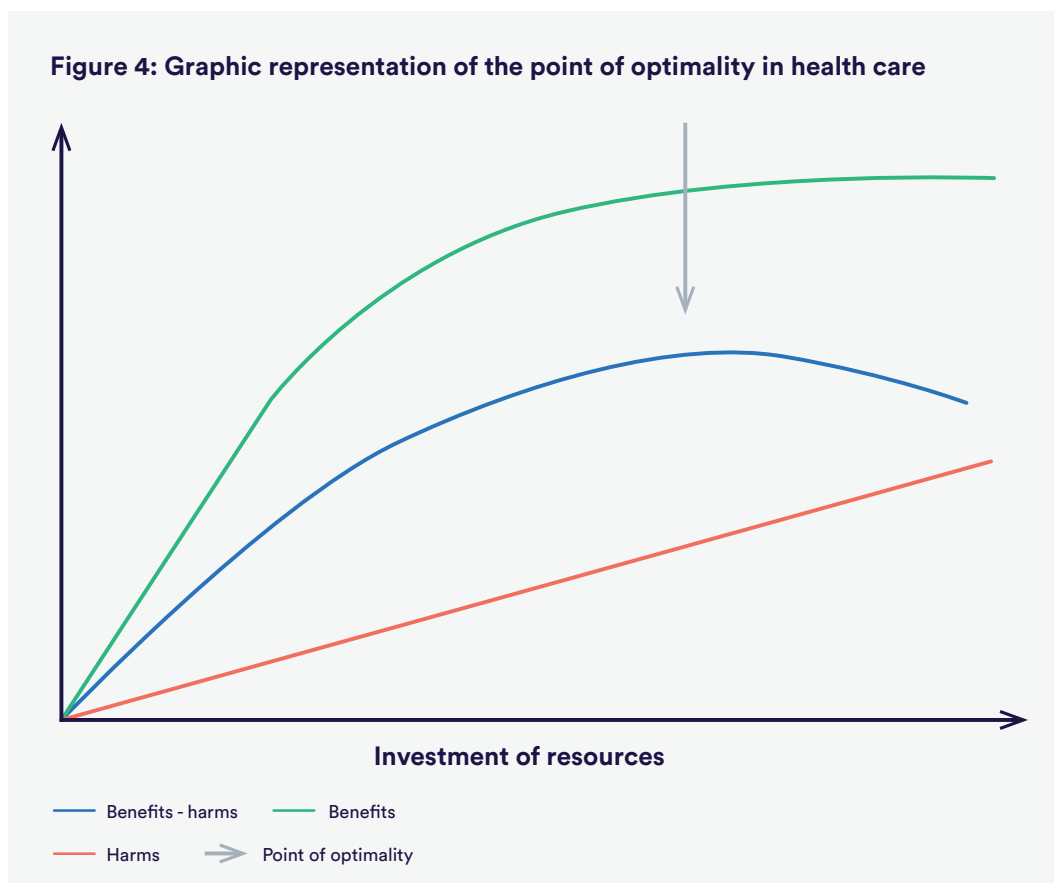
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### **Box 2. Does medical generalism still exist? Seminar comments**

- The increase in part-time GPs raises questions about whether the continuity and relationships of medical generalism still exist.
  - Frustration at delayed access to GP appointments is driving many patients to accept the first available appointment in an access clinic rather than waiting to see a GP who knows them.
  - Patient expectations and levels of demand are so high that it is no longer possible to meet demand for access and provide continuity and generalist care when it is needed.
  - There is indifference in many mainly healthy younger people about continuity with a GP and their preference is for easy-to-access and technology-enabled services.
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## How does general practice add value in the NHS?

The concept of ‘value’ implies focusing scarce resources to where they will deliver most benefit, helping to manage demand that exceeds available resources and to reduce harm from overdiagnosis and overtreatment. A central theme in relation to value in health care is the point of optimality (see Figure 4), at which additional care does not result in improved outcomes or at which the harms of care outweigh the benefits (Watson and others, 2017).



Reproduced from Watson and others (2017)

Gray (2017) highlights two dimensions of value: how well the resources available for the whole population have been allocated to different groups; and how well they are used for patients within a particular group.

In the context of this report, the first dimension relates to how well total resources for general practice and primary care are being allocated between, for example, enhanced access for people with acute illness versus more traditional services for enduring clinical problems and integrated services for people with complex needs.

The second dimension relates to how effectively we allocate resources within different patient groups, including the large, amorphous group of broadly healthy adults (including those with long-term conditions) who consume over half of total resources. Could we obtain more value if we better understood the subgroups of patients within this broad category and tailored care better to their varying needs? Will allocating resources to emerging services such as video consultations optimise the value obtained for this and other groups?

For patients presenting for the first time with new symptoms, the value of general practice lies in its ability to undertake an initial assessment and selected investigations. These may support prompt treatment in the community or onward referral to a specialist who can assess the patient with the benefit of preliminary test results.

In some situations, the medical generalist approach – with its deep knowledge of patients over time – allows GPs to hold clinical risk in the community for patients with un-differentiated or hard-to-explain symptoms. Evidence suggests the ability to manage care without onward referral might reduce overall use of health care and improve value (see 'Evidence linking primary care to higher value health care' on page 24). We explored this hypothesis at our seminar, and questioned how wide the scope is for using medical generalist skills to achieve goals like these. Comments are summarised in Box 3.

Up to 25% of contacts with GPs relate to symptoms for which no clear explanation can be found. Kroenke and Mangelsdorff (1989) reported that an 'organic' cause was found in only 16% of patients reporting these 'undifferentiated symptoms' (such as headache or dizziness, which could have several possible causes). This is despite the observation that over two-thirds received investigations, with higher-cost investigations used for people reporting headaches and back pain.



For the 84% for whom no organic cause can be found, it seems reasonable to think that a medical generalist GP's propensity to investigate and refer less has the potential to save money. Konnopka and others (2012) concluded that the overall costs of care for medically unexplained symptoms are comparable to the excess costs of depression and anxiety.

Patients with health anxieties or unexplained symptoms may make repeated use of open access services when continuity with one or a small group of clinicians would be more likely to trigger interventions to manage anxiety and live with existing symptoms if sufficient diagnostic tests are completed.

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**Box 3. What is the impact of medical generalism on the value of general practice? Seminar comments**

- Research is needed to describe the percentage of patients that are seen inappropriately in each segmented service. If the percentage is small, then there may be insufficient benefits to tackling the potential problems of segmentation.
  - Some forms of GP contract (particularly APMS contracts) overspecify how services should be delivered and through what skill mix. This can limit options for tailoring care to the needs of different patient groups, increasing the cost of care and reducing value.
  - GPs are less able to hold patients in the community without onward referral if access to medical records is limited or if they don't know the patient. This is more likely if patients move between different services, potentially increasing the costs of referrals and emergency admissions.
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## Evidence linking primary care to higher value health care

General practice accounts for more patient contacts than all forms of hospital care combined, and only 5% of contacts in general practice are passed to a specialist. This initial gatekeeping role means that the delivery of primary care – which in the NHS mainly means general practice – is important for achieving value in the NHS. As Roland and Everington note (2016), if primary care fails, the whole NHS fails.

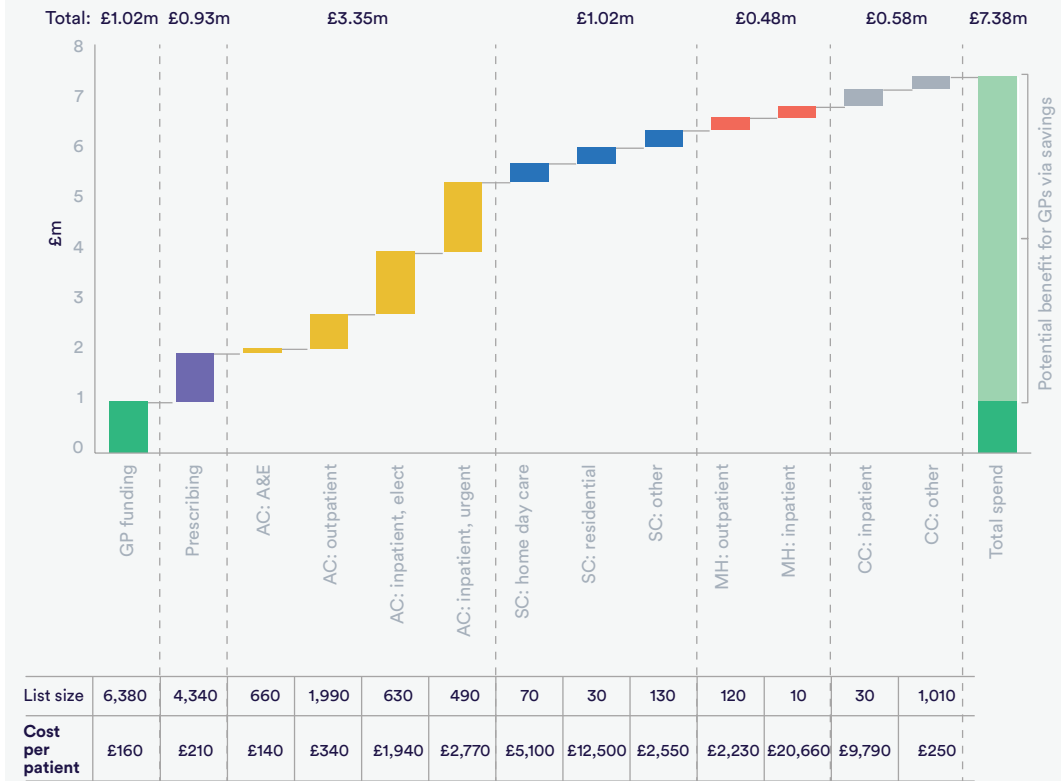
There is a range of international evidence on how primary care can maximise value. Some, although not all, appears to particularly relate to the traits associated with medical generalism.

Various studies have concluded that access to comprehensive primary care is associated with lower overall health care costs and better outcomes (i.e. better overall value). For example, the US CMS Comprehensive Primary Care Initiative invested an average of US\$70,000 per participating physician and found that some regions achieved reductions in total cost, hospitalisations, emergency department use and readmissions relative to comparison practices. Shi's review of international literature (2012) concludes that comprehensive primary care lowers the overall cost of health, while other studies show that primary care delivery models that include elements of care coordination and case management (including the primary care medical home) have also been associated with lower costs.

Kringos and others (2013) present a more nuanced view of the impact of primary care on quality and cost. They conclude that European health systems with comprehensive primary care have better outcomes at higher cost. But for countries like the UK, where GPs act as gatekeepers to specialists and patients are registered with a primary care doctor, there is lower health spending.

A detailed analysis of use of NHS services generated by GPs in Symphony Healthcare Services in South Somerset is shown in Figure 5. This illustrates amount spent on each type of hospital and community service by an average South Somerset practice. It highlights the potential value that could be gained across the health system if each practice drew on best practice guidelines to reduce use of these services by even a small amount.

**Figure 5: Spending in South Somerset for patients of a typical GP practice**



1. Mean figures averaging across 19 South Somerset GPs.  
 2. Prescribing cost is extrapolated from Mar 2015 (HSCIC), with prescribing list for 2013-14 (Symphony data)  
 3. AC = acute care; SC = social care; MH = mental health; CC = community care

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Source: Symphony Healthcare Vanguard Programme

The mechanisms for these cost reductions are not well understood, although Shi (2012) presents evidence suggesting that primary care physicians – the generalist equivalent to British GPs – order fewer diagnostic tests and procedures than specialists (Friedberg and others, 2010). There is also evidence that having a usual source of care (not necessarily an individual) is correlated with lower use of health care resources and lower rates of non-urgent emergency department visits, thereby also decreasing costs (Friedman and Basu, 2001). Continuity of relationship between GP and patient is also associated with fewer emergency admissions for ambulatory care-sensitive conditions (Barker and others, 2017) and this is a core characteristic of the Southcentral Foundation health system model described above, which

has been associated with improved outcomes at lower costs (Collins and Berwick, 2015).

Evidence also shows that very easy access to primary care may induce demand for care from patients who would not otherwise use services (Rosen, 2014), creating additional cost which may or may not add value. Here, too, an enduring relationship with one or a small group of clinicians might create opportunities to reduce such demand by supporting individuals to develop skills to self-manage. Indeed, the BMJ's recently launched 'too much medicine' initiative is pushing to make this approach a mainstream part of general practice (BMJ, 2017).

Reducing variation is often seen as a way to improve productivity and value in the NHS, but this risks oversimplifying the contribution of medical generalism to high-value primary care. The focus on implementing evidence-based guidance to tackle variation contrasts with the highly individual aspects of medical generalist practice, which is more about tailoring management plans (which may themselves include the decision to do nothing) to specific, individual circumstances.

# 6 Does segmentation reduce the value we get from traditional general practice?

## A time of trade-offs

The policy aims of access and continuity are not mutually exclusive. With enough funding and staffing it should be possible to offer every patient both timely, convenient access for immediate problems and a continuous relationship with one or more clinicians for those with more complex ongoing needs.

But both money and general practice staff are in short supply in the NHS, so trade-offs between priorities are unavoidable. Many clinicians are choosing to work in rapid access services which allow a bounded workload with minimal administration and few follow-up consultations. As a result, it is increasingly hard to fill posts in traditional practices, where most care for ongoing and complex problems is delivered and where clinical work generates significant paperwork, proactive contact with patients, prescribing duties and emergency clinical care.

With fewer GPs working in list-based general practice and an increasingly part-time workforce, integrated work with multi-disciplinary teams becomes harder and the continuity of relationships that underpin medical generalism and care coordination for complexity are weakened.

## What is the impact of prioritising access over medical generalism?

Initiatives like access hubs were intended in part to reduce pressure on hospitals – and there is evidence that they reduce the use of minor A&E services for short-term health problems (albeit at higher cost) (Mott McDonald, 2015).

But insofar as easy-access initiatives shift staff and patients away from other forms of general practice, there is also the potential for them to increase use of wider health services by reducing the potential for medical generalist care to maintain patients in the community without onward referral. Fragmented encounters with different doctors disrupt the formation of deep contextual knowledge and trust between patient and GP, which helps in managing clinical symptoms without patients needing to go to hospitals or specialists.

Access hubs may also enable some patients to have multiple attendances at different services for the same problem, causing the overall cost of health care to rise. And while this may be desirable for patients looking for second or third opinions, there are risks of harm and loss of value associated with overdiagnosis and overtreatment wherever this occurs.

The challenge is to identify repeat attenders who may get better outcomes at lower overall cost through medical generalist care, and to steer them towards a form of general practice that can provide this. However, with a depleted general practice workforce and changing patient expectations, there are practical challenges to creating the suggested blend between rapid access and medical generalist care. A model of enhanced access that is integrated with team-based continuity is discussed below, and provides a possible way forward.

Seminar participants considered whether patients presenting with some types of undifferentiated acute symptoms or repeatedly attending access clinics would benefit from being redirected to services offering greater continuity. They acknowledged that this could result in both benefits and costs: It could reduce the risk of a missed diagnosis by exposing patients to ‘fresh pairs of eyes’. Alternatively, increasing opportunities for repeated consultations until a desired treatment has been obtained (such as painkillers or antibiotics) could result in overuse of services and overmedicalisation, reducing the overall value of primary care.

# 7 Getting the best of both worlds

This report has described the contrasts between new models based on segmentation, and traditional 'medical generalism'. A clear distinction has been drawn between the task-based, transactional nature of rapid access primary care and the textured, context-specific nature of medical generalism.

Another important dimension to this problem is deciding what we want GPs to do for the health service as a whole. Sustainability and transformation plans lay out wide ambitions for GPs to reduce pressure on hospital services – but they largely ignore the risk of further undermining medical generalism by pulling GPs into an ever-wider range of clinical roles.

This section lays out some possibilities on how to get the best of both worlds.

## An alternative model of general practice

The goal is a more 'integrated' form of segmentation, in which rapid access services are joined up with medical generalist care *within a single organisation*. The vision is of general practice that is available to the whole population and remains rooted in its local community, where patients can move freely between different types of clinical contact delivered by a single clinical team.

Figure 6 shows how a single large-scale GP organisation, ideally with a shared medical record, could segment its services in response to the needs of different types of patient. The lilac shaded area represents a full GP list of patients; the coloured shapes represent different, but overlapping groups within the registered list.



In this model, a subset of healthier people could continue to use easy access services and the consultation could be in the practice responsible for them or in a standalone access hub – as reflected by part of this group falling outside the oblong representing the GP list. Some people (represented by the inner dark green circle) would need a physical examination and would have to be seen face to face; others could choose a technology-enabled, virtual consultation.

Patients with clinical problems that cannot be resolved in transactional ‘task-and finish’ encounters and those with apparently disconnected problems who have had multiple contacts with access clinics in a short period of time would be advised to seek continuity with their usual doctor or clinical team. These patients would transfer into the blue oval segment in the centre of the graphic.

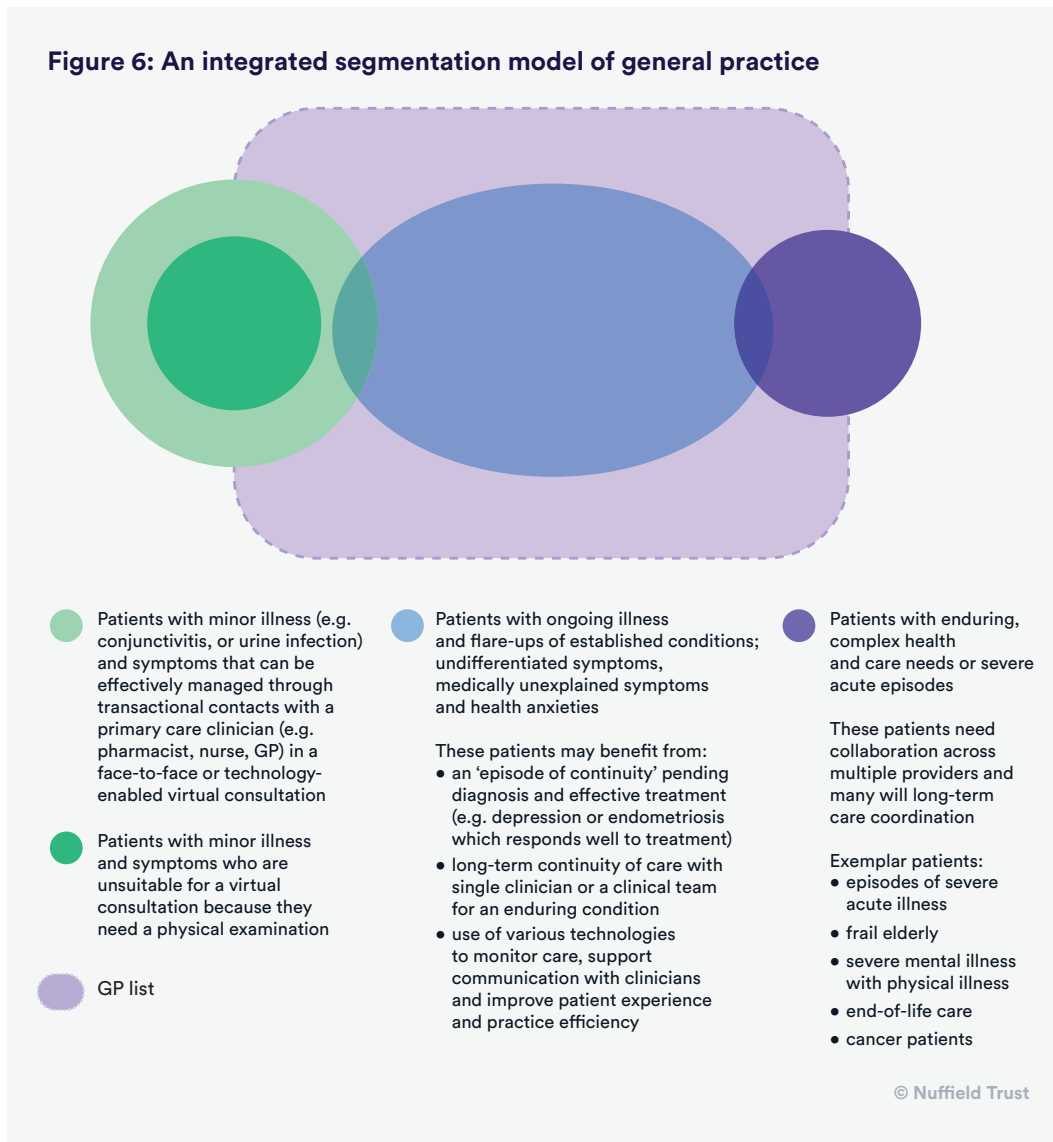
The blue oval represents a diverse group of patients, including those with undifferentiated illness, long-term comorbidities, health anxiety or relapses of established problems. It remains unclear who is contained in this group and research is needed to explore the conditions that it might contain. Patients who fully recover from an episode of illness may revert to the group receiving transactional encounters until their next episode of ongoing illness. As a whole, this group is likely to require a combination of proactive and reactive care. Some may value the relational continuity while their clinical symptoms are assessed and managed while others who prefer to seek second or third opinions from other sources may resent it.

Where appropriate, follow-up contacts could use email, text, telephone or Bluetooth data transfer – but with continuity from one doctor or team until the episode of care is finished.

The dark purple circle depicts patients with enduring complex needs who require support from a multi-professional team.

The relative size of the population that could obtain good outcomes from each type of service is currently unclear. Research is needed to quantify the proportion of GP activity that could be delivered in each type of clinical encounter to maximise the value obtained to patients and to the NHS as a whole from all forms of general practice.

**Figure 6: An integrated segmentation model of general practice**



An important feature of this model is that patients are seamlessly transferred between different types of encounter within a single organisation. They are moved up or down the scale from easy access to continuity based on what is likely to deliver the best outcomes and greatest value. Care is delivered by a single clinical team that offer both rapid access *and* the deep knowledge of medical generalism and the sense of professional accountability to pursue good outcomes, cost effectiveness and good patient experience.

Some health care systems are already joining up general practice with other community services and tailoring services to different subgroups in a way that matches this model. There are exemplars of services, like St Austell Primary Care Home (Kumpunen and others, 2017), where rapid access clinics are fully integrated with routine general practice so patients can move seamlessly between transactional encounters and more traditional medical generalist consultations according to need. An international example is the Alzera primary care clinics run by Ribera de Salud (de Rosa Torner, 2012).

## Team-based continuity

One specific approach suggested by seminar participants and reflected in elements of the model described above was team-based continuity. This approach is used by the Southcentral Foundation (as described earlier), where small multi-professional groups of clinicians deliver care to a defined group of patients – supported by one or two doctors. While it was proposed as a realistic scenario to aspire to in the current NHS, participants recognised the significant organisational challenges of establishing and implementing team-based continuity. They noted various practical challenges associated with delivering team-based continuity to patients with complex health problems and varied expectations of primary care (see Box 4).

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#### Box 4. Understanding team-based continuity – seminar comments

- With team-based continuity, GPs typically (though not exclusively) act as team lead while other professionals trained in holistic, proactive care could act as clinical lead for selected patients.
  - Agreed tasks could be delegated to team members with the necessary competencies.
  - It requires a culture of collaboration, shared values and standards across and commitment to continuity across team members.
  - Although the workforce available to deliver medical generalism is limited, it could be extended by renewing skills in the nursing workforce. Community nurses are trained in a holistic, generalist way, but the current focus on task-based care has eroded these skills. They could be rekindled to contribute to team-based continuity.
  - Informational continuity offers an alternative form of continuity in the context of fragmented service provision, or for cases where patients do not want to have relational continuity. However, it cannot fully replace the personal relationships of continuity with a specific clinician.
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## Barriers to the delivery of medical generalism

Seminar participants noted the problem that, even given a good understanding of medical generalism and its value, the current starting point is far from perfection. Continuity and the virtues of medical generalism are too often absent from the pressurised current world of general practice. Long waits for appointments drive many patients to see the first available doctor and the increasingly part-time workforce is disrupting personal continuity.

While team-based continuity is a helpful concept, participants highlighted the organisational and practical hurdles involved in achieving it. Seminar participants' suggested priorities for improvement are given in Box 5.

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**Box 5. Barriers to strengthening medical generalism – seminar comments**

**A deficit in practice management skills** was highlighted as an important barrier to creating team-based continuity. Team-based care is a complex concept to implement – particularly for persuading different professionals to adopt new ways of team working. These skills are urgently needed.

**Training and workforce development** methods need to change to support team-based continuity and to enable medical generalism:

- GP training needs to change from being centred on repeated face-to-face consultations. It should include more team working and use of technology to support patient care.
- All current general practice staff need formal teaching about how to make these teams work effectively.
- There is a need to re-skill clinicians in holistic care where roles have become increasingly task based (for example, district nurses and health visitors could take on more central roles in primary care micro-teams).

**Information governance makes it hard to link data to support medical generalism.** In some CCGs, these barriers have been overcome to produce longitudinal records of patient use of different services. These linked data sets could be used to spot patients with increasing use of services who might benefit from switching to medical generalist care.

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## 8 What needs to be done to secure medical generalism?

In order to address the issues raised in this report, important decisions need to be taken about the fundamental purpose of general practice and the role it plays in the wider health system. Should we expect GPs to provide rapid access to what is often assessment and reassurance at the earliest stages of a disease if the opportunity costs are high? How should we balance the allocation of resources between diagnosing immediate problems and ongoing support for people with long-term problems? To what extent should the core business of general practice be displaced in order to transfer care from hospitals, as outlined in many sustainability and transformation plans?

Until these high-level decisions are taken, the principles above highlight some clear steps to secure medical generalist care that is integrated with GP services that can also offer rapid access if needed.

### Data-driven identification of complex patients in real time

Targeting medical generalist care to those who need it requires the right people to be identified, so they can be steered from immediate access services to a continuous relationship with one GP or primary care team. This report has argued that current segmentation models do not adequately respond to the needs of different population groups, but more sophisticated approaches based on data analysis are emerging.

A real-time triage system is used in emergency rooms in the Kaiser Permanente health system in California. It gives clinicians two composite

scores, developed from data analysis of millions of patients, which assess comorbidity burden and physiological stability (Bates and others, 2014). While this system is focused on acute illness and the emergency room setting, it illustrates how data can be used to assess risks and likely diagnosis for different symptoms combinations in real time. This in turn may help reception staff to direct patients to the most appropriate clinician for their needs.

Some NHS organisations, including North West London, East Grinstead and Kent have developed integrated health and social care data and can track patients over time. In such settings, there may be an opportunity to develop a predictive algorithm to spot patients in general practice whose symptom combinations and clinical signs suggest that continuity of care might improve outcomes and reduce demand for other services. However, UK data governance regulations continue to complicate matters of health and social care data linkage

## Supporting the implementation of team-based continuity

This report has argued that continuity in general practice will often need to involve a team of professionals, not just one doctor – especially given the shortage of GPs. But implementing effective team-based working is difficult. Research by Glendenning (2003) highlights the time and resources needed to develop clarity of purpose, shared vision and values and integrated processes across teams of different types of professionals.

Recent financial incentive systems have encouraged multi-disciplinary team work for complex patients in the NHS, but have not previously been used to improve team based continuity within practices. If such incentives are developed, they will need to be supplemented by effective operational systems and processes to ensure that patients identified through data analysis described above are steered towards their lead clinician or members of a linked professional team who have the skills to work collaboratively (Roland and Paddison, 2013). The RCGP's 'Continuity toolkit' (2013) describes methods for understanding and addressing the barriers to continuity of care in general practice.

Establishing such processes and setting up micro-team working requires sustained organisational development in general practice. One example of this kind of work is described by Rosen (2017) in an innovation project report from a London GP practice, which highlights the time, resources and managerial input needed.

Practice managers have a key role to play in developing and maintaining team-based continuity, although skills deficits in practice managers are a well-recognised constraint to redesign and innovation in general practice. This is being addressed through investment in training and the development of local practice manager networks (NHS England, 2017), and a growing number of managers are gaining skills in working across networks of practices. Nevertheless, developing high-performing multi-professional teams is a significant challenge for experienced managers in other parts of the health service and this area of skills development will need significant investment to sustain generalist practice.

## Education and training for medical generalism

A third theme identified in the seminar was the need for change in the training and development of GPs and other practice staff.

The current curriculum includes team working and the importance of asking advice from colleagues. However, the bulk of GP training remains rooted in individual practices. There is no systematic requirement to learn about technology-enabled consultation, or data coding and analytics. Nor is there systematic training in working effectively in micro teams to deliver continuity of care and medical generalism. New GPs and other staff need to be equipped with these skills if they are to deliver continuous, holistic medical generalist care to patients with ongoing, complex needs.



## Maximising the value of technology-enabled general practice

With the increasing availability of video, phone and email consultation, there are new opportunities to examine how best to combine new and traditional forms of general practice. These need to be explored and tested.

Looking beyond fast access for immediate symptoms, when and how can technology support more convenient assessment of long-term conditions, medication reviews, or screening and prevention?

The Southcentral Foundation combines consultations for acute problems with a holistic patient review. Are technology-enabled services more or less likely than those in traditional practice to take this approach? Or to take professional accountability for investigating and managing complex ongoing problems and medically unexplained symptoms? Would increasing the use of technology make GPs more likely to intervene proactively – or to refer on to others?

It will be essential to compare the overall quality and cost of care for different types of patients using new and traditional services. Likewise, there is a need for assessment of quality and cost of practices using technology for ongoing monitoring and review as well as rapid access to care. Such comparisons should include a wide range of quality measures spanning patient and staff satisfaction, prevention, clinical outcomes, prescribing patterns, use of wider services and overall costs of care. A potential research agenda is described below.

# 9 Actions for national and local bodies

This section lays out recommendations for how national and local bodies could help secure medical generalism, and find the right balance between traditional forms of general practice and segmentation.

## Generating evidence about the impact of recent changes

More evidence is becoming available about patient satisfaction with GP access hubs and the impact of these access hubs on A&E attendance. Some research does exist on the impact on overall service use of telephone consultations and other (not face-to-face) forms of access to GP consultations. But there are many important questions still to be answered:

- Can we use data to identify patients whose clinical problems can be effectively managed in segmented, rapid access services and those would benefit from greater continuity?
- Do technology-enabled, rapid access services that do not have access to a full medical record increase or decrease time to diagnosis and use of wider resources?
- What is the impact of the 'GP at Hand' model on overall use of GP services, use of wider NHS services, clinical outcomes, patient satisfaction and cost?
- Is there a size at which pooled access hubs become too disconnected from member practices and patients to be able to demedicalise and retain risk in the community?
- What is the economic impact – in terms of onward referral to other services – of spreading the provision of general practice across segmented providers?

There is a substantial research agenda here, which could contribute evidence to shape the future organisation and development of general practice and the allocation of scarce financial and human resources.

## Actions for national and local bodies

The following actions at local and national level could help to sustain medical generalism and strengthen the value of primary care in the wider NHS while we consider what role we want general practice to fulfil in the future.

### Individual GP practices should:

- Develop systems to spot complex patients for whom continuity of care may improve outcomes and encourage them to stick with a single doctor or clinical team
- Use technology creatively to Improve convenience, efficiency and clinical outcomes in order to discourage people from opting out into transactional rapid access services
- Link with other practices to deliver extended access in ways that minimise the disruption of continuity for patients

### Large-scale GP provider organisations should:

- Monitor patterns of use of extended access services to identify patients who could benefit from continuity and steer them towards their usual GP or GP practice
- For any core general practice services that are delivered across multiple practices, implement team-based continuity through micro-teams of different professionals so that patients with ongoing or complex problems can benefit from medical generalist care.
- Maximise the use of alternatives to face-to-face consultations in order to improve patient convenience where these can achieve equivalent outcomes.

### **Clinical commissioning groups should:**

- Commission access hubs that are fully integrated with patients' usual GP clinics (most are currently linked through shared access to medical records and few deliver extended access that can offer continuity with a patient's usual clinician)
- Commission service delivery models that can transfer patients seamlessly between different segmented services in accordance with clinical needs, and coordinate with other service providers when necessary.

### **NHS England and other national bodies should:**

- Invest in a research programme to identify which patient groups and clinical conditions can effectively be treated in transactional, rapid access services and which achieve better outcomes with greater continuity
- Commission an evaluation of the case mix, activity, costs and outcomes of new forms of general practice and use the findings to develop a fair funding allocation for new services.

### **The Royal College of General Practitioners should:**

- Adapt the GP training curriculum to develop and assess skills in team-based continuity within general practice
- Support demonstration projects of team-based continuity for routine care.

## Deciding on the final destination

These steps could help secure medical generalism for now. But in the long term, we need the wider system to take clear, evidence-based decisions that tackle difficult trade-offs in general practice.

This wider decision about the balance between segmentation and generalism needs to be based on admitting that the NHS does not have the staff or resources to do everything. It also needs to be based on evidence and data.

Without clarity of purpose, the ever-wider doors of easy access into general practice will take the decision by default. The profession will end up effectively prioritising those who come through them, at the cost of some of the value they could deliver supporting patients with more complex issues.

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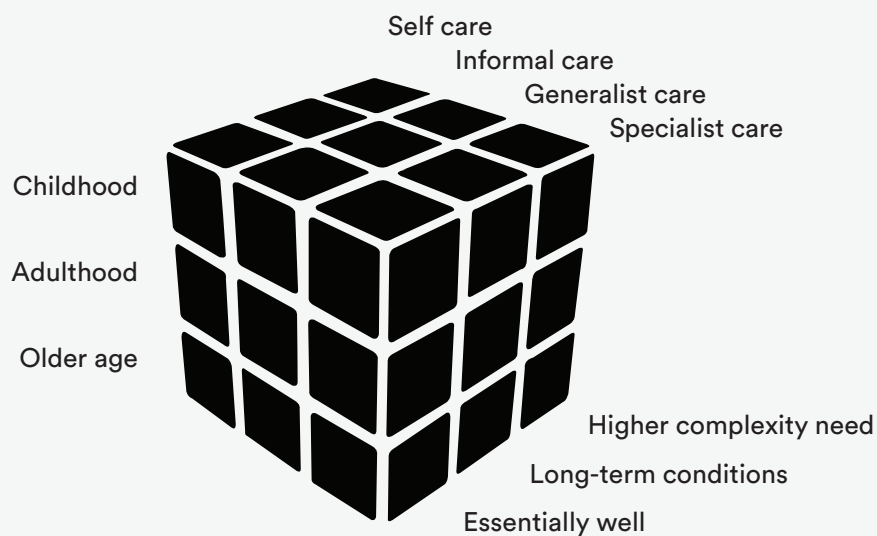
# Appendix

## ‘Primary Care Home’ segmentation model

The National Association of Primary Care launched its ‘Primary Care Home’ programme in 2016 to support the development of multi-professional primary care teams delivering services tailored to the needs of different population sub-groups.

The ‘Rubik’s cube’ model depicted in Figure A1 is based on three dimensions of population segmentation: age groups, level of complexity and the type of care needed by each population group. Early evidence from the primary care homes suggests they are developing a range of tailored services for different population groups which bridge general practice, wider health and care services in the community and in some cases also involve voluntary sector organisations and patients themselves (Kumpunen and others, 2017).

**Figure A1: Primary Care Home population segmentation model**



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