

Clinical Design Workstream

Final Report May 2014

Models of Care

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Foreword

As the two Senior Responsible Officers for the Future Fit programme, we are pleased to receive the clinical design model from the four clinical leads on behalf of the Local Health Economy and its clinicians.

In November 2013 the clinical community was set a clear task by the local people of Shropshire, Telford and Wrekin: not only to design a clinical model for locally sustainable acute and community hospital services for the next 20 years but also to lead the process of redesigning these services. This task was to take into account the health needs of all of the populations who receive acute services within Shropshire and Telford and Wrekin, including patients from Powys.

Our four clinical leads - Dr Bill Gowans, Dr Mike Innes, Dr Edwin Borman and Dr Alastair Neale – have, alongside the Clinical Reference Group of 90 local clinicians and in conjunction with the wider clinical community, developed first a vision for hospital based healthcare (published March 2014) and then outlined in this document the detailed structure for the delivery of this care for our patients. Clinical leaders from Powys have shared in this work, too.

Throughout this work we have witnessed an unprecedented commitment by local clinicians to create a system that allows them to deliver the best possible outcomes for their patients. The ethos of the work has been reliant on the principles that patients should be cared for as close to home as is feasible; that clinicians be empowered through having access to the best equipment and support from colleagues co-located on single sites; that solutions be innovative and integrated; and that we free ourselves from the constant threat of loss of services by creating a sustainable system for Shropshire, Telford and Wrekin and parts of Powys.

Our thanks go, therefore, to the four clinical leads and to the Midlands and Lancashire Commissioning Support Unit team which has facilitated this work.

Dave Evans
Accountable Officer
Telford & Wrekin CCG

Caron Morton
Accountable Officer
Shropshire CCG

Executive summary

The Future Fit programme was commissioned in response to clear messages from patients and clinicians in the Call to Action survey: our local NHS services could be better joined up and more efficient; dedicated staff are working under relentless pressure in a system that increasingly inhibits communication and a holistic approach and, although patients report some excellent experiences of care, they also said that decisions about their care are often made for them, not with them, and that when this happens their needs are not fully recognised or met.

Patients understand the increasing pressures that NHS services are working under and see radical change of health and social services as the only option to cope with these pressures in the future. They want clinicians to take a leading role in making the changes needed.

Fifty leading clinicians and patient representatives met in November 2013 to consider the Call to Action messages and establish a compelling case for change based around the needs of an increasingly older population, the dramatic rise in long term conditions, higher public expectations of quality and convenience and growing workforce pressures, all against a backdrop of huge economic challenges across all sectors.

Whilst agreeing that radical change will be required across the whole system to address these challenges, they recognised that the problems are currently more acute in hospitals than elsewhere. The scope of the Future Fit programme reflects this: to design and configure acute and community hospital services fit for the next twenty years.

Three hundred clinicians and patients involved in the clinical design workstream all agree that high quality, safe, efficient and sustainable hospital services can only be delivered if the whole health and social care economy is functioning to the same high standards.

The clinical models described are based on three areas of care; acute and episodic illness, the management of long term conditions and frailty and the delivery of planned care, all underpinned and united by principles and working practices applied across the whole system.

The structural changes proposed describe the consolidation of specialist services to achieve 'critical mass' on the one hand, whilst, on the other hand, also addressing the need to improve quality and patient experience by delivering more care closer to home.

The principles and changes in working practices proposed in the report reflect the requirement for a sustainable health and social care system, but balance that requirement with the need to empower patients, clinicians and communities.

The clinical model for acute and episodic care describes an urgent care network, within which one central emergency centre works closely with peripheral urgent care centres. For planned care, one central diagnostics and treatment centre will provide circa 80% of planned surgery whilst the majority of assessment, diagnosis and follow up will be performed closer to peoples' homes. The care of people with long term conditions will be seamless, responsive and lifelong.

The clinicians also strongly emphasise three additional challenges, beyond the reconfiguration of hospital services, that should be addressed; the need to integrate health and social care and resolve the funding anomalies between them, the absolute requirement to create community capacity to manage the shift in care closer to home and the need for local communities and society as a whole to tackle the prevention and wellbeing agenda.

This report, published after six months of intensive engagement, systematically merging evidence with consensus, describes and details a whole system plan which not only provides a platform to deliver the Future Fit programme, but also serves as an 'agreed common destination' for everyone in the system and as a 'toolkit' to provide a means of getting there.

1. Introduction

The clinical design workstream was established in November 2013 and used the results from the “Call to Action” survey and meetings as a starting point for its work¹. From this, it has established an approach to ensure that the future of hospital and community services is considered within the context of a whole system plan. It has employed a process which maximises patient and clinician engagement and co-creation. Three hundred clinicians and patients have agreed that there is a compelling case for change, developed the clinical and design principles applicable to the whole system, examined the national and international evidence base, reached a consensus about the clinical vision required and developed the models of care to a level of detail that allows activity and capacity modelling to be applied to them.

2. Scope of the clinical design workstream

The design of high quality, safe, efficient and sustainable hospital services must be developed within the context of a coherent and deliverable whole system plan¹. So, although the scope of the “Future Fit” programme is confined to the future of acute and community hospital services, the clinical design work stream is required to consider the health and social economy as a whole and establish models of care which fully integrate all services within it. The success of the “Future Fit” programme is likely to depend on achieving whole system transformational change¹. This has significant implications for commissioners as well as the organisations, services and workforce that lie outside the scope of this programme.

There is a strong consensus that the development of an ‘agreed common destination’ is valuable for all stakeholders and that this will contribute to planning alignment across all sectors in the short and medium term². A plan to agree the manner in which this common destination is reached is being developed by all stakeholders.

3. Process

Following the “Call to Action” surveys and events, a clinical reference group (CRG) comprising fifty senior clinicians from health and social care, along with patient representatives, met in November 2013 to receive the results, from which a case for change was established and whole system design principles were debated and agreed¹.

The CRG met again in January and March 2014, during which it confirmed the output from the work so far, defined ‘what success would look like’ and how to measure it and discussed the clinical and design principles applicable to the three main areas of health care delivery³:

- Acute and episodic care
- Long term conditions and or frailty

¹ First Clinical Reference Group Meeting, November 2013, see appendix page 4

² Fourth Clinical Reference Group Meeting, May 2014, see appendix page 41

³ Second and third Clinical Reference Group Meeting, January and March 2014, see appendix pages 21, 34

- Planned care.

Three subgroups were formed to consider these areas further; each subgroup comprising between twenty and thirty clinicians from health and social care, along with patient representatives. They each met four times from February to May 2014 to develop and detail the design and clinical principles, to establish models of care in each area and to begin a process of sense checking, testing and refinement of the models⁴.

An 'evidence pack' was developed for every member of the three subgroups, which gave a detailed but focused view of the available evidence to support the development of acute and episodic, long term conditions and planned care⁵. Reference to the evidence base is made throughout this report and the evidence summary and bibliography is included as an addendum.

Alongside the subgroup meetings, eighteen cross cutting theme meetings were held to examine, interrogate and detail the models of care, each from a particular clinical or operational perspective. These smaller groups were comprised of specialists and other stakeholders with a particular expertise in the defined cross cutting theme⁶.

Nine patient focus groups of variable size have met to consider specific questions emerging from the clinical design process⁷.

The clinical reference group met again on 28 May to sign off the clinical design workstream report⁸.

The core clinical design workstream group, reporting to the programme team, has planned and overseen this work.

External clinical assurance for the clinical models detailed in this report will be sought from an expert clinical team overseen by the West Midlands Clinical Senate.

Please see page 63 for relevant evidence that supports the paragraphs above.

⁴ All sub-group meetings, see appendix pages 47-103

⁵ Future Fit website: <http://www.nhsfuturefit.co.uk/key-documents/key-documents/documents>

⁶ All cross-cutting theme meetings see appendix pages 104-186

⁷ All patient focus group meetings see appendix pages 187-233

⁸ Fourth Clinical Reference Group Meeting, May 2014, see appendix page 41



Figure 1: Clinical design workstream process

The process of clinical design within the “Future Fit” programme takes account of the fact that the evidence base for much of the change required, whilst important, is patchy at best and completely absent at worst. A whole system plan requires the development of consensus to ‘fill the gaps’ in evidence. Experienced based consensus, that is, the combined experience of patients and clinicians, also enables the participants to become co-responsible in making judgements based on the ‘common good’⁹.

The clinical models become more authentic the more times the process takes the participants ‘round the circle’ from evidence to consensus and back again. This is reflected in this report which is referenced in two ways: the first to the evidence base and the second to the verbatim reports of the meetings during which consensus was reached, all of which were carefully recorded, written up and checked for accuracy by participants before publication.

⁹ Second Clinical Reference Group Meeting, January 2014, see appendix page 21

Content from cross cutting theme meetings and patient focus groups is referenced and appears in bold green typeface. Content derived from clinical reference groups and subgroups is not referenced as this forms the body of the report.

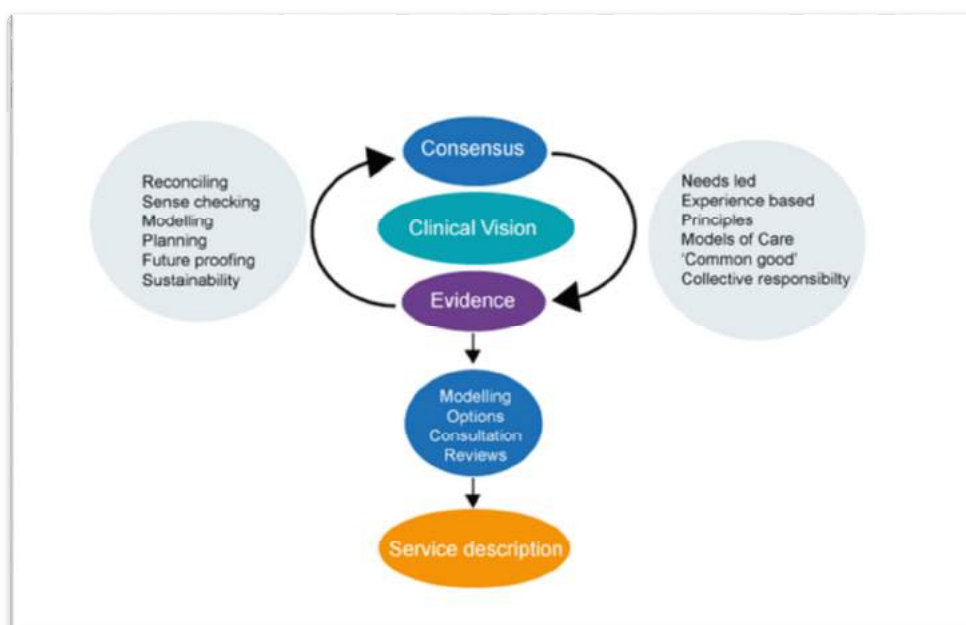


Figure 2: The approach used to gaining consensus

4. The Case for Change

4.1 Background

There are already some very good health services in Shropshire, Telford and Wrekin. They have developed over many years to try to best meet the needs and expectations of the populations served, including that of mid-Wales. Nevertheless, when we look at the changing needs of the population now and that forecast for the coming years; when we look at the quality standards that we should aspire to for our population, as medicine becomes ever more sophisticated; and when we look at the economic environment that the NHS must live within; then it becomes obvious that the time has come to look again at how we design services so we can meet the needs of our population and provide excellent healthcare services for the next twenty years.

When considering the pattern of services currently provided, our local clinicians and indeed many of those members of the public who have responded to the recent “Call to Action” consultation, accept that there is a case for making significant change; provided there is no predetermination and that there is full engagement in thinking through the options. They see the opportunity for:

- Better clinical outcomes through bringing specialists together, treating a higher volume of cases routinely so as to maintain and grow skills
- Reduced morbidity and mortality through ensuring a greater degree of consultant-delivered clinical decision-making more hours of the day and more days of the week through bringing teams together to spread the load

- A pattern of services that by better meeting population needs, by delivering quality comparable with the best anywhere, by working through resilient clinical teams, can become highly attractive to the best workforce and can allow the rebuilding of staff morale
- Better adjacencies between services through redesign and bringing them together
- Improved environments for care
- A better match between need and levels of care through a systematic shift towards greater care in the community and in the home
- A reduced dependence on hospitals as a fall-back for inadequate provision elsewhere and instead hospitals doing to the highest standards what they are really there to do (higher dependency care and technological care)
- A far more coordinated and integrated pattern of care, across the NHS and across other sectors such as social care and the voluntary sector, with reduced duplication and better placing of the patient at the centre of care

They see the need and the potential to do this in ways which recognise absolutely the differing needs and issues facing our most dispersed rural populations and our urban populations too.

This then is the positive case for change - the opportunity to improve the quality of care we provide to our changing population.

4.2 The Challenges

Our local clinicians and respondents to the “Call to Action” also see this opportunity to systematically improve care, as being a necessary response to how we address the many challenges faced by the service as it moves forward into the second and third decades of the twenty first century.

These challenges are set out below - they are largely outside our control and we have to adapt our services to meet them:

4.2.1 Changes in our population profile

The remarkable and welcome improvement in the life expectancy of older people that has been experienced across the UK in recent years is particularly pronounced in Shropshire where the population of people aged over 65 has increased by 25 percent in just 10 years. This growth is forecast to continue over the next decade and more. As a result the pattern of demand for services has shifted with greater need for the type of services that can support frailer people, often with multiple long-term conditions, to continue to live with dignity and independence at home and in the community.

4.2.2 Changing patterns of illness

Long term conditions are on the rise as well, due to changing lifestyles. The means we need to move the emphasis away from services that support short-term, episodic illness and infections towards services that support earlier interventions to improve health and deliver sustained continuing support, again in the community.

4.2.3 Higher expectations

Quite rightly, the population demands the highest quality of care and also a greater convenience of care, designed around the realities of their daily lives. For both reasons,

there is a push towards 7-day provision or extended hours of some services and both of these require a redesign of how we work given the inevitability of resource constraints.

4.2.4 Clinical standards and developments in medical technology

Specialisation in medical and other clinical training has brought with it significant advances as medical technology and capability have increased over the years. But it also brings challenges. It is no longer acceptable nor possible to staff services with generalists or juniors and the evidence shows, that for particularly serious conditions, to do so risks poorer outcomes. Staff are, of course, aware of this. If they are working in services that, for whatever reason, cannot meet accepted professional standards, morale falls and staff may seek to move somewhere that can offer these standards. It is also far more difficult to attract new staff to work in such a service. Clinicians are a scarce and valuable resource. We must seek to deploy them to greatest effect.

4.2.5 Economic challenges

The NHS budget has grown year on year for the first 60 years of its life, in one decade across the turn of the twenty first century its budget doubled in real terms. But now the world economy, and the UK economy within that, is in a different place. The NHS will at best have a static budget going forward. And yet the changing patterns of population and resultant need, the increasing costs of ever improving medical technology, the difficulties in simply driving constant productivity improvements in a service that is 75 percent staff costs and that works to deliver care to people through people, mean that without changing the basic pattern of services then costs will rapidly outstrip available resources and services will face the chaos that always arises from deficit crises.

4.2.6 Opportunity costs in quality of service

In Shropshire and Telford and Wrekin the inherited pattern of services, especially hospital services, across multiple sites means that services are struggling to avoid fragmentation and are incurring additional costs of duplication and additional pressures in funding. The clinical and financial sustainability of acute hospital services has been a concern for more than a decade. Shropshire has a large enough population to support a full range of acute general hospital services, but splitting these services over two sites is increasingly difficult to maintain without compromising the quality and safety of the service.

Most pressingly, the acute Trust currently runs two full accident and emergency (A&E) departments and does not have a consultant delivered service 16 hours a day, over 7 days a week. Even without achieving Royal College standards the Trust currently has particular medical workforce recruitment issues around A&E services, stroke, critical care and anaesthetic cover. All of these services are currently delivered on two sites though stroke services have recently been brought together on an interim basis. This latter move has delivered measurable improvements in clinical outcomes.

4.2.7 Impact on accessing services for populations living in two urban centres and much more sparsely populated rural communities

In Shropshire, Telford and Wrekin there are distinctive populations. Particular factors include our responsibility for meeting the health needs of sparsely populated rural areas in the county, and that services provided in our geography can also be essential to people in parts of Wales. Improved and timely access to services is a very real issue and one which the public sees as a high priority. We have a network of provision across community hospitals that can be part of the redesign of services to increase local care¹⁰.

5. System principles and working practices

The following principles and practices emerged from the clinical design work across all areas of care and specialities as being necessary and fundamental components of an efficient, safe, resilient and integrated health and social care system. These are developed in more detail within the descriptions of the models of care and cross cutting themes.

5.1 'Home is normal'

Health and social care is currently 'bed based' and risk averse and, although people prefer to remain in their own home whenever possible¹¹, they are often cared for at 'levels of care' which are higher than required to meet their needs. Not only is this not what most people want, it is also resource inefficient and increases the risk of iatrogenic (health care induced) harm. People who are frail have worse outcomes if they are admitted to hospital for more than three days. Up to 20 percent of people admitted to acute hospitals could be managed safely and effectively in a different care setting and at a lower level of care.

Patients cared for at home remain connected to their family and carers. Community support remains continuous and the patient is less likely to 'decompensate' by being cared for in a bed based acute environment which is also much more stressful. Individualised care can be delivered more easily by community teams. The potentially difficult and harmful transitions from home to hospital and back again are removed. Performing an accurate and holistic assessment of needs is much more difficult when a patient is not in their usual living environment¹².

'Home is normal' describes the principle of matching people's needs with the correct level of care, preferably without changing their care setting.

Home will not be the right place to care for everyone who is ill. Some of course require high levels of care in an acute hospital bed, but other alternatives must be provided that offer a 'medium' level of care.

¹⁰ Call to Action event, November 2013, see appendix page 3, first and second Clinical Reference Group Meetings, November 2013 and January 2014, see appendix page 3, NB the case for change was approved on 23 January 2014

¹¹ Long term conditions patient focus group, May 2014, see appendix page 216

¹² First and second long term conditions sub group, see appendix pages 206 and 213

Community capacity must be built to accommodate this shift. It is not necessarily cheaper to provide care at home when intensive input is required. Although new ways of working will provide efficiencies, there is an absolute need to shift resources into community care¹³.

Providing the right level of care also requires more effective risk management across the system which currently tends to 'overcompensate' by placing people in a higher level of care than they need. The combination of a risk averse social and professional environment combined with huge budget cuts in social care make achieving this, a huge challenge¹⁴.

Please see page 63 for relevant evidence that supports the paragraphs above.

5.2 Empowerment

Patients want to be empowered so they can remain autonomous and independent, even when they are ill¹⁵.

Clinicians want to be empowered to do the job they were trained to do, and not spend too much of their time trying to navigate a poorly designed and inefficient system on behalf of their patients¹⁶.

Communities want to be empowered so that citizens can help each other to live 'a life well lived' in an environment that minimises isolation, vulnerability and inequality¹⁷.

5.2.1 Empowered patients

Enabling patient empowerment and responsibility should be embedded in all models of care. Although there is mixed evidence of short term impact on admissions and cost, there is an overwhelming case for empowering citizens to be co-responsible for managing their lives and social environment, whatever their health status¹⁸.

Effective and targeted prevention helps people to make better lifestyle choices and reduces disability, dependence and 'disease burden'.

When they do have a problem, people require easy access to understandable and trustworthy information about self-care options and local services to which they can gain direct access, as well as to information that guides them to seek professional help appropriately and when necessary¹⁹.

Once patients are in the system, they experience it as being complex, fragmented and difficult to navigate. It disempowers and frustrates them and they often seek professional

¹³ First and second Primary Care cross cutting theme meetings, see appendix pages 141 and 145, Third Clinical Reference Group, see appendix page 34

¹⁴ First and second long term conditions sub group meeting, see appendix pages 206 and 213

¹⁵ Long term conditions patient focus group, February 2014, see appendix page 213

¹⁶ First Clinical Reference Group meeting, November 2013, see appendix page 4

¹⁷ Long term conditions patient focus group, May 2014, see appendix page 216

¹⁸ First long term conditions sub group meeting, see appendix page 66

¹⁹ Long term conditions patient focus group, February 2014, see appendix page 206

help to signpost and navigate when this should not be necessary²⁰. Simpler, more consistent and better connected systems which patients can more easily navigate are required²¹.

Patients want to self-manage their long term²². This requires a culture change away from 'doctor knows best' to a high trust partnership between patient and clinician. The vehicle for this is a care plan ('myplan' or 'about me') which should be started for everyone at the time of diagnosis, encompass medical, mental health and social care needs and become a valuable tool which helps patients, together with their family and carers, to state their views, stay well, know what to expect, respond appropriately to the unexpected and navigate the system easily when they need to²³.

Some people, who are more vulnerable, have less capacity for self-management and require a different approach, especially when they are ill. They require a named key worker or responsible clinician with whom they can share decisions and who can act as their advocate²⁴.

Risk stratification tools will help identify those 'at risk' and they will be pro-actively case managed by the most appropriate clinician or team.

Please see page 65 for relevant evidence that supports the paragraphs above.

5.2.2 Empowered clinicians

Clinicians are becoming progressively more demoralised working in a beleaguered system that increasingly treats patients and professionals like as a commodity. Compassionate care for patients can only flourish when clinicians are treated in the same way. Working as members of fully staffed, innovative and energised teams in an environment where they are valued and supported and within a system that gives the highest priority to relationships, trust, co-responsibility and continuous learning²⁵.

Every member of a team must have clearly understood roles and responsibilities, especially when working within complex systems and environments. However, over-definition of roles, especially when restricted to one care setting, can prevent professionals 'going the extra mile' to ensure continuity of care and seamless patient journeys. Rotating posts and working across organisational boundaries will be embedded into the system to reinforce this²⁶.

Values based recruitment will become the norm and compassionate attitudes, behaviours and relationships will be more visible throughout the whole organisation²⁷. Moving from a 'referral based' model to a 'partnership based' model of care will reinstate the central

²⁰ First Clinical Reference Group meeting, November 2013, , see appendix page 4

²¹ Long term conditions patient focus group, May 2014 , see appendix page 216

²² Long term conditions patient focus group, April 2014 , see appendix page 213

²³ Long term conditions patient focus groups, May 2014 , see appendix page 216, third long term conditions subgroup, April 2013, see appendix page 81

²⁴ All long term conditions subgroups, see appendix pages 47-103, third Clinical Reference Group meeting, March 2014, see appendix page 34

²⁵ First Clinical Reference Group meeting, November 2013, see appendix page 4

²⁶ First and second long term condition sub group, February 2014, see appendix page 66

²⁷ First Clinical Reference Group meeting, November 2013, see appendix page 4, 7 day working cross cutting theme meeting, see appendix page 178

importance of direct communication between clinicians who are caring for the same patient and promote better working relationships between generalists and specialists so they become co-responsible for the whole patient journey.

Clinicians will be empowered in a system which consistently responds in a timely way, where care is delivered by experts, with excellent professional navigation and where safe and robust risk management is enabled by excellent access to diagnostics and specialist opinion²⁸.

5.2.3 Empowered communities

People living in communities want to help themselves and each other. Neighbourliness, volunteering, philanthropy and community spirit are still present in abundance, but require organising and enabling to be truly effective²⁹.

Communities should be enabled to influence the wider determinants of health at a local level, as part of the wellbeing agenda. Tackling exercise, diet, smoking, alcohol, isolation, inequality and parity of esteem requires co-ordinated local action across all sectors of society and cannot be left to statutory health and social services alone to address³⁰.

Statutory health and social services need to establish more strategic partnerships with voluntary and charitable organisations. The “Compassionate Communities” project and “Community and Care Co-ordinators” promote such partnerships and connect local people in need of support with their local community and statutory services in a more effective way³¹.

The development of community hubs will provide a focus for community mobilisation³². They will be experienced as a ‘cared for’, non-institutional environment, welcoming to everyone, whether there by appointment or ‘walk in’. It will provide consistent services and activities which not only promote patient and community empowerment, but also enhance the quality and sustainability of local NHS acute, planned and long term condition services. The community hub will be ‘the place I go when I have a question or a problem’.

Please see page 66 for relevant evidence that supports the paragraphs above.

5.3 Sustainability

There was clear and repeated recognition throughout the clinical design process that the biggest single factor which will determine success or failure of the programme over the next twenty years is the degree to which the prevention and wellbeing agenda is addressed. The general health of the population and the years they live without disease (‘disease free life

²⁸ Secondary care, April 2014, see appendix page 145 and diagnostics cross cutting theme meeting, May 2014, see appendix page 128

²⁹ First community hospitals crosscutting theme meeting, May 2014, see appendix page 118

³⁰ Second Clinical Reference Group meeting, January 2014, see appendix page 21, first and second long term conditions subgroup meetings, February 2014, see appendix page 66

³¹ First and second long term conditions subgroup meetings, February 2014, see appendix page 66, social care cross cutting theme meeting, April 2014, see appendix page 161

³² First community hospitals cross cutting theme meeting, May 2014, see appendix page 118

years') will be the primary determinant of the 'disease burden', the size of which will determine whether or not health and social care is effective and sustainable in the future.

Whilst targeted prevention is effective in social and health care settings, and will continue to be embedded in the health and social care system, this will largely benefit people known to be at risk or who already have disease.

There is an absolute requirement for an enhanced and integrated education and prevention programme addressing the wider determinants of health of the whole population, driven by a commitment to wellbeing as a primary health, social, economic, political and cultural aim, without which the sustainability and quality of services in the future will be seriously threatened³³.

The causes of health inequalities

Source: National Audit Office



There is currently confusion between the delivery of targeted prevention activities and the wider wellbeing agenda relevant to the whole population. To resolve this, it is proposed that the nomenclature for targeted prevention aimed at those 'at risk' is prevention, whilst addressing the wider determinants of health through social change is wellbeing. This will enable clarity in planning and in determining roles and responsibilities for the prevention agenda as distinct from the wellbeing agenda³⁴.

Please see page 67 for relevant evidence that supports the paragraphs above.

5.3.1 Financial sustainability

Whilst it is not the remit of the clinical design process of "Future Fit" to determine financial sustainability, there is a necessity to make some assumptions about the scale of future funding changes to health and social care. For the purposes of the clinical design process, it

³³ First Clinical Reference group meeting, November 2013, see appendix page 4, third planned care sub group meeting, April 2014, see appendix page 96

³⁴ First and second long term conditions sub group meetings, February 2014, see appendix page 66 social care cross cutting theme meeting, April 2014, see appendix page 161

is assumed that there will be no increase in overall budgets over the next ten to twenty years, and that in the face of an increase in population care needs and life expectancy, in real terms there will be a reduction in investment.

Financial austerity is one of the key drivers for radical change and is identified clearly as such as part of the 'case for change' in this programme. Activity and capacity modelling work already completed, applying the rules of 'best practice' rather than radical 'new models of care', has already demonstrated that simply continuing 'doing what we do' but with greater efficiency is not sustainable.

Where radical change is required, there is a need to manage and tolerate a much higher chance of relative failure, and an equal need to recognise and manage the change processes of a complex adaptive system where the consequences of change are 'emergent' rather than 'predictable'. A financially constrained environment will provide a huge challenge to the system to collectively develop the necessary level of 'courage to change' and 'appetite for risk'.³⁵

Please see page 68 for relevant evidence that supports the paragraphs above.

5.3.2 Workforce sustainability

There is a current or impending workforce crisis across much of the health and social care system, both locally and nationally. Recruitment and retention in some sectors has stalled completely and the need to improve access over seven days only compounds the problem.

Local clinicians expressed some strong views about potential components of a sustainable solution:

- Consolidate some services to make posts more attractive by improving the quality of work, gaining more experience working in larger units, offering better rotations through fully staffed co-located departments and services, all in an improved working environment.
- Utilise the available workforce to fill medical rotas in the most efficient way, identify the gaps created by recruitment issues (local and national) and by the new models of care and develop novel roles to fill the gaps and develop the workforce competencies required of the new models of care, (e.g. advanced practitioner, emergency nurse practitioner, physician's assistant etc.).
- Prototype and implement rotating (and split) posts through different care settings to improve mutual learning, understanding and trust, provide better risk management, encourage better use of shared protocols, pathways, training opportunities and shared documentation and improve the consistency and quality of care through generic up-skilling³⁶.
- Improve recruitment and retention of staff through more effective succession planning and better role development and continuous professional development (CPD).

³⁵ First Clinical Reference Group meeting, November 2013, see appendix page 4

³⁶ 7 day working and workforce meeting, May 2014, see appendix page 178

- Gain academic status by establishing an economy wide link to university and other education and training programmes to attract people to come to Shropshire to train and work³⁷.

Because of the national workforce situation and because the models of care proposed require bespoke workforce planning, there is no choice other than to 'grow our own workforce'. To achieve this requires working towards achieving service standards as the workforce 'evolves' with a recognition that they cannot be achieved overnight³⁸.

Please see page 68 for relevant evidence that supports the paragraphs above.

5.3.3 Sustainability of services

It is important to distinguish between the imperative of developing sustainable services designed around entire patient journeys which cross organisational boundaries, and the future of individual providers who will play a part in delivering care for part of those journeys.

New models of care, workforce and commissioning must reflect whole patient journeys and providers will need to adapt, integrate and collaborate to accommodate this whole system planning.

Providers will need to define their 'transitions' as carefully as their core services. Their planning will require complete alignment with whole system strategic plans. Organisational and financial integration may well benefit the system to the detriment of individual providers³⁹.

Consolidation of some services, such as a single high acuity centre and a standalone diagnostic and treatment centre, will improve service sustainability whilst, at the same time provide multiple clinical benefits. It will consolidate resources, including the workforce, improve teamwork and integration, improve quality and safety, allow specialists to offer more effective generalist support in lower acuity settings and provide an economy of scale and high volumes of care to maximise expertise and improve outcomes⁴⁰.

The concept of 'critical mass' is recognised as a key to the future sustainability of parts of the system. Units and services require a certain size and volume of work to be as efficient and safe and be of the highest quality⁴¹.

Designing a 'needs led' service, in which patient access to care is dependent on the level of care they require, also carries multiple benefits and ensures a more sustainable service. Quality, safety and achieving the best outcomes will come before choice. Services will be rationalised so they are more consistent in their quality and the services they offer. This will

³⁷ First and second acute and episodic care subgroup meetings, February 2014, see appendix page 48

³⁸ 7 day working and workforce meeting, May 2014, see appendix page 178

³⁹ First Clinical Reference Group meeting, November 2013, see appendix page 4

⁴⁰ First and second acute and episodic care subgroup meetings, February 2014, see appendix page 48, all planned care sub group meetings, February 2014, April 2014, May 2014, see appendix pages 89-103

⁴¹ First and second acute and episodic care subgroup meetings, February 2014, see appendix page 178, secondary care cross cutting theme meeting, April 2014, see appendix page 154

make it easier to effectively triage, signpost and brand to ensure more appropriate attendances at the right point of care, which should be the least intensive level required to fully meet every patient's needs in order to maximise efficiency and reduce iatrogenic harm⁴².

Patients are very clear that a well-planned needs led service does not diminish patient empowerment. Indeed they view a 'wants led' service, with multiple sources of direct access which rely on patients accurately identifying their own need, as fundamentally inequitable⁴³.

Please see page 69 for relevant evidence that supports the paragraphs above.

5.4 New ways of working

5.4.1 Integrated care

Definition: Integrated care is the means by which continuity of care is delivered across time and care settings⁴⁴.

Whilst successful integrated care may require pooled budgets and integration at organisational level, it is important not to assume that these changes alone will bring about improved care across whole patient journeys. Integration is a means to an end, and is best regarded as a tool to deliver services which are designed around patient need and which improve clinical outcomes, rather than as a generic and universally effective 'efficiency of scale'.

Integrated care which improves the co-ordination, collaboration and consistency of care delivered across the whole system must therefore be designed and delivered at multiple levels. Whilst one of these levels is the strategic placement of integrated teams to deliver holistic and intensive input when required, at a more basic level integrated care requires effective networking and communication across the whole system.

Integrated care records are a necessary precondition to achieve this and therefore their development needs to be given the highest priority⁴⁵. Once delivered, the development of fully networked care, that is the ability to quickly construct and manage a bespoke 'team around the patient', either virtual or real, becomes achievable. Building in single assessment processes to networked care will increase efficiency and reduce the need for multiple unnecessary contacts. Care planning and active case management will also help the co-ordination and planning of integrated care at individual patient level.

Multi-disciplinary team (MDT) working is the most common 'currency' used to discuss and design integrated care. Whilst it is clearly a crucial component of the system, effective MDTs are resource intensive and cannot be used as a model to deliver care across the whole system. Rather, their activity should be targeted to a higher level of acuity where an MDT

⁴² First and second acute and episodic care subgroup meetings, February 2014, see appendix page 48

⁴³ First acute and episodic care subgroup meeting, February 2014, see appendix page 48, first long term conditions patient focus group, February 2014, see appendix page 206

⁴⁴ Third long term conditions sub group meeting, April 2014, see appendix page 81

⁴⁵ IT cross cutting theme meeting, May 2014, see appendix page 135

intervention will have the greatest impact: e.g. admission avoidance, facilitated discharge from hospital and complex case management⁴⁶.

Integrated care also requires smooth transitions between different levels of care and between organisations providing that care. Providers need to define and plan their transitions as carefully as they do their core service. The clinical workforce needs to 'follow the patient' across organisational boundaries and embedded rotating posts promote integrated care by improving mutual understanding and relationships between clinicians working in different care settings⁴⁷.

The development of whole system patient pathways will facilitate this process; although not all care is amenable to being 'pathway driven', a focus on efficient pathways for planned care, ambulatory urgent care and some partnership care (between specialists and generalists) delivered in the community will improve integrated care⁴⁸.

A critical element of integration is between health and social care. Historically they have worked 'in series', on the assumption that the care needs and delivery are fundamentally different and that one should follow the other. There is an overwhelming clinical consensus that this is not the case; health and social needs co-exist and must be addressed 'in parallel'.

⁴⁹

Excellent professional navigation is also a precondition for integrated care. A single point of access (SPA) to services across the system – including medical, voluntary sector, mental health and social care, should be available to all clinicians directly involved in patient care. The SPA must facilitate, rather than block direct communication between clinicians⁵⁰.

Barriers to integrated care require systematic identification and removal. These include a fragmented organisational structure, funding anomalies between health and social care, multiple incompatible IT systems, 'old fashioned' commissioning mechanisms and an overwhelming administrative burden. Where pathway components are supplied under the 'Any Qualified Provider' system or through private sector tendering, these will need to be commissioned in a way which supports integrated care⁵¹.

Please see page 71 for relevant evidence that supports the paragraphs above.

5.4.2 Partnership care

Patients often experience their care as fragmented; they find themselves having to tell their story repeatedly to different professionals involved in their care, who then perform multiple assessments on them about the same problem. They find it surprising that the clinicians looking after them often cannot see their records and don't communicate with each other,

⁴⁶ Rural health solutions cross cutting theme meetings, May 2014, see appendix page 152, Primary Care cross cutting theme meetings, April 2014 and May 2014 see appendix pages 141-151, community hospitals cross cutting theme meetings, May 2014, see appendix pages 118-127

⁴⁷ 7 day working and workforce cross cutting theme meeting, May 2014, see appendix page 178

⁴⁸ First and second acute and episodic care subgroup meetings, February 2014, see appendix page 48

⁴⁹ First and second long term conditions subgroup meetings, February 2014, see appendix page 66

⁵⁰ All sub group meetings, see appendix pages: 47-103

⁵¹ First and second long term conditions sub group meetings, February 2014, see appendix pages 66

except through written communication that is 'post hoc' and records a consultation or contact. They often don't experience their care as co-ordinated, planned or shared⁵².

Clinicians experience working in silos, with little visibility of the rest of the patients' journey. They find direct communication with other clinicians involved in their patient's care difficult and time consuming and they find that single points of referral or access often inadvertently block, rather than facilitate this. They have become used to working in a system in which 'handovers' of care become 'hand-offs' which interrupt continuity of care and reduce co-responsibility⁵³.

There is a strong clinical consensus that the success of the new models in improving patients and clinicians experience of care depends on moving from a 'referral based model' to a 'partnership based model' across all care settings. The essence of partnership care is to facilitate direct communication between clinicians caring for the same patient. To achieve this apparently simple outcome not only requires some changes in the mind set and habits of clinicians, it also necessitates a raft of changes in the system which currently blocks or hinders direct communication⁵⁴.

A menu of options for direct communication will allow the most appropriate and timely response according to patient need, and facilitate meaningful and direct conversation, interaction and information flow between clinicians. In an acute setting, this may be almost immediate and via a phone call or Skype, whereas in a planned or long term conditions care setting it may be more akin to traditional 'advice and guidance' via email or even letter.

Partnership care also redefines the roles of generalists and specialists, with generalists, based mainly in the community and including GPs and community care clinicians, responsible for maintaining co-ordination and continuity of care, performing initial assessments and accessing specialist support when required. Specialists will continue to carry responsibility for continuity of care for the most complex cases and for most children with long term conditions.

Direct communication will facilitate shared decision making and mutual case based learning. Specialists will also have a more explicit educational responsibility to improve the quality and consistency of generalist care. The consolidation of the specialist workforce onto single units will give them more opportunity to participate in partnership care and thereby support generalist care in lower acuity settings. This way of working will be applied across all sectors, including mental health and social care⁵⁵ and all levels of care, (planned, acute and long term conditions)

Successful partnership care will require a high level of trust between partners. Currently there is a perception amongst consultants that offering advice and guidance without seeing

⁵² Planned care patient focus groups 2014, see appendix pages 221-233

⁵³ First Clinical Reference Group meeting, November 2013, see appendix page 4

⁵⁴ First and second acute and episodic care subgroup meetings, February 2014, see appendix pages 48, secondary care cross cutting theme meetings, April 2014, see appendix page 154, children's cross cutting theme meetings, April 2014, see appendix page 113, mental health cross cutting theme meetings, May 2014, see appendix page 138, therapeutics cross cutting theme meetings, May 2014, see appendix page 166

⁵⁵ Mental health cross cutting theme meeting, May 2014, see appendix page 138, Social care cross cutting theme meeting, April 2014, see appendix page 161

the patient carries a level of risk that many are unwilling to take. The process of building trust will be helped through good governance and reliable routes of communication e.g. care co-ordination centre and the use of recordable Skype.

The principle of a 'named responsible clinician' will also enable partnership care. As already discussed, and incentivised by the new GP contract, people who are vulnerable and at risk will benefit from care planning, active case management and a named responsible clinician, usually a GP. As this practice is rolled out, it should not be restricted only to those people with long term conditions and associated frailty, but should be extended more widely within acute and emergency care so that a consultant becomes the named responsible clinician for every patient admitted to hospital, and remains jointly responsible for the duration of admission and for up to thirty days after discharge. The length of continuing responsibility will be determined by the complexity and on-going needs of the patient⁵⁶.

If the principle of a named responsible clinician is embedded and direct communication between clinicians is facilitated, then partnership care will evolve.

Please see page 72 for relevant evidence that supports the paragraphs above.

5.4.3 Information Technology (IT)

IT solutions will change working practices in two ways; firstly by improving communication and information flow across the whole system, and secondly through the use of assistive technology at individual patient level.

Comprehensive information sharing, including fully integrated care records, is the most fundamental component of an integrated health and social care system and its development should be of the highest priority. Patients regard integrated care records as a reasonable proxy for continuity of care.

The barriers around full data sharing are more cultural than legal. Slow data transmission speeds in rural areas must be overcome by the universal provision of broadband. This, and other components of the system, will require significant funding. Technological solutions to achieve the vision do exist⁵⁷.

As already discussed, partnership care requires a menu of options for direct communication, including new and emerging technologies. This will include the facility for remote and secure consultations (e.g. Video conferencing).

Patient self-management and navigation will be facilitated through a web based 'partnership portal', accessed by clinicians as well as patients, which provides trustworthy localised information about common conditions. There will also be advice on when to seek professional help, options for self-management and direct access to simple therapies and diagnostics.

⁵⁶ Secondary care cross cutting theme meeting, April 2014, see appendix page 154

⁵⁷ IT cross cutting theme meeting, May 2014, see appendix page 135

A centralised and co-ordinated IT based navigation system for healthcare professionals, with options and availability for patient 'dispositions' across the health and social economy, will be accessed by professionals on behalf of their patients through a Single Point of Access (SPA). The SPA must facilitate and not hinder direct communication between clinicians.

6. Models of care

6.1 Acute and episodic care⁵⁸

Acute and episodic care will be fully networked, co-ordinated and needs led, with clear signposting to the correct level of care to meet patient need. Gaining access to the right part of the system will be easy and comprehensible through the development of tiered, consistent and 'branded' services.

Whilst providing convenient services close to home is important, patient choice will defer to an assessment of need, both in terms of the timeliness of the response and the level of care required.

Access to integrated care records will dramatically increase the capacity for different providers to form part of a co-ordinated urgent care network.

6.1.1 Patient access and flows

A web based 'patient portal', available on all platforms, will provide easy, trustworthy and localised information regarding self-help, advice and signposting. This will include and integrate health, social and voluntary sector information⁵⁹.

A 'Smart' single point of telephone access (111) will intelligently triage all requests for urgent care (defined as requests for same day assessment) and signpost patients to the right point of care, including the capacity to make appointments at their GP practice if less urgent, or at one of the urgent care centres. This service will be linked to a live demand and capacity management system to improve patient flow.

As care planning for people with long term conditions (LTCs) becomes the default, there is great potential for care plans to become a 'patient passport' which directs them to the right source of advice, professional or service in the event of an exacerbation of their condition. If they have a named keyworker, then they will be the point of first contact, otherwise most people with an LTC will be directed to contact their GP surgery who provide continuity of care through a 'named responsible clinician'. Some people with complex or unusual needs and most children with LTCs will be signposted via their care plan directly to a specialist⁶⁰.

As a default, and as a benefit of 'anticipatory' care planning which allows acute exacerbation to be detected early, LTC urgent care should be converted to 'planned' care with appointments made for timely assessment and review.

⁵⁸ All Clinical Reference Group meetings, November 2013, January 2014, March 2014, May 2014, see appendix pages: 4-46, all acute and episodic care subgroup meetings, February 2014 and April 2014, see appendix pages 48-65

⁵⁹ IT cross cutting theme meeting, May 2014, see appendix page 135

⁶⁰ Children's cross cutting theme meeting, April 2014, see appendix page 113

People without an LTC who become unwell and require assessment may be directed to an urgent care centre where primary care urgent care services are available at least 16 hours a day. Patients regard an integrated care record as a reasonable proxy for continuity of care in these circumstances.

Access to primary care and walk in services will be increased and available seven days a week. Walk in services will be restricted to pharmacies and urgent care centres, all other services will be accessed through triage; 'phone before you walk'.

Access to the emergency centre will be gained only via emergency ambulance or via an urgent care centre.

Please see page 73 for relevant evidence that supports the paragraphs above.

6.1.2 Tiered and networked urgent and emergency care services

The local urgent care network will comprise:

- A web based 'partnership portal' providing information and signposting
- Telephone triage and advice services (999, 111, GP surgery triage, GP out of hours triage)
- Ambulance services
- Local pharmacies
- GP surgeries
- GP out of hours services
- 'Some' urgent care centres
- One emergency care centre

The web based partnership portal and telephone advice and triage services are discussed in 6.1.1.

Ambulance services will be integrated into the local urgent care network, offering more flexibility in regard to destinations and 'see and treat'. 999 calls will be subject to rapid triage before an ambulance is dispatched. Upon arrival at the scene, paramedics will use decision support algorithms, such as "Pathfinder"⁶¹, to determine the 'disposition' of a patient which may be the emergency care centre, urgent care centre (UCC), GP surgery or 'see and treat'.

Local pharmacies will provide a consistent low acuity urgent care service, which the public understand, dealing with minor conditions and accurately signposting people with higher level needs to the appropriate service. They will develop closer working relationships with nearby GP practices applying the practice of partnership care. The ability to provide over the counter medicines free of charge would empower pharmacies as part of an urgent care service⁶².

⁶¹ Ambulance and transport cross cutting theme meeting, May 2014, see appendix page 105

⁶² Therapeutics cross cutting theme meeting, May 2014, see appendix page 170

GP surgeries will continue to triage and see their patients who require same day assessment. They will however have the option of providing some of their urgent care services through the nearest urgent care centres, offering the potential of freeing up the primary care team to deliver more LTC care. Whilst this option may be attractive in urban settings, it will be more challenging in rural areas where travel distances may be too great⁶³.

GP out of hours services (GP OOH) will play a key role in the urgent care network. The exact relationship and degree of integration between the GP OOH services, 111 and urgent care centres is yet to be determined, although the need to co-locate GP OOH within UCCs as they are developed is clear in the first instance.

The emergency centre is discussed in 6.1.3

UCCs are discussed in 6.1.4

Please see page 73 for relevant evidence that supports the paragraphs above.

6.1.3 One emergency centre

A single, fully equipped and staffed emergency centre (EC), as part of a high acuity unit, with consolidated technical and professional resources will deliver high quality emergency medical care 24 hours a day, 7 days a week.

A combination of expert generalists (acute physicians, care of the elderly consultants and new roles etc.) and specialists (emergency department consultants and specialists) will provide timely expert opinions at all times.

The emergency department will serve as a trauma centre with a co-located critical care unit. Other adjacencies include facilities for ambulatory care and assessment units with multi-disciplinary teams, including mental health, specifically dealing with patients suitable for 0 day length of stay (LOS) pathways (ambulatory care) and less than three days length of stay (mainly LTC and frailty syndromes). There will be also be full and immediately access to radiology and pathology diagnostic facilities, blood bank and pharmacy. Access will be via 999 ambulance or co-located urgent care centre.

The operational relationship between the EC and UCCs is of particular importance. Walk in services will be restricted to UCCs, so efficient communication and transport systems must operate to deliver timely and continuous care to acutely unwell patients who present at UCCs but require EC care.

In order for the EC to adequately support the UCCs, there is a strong clinical consensus that the EC must be co-responsible for the delivery of care in UCCs. Generalists working in UCCs will be caring for patients with higher acuity needs than is currently the case in peripheral units. They will need timely access to specialist support, either through a skill mix in UCCs which includes specialists and or posts that rotate through UCC and EC or through virtual contact by telephone or Skype.

⁶³ Rural health solutions cross cutting theme meeting, May 2014, see appendix page 152

A single emergency centre will improve safety and quality of care and focus resources to improve teamwork. Integration and consolidation of the workforce will promote better working practices both within the unit and in providing support to generalists in lower acuity settings. Improved trust and relationships across different care settings will be embedded through partnership care and rotating or posts, some in new roles designed to promote integrated care and whole system pathways.

Although the EC may be co-located with a planned care diagnostics and treatment centre, it will remain operationally separate with a 'glass wall' or 'trolley park' between the two to ensure that one service does not interfere with the function of the other⁶⁴.

Consolidation and co-location will also bring multiple benefits to other services. These include diagnostic, paediatric and cancer services and are discussed in more detail in the cross cutting themes⁶⁵.

Please see page 74 for relevant evidence that supports the paragraphs above.

6.1.4 'Some' urgent care centres

Urgent Care Centres (UCCs), strategically placed across Shropshire and Telford and Wrekin, will provide low and medium acuity urgent care 24 hours a day (potentially open 16 hours and able to signpost for the remaining 8 hours). The exact number of centres is dependent on precise configuration, but each one must offer the same consistent services which patients understand and can rely on. A 'modular' design concept is adopted to reflect this need.

One UCC will be co-located with the EC. It is important that this UCC is not designed to be 'bigger and better' than the other UCCs. If this was the case, patients would by-pass other units and come to the UCC next to the EC (as is the case currently with people by-passing minor injury units and travelling much further to A&E).

Access will be 'walk in' or potentially by appointment made through 111 triage, GP practices and GP OOH. Ambulances responding to 999 calls will use UCCs as a destination, as long as the service standards are precise and consistent, allowing the use of decision support algorithms.

UCCs will see and treat primary care urgent care problems and 'minors' (as described in A&E), but will also care for patients with higher acuity problems without necessarily transferring them to EC. For example this would include simple fractures, stable pneumonia and abdominal pain. The service standards would be based around those required to deal with 'ambulatory care sensitive conditions', excluding those requiring advanced imaging (CT and MRI scans).

⁶⁴ Third planned care sub group meeting, April 2014, see appendix page 96

⁶⁵ Diagnostics cross cutting theme meeting, May 2014, see appendix page 128, children's cross cutting theme meeting, April 2014, see appendix page 113, cancer cross cutting theme meeting, May 2014, see appendix page 109

What does a UCC look like?

What conditions could be treated in an Urgent Care Centre?

- Intravenous antibiotics
- Palpitations
- 'off legs'
- Stable pneumonia
- Stable anaemia
- DVT's
- Abdominal pain
- Feverish child
- Chest pain
- Limb fractures
- Agitated – brought in by police (136)
- Suicidal
- D+V – children
- Wheezing child
- Burns – child
- Troponin/ECG
- Delirium
- Non life threatening
- Reasonably stabilised
- Have the appropriate management available
- People attending A&E who are classified as 'Minors'
- People who attend DGH as "zero length of stay"
- Recognise that "growth" area will be amongst frail elderly
- 0 day LOS could be treated in UCC
- Risk stratification
- Draw on expert advice

Output from acute & episodic subgroup
2.4.14



At least one clinician in UCCs will require expertise to perform comprehensive geriatric assessments in order to care for patients presenting with frailty syndromes, many of whom would benefit from **not** being admitted to hospital. Therapy services will also be required to facilitate rapid holistic assessment, intervention and care planning.

Unwell children could be assessed and treated at UCCs but the skill set required is specific and not all GPs or generalists have these. Rapid access to specialist paediatric advice would mitigate but not eliminate the need for clinicians with appropriate paediatric experience⁶⁶.

The broad based skill mix required to manage UCCs gives strong incentive to draw staff from different care settings and organisations to collaborate in service delivery. Ideally this would comprise clinicians from primary, community and secondary care and mental health along with staff with novel roles and skills which cross traditional professional boundaries. There are big potential advantages to this approach – mutual and continuous learning, role and team development and co-responsibility for UCCs which then operate across a number of care setting, professional and organisational boundaries.

If a proportion of primary care urgent care activity is diverted to UCCs then a primary care workforce would be developed as part of the overall staffing of UCCs. This would allow practices to deliver some urgent care at scale and potentially free up resources for LTC management.

⁶⁶ Children's cross cutting theme meeting, April 2014, see appendix page 113

Integrated care records will provide a good proxy for continuity of care within the multidisciplinary environment of UCCs⁶⁷.

UCCs require an ultrasound and plain x-ray facilities, simple bloods (not necessarily point of care testing)⁶⁸ an observation unit (up to six hours for children and up to 12 hours for adults) and a pharmacy for to take out (TTO) stock items for OOH.

Usage of the ultrasound and plain x-ray facilities will be maximised by employing them for planned care as well as urgent care activity. Unlike plain x-ray, ultrasound is operator dependant and cannot be interpreted remotely. However, there are enough routine GP requested ultrasound scans to employ several sonographers for five or six days a week.

Other beneficial co-locations will be GP OOHs, although this could integrate and form part of the staff of the UCC, the Community Mental Health Team⁶⁹, (access to) Social Services, a Community Hub⁷⁰ with a range of community and voluntary sector services and possibly community beds providing medium acuity care to people with either medical or intensive rehabilitation needs. Co-location of ambulatory rehabilitation services would also improve the urgent care of people who are frail.

Please see page 75 for relevant evidence that supports the paragraphs above.

6.1.5 Professional navigation from urgent and emergency care settings

There will be a single point of access (SPA), available 24 hours a day, 7 days a week, for professionals to arrange further care and support for patients following their urgent or emergency care contact. This will not include patient transfer within the local or regional urgent care network which will be arranged directly within the network.

The SPA will act as a portal to a wide range of onward care options including appointments for same or next day review in primary care, contact at home by a community clinician, secondary care specialist assessment and social care.

For complex care issues, the SPA will initiate contact but care planning will then be finalised through direct conversation between professionals. For simple care issues, a 'handover' will be managed through the SPA service with integrated care records serving as a valid proxy for continuity of care.

The ability to arrange for timely review will form a key component of an effective UCC. As well as arranging further clinician contact, effective UCC care will also require the ability to arrange appropriate investigations and access test results in a timely way (e.g. arrange for a scan the next day or for blood results within six hours) .

⁶⁷ First acute and episodic care patient focus group, March 2014, see appendix page 187

⁶⁸ Diagnostics cross cutting theme meeting, May 2014, see appendix page 128

⁶⁹ Mental health cross cutting theme meeting, May 2014, see appendix page 138

⁷⁰ First community hospitals cross cutting theme meeting, May 2014, see appendix page 118

6.1.6 Diagrams of the acute and episodic model of care

Figure 3: Patient journey from home through acute pathways

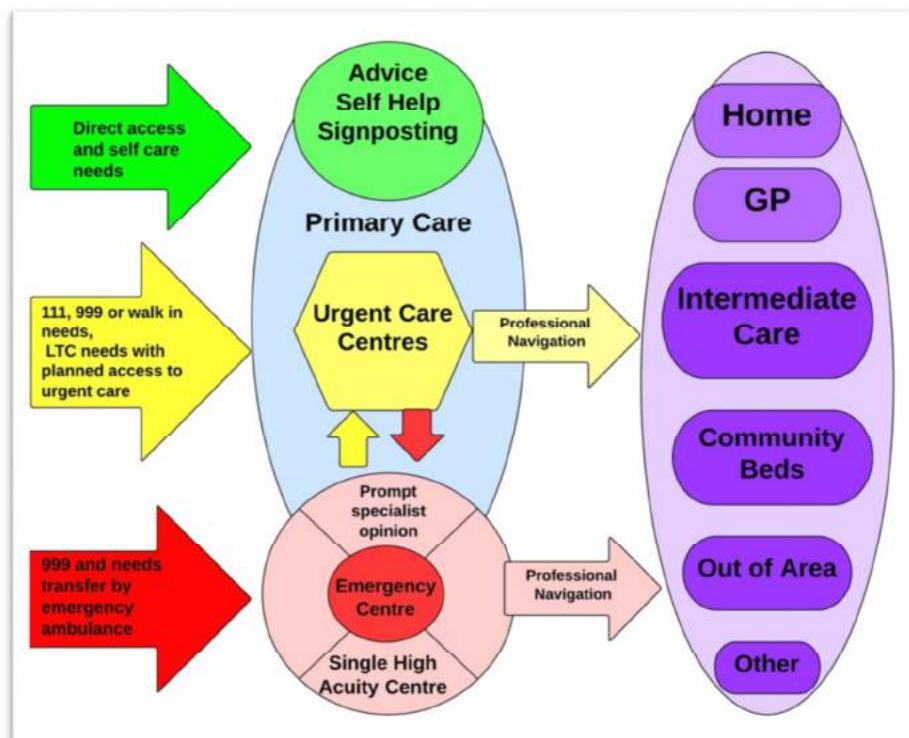
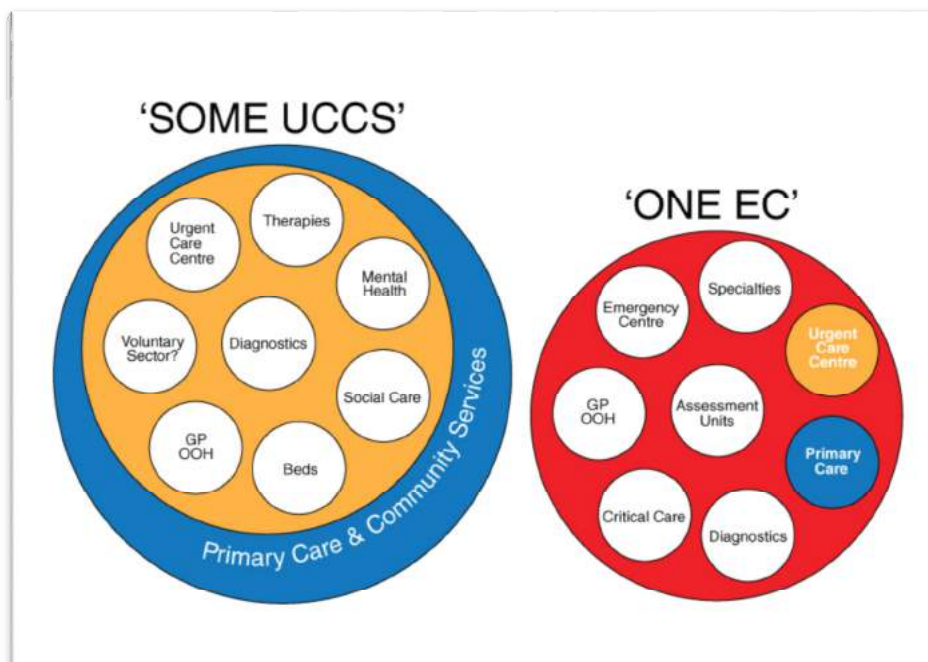


Figure 4: How the departments could look and the services within them



6.1.7 Patients views on acute and episodic care

The patients who attended the acute and episodic care sessions shared a resonant stance on how patient behaviours could be influenced by awareness and education on how they can better navigate the health care system effectively. This is reflected in whether someone requires medical attention or if they are able to self-manage and avoid presenting at hospital for treatment.

In order for patients to be able to make an informed choice about the kind of care that they need it was suggested that access to high quality advice could be pivotal in facilitating good decision making. Patients recognise that often it is good advice and reassurance that people need. Patients understand the importance of getting the right care, in the right place at the right time and that there is a synergy between what the NHS tells people and how they respond.

Patients raised concerns about the availability of money and significant enough capital to be able to make the changes happen. They also flagged worries for the “Future Fit” programme around the likelihood of significant changes in policy direction post-election in 2015. There was a belief that the organisational form and structure needs to be radical enough to really drive significant change, and there is an opportunity to lead locally where others will follow. Patients also reflected on challenges associated with the English-Welsh border and described that these matters cannot be ignored.

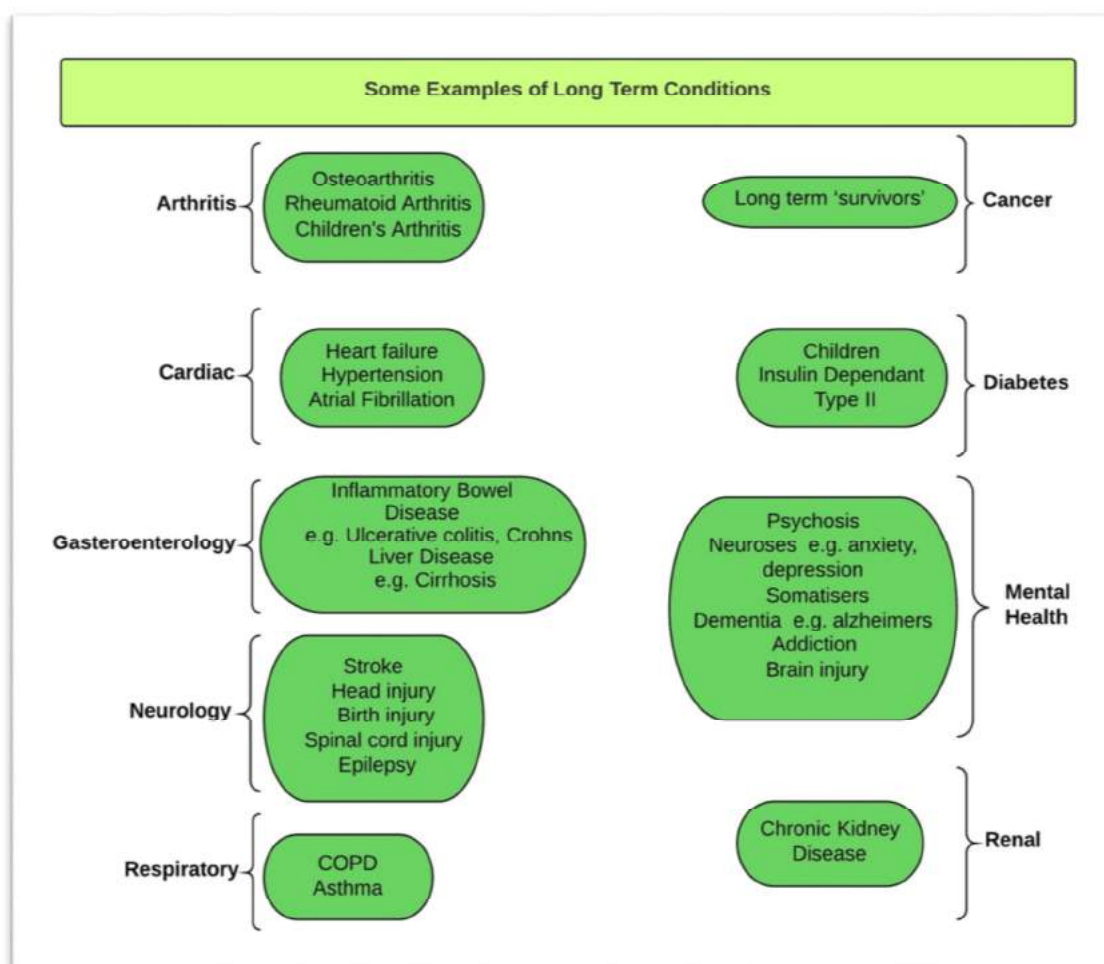
6.2. Long term conditions and frailty⁷¹

6.2.1 A holistic approach

People with long term conditions (LTCs) want to live as normally as they can. Like all of us, they aspire to being free of pain and disability, to live comfortably and independently, nourished by family and friends and to contribute to the community through meaningful work and activity.

The medical model of care only addresses part of this and a holistic (bio-psycho-social) approach must be adopted to fully meet the needs of a person living with an LTC, offering continuity of care over a lifetime.

There are many conditions which become long term. They cover all specialities and age ranges:



Please see page 76 for relevant evidence that supports the paragraphs above.

⁷¹ All Clinical Reference Group meetings, see appendix pages 4-46, all long term conditions sub group meetings, see appendix pages 66-95

6.2.2 The LTC journey

Despite the diversity of LTCs in terms of diagnosis and disease process, the life journey of everyone with an LTC goes through the same stages. The services provided to meet their needs can be designed around these stages:

Patient	Service
Being healthy (without an LTC)	Prevention and wellbeing
Making the diagnosis	Partnership care Planned care – direct access
Staying well (with an LTC)	Self-management Care planning Active case management Partnership care
Being ill	Tiered levels of care – ‘Home is Normal’ Improved flow – 0, 3 and 7 day length of stay Integrated teams – admission avoidance
Getting better	Integrated teams – facilitated discharge Reablement and rehabilitation
End of life	End of life care

6.2.3 Being healthy – prevention and wellbeing

As discussed in 5.3.3 under sustainability, there is an absolute requirement to address the wider determinants of health through a comprehensive wellbeing programme, delivered at community level but led and co-ordinated by stakeholders across all sectors. This section will focus on the targeted prevention of LTCs.

Patients recognise the importance of prevention and acknowledge their personal and moral responsibility to be involved and to act. They want clinicians to help them do this⁷².

Prevention in health is described at three levels:

1. Primary prevention - reduction or eradication of risk factors
2. Secondary prevention - detection and treatment of early or asymptomatic disease
3. Tertiary prevention – treatment of established disease to slow down progression and reduce acute exacerbations.

Primary prevention

Many long-term conditions are preventable. Five risk factors, in particular, account for a large proportion of the chronic disease burden. These are: physical inactivity, obesity, poor diet, smoking and excessive alcohol consumption (see figure 5).

⁷² Long term conditions patient focus groups, see appendix pages 206-220

Although smoking rates have declined steadily, and are below the national average in this area, smoking during pregnancy remains a problem, and is higher than average .

A quarter of adults are obese. Problems begin in childhood, 19 percent are obese by the age of 10-11years. Relatively small changes in the consumption of salt, sugar, saturated and trans-fats, fruit and vegetables could result in large reductions in chronic disease. Only 5 percent of adults achieve the recommended level of physical activity per week. Alcohol is consumed at hazardous or harmful levels by a quarter of adults.

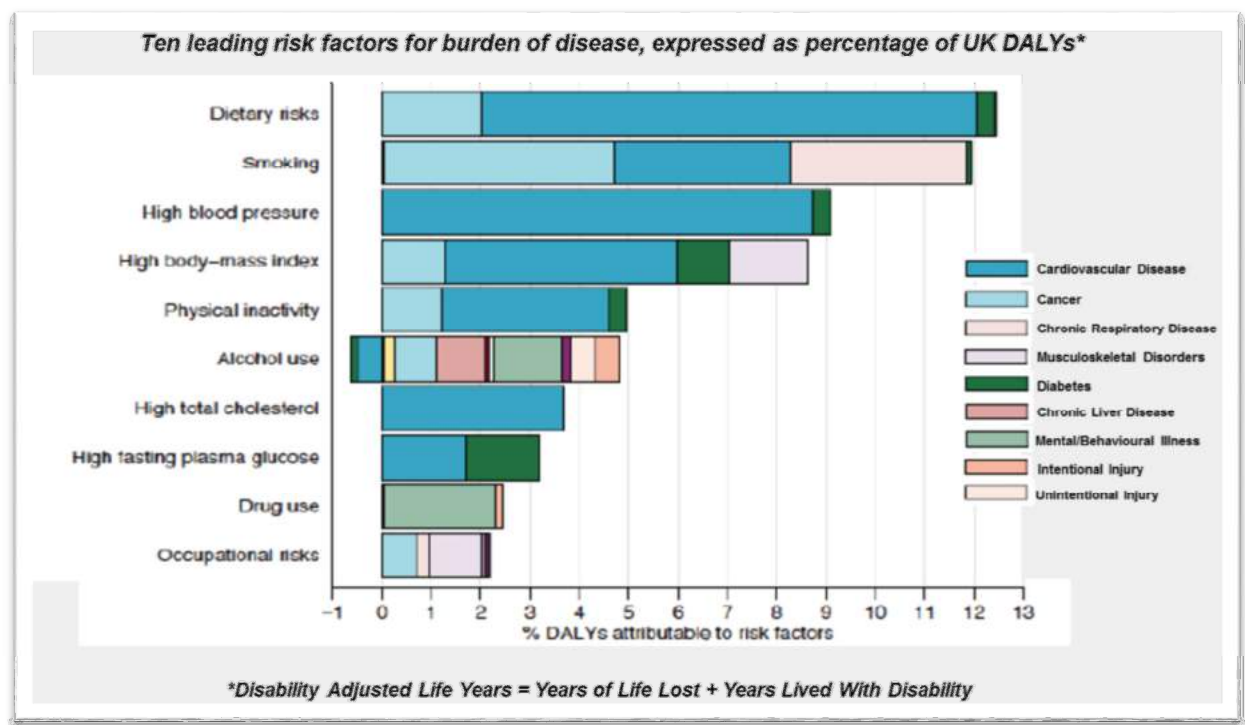


Figure 5: ten leading risk factors for burden of disease

There is good evidence that clear and unambiguous messages from clinicians to patients has a positive impact on attitude and behaviour in regard to smoking, weight, diet, exercise and alcohol. Targeted and brief interventions and making every contact count (MECC) are an effective way of delivering these messages and should be incentivised and embedded into health and social care system. Training the workforce in behavioural and motivational change techniques would add additional impact.

Secondary Prevention

The introduction of the Quality and Outcomes Framework (QOF) and the NHS Health Check (NHS HC) has resulted in a more pro-active and systematic approach to identifying early stage disease in primary care.

The early detection and treatment of cardiovascular disease has improved but nearly 50 percent of people with hypertension remain undiagnosed. Atrial Fibrillation (AF) is thought to be directly responsible for 12,500 strokes per year. There are guidelines for identifying the patients who would benefit from anticoagulant therapy (e.g. CHA2DS2VASc), and free tools for GPs to assist with identifying patients who need treatment (e.g. GRASP-AF). A simple pulse check (included within the NHS Health Check programme) helps to detect AF.

15 percent of the UK population are thought to have pre-diabetes (impaired glucose tolerance). Diabetes itself may go unrecognised for years before diagnosis is made. By the time of diagnosis, 50 percent of patients show signs of complications. There is strong evidence that behavioural interventions aimed at patients with pre-diabetes can slow or prevent progression.

One third of people aged over 65, and half of those aged over 80, fall at least once a year. Many falls result in fractures, particularly in those with osteoporosis. 30 percent of people who suffer hip fracture patients die within one year. There are a range of interventions available that have been shown to be effective in reducing falls and fracture risk, from balance and physical activity programmes to bone density scanning and osteoporosis treatment.

Tertiary prevention, the treatment of established disease, is discussed in the sections below.

Please see page 76 for relevant evidence that supports the paragraphs above.

6.2.4 Making the diagnosis

Patients want a trustworthy first point of call if they have a concern or a problem. This could be web based information, if they know it is reliable. They want rapid access to a GP or specialist opinion, and this was more important to them than being able to see their own doctor⁷³.

Although most patients would look to their GP practices for their initial contact, attending the nearest community hub was an acceptable alternative, as long as they had access to patient records⁷⁴.

Direct access by patients to simple screening tests such as blood pressure and urine glucose should be enabled, although obtaining timely professional advice in the event of abnormality would be necessary.

Increased direct access for generalists (GPs and community clinicians) to pathway driven diagnostic tests will shorten the journey to diagnosis and reduce the need for specialist referrals early in the pathway. This is discussed in more detail as part of the planned care model of care.

Partnership care, with timely and direct communication between generalists and specialists, will also reduce the time to diagnosis and avoid unnecessary specialist referrals. Currently, there is often a delay between initial diagnosis and beginning the process of treatment, education, care planning and maintenance. This delay should be eliminated. Care plans should be commenced at the time of diagnosis. Access to relevant and reliable education, peer support and voluntary and community services should be easily available, although a structured and guided approach to this is necessary to avoid confusion and overload.

⁷³ Planned care patient focus groups, see appendix pages 221-233

⁷⁴ Long term conditions patient focus group, May 2014, see appendix page 216

6.2.5 Staying well, with a LTC

6.2.5.1 Self-management

Patients, both locally and nationally, want to self-manage their conditions, and would feel confident to do so with support from a health professional or peer⁷⁵. The ability to gain timely access to advice and help also increases confidence to self-manage.

The evidence does support self-management; when based on an agreed action plan (care plan) and educational interventions, although the outcomes vary across settings. Many of the National Institute of Clinical Excellence (NICE) quality standards emphasise self-management which also forms a central part of the “House of Care Model”

Self-management also enables shared decision making which, although often hard and slow to achieve, create positive change within health systems and to individual patients. There was a strong clinical consensus that self-management should be enabled and embedded throughout the system and implemented as a core element of the wider LTC model of care.

Please see page Error! Bookmark not defined. for relevant evidence that supports the paragraphs above.

6.2.5.2 Care planning

Care planning should commence at the time of diagnosis of an LTC and contain bespoke health information, current health status and anticipatory planning information. Care plans enable shared decision making between patient and clinician and enhance continuity of care, especially when the patient also has a ‘named responsible clinician’ or ‘keyworker’ who forms the main point of contact for the patient and who co-produces their care plan over time.

Patients want the plan to help them to know what to expect, what is ‘normal’ for their condition, and what is not. An up to date record of current health status and needs within the plan improves the care of patients who suffer an exacerbation requiring a change in level of care. Clinical decision making is significantly improved if an accurate picture of ‘pre-morbid state’ is available.

Anticipatory planning or ‘what to do if any of these things happen’ allows patients and carers to stay in control and know what to do next when things go wrong. It enables early intervention for common complications (e.g. urinary tract infection where a patient may be offered direct access to antibiotics) and reduces the need for hospital admission.

The systematic use of care planning offers the potential for the plan to become a patient ‘passport’ which helps them to navigate the system and, where appropriate, gives them direct access to clinicians and services. This might be direct access to specialist advice, or to their named responsible clinician in the community, rather than needing to go through the normal triage services (111, OOH, GP surgery) or to use a ‘walk in’ option (UCCs). This is well established in mental health service provision where patients deemed vulnerable to relapse are given direct access to specialist support.

⁷⁵Long term conditions patient focus group, April 2014, see appendix page 213

The concept of a 'named responsible pharmacist' was supported for people with LTCs on medication. A greater and more pro-active role for pharmacists in LTC management would see them performing planned medication reviews with the patient and as part of the primary care team⁷⁶.

There is clear overlap between care plans, patient held records and integrated care records. As integrated care records are introduced, so care plans will become progressively more embedded in them. Patients strongly support care planning and have clear views about their purpose and contents:

Care plans – patient focus group 22.4.14
Care Plans should contain:
Information on symptoms, progression of disease, self-management Who to contact Medication; what you should take and why Sign-posting to sources of help Information about me Support group information End of life plan (if appropriate) My wishes Education patients needs to understand the benefits as do care providers and the family Format To meet needs of the patient; including paper, an app and easy read formats Alternative names My wellbeing About me
What do they need to do?
Inform the patient, family and health team about needs Keep me at home – if people have full confidence in their plan they will be less likely to rely on hospital admission Be assuring – e.g. this drug is appropriate and Reassuring – e.g. it is ok to feel this way, it is part of the condition Be owned! By the patient Be current, require an on-going dialogue and regular updating Be about wellbeing rather than care, a plan to stay well Be aligned, currently there are many versions in the system

Please see page 79 for relevant evidence that supports the paragraphs above.

6.2.5.3 Active case management

Historically, medical care has been reactive and delivered in response to deterioration in health status. With changing demographics and the associated rise of LTCs, there is increasing recognition that this model of care is no longer enough, and that a move to

⁷⁶ Therapeutics cross cutting theme meeting, May 2014, see appendix page 166

providing pro-active care is called for to keep people with LTCs well, prevent exacerbation and respond quickly to any deterioration.

Active case management is the term applied to the pro-active care given to people recognised as vulnerable, frail and at high risk of exacerbation which often results in admission to hospital. It is an established tool in integrating services around the needs of individuals with LTCs. It is a targeted, community based approach to care that involves case finding, assessment, care planning and care co-ordination.

Although the evidence for it is mixed, there is a strong local clinical consensus that active case management for people at high risk reduces the number and severity of crises and gives reassurance to patients, families and carers. Clinicians agreed that active case management should therefore be embedded in the health and social care system, based in primary care. The current primary care contract incentivises this by offering payment for providing an enhanced service where the 5 percent of people at highest risk of emergency admission to hospital are identified and case managed.

Case finding, this means identifying the patients who might benefit from case management, is currently done through a combination of clinician knowledge and the examination of disease registers in primary care. More sophisticated IT based risk stratification tools are being introduced and early evidence suggests that these will identify some people who are not known to primary care clinicians, for example patients who bypass primary care and are frequent attendees at A&E departments .

The identification of patients at risk requires a holistic approach that includes recognition of medical, mental health and social needs. Fully integrated care records and information sharing across sectors will facilitate this.

Active case management is a process of delivering a holistic and pro-active care plan, with planned reviews and assessments of a frequency dependant on patient need, combined with anticipatory plans which clearly inform patients, family, carers and clinicians what to do in the event of a predictable exacerbation or deterioration. Where appropriate, this will incorporate advance directives and end of life planning which may include a 'do not resuscitate' patient directive.

Active case management, including offering a timely response to deterioration, is best done using a co-ordinated multi-disciplinary team (MDT) approach. Key elements of a successful approach include the need for excellent communication between primary and community teams with the inclusion of specialists where required, clear accountability of an individual or team to the patients being managed, clarity about the role of case managers, 'named responsible clinicians' and keyworkers and appropriate caseloads to ensure patients are receiving optimum care.

The current workforce crisis and financial constraint creates a huge challenge to deliver effective case management. Limited MDT resources are concentrated on high intensity interventions such as admission avoidance, facilitated discharge and complex case management. Whilst effective, this tends to deplete community resources to deliver lower

intensity 'maintenance' case management⁷⁷. Care reverts to being reactive and the wider and longer term benefits of pro-active care risk being lost.

The concept of a 'team around the practice' is being developed to promote and develop integrated active case management delivered by a networked combination of community, mental health, social care and primary care professionals. This is distinct from 'team around the patient' which denotes the more intensive MDT interventions delivered by dedicated multi-disciplinary teams. The development of 'teams around the practice' is seen as a high priority by clinicians who recognise the need for significant investment of resources for this to succeed and for adequate 'community capacity' to be created.

Please see page 79 for relevant evidence that supports the paragraphs above.

6.2.5.4 Partnership care

The principles of partnership care apply across the whole system and have been discussed in detail in section 5.4.2. Keeping patients with LTCs well and responding in a timely way to exacerbation will be more effective if generalists working in the community have easy access to direct communication with specialists. Their ability to keep patients at home, even when they are complex or unwell, will be improved and they will be better able to clinically risk manage by sharing decisions and responsibility.

Please see page 79 for relevant evidence that supports the paragraph above.

6.2.6 Being ill or LTC exacerbation

The trajectory or progression over time of LTCs is clearly different according to primary diagnosis and co-morbidity, but in general terms long periods of 'staying well' are interspersed with shorter episodes of 'being ill', an exacerbation or complication which may be of rapid onset, risk admission to hospital and be life threatening. If the response to the exacerbation is timely, then these risks are reduced and it is more likely that the patient can be safely managed at the right level of care with an escalation to a higher level or different care setting either avoided or kept to a minimum time period, with a rapid return home or to their original level of care.

6.2.6.1 Tiered levels of care – 'home is normal'

The need to accurately match the level of care to need to offer the right level of care across the whole health and social care system has already been discussed in detail. 'Home is normal' describes the principle of matching people's needs with the correct level of care, preferably without changing their care setting.

With effective anticipatory care planning and timely response, most problems that present initially as being 'urgent' should be converted to 'planned'. That is, the response to deterioration is rapid enough that the necessary interventions can be planned either around

⁷⁷ First and second Primary Care cross cutting theme meetings, April 2014 and May 2014, see appendix pages 141-151, rural health solutions cross cutting theme meeting, May 2014, see appendix page 152

the patients existing care setting or by offering ambulatory care in a different setting with a return home on the same day.

Thresholds and criteria for different levels of care

Accurate and consistent assessment is the key to placing people in the right level of care. To achieve this, standardised criteria should be developed which define the level of care delivered in different care settings and thresholds should be defined which describe the margins of clinical risk and safety of care which, once crossed, trigger a move to a different level of care. The current lack of alignment and variation between 'level of care' and 'care setting' can then be resolved and well defined 'low', 'medium' and 'high' tiers of care can be introduced.

The criteria and thresholds must incorporate the flexibility to allow different levels of care to be offered in the same care setting. E.g. Intensive support and care given to a patient with an exacerbation at home changes the level of care without changing the care setting. With standardised criteria and thresholds in place, it will be possible for 'level of care' assessments to be done by a range of generically trained professionals, rather than always requiring an experienced doctor's opinion. Knowledge of the patients 'pre-morbid state' would be necessary to determine the extent of change in health status; this should be available from an up to date care plan, keyworker or integrated care record⁷⁸.

The NCAP audit and decision making tool (Oak Group) which has been applied once in this health economy requires an expert opinion and a management plan to be in place in order to determine whether a patient is at the right level of care and so is not suitable for use as a generic level of care assessment tool. Local criteria and thresholds should be developed and agreed.

Defining the need for a 'bed'

The clinicians felt it was important to recognise that the provision of a 'bed' for a patient can be misleading. It is the number and type of interventions performed when they in the bed that determines whether their needs are being met, not the bed itself. As a rule, once a bed is introduced into a care pathway, delays are 'built in' because of the historic vagaries of the system. The new system must therefore not be designed around 'beds', but tiered according to the intensity and type of input required.

The requirement for community 'beds' has been much debated. Shropshire currently provides 113 beds in four community hospitals with additional sub-contracted beds in independent sector care homes as required. Telford does not have a community hospital but does have approximately 15 beds in a rehabilitation unit and sub-contracts 19 independent sector beds which can be increased during winter periods. Historically, although there is a great deal of local civic pride in community hospitals, there is a lack of clarity about the use and clinical effectiveness of community beds, which is not helped by their designation as 'step up' or 'step down', which gives no information about real patient needs.

⁷⁸ Second community hospitals cross cutting theme meeting, May 2014, see appendix page 122, fourth long term conditions sub group meeting, May 2014, see appendix page 85

When the new “Future Fit” models of care are applied, more patients will be cared for at home, fewer will be admitted to the high acuity centre, and those that are will have a shorter length of stay and be discharged once ‘stabilised’ rather than ‘recovered’ or ‘fit to transfer’. So, although the default discharge destination will be home, some patients will still have ‘medium acuity’ needs which will place them beyond the thresholds for safe care at home.

Medium acuity ‘units’ will therefore be required, operating a smaller number of higher intensity beds with a shorter length of stay than is currently the case.

There may also be a requirement for a more flexible number of lower intensity community ‘beds’ which could be provided for in the independent sector, although they too would require the application systematic service standards, criteria and thresholds in order to deliver consistent and safe care as part of a system of tiered care⁷⁹.

Please see page 80 for relevant evidence that supports the paragraphs above.

6.2.6.2 Improved flows – 0, 3 and 7 day length of stay in the high acuity unit

Strong evidence suggests that the provision of ambulatory care (that which means a patient has zero day length of stay) for a range of ‘ambulatory care sensitive conditions’ improves efficiency, patient satisfaction and outcomes. Equally compelling is the evidence that patients with frailty syndromes have worse outcomes when they stay more than three days in an acute hospital bed.

Although patient flow through an acute hospital is partly dependant on the capacity of the whole system to accept and manage them after discharge, the operating systems within the hospital also have a major impact on the length of stay. By designing the system around a 7 day standard, after which time almost all patients are stabilised, this enables a clinically sensible admission period to act as a driver to maximise operational efficiency.

There is strong clinical consensus that a strategic approach must be taken to maximise the efficiency of patient flow, based on 0, 3 and 7 day length of stays⁸⁰.

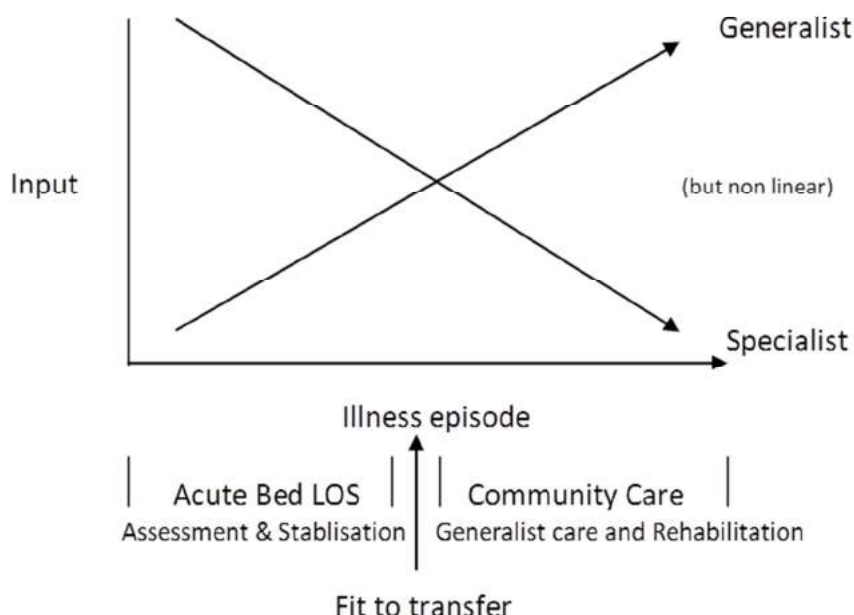
General Principles

Defined standards for length of stay (LOS) for different patient categories can and must be taken account of in determining the size of the acute bed base. The shorter the LOS standards, the more dependant patient flow within the hospital becomes on community capacity and networked and integrated care across the whole system.

From the time of an acute admission, there is an inverse relationship between the potential requirement for specialist and generalist care which can be used to define the operational activity required to achieve the LOS standards:

⁷⁹ First and second community hospitals cross cutting theme meetings, May 2014, see appendix page 118-127

⁸⁰ Secondary care cross cutting theme meetings, April 2014, see appendix page 154



Cultural and behavioural change alone will not achieve an efficient high acuity unit; the LOS standards must be built into the system.

0 day length of stay

Successful zero days LOS or ambulatory care; currently requires either a named responsible clinician or a dedicated workforce with a focus and responsibility to 'push' the patient through the system. The current system depends more on the energy and commitment of the clinical staff than the operational systems in place.

A strategic approach will combine a dedicated workforce with aligned operational systems so that the energy and time required per patient to 'push' them through the system is reduced and larger volumes can be managed without an unsustainable increase in staff numbers. Zero day LOS will be largely pathway driven, although not everything can be 'pathway-ised', e.g. frailty syndromes.

3 day length of stay

There is compelling evidence that elderly and frail patients with complex co-morbidities suffer an accelerated de-compensation if they are in an acute hospital bed for more than 72 hours. The patients outcomes deteriorate and they are less likely to return to their previous level of care. A three day LOS standard is required to mitigate this occurring.

One of the key skills of a timely expert opinion is to expertly 'stream' the patient into the right LOS category and initiate the correct pathway and investigations. Patients streamed into the 3 day LOS are likely to be those with frailty syndromes which cannot be easily managed through defined pathways but who are not so acutely unwell as to require a longer LOS⁸¹.

⁸¹Secondary care cross cutting theme meetings, April 2014, see appendix page 154

Frailty pilots have demonstrated the value of therapy input as part of a frailty team 'at the front door' of the high acuity unit, which depended on co-ordination and integration across organisational boundaries with the community therapy team. Trials of rotating posts across both care settings strengthened this relationship and mutual learning and this should be embedded

7 day length of stay

The patient categories requiring 7 day LOS will mostly have an acute presentation with underlying 'generic' needs which complicate and slow down the assessment, diagnostic and stabilisation phases of admission.

Discharge planning should start at the time of admission, and patients think this should be done by the ward staff caring from them and not by a separate team. Simple discharges should have a standardised process whilst complex discharges require bespoke planning. To achieve efficient and rapid flow of these categories of patient requires well developed integrated care across all sectors, underpinned by partnership care, which facilitates smooth transitions between levels of care.

Excellent partnership care will allow an efficient and safe 'hand over' at the point that the patient is stabilised but, where necessary, the consultant should retain a shared responsibility of care for a period of time following discharge to a lower level of care. This could be achieved through a 'virtual ward round' conducted with the responsible clinicians working in the lower acuity care setting. In effect, the consultant remains the 'named responsible clinician' for up to 30 days after discharge.

A consolidated workforce working in a single, smaller high acuity unit will release staff to retain a continuing responsibility for the care of patients following discharge. The smaller the higher acuity unit, the more capacity will be required for specialists to support care in lower acuity community settings. In addition, there must be capacity in other care settings to manage patients with a higher acuity of illness than is currently the case. With the requirements for the 7 day LOS standard in place, staff can then be released to follow activity, but this can only be achieved in 'units' of whole ward closures rather than a flow of individual staff. Additionally, the high acuity unit must retain a 'critical mass' to be sustainable. Current regulations, targets and commissioning mechanisms will tend to obstruct the achievement of LOS standards, e.g. trim points and excess bed days.

Please see page 80 for relevant evidence that supports the paragraphs above.

6.2.6.3 Integrated teams – admission avoidance and facilitated discharge

As discussed in 5.4.1, integrated teams are best employed in areas of care where high intensity multi-disciplinary input is required to provide continuity of care across care settings or to prevent the need for a step change in level of care; facilitated discharge and admission avoidance.

The evidence for effectiveness of admission avoidance through targeted MDT interventions is not strong, although programmes of this kind are being implemented throughout the country.

By contrast, the evidence for facilitated discharge is strong, although mainly in regard to stroke where early supported discharge into the community has demonstrated better outcomes. Applying this evidence to a more general model of facilitated discharge should be done with caution.

A pilot programme has tested this model in Shrewsbury, with a team comprised of community, mental health and social care professionals facilitating the discharge from hospital of patients with complex problems. In the second phase, the service is being rolled out across Shropshire and the teams are now also providing intensive input to people suffering an exacerbation who are at high risk of admission to hospital.

Lessons learned from this pilot include the need to embed continuous learning into the programme to allow the evolution of a team working in a complex environment where change is emergent rather than predictable and the requirement for well-defined roles, responsibilities, risk management and leadership coupled with the need for flexibility to 'fill the gaps' in the system (Evaluation of ICS by Finnamores and University of Chester).

Work has begun to define the skills and competencies of the current team, compare those with the competencies required to meet the needs of the patients and to understand the potential for generically up-skilling the workforce across traditional professional boundaries so they can effectively 'multi-task' to maximise efficiency and cost effectiveness.

Integrated teams of this sort are very resource intense, with experienced and expert professionals coming together as a team to provide care for the most complex patients. There is therefore a risk that the rest of the system becomes depleted, both in numbers and in experience. This risk would be mitigated if the development of these intensive input teams – 'teams around the patient' – is aligned with the development of integrated services that provide a 'staying well' or maintenance function to people with LTCs in the community – 'teams around the practice'.

This alignment would be facilitated by the development of a 'care cluster' approach to delivering and commissioning care in the community. Piloted and rolled out first in mental health care, 'care clusters' offer different packages of intervention according to patient physical, social and mental health needs and not on diagnosis⁸². This fits well with the generalist and increasingly holistic approach to multi-morbidity as well as the development of tiered levels of care available to people suffering exacerbations, which are based on the intensity of medical and rehabilitation input required rather than a diagnosis. Work is underway in Sandwell to define community care 'clusters'.

There was strong clinical agreement that this model of care was a valuable component of integrated care for people with complex problems who are at high risk, and that it should be up-scaled and embedded. There was an equally strong view that this service must not be provided at the expense of depleting core community, mental health and social care services and it must therefore be fully resourced.

Please see page 81 for relevant evidence that supports the paragraphs above.

⁸² Mental health cross cutting theme meetings, May 2014, see appendix page 138

6.2.7 Getting better – reablement and rehabilitation

Social care is under unprecedented financial pressure and this is unlikely to lessen over the next few years. The Better Care Fund offers an opportunity to explore more collaborative working between health and social care; although its impact may be limited since there is no new investment.

The new models of care, with an emphasis on ‘home is normal’ will put further pressure on social care unless novel solutions and new partnerships between statutory and voluntary organisations and the community are found. Patient expectation and demand also needs to be reset.

An accurate assessment of long term need is harder to make when a patient is not in their usual place of care, especially when they are in a hospital bed. Because of this, a ‘Discharge to Assess’ model is now in place across both Shropshire and Telford & Wrekin. There is strong support for this and good evidence for its effectiveness.

In Telford, there is a move away from universal reablement, applied to everyone who is discharged to assess, to a more targeted approach. Reablement at home should be the default, in line with ‘Home is Normal’. This is resource intensive, but the development of generic workers increases sustainability. The aim is to achieve a rapid return to the original level of care followed by the timely withdrawal of additional care and support to minimise dependence and maximise limited resources⁸³.

Not all reablement needs to be delivered by statutory services and a stronger partnership with the voluntary sector would reduce the tendency for the system to be easier to ‘enter’ than ‘exit’. There are gaps in specialist reablement provision, such as neurological rehabilitation, which need filling.

Ambulatory reablement and rehabilitation could be provided in community hubs where more intensive or specialist input is required or where home circumstances are not conducive. This also has the potential to enhance social contact and reduce isolation. Good non-emergency transport links would be required.

The criteria for admission to a community unit for rehabilitation and reablement are discussed in section. Once finalised, these should apply whether the patient is being admitted from a higher or lower level of care.

Unfortunately the cost of keeping people at home is often greater than the cost of residential care. The number of care home beds in Shropshire is already high and this negative driver needs to be eliminated. People also move from domiciliary to residential care with no intermediate step to slow down or arrest the decline towards total dependency⁸⁴.

Please see page 81 for relevant evidence that supports the paragraphs above.

⁸³ Social care cross cutting theme meetings, April 2014, see appendix page 161

⁸⁴ Social care cross cutting theme meetings, April 2014, see appendix page 161

6.2.8 End of life care

Palliative care fits well into the LTC model. End of life (EOL) care is slightly different in that it needs to be managed over a longer period of time to a planned outcome. An acute episodic outcome, especially with an admission to hospital, is a system failure⁸⁵.

The training and delivery of both palliative and EOL care should be embedded into existing core services and not stand alone. Partnership working is critical, with primary care having a lead role, especially in rural areas. Continuity and co-ordination of care should be managed by an experienced professional and not a generic system or service⁸⁶.

Once fully embedded, EOL care will become part of 'the day job' but this will require care co-ordination and equity of care for all terminal conditions. Bereavement is not currently well managed and should be strategically addressed, although there is a role for the voluntary sector here. Admission could be avoided if the many small gaps in community services were plugged, e.g. availability of medicines or advice. Urgent care centres could support EOL and palliative care away from the centre.

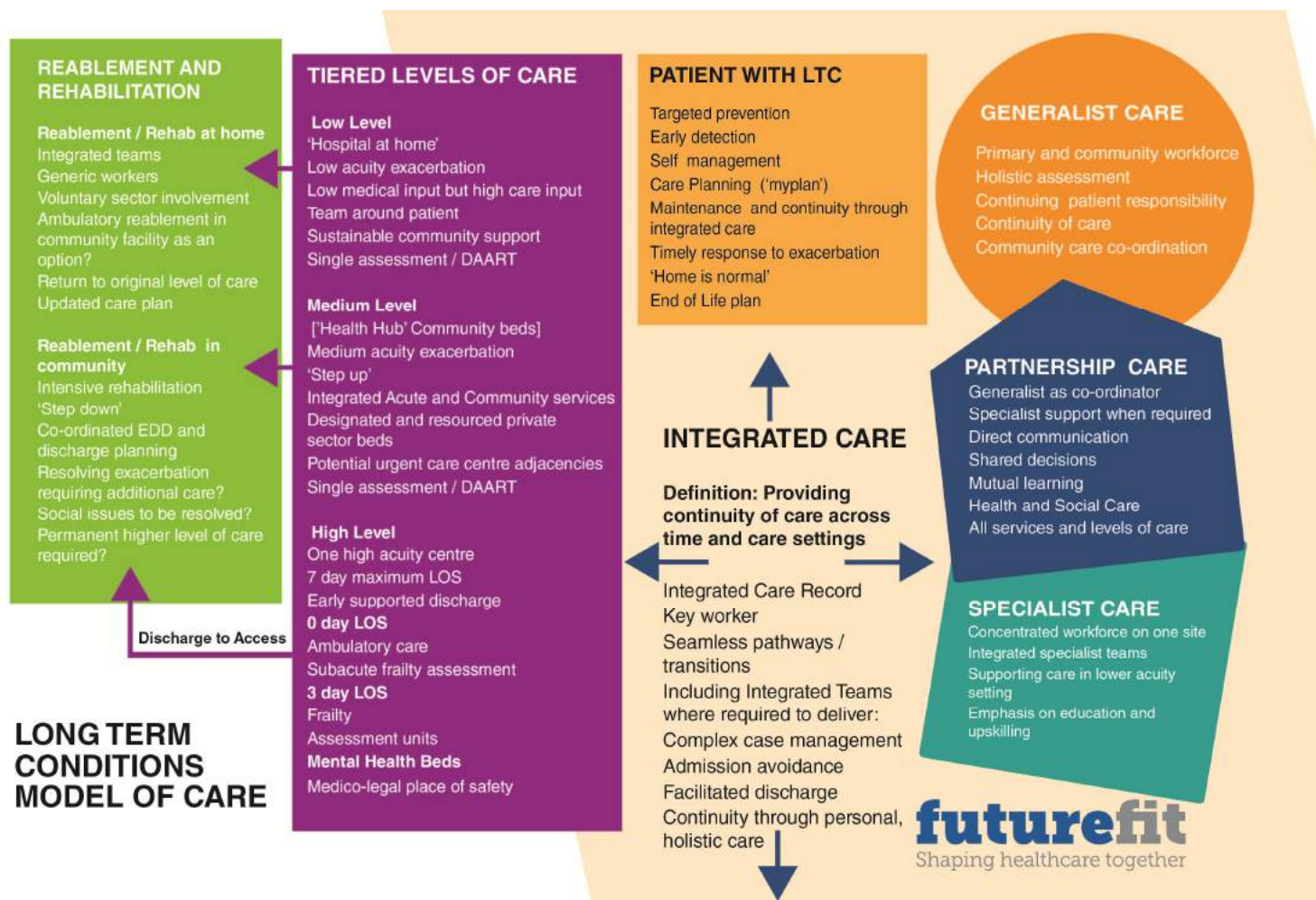
EOL care is currently unstructured and patchily commissioned. To improve this, a consolidated EOL package, in which hospice as well as community beds are modelled, will provide better care and reduce costs. A roving palliative care team would be effective and cost efficient if it concentrated on those patients identified as having complex needs or who are marginalised.

Please see page 82 for relevant evidence that supports the paragraphs above.

⁸⁵ End of life care cross cutting theme meetings, May 2014, see appendix page 132

⁸⁶ End of life care cross cutting theme meetings, May 2014, see appendix page 132

6.2.9 Diagram of long term conditions model of care



6.2.10 Patients views on long term conditions and frailty

The key points that patients want the programme to acknowledge and factor into the planning are as follows:

When someone is unwell and may be suffering with a new long term condition, they would like confirmation and a clear diagnosis from their health professional. Patients in this group also reflected that knowledge of the health care system and knowing who their trustworthy, first point of contact for information is; makes all the difference to the management of their care.

Core elements to supporting patients with long term conditions or those who are frail include better care plans, those which actually work for the patient and involve them in all aspects of their care. Patients would like clearer support and information on self-management to help them avoid exacerbations of their condition and this will also

encourage them to take control of their health. Where people end up needing to be seen in hospital, patients would like to see more care closer to their home and better use of technology innovations to facilitate this transition.

Patients recognised that some of the barriers in the existing system result from not enough clear information sharing about patients conditions and they believe that having better shared patient information will improve this for all. All the patients wanted the programme to ensure that the approach taken is a nothing about us without us and that the provision of equitable access is at the heart of the process. They also raised concerns regarding sufficient finances to support the necessary changes and want reassurance that no decisions have been made.

6.3. Planned care⁸⁷

Planned care is defined as care that is non-urgent, for which the patient receives a pre-arranged appointment and is accessed either directly by the patient directly or through referral from one professional to another. LTC management is increasingly pro-active and planned and some urgent care is converted to planned care if it is referred to a next day clinic or investigation.

Considerable work has already been done to improve the pathways of planned care, from the adoption of referral pro-forma to ensure consistent and relevant information transfer, right through to maximising day case surgery and early supported discharge for major procedures. “Future Fit” assumes that this condition specific pathway work will continue and will progressively eliminate duplication and delay and therefore, the clinical design work has concentrated on radical changes that would offer improvements in quality, efficiency and patient experience in planned care.

6.3.1 A partnership portal

When patients perceive that they have a problem, they require easy access to understandable and trustworthy information about self-care options and local services to which they can gain direct access, as well as to information that guides them to seek professional help appropriately and when necessary.

This information, guidance and access will be provided through a web based partnership portal which provides trustworthy localised information about common conditions, when to seek professional help, options for self-management and direct access to some therapies, diagnostics and interventions⁸⁸.

Please see page 82 for relevant evidence that supports the paragraph above.

⁸⁷ All Clinical Reference Group meetings, see appendix pages 4-46, all planned care sub group meetings, see appendix pages 89-103

⁸⁸ IT cross cutting theme meetings, May 2014, see appendix page 135

6.3.2 Patient direct access

Patients find it understandably hard to distinguish 'want' from 'need' and, although clear information will resolve some of this, they often require professional expertise to distinguish between the two⁸⁹. They appreciate a 'needs led' system which facilitates this, but they also want to be progressively more empowered.

They see this being achieved through access to excellent information and communication, sharing fully in decisions about their management and by being given the opportunity to gain direct access to a greater range of investigations, treatments and specialist interventions.

Direct access for patients to some interventions is already available, for example physiotherapy and counselling, but there is scope and an appetite to increase this. A potential pilot project would be the provision of direct access pathways for the three most common gynaecological presentations, menstrual bleeding, prolapse and incontinence⁹⁰.

6.3.3 Patient navigation

The current planned care system is complex, fragmented and difficult to navigate. It disempowers and frustrates patients who then seek professional help to signpost and navigate when this should not be necessary. The initial referral has benefitted from the Referral Assessment Service (RAS) and the Telford Referral and Quality Service (TRAQS) but their roles do not extend beyond making the first appointment.

Once referred, patients want clear information. They want to understand the time scale and content of their whole journey. 'When will I be able to work again?' 'When will I feel better?'

Navigation through the planned care system should be patient focused and facilitate self-navigation wherever possible. Professional or peer advocacy to assist in navigation should be available, but be the exception rather than the rule. Some patient groups (e.g. people with learning disabilities) should be offered pro-active advocacy to help them navigate throughout their journey.

Please see page 82 for relevant evidence that supports the paragraphs above.

6.3.4 Partnership care

The principles of partnership care have already been described and detailed in sections on acute and episodic and LTC care. At its most basic level, providing opportunities for richer and more dynamic communication between generalist and specialist will result in higher quality referrals, better outcomes and mutual learning. A move from a 'referral based model' to a 'partnership based model' will produce benefits across the whole system and at all levels of care.

There is a specific opportunity for improved efficiency and outcomes through partnership care within planned care; by facilitating timely support through direct communication, it will reduce the number of people referred into specialist care as well as allowing a faster return

⁸⁹ Acute and episodic patient focus groups, see appendix page 187-205

⁹⁰ Women's health cross cutting theme meetings, May 2014, see appendix page 173

to generalist care following specialist review and intervention. The three tier model of LTC care incorporates this principle; tier one is generalist care, tier two is partnership care between generalist and specialist and tier three is specialist care. A reduction in tier three care, with a corresponding increase in tier two care would be achieved.

With the rise of cancer ‘survivorship’ following successful treatment, there is potential for more patients to be transferred back to generalist LTC care, as long as resources followed the patient. This would release much needed capacity in oncology services⁹¹.

Please see page 83 for relevant evidence that supports the paragraphs above.

6.3.5 A standalone diagnostics and treatment centre

A single diagnostics and treatment centre (DTC) which operates independently from the emergency centre (EC) and high acuity unit would consolidate resources in terms of workforce, equipment and finance. It would allow efficient and uninterrupted workflow over seven days.

The greater ‘critical mass’ of a single DTC will improve quality and outcomes, help to conserve specialist services within the area and offer the potential to repatriate some services currently located ‘out of county’.

From a workforce perspective, co-locating the DTC with the EC would improve rota management, although, because the DTC would not require intensive staffing overnight, a remote site should not be excluded.

80 percent of all planned surgery can be performed in the DTC; the remaining 20 percent is complex surgery, requiring co-location with an intensive care unit (ICU) and therefore will need to be performed in the high acuity unit.

All minor and intermediate surgery should be consolidated, e.g. hernias, lumps and bumps, breast surgery, some ear, nose and throat (ENT) and maxillo-facial surgery and some gynaecological surgery. There is a strong clinical and economic argument for all planned orthopaedic surgery to be consolidated onto one site as well, but it is recognised that this presents a particular challenge, given the current configuration of orthopaedic services.

Radiology services would benefit from consolidation for the same reasons and would be operational 7 days a week. However, there may be problems if the DTC requires staffing overnight if this then requires a duplication of rotas in the EC and the DTC⁹².

CT and MRI scanners would be centralised, with two CTs and one MRI sited in the high acuity unit and one CT and two MRIs in the DTC. It was noted that Robert Jones and Agnes Hunt (RJAH) have two MRI and two CT scanners, so the degree to which these facilities are integrated into the whole system will make a big difference to planning assumptions.

Ultrasound facilities would also be required on a small scale in the EC, with the majority of the service being sited in the DTC. However, because 70 percent of the 36,000 GP requested

⁹¹ Cancer cross cutting theme meetings, May 2014, see appendix page 109

⁹² Diagnostics cross cutting theme meetings, May 2014, see appendix page 128

ultrasound scans every year, there is scope to move much of this activity into urgent care centres⁹³.

Pathology services would also benefit working from a single site and a single requirement for a 24 hour service. Equipment would be separate for the EC and the DTC as the two types of service do disrupt each other. Whilst the EC and high acuity patients only require a small range of pathology tests (blood sciences and some microbiology), planned care requires a full service. However, there is no necessity to co-locate microbiology or cellular pathology services if it was advantageous to site them elsewhere for estates or other reasons. Planned care transfusion services could also be remote, with an electronic ordering system⁹⁴.

Patients are prepared to travel for their major diagnostic procedures and surgery. Efficient public and ambulance transport services will be required though. They wholeheartedly endorsed the concept of a single DTC⁹⁵.

Please see page 83 for relevant evidence that supports the paragraphs above.

6.3.6 Assessment, diagnosis and follow up closer to home

Whilst patients would be prepared to travel to a DTC, they welcomed the proposal that up to 70 percent of all assessment, diagnosis and follow up appointments could be offered closer to home. Rural GPs were particularly supportive of this model as they know that their patients face serious transport problems and only want to travel when really necessary⁹⁶.

Planned care pathways will allow GPs and other clinicians (e.g. physiotherapist for arthroplasty) to initiate assessment and diagnostics prior to a specialist consultation or surgical intervention. GPs are generally happy to do this, as long as the resources to do this are provided. There is also scope for other clinicians and professionals to do much of this work which would include the routine 'optimisation' of health status prior to surgery.

Planned care consultation rooms can be co-located in community hubs or urgent care centres (which may anyway be co-located). These can be used by generalists or specialists and the consultation can be face to face, or remote, using telehealth technology. Remote specialist follow up would significantly increase efficiency by reducing consultant travel time.

Ultrasound and plain x-ray facilities in UCCs should be fully utilised (over seven days) for planned care diagnostics. A county wide standard for assessment is required, e.g. there is currently a huge variation in the provision of phlebotomy⁹⁷.

Local follow up would be routine after minor surgery but would be at the discretion of the consultant after more complex or major surgery.

⁹³ Diagnostics cross cutting theme meetings, May 2014, see appendix page 128

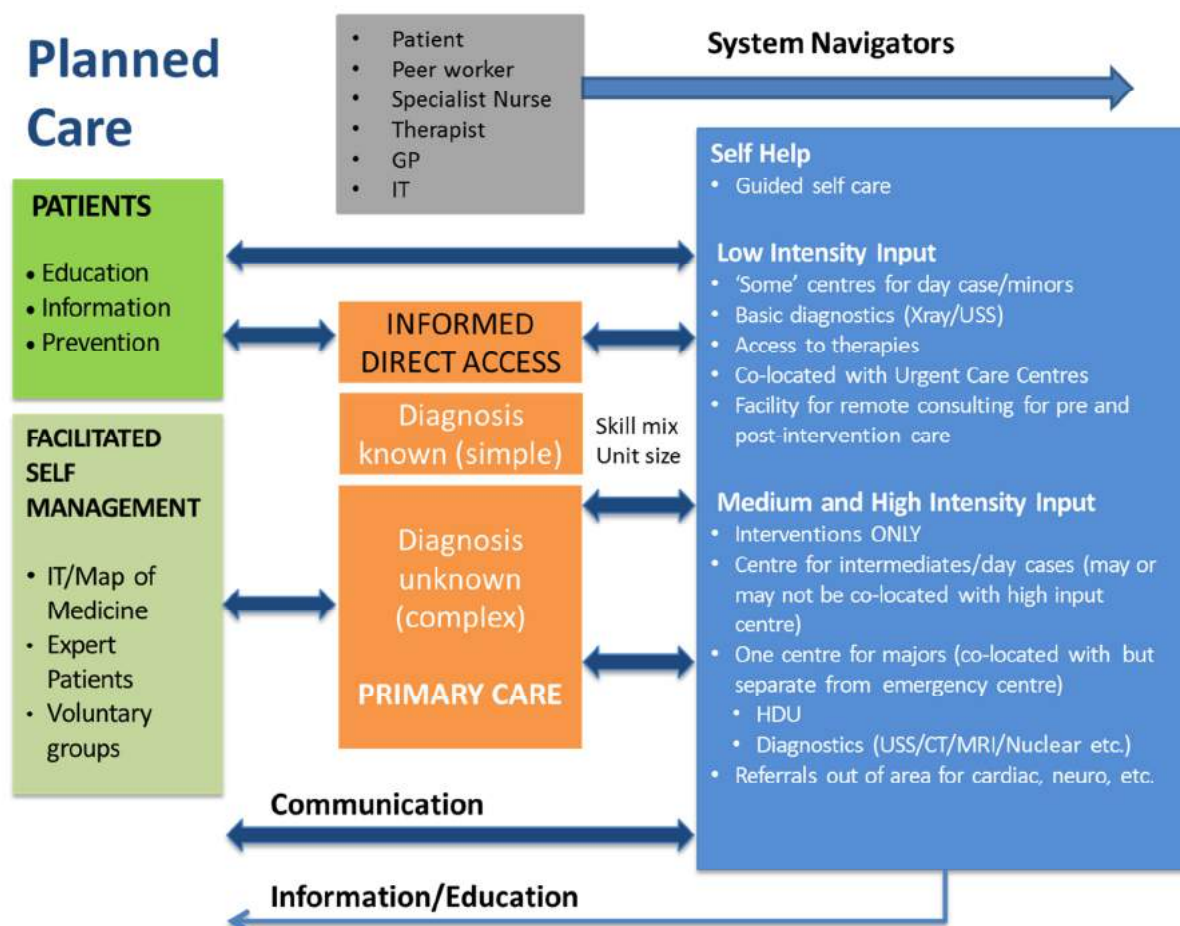
⁹⁴ Diagnostics cross cutting theme meetings, May 2014, see appendix page 128

⁹⁵ Planned care patient focus groups, see appendix page 221-233

⁹⁶ Rural health solutions cross cutting theme meetings, May 2014, see appendix page 152

⁹⁷ Diagnostics cross cutting theme meetings, May 2014, see appendix page 128

6.3.7 Diagram of planned care model



6.3.8 Patient views on planned care

The patients who attended the planned care focus groups shared some interesting paradigms of thought around how this care could be best delivered. As will all of the focus groups patients reflected that having high quality advice and information is key to supporting them to make the best decisions about their care.

In respect of patient expectations for planned care, people said that they would like to know the timescales for appointments to being seen by a specialist. Most people said that it is not about the distance that they have to travel necessarily but the ability to get there and that ultimately for highly specialized procedures they would prefer to be seen in a centre of excellence.

There was a plea for inefficiencies in the system to be addressed, to stop unnecessary appointments. Where possible allow patients direct access to health professionals such as podiatry or physiotherapy, this will reduce the length of time involved for both parties.

All of the groups that we spoke to preferred the option of local services wherever possible and welcomed the concept of utilising community hospital sites more effectively to offer better planned care. However they all also raised concerns about how the financial modelling of this may restrict the creative solutions to both the rural and urban care needs within the local area.

7. Co-location of services

Although the three main areas of care, acute and episodic, planned and LTC care have been developed separately during the clinical design process, attention has been paid throughout to the potential or necessity for services to be co-located. Some services are dependent on co-location with others, whilst some can be co-located to maximise efficiency and the use of resources.

7.1 The emergency centre (EC)

The EC requires co-location with intensive care, surgery and trauma, diagnostic, blood bank, pharmacy and urgent care centre services. It also requires assessment units and facilities for ambulatory and inpatient beds as part of a high acuity unit designed around three and seven day length of stays. A mental health assessment unit and the rapid assessment interface and discharge (RAID) mental health liaison service will be part of the core services⁹⁸. Social care assessment and care planning will be fully integrated⁹⁹.

7.2 The diagnostics and treatment centre (DTC)

Workforce and equipment issues provide the most compelling reasons for co-locating the DTC with the EC. However, they must remain operationally separate and co-location is not essential. There are real advantages to be gained from a truly standalone DTC.

7.3 Urgent care centres (UCC)

One UCC should be co-located with the EC; since the EC will not provide a walk in service. This requirement is because of the geographical locations of UCCs and not because the EC is dependent on the UCC operationally. Excellent transport facilities to transfer patients from UCCs to the EC within the local urgent care network will be required.

UCCs require the following services to be co-located; observation unit, diagnostics, therapy services and pharmacy. It would benefit from co-location with GP OOH services, community mental health teams, social care and voluntary sector support services. It would be logical but not imperative for UCCs to co-locate with community hubs, planned care facilities, community ambulatory services and medium intensity community inpatient beds. If GP urgent care is provided at UCCs, then this will require co-location, but would probably use separate consulting rooms.

7.4 The future of community hospitals

The four community hospitals in Shropshire provide obvious estate to co-locate some services. From an estates, cost and efficiency perspective, transforming community hospitals through a co-location of a community hub, ambulatory services, inpatient beds and urgent care centre would be logical. From a patient perspective, care will be required to ensure that the facility is able to 'feel like part of the hospital' when accessing the UCC, 'feel like part of

⁹⁸ Mental health cross cutting theme meetings, May 2014, see appendix page 138

⁹⁹ Social care cross cutting theme meetings, April 2014, see appendix page 161

my GP surgery' if there are GP urgent care services co-located and 'feel like part of my community' when visiting the community hub¹⁰⁰.

7.5 Community hubs

Community hubs should have a number of characteristics and co-locations which would strengthen their connection with the local community and individual patients. This would not only provide a number of valuable community orientated services, but also improve the quality and sustainability of any co-located NHS acute, planned and LTC services. Community hubs would become 'the place I go to when I have a question or problem'.

These characteristics should include:

- A 'cared for', non-institutional environment which was welcoming to everyone, whether there by appointment or 'walk in'.
- A strengthening of 'community spirit' which values the hub as an integral part of the local community (and which mitigates the risk of this being lost through a more strategic design and use of beds)
- Consistent services, many open 24/7, which are sustainable through achieving a 'critical mass'
- Local people involved in the design and running of the services which are built around an 'asset based' model of what already works well.
- A co-location of services carefully designed to improve the overall quality of care in a cost efficient way. (A potential for economies of scale was discussed using the example of three separate facilities – Beech Tree HLC, Bradbury Day Centre and Whitchurch Hospital – whose functions could be combined.)
- A potential for tailoring services in different areas of the county according to demographic need.
- An emphasis on prevention, self-management and patient empowerment
- More help for carers to help them cope, rather than purely the provision of respite.
- A more timely access to expert opinion, responding earlier to need even if it is undifferentiated and of low acuity
- A 'way of doing things' that reduces social isolation and enhances inter-generational mixing. (e.g. co-locating Sure Start children's services in an environment catering largely for the elderly)
- Enabling community services to be more effective and better integrated with services which require beds.
- A range of community services which 'waters down' the tendency to base planning only on 'beds'

Because of these characteristics, citizens and patients will want to come to a community hub for a variety of reasons:

- Prevention.
- Addressing the wider determinants of health. The more the better!
- To experience a 'cared for' environment which tackles social isolation and promotes making every contact count (MECC)

¹⁰⁰ First community hospitals cross cutting theme meetings, May 2014, see appendix page 122

- With an undifferentiated need
- 'dis-ease', anxieties, wants, crisis etc.
- Providing excellent navigation and signposting for medical, social and mental health needs
- Including the ability to check on appointments anywhere in the system
- Because 'I'm anxious'
- Handled through contact with voluntary sector and only escalated to health professional if required
- For LTC education to improve self-management in groups to provide economy of scale and a social environment
- For non-urgent , holistic integrated assessments, including social, medical and mental health, possibly performed by a single generically skilled professional
- Community and care co-ordinator functions and skills might be well placed here.
- To access to an expert opinion which may not be directly available 24/7 but which can either be signposted to or accessed remotely via 'telehealth'¹⁰¹

7.6 Mental Health Services

There are major opportunities to integrate emergency mental and physical health services by co-locating a Mental Health Assessment Unit in the EC. The advantages would be:

- 24/7 and secure
- Section 136 and crisis assessments
- Drug and alcohol / overdose assessments
- Base for 'liaison' services – RAID
- Consolidate staff - generic skilled staff carry out assessment and liaison services out of hours
- Enhanced mutual learning / education
- Culture change – alignment of physical and mental health services - parity of esteem
- Allows easier 'physical health liaison service'
- Improve longer stay mental health patient flows

There are equally great opportunities to integrate urgent mental and physical health services by co-locating Community Mental Health Teams (CMHT) and home treatment services in UCCs¹⁰². The advantages are:

- Reduce the inconsistency of CMHT services and improve relationships with primary care. This would depend on the extent to which primary care 'owns' their nearest UCC.
- Provision of fit for purpose CMHT offices and rooms.

7.7 Oncology services¹⁰³

¹⁰¹ First community hospitals cross cutting theme meetings, May 2014, see appendix page 122

¹⁰² Mental health cross cutting theme meetings, May 2014, see appendix page 138

The main oncology centre (including radiotherapy) should be located with high acuity centre, where clinical standards and workforce are main drivers, though head and neck cover is a key support for an emergency centre/trauma unit (and the latter would be put at risk).

Radiotherapy planning and cover for planned care and urgent care together (acute oncology needs access to ITU and anaesthetics support) is more manageable on one site.

The co-location of LINACs for radiotherapy would be driven by cost and workforce constraints, not clinical adjacencies. But, if Shrewsbury and Telford Hospitals NHS Trust (SaTH) fails to manage the whole treatment pathway there is a significant workforce risk. 60 percent of cancer patients will receive radiotherapy at some point in their care. Activity could increase if indications change. If travel time is more than 45 minutes, patients will opt not to have radiotherapy, impacting on outcomes (see Canadian research and Worcester example).

Oncology services are already consolidated (though patients are spread around) and future developments in treatment are likely to increase the case for consolidation (e.g. intra-operative radiotherapy, higher dose fractions). Cancer site specialization severely constrains ability to run oncology on more than one site. If robotic surgery is factored in (likely to be a peer review requirement and critical for recruitment and retention) this would need to be fully utilized to make it economically viable which suggests a single site.

Haematology could manage some oncology services at satellite units (survivorship, LTC and transfusions)

There is an opportunity within the clinical design for home chemotherapy; this could take place either in patient's homes (e.g. Herceptin) or in satellite chemotherapy units or health hubs. If chemotherapy is conducted in patient's homes it will save adding VAT to the cost of delivery, which can fund the nurse in totum, though drug provision is a logistical challenge.

There may be a small subgroup, for example haematology, though there is a national commissioning drive to provide chemotherapy closer to home where it is not essentially co-located with acute facilities.

7.8 Paediatrics¹⁰⁴

The paediatric unit requires co-location with the main EC due to common needs for equipment, supporting expertise and the reality of patient flows in an emergency. It will also require co-location with surgery but not necessarily ITU. To function effectively, it requires excellent triage through (co-located) UCC (urgent paediatric assessment centre or UPAC) and not be a walk in service.

¹⁰³ Cancer cross cutting theme meetings, May 2014, see appendix page 109

¹⁰⁴ Children's cross cutting theme meetings, April 2014, see appendix page 113

The level of paediatric care that can be provided in UCCs is critically dependant on the total number of UCCs planned across the system. Workforce limitations imply that ‘meaningful’ paediatric care would only be possible in a small number of UCCs (possibly 2-4). Their success will be critically dependant on the availability of appropriately trained staff – GP with an interest or children’s/paediatric nurse practitioners (PNPs), although PNPs are also likely to be needed to staff the high acuity unit and possibly by rotating posts.

If there are more UCCs than can be staffed to provide paediatric care, it may be necessary to consider UCCs with and without a paediatric care or assessment component.

An UPAC should be located within each UCC, staffed by competent and additionally trained GPs and or PNPs.

7.9 Women’s health services¹⁰⁵

One EC will have little additional impact on women’s health as the service is already consolidated onto a single site with a well-established hub and spoke model operating according to national standards and guidelines.

PANDA and WANDA units (antenatal day assessment units for women more than 16 weeks pregnant) are currently sited on both the Shrewsbury and Telford sites. If services are consolidated onto one site, then there is potential for one unit to be co-located with an UCC.

Care would be required in developing collaborative working as this will risk mixing two workforces, one trained in ‘normality’, the other in ‘abnormality’.

Although there is considerable potential for alignment between UCCs and the current midwifery led units, the operational links are clinically tenuous. They are stronger in the domain of ‘abnormality’, i.e. Gynaecology, transitional neonates and EPAS (early pregnancy assessment service).

There is potential for an ambulatory gynaecology service in UCCs; there would be a need for timely access to scans, blood results in 4-6 hours and a pharmacy for TTOs. This service would mainly deal with vaginal bleeding and abdominal pain, although the latter can be a more complex presentation.

8. Whole system thresholds and criteria for tiered levels of care

Work has begun to define the criteria and thresholds for three tiers of care: ‘low level’ at home, ‘medium level’ in a community unit and ‘high level’ in a high acuity unit¹⁰⁶.

¹⁰⁵ Women’s health cross cutting theme meetings, May 2014, see appendix page 173

¹⁰⁶ Second community hospitals cross cutting theme meetings, May 2014, see appendix page 122, fourth long term conditions sub group meeting, May 2014, see appendix page 85

Thresholds to determine that a patient is no longer safe to be cared for at home:

A sudden or large change in physical care or medical needs
Excessive clinical risk (E.g. confusion or agitation at a level that cannot be managed at home)
Cause of deterioration unknown so the likely trajectory of the illness is uncertain
A reduction in mobility - two carers are required to transfer the patient from bed to chair
A high level of patient or carer anxiety and / or a refusal to follow clinical advice

Thresholds for medical admission to a 'medium intensity' community unit:

Not meeting criteria for admission to high acuity unit
Failing one or more of the clinical thresholds to stay at home
A need for closer and more frequent 'scrutiny' (observation)
A need for more dynamic care / rehabilitation than can be offered at home
A need for diagnostics – although on its own this need could be met through ambulatory care

Thresholds for rehabilitation admission to a 'medium intensity' community unit:

A need for intensive / specialist rehabilitation where the clinical workforce must be consolidated. E.g. stroke and cardiac rehab.
Mobility problems precluding rehabilitation at home
The patient has additional medical needs
The patient is still high dependency 1:1, but is in the recovery phase (for transfer from acute)

Thresholds for admission to a high acuity unit:

Danger of death
Danger of permanent harm resulting from acute problem
High level clinical risk resulting from acute illness with an uncertain diagnosis
An exacerbation of an LTC – criteria for direct admission detailed in care plan e.g. sats < 85percent

There was agreement that clinicians in the acute setting tended to be more risk averse than those working in the community, and that this variation would need to be eliminated in order for these thresholds to determine 'level of care' to be consistently applied. Embedded rotating posts from acute to community may contribute to resolving this.

Applying the principle of 'home is normal', once a patient is stabilised, the question that clinicians in the high acuity unit should ask every day is: 'Is this patient fit to be cared for at home?' not 'Is this patient fit to transfer somewhere else?'.

The thresholds being developed to determine whether a patient can be safely managed at home could be applied from the opposite perspective to determine whether a patient in hospital is fit to be discharged home.

For example:

When the patient is at home:	When the patient is in hospital:
Has there been a sudden or large change in physical care or medical needs?	Has the sudden or large change in physical care or medical needs reduced or resolved?
Is there excessive clinical risk? (E.g. confusion or agitation at a level that cannot be managed at home)	Is the clinical risk now manageable in a home setting?
Is the cause of deterioration unknown so the likely trajectory of the illness is uncertain?	Is the diagnosis and the trajectory of the illness now known?
Has there been a reduction in mobility to the point where two carers are required to transfer the patient from bed to chair?	Is mobility restored to an acceptable level?
Is there a high level of patient or carer anxiety and / or a refusal to follow clinical advice?	Has patient or carer anxiety / refusal to follow clinical advice resolved?

N.B. These thresholds developed in outline during community hospitals cross cutting theme meeting 2

9. From design to implementation¹⁰⁷

This report will fulfil three roles in the development of the local health and social economy: Firstly, it provides the platform upon which the Future Fit programme can deliver a successful reconfiguration of acute and community hospital services.

Activity and capacity modelling will be applied to the clinical design and feasibility studies, options appraisals and further public engagement will follow. A full public consultation and the development of a business case will take place after the general election, after which a final decision will be made and implementation commenced¹⁰⁸ (see project execution plan for exact timescale).

¹⁰⁷ Fourth Clinical Reference Working Group, May 2014, see appendix page 41

¹⁰⁸ Project execution plan, January 2014, available online at: <http://www.nhsfuturefit.co.uk/key-documents/key-documents/documents/2-140120-shrop-csr-pep-v1-0-excl-appendix-3-2>

Secondly, the report will serve as an ‘agreed common destination’ for all stakeholders. It is a whole system blueprint which shows us ‘where we all want to get to’ and gives us a real sense that ‘we are all aiming at the same thing’. As a whole system plan, developed through whole system engagement, the scope of the report is much wider than acute and community hospital reconfiguration. It describes and demonstrates critical interdependencies across the whole economy and points firmly to the need to begin the process of transformational change now. Only by doing this will the reconfiguration of hospital services be successful.

Thirdly, the report is a ‘toolkit’ which, in addition to describing the future configuration of the whole system, also contains a wealth of detail about how to make the large scale changes in working practices that must precede and accompany structural change. To achieve this, the high level of clinical engagement in the production of this report will be nurtured and harnessed through the creation of a local clinical ‘senate’ or ‘forum’ which will lead and oversee these changes. The senate will comprise clinicians from all sectors and, to be successful, will be required to maintain and strengthen support from all stakeholders at all levels in order to acquire the necessary ‘traction’ and ‘leverage’ to lead and enable transformational change.

Evidence summary

1. Introduction

The clinical design workstream has been informed by and based on sound knowledge from experience, analysis and evidence. This summary focuses on the key messages from the evidence base.

The importance of the evidence base in designing service change is acknowledged by the Independent Reconfiguration Panel (2010) and emphasised in recent guidance from the Royal College of Surgeons (2013). However, the evidence base is relatively limited and highly contextual. Spurgeon et al (2010) noted this in their report on evaluating service models for reconfiguration: "the evidence base is not strong enough to guide decisions in specific situations about what care can be safely delivered locally, and what must be delivered in large facilities".

For the purposes of this programme, evidence reviews were prepared to inform discussions around the three main areas of health care delivery: acute episodic care; long term conditions and frailty; and planned care. The findings from these reviews were considered alongside insight from data analysis and stakeholder consultation. This approach, experience-based co-design, was advocated by the NHS Institute for Innovation and Improvement and is increasingly prevalent in the health service (Bate and Robert, 2006).

There is a growing body of evidence on the application of complex adaptive systems thinking to health care, particularly in large scale change. The health service comprises many different systems which (Health Foundation, 2010) influence and are influenced by each other and by other systems. Engagement and co-production are emphasised in the literature as essential to understanding a system, Best et al (2012) noting that the involvement of patients and families in large scale transformation is associated with improved outcomes, processes and health literacy as well as an enhanced sense of validity and equity.

2. System principles and working practices

2.1. "Home is normal"

A key element of the discussions around models of care has been on where care is best delivered. The Future Hospital Commission (2012) advocate increasing care delivered in the community: "care must be delivered in the setting in which patients' clinical, care and support needs can best be met, and not merely delegated to the acute hospital site 'where the lights are on'". The report predicts a future where: "Much specialized care will be delivered in or close to the patient's home. Physicians and specialist medical teams will expect to spend part of their time working in the community, with a particular focus on caring for patients with long term conditions and preventing crises." The Kings Fund (Ham et al, 2012) suggest that "in the system of the future, the vision should be of 'home as the hub' of

care, enabling patients and service users to take greater responsibility for their health and wellbeing, with the support of carers and families", noting that services such as IV antibiotics, chemotherapy and haemodialysis are now being delivered at home.

The National Audit Office (2013) has estimated around 20% of admissions are avoidable, for known conditions which could be better managed in primary, community or social care. The Health Foundation (2011) found primary care to be an effective alternative to hospital treatment, for patients with long term conditions and for elderly patients. For elderly patients with an acute illness, intermediate care was associated with lower mortality than inpatient care. The report also suggests increased patient satisfaction with care at home compared to inpatient care, echoed in a Royal College of Physicians (2012a) review on care closer to home. Early discharge was associated with improved quality of life outcomes.

For frail elderly patients, there is evidence to suggest that hospitalisation for acute episodes can result in functional decline (Sager et al, 1996; NHS England, South, 2014). A recent Kings Fund report (Oliver et al, 2014) notes that the "lack of alternative services" is a key problem leading to higher hospital admissions in patients aged over 85. For those in care homes, access to clinical care is often a problem (Kings Fund, 2013) and it is suggested "between 8% and 40% of patients seen in the emergency department coming from care homes could have received care or treatment outside of A&E". A study of patient flow in Sheffield (Health Foundation, 2013) found that a third of acute beds were occupied by patients aged over 75, and increasing numbers of patients aged over 90. An audit showed that 50% of these patients were not receiving acute care but waiting to be discharged to intermediate or social care services. A further audit of patients with the longest length of stay highlighted the impact of delayed discharge - some patients experienced deterioration and information was often lost leading to duplicated activity and the risk of further deterioration.

Sir Bruce Keogh's vision for urgent and emergency care (NHS England, 2013a) proposes that improvements in urgent but non-life-threatening care will relieve hospitals of some pressures to enable greater focus on more serious and life threatening needs. This vision depends on some of the care currently managed within hospital settings being shifted into a community setting, thus creating a networked system of care.

For the vision of care closer to home to be realised, there is a need to address capacity within primary and community care. Ham et al (2012) propose a more radical shift of care closer to home acknowledging that whilst primary care has a role to play, it will need significant support. A suggestion is the development of community diagnostics through federations of practices or networks involving GPs and specialists. Ham et al (2012) cite the Right Care Right Here programme in Sandwell and West Birmingham, which will create increased capacity in the community to manage the reduction in acute beds: "The new model also involves the majority of outpatients, diagnostics and surgical day-case activity being shifted from acute hospital departments to community facilities. There will also be increased community-based urgent care and out-of-hours services as alternatives to accident and emergency (A&E). Enhanced intermediate-care provision will support rehabilitation and recovery close

to home through both beds and new community-based teams. A key component of the model will be new services in primary care health centres that support healthy lifestyles".

2.2. Empowerment

2.2.1 Empowered patients

Ham et al (2012) acknowledge that the current delivery of health care is often fragmented, which is particularly troublesome for frail elderly patients with multiple comorbidities. A review by Parker et al (2011) assessed influences on continuity of care, finding that patients valued good relationships over familiarity, accepting that different professionals would be involved at different points in their care pathways. This is reflected in work by National Voices (2011?) which stresses that patients want coordination of care to reduce fragmentation:. "People want many other things from healthcare, including continuity of care and smooth transitions. These require planning and co-ordination". Parker et al's analysis identified 7 sources of influence on the experience of continuity:

- individual patient characteristics, circumstances and preferences
- family and people close to the individual patient
- care trajectories (which differ for different illnesses and over time)
- wider context of the 'whole person' (including family and life experiences, family roles and responsibilities, and social context)
- structure and administration of services
- characteristics and behaviour of healthcare professionals
- satisfaction and judgements of service users (influenced particularly by expectations of care and treatment, the quality of the first appointment and the establishment of trust at an early stage).

Ham et al (2012) note an imbalance between treatment and prevention, particularly primary prevention: "The ageing population and changing disease burden mean that prevention is important at all ages, including among people aged 65 and over to ensure that further increases in life expectancy translate, as far as possible, into healthy years".

Self-management has been shown to be effective in improving quality of life and health outcomes, when based on an agreed action plan and educational interventions, for patients with long term conditions such as asthma, COPD and heart failure. Studies have shown benefits to patients (e.g. improved health outcomes such as less exacerbations, improved confidence) and the NHS (e.g. reduction in unplanned admissions) although the outcomes do vary across settings. The evidence suggests self-management is likely to work best when implemented as part of wider initiatives to improve care through educating practitioners, applying best evidence, and using technology, decision aids and community partnerships effectively" (da Silva, 2011). Many of the NICE quality standards emphasise self-management (Diabetes in Adults, Chronic Heart Failure, COPD, Asthma, The epilepsies in adults, Rheumatoid arthritis). A Department of Health (2010) publication suggests that over 90% of patients with long term conditions expressed an interest in being a more active self-carer and over 75% would feel confident with support from a health professional or peer.

Self-management and care planning feature in a number of key publications and are seen as central to the House of Care model, which aims to improve service provision to people with long term conditions (Coulter et al, 2013). The Kings Fund's 10 priorities for commissioners (Naylor et al 2013) includes active support for self-management. The Health Foundation has been working in this area, specifically on its Co-Creating Health model (Newbrunner et al, 2013) which incorporates self-management training for people with long term conditions, training for clinicians to support patients, and a service improvement programme to establish enabling processes and systems. Co-production is a key component of the model, with training designed and delivered jointly by professionals and patients.

Lessons from self-management programmes (Corben and Rosen, 2005; da Silva, 2011) emphasise the need for patients to have clear, structured and targeted information about their condition and guidance on how to access it. To encourage self-care requires a partnership approach where care plans are developed between service users and professionals and where flexibility is built into service provision to fit in with patients' other commitments.

The House of Care model (Coulter et al, 2013) proposes a broad approach of self-management and preventive care for 70-80% of patients with long term conditions and a more targeted approach for patients with complex comorbidities at higher risk of hospital admission. Evidence is starting to emerge on the positive effects case management can have on outcomes and patient satisfaction. Management and integration is critical, and targeting the right population is critical to success. Virtual wards have been used in the NHS alongside case management; however, there is limited evidence with much of it anecdotal, lacking detail or difficult to generalise or apply to local contexts. A recent review by Lewis et al (2013) noting the importance of a clear, consistent and multidisciplinary model; broad engagement, particularly of geriatricians and GPs; clear selection criteria; and timing of interventions to avoid time lag between identification and enrolment. NHS England have identified case management and coordinated care: *'Multi-disciplinary case management for the frail elderly and those suffering with a long-term condition'* as a high impact and early adopter intervention in their Any town health system. NHS England (2014a) have cited the 'National Evaluation of the Department of Health's Integrated Care Pilots' undertaken by RAND Europe in 2012 as the evidence for this intervention.

A key theme running through the evidence relating to patient empowerment is shared decision making. The Health Foundation has funded work in this area, particularly in general practice. Their MAGIC programme (King et al, 2013) was recently evaluated, with the conclusion that "while there are challenges to making shared decision making a reality, and it can be hard and slow to do, shared decision making can create positive change within health systems and to individual patients".

2.2.2 Empowered communities

Community initiatives have been particularly prominent in the last year, with the NHS Choices Winter Friends pledge and more recently, the Dementia Friends campaign. The shift of care closer to home and the focus on prevention is likely to benefit from greater community involvement. Nesta recently reported on the People Powered Health programme (Nesta, 2013) which included a range of projects aimed at commissioning new services, developing peer support, developing networks, user co-design

and redefining consultations. The benefits and outcomes of the projects varied across the projects; improved health outcomes were reported in 9 of the 15 projects; reduced admissions in 10; improved quality of life in 5.

Nesta considers the mobilisation of patients, service users and their communities as a critical building block to the success of the programme. The programme provided relatively small investments in stimulating community-driven activities and the results suggest this may be scalable and may support more sustainable models of care delivery. The peer support programme (Temperley et al, 2013) involved four models: activity-based peer support; one-on-one support; befriending; and locality-based peer support. The benefits identified included: improved self-management leading to less exacerbations; lower demand for services; increased compliance to treatment; and increased satisfaction. The programme to develop networks and partnerships (Langford et al, 2013) suggests a range of benefits including: shared learning; sharing of skills, resources and capabilities; the ability to win contracts by offering a holistic solution; and the ability to tackle problems spanning sectors. The programme focusing on people-powered commissioning (Corrigan et al, 2013) suggests a shift towards outcomes based commissioning, working with communities to identify broad outcomes such as behaviour change, health improvement, patient confidence and social networks.

The Compassionate Communities work (Barry and Patel, 2013) is an example of community-based initiatives, in this case specifically set up to support end of life care. The Compassionate Communities act as coordinators of volunteers, community development projects, health promotion and access to services. Additionally, these communities work with local statutory services to help shape end of life care for patients, carers and families. A recent survey of communities identified significant variation in approaches and although this identified the need for shared understanding, it may be that this variation arises from differences in local contexts. The survey found variable evidence of outcomes but the case study from Severn Hospice suggests a decrease in out of hours and emergency support following intervention.

The coordination of community-driven services and initiatives will be important to avoid fragmentation. In the US, community hubs (AHRQ, 2010) were found to be effective in meeting the needs of the more vulnerable members of society. These hubs bring together public and private services, acting as a central "clearinghouse" to register at risk individuals and coordinate their care. A key aim is to avoid duplication across multiple services.

2.3 Sustainability

Measuring the burden of disease is typically achieved through the metric, Disability-Adjusted Life Years (Murray, 1994), providing an estimate of the number of years of life lost due to premature mortality and the number of years lived with a disability. In a recent report (Murray et al, 2013) based on data from the Global Burden of Disease study, the authors note: "The performance of the UK in terms of premature mortality is persistently and significantly below the mean of EU15+ and requires additional concerted action. Further progress in premature mortality from several major causes, such as

cardiovascular diseases and cancers, will probably require improved public health, prevention, early intervention, and treatment activities. The growing burden of disability, particularly from mental disorders, substance use, musculoskeletal disorders, and falls deserves an integrated and strategic response."

Targeted prevention in patients with known conditions is increasingly achieved through risk stratification and predictive modelling. For the wider population, the health check is seen as a key public health tool. However, the evidence suggests the health check programme does not identify those most at need (Smith et al, 2013; Krogsboll et al, 2012)

2.3.1 Financial sustainability

Complex adaptive systems theory suggests that radical change is best managed iteratively, testing out different ideas and approaches in an experimental style, due to the unpredictable nature of interactions throughout the system. Rowe and Hogarth (2005) describe CAS thinking in a change programme involving health visitors and school nurses in an inner city area: "Using a Complex Adaptive Systems approach was helpful for developing alternative views of change and for understanding why and how some aspects of change were more successful than others. Its use encouraged the confrontation of some long-standing assumptions about change and service delivery patterns in the National Health Service, and the process exposed challenging tensions within the Service. The consequent destabilising of organizational and professional norms resulted in considerable emotional impacts for practitioners, an area which was found to be underplayed within the Complex Adaptive Systems literature. A Complex Adaptive Systems approach can support change, in particular a recognition and understanding of the emergence of unexpected structures, patterns and processes. The approach can support nurses to change their behaviour and innovate, but requires high levels of accountability, individual and professional creativity." The change programme deliberately did not set out the solutions but aimed to create an environment to enable improvements to emerge; the programme started with a range of events designed to create a momentum for change and to introduce the approach of reflection and creativity. From these, a set of basic rules was agreed. The authors note the CAS approach is useful for engaging and involving stakeholders but there needs to be a recognition that significant energy and commitment is required to prevent the system slipping back into custom and practice.

2.3.2 Workforce sustainability

In a Kings Fund report on reconfiguration, Imison (2011) concluded that workforce pressures are likely to be one of the most significant drivers of reconfiguration in the short and medium term. Such pressures are visible across multiple professional groups. Within medicine, the Royal College of Physicians (2012b) note the issue of recruitment into emergency medicine and general medicine at both training and consultant levels, noting large numbers of unfilled consultant posts in emergency medicine, in particular, leading to increased reliance on locum support. The Royal College of General Practitioners (2013c) notes a crisis in general practice workforce, due to decreasing numbers of new entrants, increasing numbers of leavers and projected retirement numbers over the next few years.

Within nursing, the Centre for Workforce Intelligence notes increasing pressures from the increased demand from an ageing population and increasing complex comorbidities: "This increased demand will occur not only because of population growth and improving survival rates, but will also be spurred on by economic pressures and advances in technology that require fewer patients to stay in hospital for lengthy periods of time, as well as policy and choice drivers that push towards community and home-based care and away from hospitals. The nursing supply pool is not currently large enough to meet this need" (Centre for Workforce Intelligence, 2013a).

These workforce issues have implications for safety and quality. For example, a recent poll commissioned by the Royal College of General Practitioners (ComRes, 2014) found that 84% of GPs (of a sample of 251) are worried about missing a serious condition in a patient due to workload. Gouldie and Goddard (2011) summarise guidance on workforce requirements and scale issues across hospital-based specialties.

2.3.3 Sustainability of services

A recent report from the NHS Confederation, Academy of Medical Royal Colleges and National Voices (2013) emphasises the need to reframe debates on reconfiguration, noting the benefits of a patient-centred and co-production approach to redesigning services. Noting the shift of care closer to home, the report acknowledges a greater role for services outside the hospital and the need for investment to support this: "The capability of primary, community and social care needs to be developed to provide a 'wrap-around', coordinated service. This will be part of reducing the numbers of people who are in hospitals unnecessarily. There is also an opportunity for hospitals to deliver more of their services directly in the community and have physicians working beyond the hospital walls with colleagues in primary and social care. Providers across the system will need to come together to show they can deliver a continuum of care for patients, who could also be supported to manage their conditions as successfully as possible".

It is acknowledged that this investment will be difficult in the no-growth health funding scenario, and will require resources to be taken from one part of the system to invest in others. The report authors highlight the need for whole system thinking, considering costs and benefits to all providers and warning against attempts to isolate change to only part of the system. Shifting resources across the system can only be achieved if demand follows, otherwise there is a risk of destabilisation: "The transition therefore in moving resources from one model of care to invest in another over time will need to be managed carefully, but with the value to the whole system as its main focus". The report also recognises the risk of reconfiguration being seen solely as a cost cutting exercise if disinvestment is more visible than reinvestment. One option is to parallel run the current services alongside redesigned services for a fixed period: "This phase of double-running helps patients to migrate gradually from one service to the other, or else carefully manages the disinvestment in current services. We were told that this would soften many transition risks and could help people to recognise over time the benefits of investing in community care. The obvious problem is the costs associated with funding multiple services simultaneously, which for many local health economies will be an unmanageable challenge. This is compounded by the fact that the process itself is resource-intensive anyway". Reconfiguration projects

often report an inability to derive expected savings to enable the necessary investment; short term costs have been realised in some projects but risks to financial stability and quality of care are linked and need to be managed carefully.

The report also references evidence to support the consolidation of specialist services into fewer centres, enabling "multi-disciplined teams to be assembled to provide adequate medical cover and a better environment to develop clinical skills and experience". This consolidation would also require a shift in resources - people, technology and money. The relationship between volume and outcomes has been debated in the literature; the evidence is mixed (Spurgeon et al, 2010; Glanville et al, 2010), varying across specialties (Halm et al, 2002). There does seem to be an association between volume and outcomes but it remains unclear if this is due to the practice makes perfect theory (skills are highly developed by performing the same procedure more frequently) or because units with good outcomes receive more referrals (Dudley et al, 2000). Murray and Teasdale (2005) suggest that the relationship between volume and outcomes is "likely to be most clear in circumstances where the condition is complex and its treatment associated with high risk".

Ham et al (2012) discuss the issues around location of care and the relationship between volume and outcomes, citing evidence supporting the concentration of services in higher volume units and an association with better clinical outcomes (e.g. lower mortality rates); examples include vascular surgery, paediatric heart surgery; and stroke services. The current focus on 7 day working is also a driver for the concentration of services to optimise availability of senior clinicians. A&E and maternity services are noted as being particularly contentious; however, Ham et al acknowledge that current service models are unsustainable due to workforce shortages. There is also an emphasis on providing care at the most appropriate location; for example, it is recognised that a hospital setting is not the best option for frail elderly patients and patients at the end of life. However, a lack of integration is often a barrier to providing alternatives to hospital based care. This is reflected in Palmer's (2011) review of reconfiguration in South East London, notes evidence to support larger units serving a wider catchment area with better outcomes and improved cost effectiveness, pointing to examples A&E, maternity and neonatal services, hyper-acute stroke units and heart attack centres.

There have been debates about the volume and mixture of workload required to ensure financial sustainability in pathology, laboratory testing and also radiology, although not always directly in relation to emergency care. These are services identified as being necessary to support emergency care (either on-site or networked) and there are some brief references made to the financial implications ("destabilisation") of moving high volume, routine work or elective care away from a hospital which needs to retain the higher level specialist work in support of a range of specialties (Gouldie and Goddard, 2011).

Glanville et al (2010) highlight key problems relating to the evidence base - the differences in definitions of "low" and "high" volume; the failure to adjust for case mix; and the limitations of mortality as an outcome measure.

2.4 New ways of working

2.4.1 Integrated care

There is growing evidence to support integration - Ham and Curry (2011) highlight the importance of integrating not just at the health system level, but also at disease management and individual patient levels. The authors cite the example in Torbay where integrated care has delivered a lower rate of emergency admissions and readmissions when benchmarked to similar areas (demographically) and low delayed transfers of care.

In a recent report, Edwards (2014) outlines the need to remove complexity thus creating “a simple pattern of services [...] based around primary care and natural geographies and with a multidisciplinary team. These teams need to work in new ways with specialist services – both community and hospital based - to offer patients a much more complete and less fragmented service”, noting the importance of involving mental health and social care services. A key focus for these simpler services should be on rapid response and enabling quicker discharge from hospital settings.

Sheffield Teaching Hospital NHS Trust describe how a new system was introduced in which patients are discharged once they are medically fit and have an assessment with the appropriate members of the social and community intermediate teams in the patient’s own home (Health Foundation, 2012).

The management of assessment is one of the themes addressed in the Future Hospitals report (Future Hospitals Commission, 2013), with the recognition that early specialist input is essential to promoting recovery and maintaining/recovering independence. Access to specialist care in the community is part of a vision for preventing exacerbations or crises, thereby avoiding potential admissions. This requires close working between general practice and specialist services, with staff deployed in community as well as hospital settings, working in an integrated model with primary and social care on a 7-day basis. Early senior review is a recurring theme in the report with the recommendation that elderly patients with comorbidities have access to comprehensive geriatric assessment.

The Future Hospitals report also emphasises the importance of information, as near to real-time as possible, to deliver improved models of care for patients. The report also notes the importance of routine and immediate access to records to improve care for vulnerable patients – currently, information on recent admissions or outpatient attendances may not be available, leading to delays in decision making.

The use of multidisciplinary teams has been used effectively to support patient groups with complex needs. For example, Sheffield Teaching Hospital NHS Trust found that by providing a dedicated a multidisciplinary team of occupational therapists, a social worker and general and mental health nurses working in the Frailty Unit teamwork was much more cohesive thus benefiting patients (Health Foundation, 2012). Previously the team was dispersed often leading to delays in assessing the service once the patient had been identified for discharge.

There are some important lessons from existing integration programmes. The Nuffield Trust (Bardsley et al, 2013) has generalized some key lessons in their report *Evaluating integrated and community-based care*:

- Allowing sufficient time to implement and embed large-scale change, pointing to examples such as Kaiser Permanente and Trafford which have taken years, as opposed to months, to demonstrate success.
- Ensuring clarity on eligibility criteria for different services and focusing on patients who may benefit most, such as patients at high risk of admission.
- Considering early indicators and outcomes which may demonstrate an impact, for example, a reduction in HbA1c may be an early indicator of reduced admissions for interventions aimed at patients with diabetes.

2.4.2 Partnership care

An evidence summary on integrated care (Bennett and Humphries, 2013), noting the need for a focus on prevention, suggests partnership working and systematic health impact assessments as key areas for development. Bennett and Humphries point out the importance of earlier involvement of consultants in A&E; falls prevention programmes; and discharge planning. This theme is also picked up in the Future Hospitals report (Future Hospitals Commission, 2013), noting that poor collaboration and integration means that vulnerable patients experience a lack of urgency in setting up social care support. The report proposes 4 principles of patient-centred care:

- Continuity of care: across acute illness and chronic disease management, this requires effective information sharing across clinicians and services.
- Patient-centred care: individualized and holistic care, requiring collaboration across services.
- Patient experience: noting that patients often experience moves within the hospital, the report suggests patient experience is measured alongside clinical outcomes and effectiveness.
- Vulnerable patients: noting that poor standards of care leads to missed opportunities to prevent crises or exacerbations, the report highlights the need for high quality care across multiple domains, engaging effectively with carers.

Increased partnership working between primary and secondary care is noted in a recent Kings Fund report (Kings Fund, 2013) which demonstrates how AMUs can build clinical relationships and promote better risk sharing across the emergency care system. In some AMUs the acute consultants are increasingly used by GPs to provide advice on seriously ill patients, developing closer working with the community. For example, in one trust the AMU consultant on call takes GP referral calls directly, preventing 40% from being admitted. This has led to better communication with GPs and although it is time consuming (and has resulted in GPs calling for advice more often), the acute consultants have found it useful to get to know the GPs and found that it prevents unnecessary admissions or patients being admitted for more targeted treatment. For example, anaemia patients staying at home under the care of the GP will have blood taken by the GP cross-matched and then the patient will come into the

hospital for a transfusion when the treatment is lined up. The closer working with GPs has also promoted better risk sharing across the emergency care system, and has increased confidence that sick patients can be looked after in the community.

The Future Hospitals report (2013) recognises that the model of integration should fit with the local context – examples of possible models include shared information channels and multidisciplinary teams working across inpatient and outpatient care. It is noted that access to specialist care needs to be provided outside of the hospital walls, noting examples of this in palliative care, geriatrics, respiratory medicine and diabetic medicine. A key goal will be to prevent avoidable admissions through an integrated approach to anticipate and prevent crises or exacerbations.

Access to information and medical records is essential for partnership and integrated working. de Lusignan et al (2013) note that given widespread use of the internet for social networking, travel, shopping and other activities, it is "therefore reasonable that patients should expect to interact with their general practice online". Practices are increasingly offering online appointment booking and prescription ordering but few offer access to records. Fisher (2013) points out that access is no longer a technological issue but a cultural one.

3 Models of care

3.1 Acute and episodic care

3.1.1 Patient access and flows

Access to advice is especially important in urgent and emergency situations. The on-going Emergency and Urgent Care review led by Sir Bruce Keogh (NHS England, 2013a) proposes an enhancement to the 111 service, providing a '24 hour, personalised priority contact service' and commits to working on a new service specification for 2015/16. The review suggests this new specification will describe a service which has access to patient records (subject to consent) which will enable an improved service for patients with long term conditions, end of life requirements or rare conditions; offers patients the option to speak directly to a health professional for advice and to book appointments at local facilities. A key aim is to avoid people feeling they are "bounced around the system". The new specification will require much more integrated working between general practice, out of hours services, community-based teams, urgent care facilities and the 111 service. A recent review (Turnbull et al, 2014) of the 111 service notes that technological integration is critical but is dependent on robust relationships to support integrated working.

3.1.2 Tiered and networked Urgent and Emergency Care Services

Ambulance services are an integral part of urgent and emergency services; traditionally, their role has been around call handling and transportation but there is a growing evidence base for their role in pre-hospital care, through advanced practitioners. A recent National Audit Office report (2011) found that variation in how advanced practitioners are used and suggests that these roles can help reduce avoidable admissions by 30%, in particular, at nursing and residential homes. The report also found variation in services treating patients at the scene and conveying patients to destinations other than

A&E, noting poorly aligned objectives and pathways between services providing urgent and emergency care are a stumbling block to effective integrated care, leading to delayed handovers, for example. The cost effectiveness is borne out in a randomised controlled trial (Dixon et al, 2009), reporting statistically significant changes in the use of NHS resources when paramedic practitioners are used.

The issue of alternatives to conveying patients to A&E was explored in an evidence review into pre-hospital urgent and emergency care from the University of Sheffield (Turner et al, 2010). The review found a number of studies which explored the ability of paramedics to decide which patients did not need to be conveyed to hospital. The studies were conducted in "shadow form" and conclude that the paramedics were not able to safely and accurately predict which patients required hospital treatment; however, the studies note that the provision of specific training supplemented with local protocols could make a difference. A randomised controlled trial (Snooks et al, 2012) - the SAFER 2 - Support and assessment for fall emergency referrals trial - is currently underway, exploring the clinical and cost effectiveness of new protocols for emergency ambulance paramedics to assess and refer to appropriate community-based care.

Local pharmacies have a role to play in enabling self-care and helping to reduce demand on primary care. A report from 2010 (PAGB, 2010) estimates 57 million GP consultations per year concern minor ailments amenable to self-care, amounting to an hour per day for every GP. The accompanying evidence base to the Keogh review (NHS England, 2013b) notes that self-care could be supported by community pharmacy services, due to their widespread availability and longer opening hours. The traditional role of safe dispensing of over-the-counter and prescription medicines is expanding to include advice and treatment for common minor ailments, health promotion and support for patients with long term conditions. The evidence base report notes that 85% of pharmacies now have a consultation room, which enables pharmacists to provide services traditionally delivered by GPs. A small-scale evaluation of minor ailment schemes (Baqir et al, 2011) found that over half the patients who used it would have used alternative branches of the NHS with additional costs being over £6000 per month and whilst not reducing GP workload (as appointments will be filled), it could provide an opportunity for GPs to focus on patients with greater need. However, as acknowledged in the Keogh review, pharmacists sometimes lack confidence and the public sometimes lack awareness and trust, suggesting a need for awareness raising and educational interventions.

3.1.3 One Emergency Centre

Nationally, the Keogh review (NHS England, 2013a) has proposed new models for urgent and emergency care, to respond to and anticipate challenges including increasing demand, workforce pressures and financial pressures. The vision outlined proposes "highly responsive, effective and personalised services outside of hospital. In or as close to people's homes as possible" for urgent but non-life-threatening needs and centres with "the very best expertise" for more serious or life threatening emergency needs. The vision depends on 5 elements which need to be driven forward: enabling self-care; providing advice for those needing urgent care, in the right place at the right time; provision of urgent care services outside of hospitals to reduce A&E demand; ensuring centres with the right facilities and expertise to

optimise outcomes; and the connection of various urgent and emergency services through networks.

The review also proposes two levels of hospital-based emergency centres:

- **Emergency centres**- "would need to be capable of assessing and initiating treatment for all patients; however those requiring specialist treatments after assessment will be transferred; thus critical care transfers will have to be a core part of the new proposed system"
- **Major Emergency Centres**- "larger units, capable of assessing and initiating treatment for all patients as well as providing a range of specialist services. These will need to have consistent levels of staffing, access to specialist equipment and expertise. The report envisages that transfers from such centres will be rare, however with the exception of patients returning to community settings closer to home, post recovery from major illness and injury".

The review is aligned with the related work, also led by Sir Bruce Keogh, on 7 day working.

Gouldie and Goddard (2011) outline the recommendations of various guidance documents, with regards to the specialty support required for emergency departments. The Future Hospitals Commission proposes hospitals adapt to changing needs of patients, recommending a restructuring of care, based around the following:

- a Medical Division, "responsible for all medical services across the hospital" led by a Chief of Medicine
- Acute Care Hub, "to bring together the clinical areas of the Medical Division that focus on the initial assessment and stabilisation of acutely ill medical patients" focusing on patients likely to remain in hospital for less than 48 hours. The Commission suggest most of Level 1 beds would be located within this Hub. The Hub would be led by the Acute Care Coordinator, which would be a senior clinician.
- Clinical Coordination Centre, acting as a command centre responsible for managing patient information.

3.1.4 'Some' Urgent Care Centres

The Keogh review (NHS England, 2013a) proposes urgent care centres to manage non-life threatening urgent needs. However, it acknowledges that current provision can be confusing to the public and suggests consistent naming and specifications. Essentially, Keogh's vision sees these centres as providing access for walk-in minor illnesses and minor injuries, and would be aligned with out of hours services.

An evidence summary by the Centre for Reviews and Dissemination states efficient triage and managing the flow of patients through appropriate urgent care services will be important in developing an urgent care hub (Centre for Reviews and Dissemination, 2013). A report by the Primary Care Foundation concluded that the initial reception process is critical to ensuring that patients are directed to the correct service (Carson, Clay, and Stern, 2010). The use of triage liaison physicians, working in a team or alone, and fast tracking patients with less serious systems both reduce emergency department waiting times and length of stay (Centre for Reviews and Dissemination, 2013). Primary care gate keeping or simply triaging the patients out of emergency departments can reduce the numbers but the safety of such a system is not known (Evidence Adoption Centre, 2011).

There may be a role for urgent care centres in the delivery of ambulatory emergency care (AEC) for patients requiring emergency care who can be managed safely and appropriately on the same day either without admission to a hospital bed at all, or through admission for only a few hours. . Professor Matthew Cooke, former National Clinical Director for Urgent and Emergency Care - Department of Health recognises that the implementation of AEC will require new ways of working changing the mind set of how we deliver a significant proportion of emergency care. As well as effective integration focused on the patient's journey as opposed to the current professional/organisational structures - the new pathways will need to support real time exchange of information to facilitate effective and timely clinical assessment, diagnostics and therapeutic intervention (NHS Institute, 2012).

The Kings Fund published a report (Addicott and Ham, 2014) earlier this year, outlining a potential role for general practice in delivering integrated services at scale to support the shift of care closer to home. The vision outlined proposes that these services are scoped, specified and commissioned to fit local community needs and in the longer term, services may develop into family care networks, which would extend beyond current provision and place the GP at the heart with a key role in coordinating care. It is suggested that the vision could be achieved through population-based capitation contracts focused on outcomes.

3.2 Long term conditions and frailty

3.2.1 A holistic approach

Long term conditions can result in patients feeling isolated and can be associated with emotional distress (Nurmatov et al, 2012); however, care is often medically focused. Nurmatov et al conducted a review focused on patients with COPD, but found little evidence of holistic interventions in practice, noting an urgent need to develop interventions focused on improving quality of life. There is some evidence to suggest telephone coaching (Dennis et al, 2013) and motivational interviewing (Linden et al, 2010) may be effective interventions for supporting patients with long term conditions.

3.2.2 Being healthy - prevention and wellbeing

National policy advocates empowering people and communities to take more responsibility for their health (HM Government, 2010). Schools in particular are seen as "active promoters of health in childhood and adolescence".

Five risk factors, in particular, account for a large proportion of the chronic disease burden. In their guidance on cardiovascular disease, NICE (2010) note: "Addressing diet, physical inactivity, smoking and excessive alcohol consumption to reduce CVD will also help reduce a wide range of other chronic conditions. This includes many of the other main causes of death and illness in England such as type 2 diabetes and many common cancers". The guidance also notes Cabinet Office information which suggests that up to 70,000 lives would be saved each year if people's diet followed national guidance on fruit/vegetable consumption; and intake of saturated fat, sugar and salt.

Physical activity is an important factor in maintaining health and wellbeing. The Health Survey for England 2008 measured the amount of physical activity in adults and children, both through self-reporting and accelerometry data. Based on self-reporting, 39% of men and 29% of women met the minimum recommendations; however, a sub sample of adults were fitted with accelerometers, which found only 6% of men and 4% of women met the recommended level of activity. Based on self-reporting of children, aged 2-15, 32% of boys and 24% of girls met the recommended levels. Accelerometer data from a sub sample found similar levels: 33% of boys met the recommended levels and 21% of girls.

Among adults aged 16 and over, in England, in 2010, 20% of adults reported smoking (HSCIC, 2013b). The percentage of mothers smoking at delivery was 12.7% (HSCIC, 2013c).

Obesity in England has more than doubled in the last 20 years. The National Obesity Observatory (http://www.noo.org.uk/NOO_about_obesity/trends) reports that 26.1% of adults (aged 16 years and over) are obese (quoting HSE 2010), predicting the prevalence by 2050 to affect 60% of adult men, 50% of adult women and 25% of children (quoting Foresight 2007). The National Child Measurement Programme (HSCIC, 2013a) reports In Reception, over a fifth (22.2%) of the children measured were either overweight or obese. In Year 6, this proportion was one in three (33.3%) in 2012/13.

Excessive consumption of alcohol is a major preventable cause of premature mortality with alcohol-related deaths accounting for 5.3% of all deaths in England and Wales in 2005 (Office for National Statistics, 2013). Alcohol Concern (<http://www.alcoholconcern.org.uk/campaign/statistics-on-alcohol>) note that 34% of men and 28% of women drank more than recommended (4 units for men, 3 for women) on at least one day in the last week. Excluding those who didn't drink at all in the last week the figure rises to 52% of men and 53% of women.

Risk factors are linked with health inequality. NICE (2014) notes people from lower socioeconomic groups are at increased risk because they are over 3 times more likely to adopt lifestyle risk behaviours (such as consumption of alcohol, smoking, lack of physical activity and poor diet) compared with professional groups".

Prevention includes a wide range of different interventions, usually categorised as: primary; secondary; or tertiary (<https://www.iwh.on.ca/wrmb/primary-secondary-and-tertiary-prevention>). All health professionals have a role to play in health promotion and improvement, as expressed in the Making Every Contact Count vision (NHS Future Forum, 2011?) which suggests that every interaction with a patient or service user is an opportunity to help maintain or improve their physical and mental health and wellbeing.

The introduction of the Quality and Outcomes Framework (QOF) and the NHS Health Check has provided an incentive and opportunity to identify early stage disease in primary care. Robinson (2014) comments that the two may help to deliver increased value; however, the alternative view is that the risk of over diagnosis is increased (Willis, 2012).

Early detection of problems can identify risk factors, helping to address avoidable mortality and morbidity and presenting an opportunity to delivering high quality care to patients. For example, atrial fibrillation is known to be a risk factor for stroke – the NHS Improvement programme for stroke suggested that of 16,000 strokes annually in patients with atrial fibrillation, 12,500 are thought to be directly attributable to atrial fibrillation (NHS Improvement 2009). Hypertension, a known risk factor for cardiovascular disease, is often undiagnosed – Public Health England report that in 2013, over 7.5 million people registered with GPs in England were diagnosed with hypertension but estimate a further 5 million remain undiagnosed (Public Health England, 2013).

3.2.3 Staying well (with an LTC)

3.2.3.1 Self-management

Self-management is one of the high impact interventions highlighted by NHS England in the Everyone Counts strategic planning documentation (NHS England, 2014a). There is some evidence to suggest that self-management can be supported by lay persons and community groups. The use of lay people to help deliver self-management programmes has shown short-term improvements in self-efficacy, self-rated health, cognitive symptom management, and frequency of aerobic exercise (Foster et al, 2007) but it was less clear if improvements in psychological health, symptoms or health-related quality of life, or changes in healthcare use were achieved. Group-based training has been found to help patients with diabetes improve glucose control and knowledge of their condition (Deakin et al, 2005) and may impact on quality of life, blood pressure and body weight. Duke et al (2009) suggested there is no significant difference between training delivered at a group or individual level for patients with diabetes. There is a potential role for community groups, to improve health literacy and to support engagement with other activities; however, the impact has not yet been systematically reviewed; a Cochrane review is planned (Warner et al, 2012).

There are some concerns regarding self-management and inequity. For example, social deprivation has been shown to be a barrier to self-management (Parsons et al, 2010) and better coordination is needed to join up the often fragmented services, and it is suggested that primary care could take on this coordinating role. There is some debate as to the impact of self-management programmes in different ethnic minority groups but there are too few studies in this area to offer firm conclusions. Press (2012) explored this area and found education interventions did improve outcomes, however the studies reviewed varied significantly, making it difficult to generalise. Greenhalgh et al (2009) explored a storytelling model in minority ethnic groups, held in a range of languages, and found higher attendance and greater enablement but little impact on clinical outcomes. There has been some work with patients with learning disabilities (Young et al, 2012) and frailty (Laforest et al, 2012) suggesting that self-management may be effective subject to investment.

Possible opportunities for extending the reach of self-management include the use of social media and smartphone apps (Belisario et al, 2013; de Jongh, 2012). This is an area identified as needing further research although it is likely that the range of apps will increase significantly, with apps libraries such as that of NHS Choices (<http://apps.nhs.uk/>); however, one review has found computer-based interventions to be beneficial in glucose control (Pal et al, 2013).

3.2.3.2 Care planning

Care planning provides a foundation for shared decision making and coordinated and proactive care to avoid exacerbations. There is some evidence to suggest case management may support partnership working and may help to reduce unplanned admissions, signpost patients to advice and services (Purdy et al, 2012).

3.2.3.3 Active case management

Evidence is emerging on the positive effects case management can have for heart failure patients (Takeda et al, 2012). Case management has been found to show a positive effect on patient satisfaction (Lupari et al, 2011; Latour et al, 2007). Management and integration is critical, and targeting the right population is critical to success. Virtual wards have been used in the NHS alongside case management; however, there is limited evidence. Georghiou et al (2011) recommend case finding is based on a predictive risk model, considered more effective than alternative methods such as utilisation rates or disease management. Ross et al (2011) emphasise that case management must form part of a wider programme of care and note a number of critical success factors: clear assignment of patients; clear roles and responsibilities; appropriate caseloads; single point of access; joined up health and social care; self-care; multidisciplinary teams; and shared information systems.

3.2.3.4 Partnership care

The Royal College of General Practitioners, in partnership with the Health Foundation initiated a Commission on Generalism in 2011 (Royal College of General Practitioners and Health Foundation, 2011); generalism is a key thread of the 2022 vision for general practice (Royal College of General Practitioners, 2013b). The principles include:

- Seeing the person as a whole and in the context of their family and wider social environment;
- Being accessible and available to deal with undifferentiated illness and the widest range of patients and conditions;
- Demonstrating concern not only for the needs of the presenting patient, but also for the wider group of patients or population;
- Engaging in effective multi-professional working and co-learning;
- Communicating freely and clearly with patients and professionals across health and social care;
- In the context of general practice, taking continuity of responsibility across many disease episodes and over time; and
- Also in general practice, co-ordinating care across organisations within and between health and social care

The Commission on Generalism (Royal College of General Practitioners and Health Foundation, 2011) highlighted the need for generalists to incorporate dynamic and on-going patient feedback into their work as a matter of routine; by adopting reflective practice, generalists should make provision to learn from each other, from specialists, and from patients.

3.2.4 Being ill (exacerbation)

3.2.4.1 Tiered levels of care

Ham et al (2012) suggest fundamental changes in how acute hospitals work are essential and propose quality of care provided in hospitals is improved through further concentration of specialist services (where this is supported by evidence), reduced duplication of local hospital services and more effective use of senior medical staff, including in the evenings and at weekends. Furthermore, they state there is an urgent need to care for frail older people and people at the end of life in alternative settings where appropriate.

The Future Hospitals report (Future Hospitals Commission, 2013) also supports the clinical redesign of care based on a partnership between acute and primary care providers to delivering seamless care for patients in locations and settings where their needs can best be met. They state conventional models of health service design in which a hospital site is the sole focus for the delivery of emergency, acute and elective services are dated: “These models often lack the integration, collaboration, communication and information sharing across hospital and the healthcare settings necessary to effectively meet patient needs and provide streamlined and seamless care. Care must be delivered in the setting in which patients’ clinical, care and support needs can best be met, and not merely delegated to the acute hospital site ‘where the lights are on’”.

The Royal College of Physicians (2007) report of the Acute Medicine Task Force ‘Acute medical care: The right person, in the right setting – first time’ states that patients need to access acute medical care throughout the 24-hour period, not just within traditional office hours – acute illness does not take holidays and service redesign must be predicated on providing fast and efficient access to acute medical care 24/7, however emphasise that one size will not fit all. The report recommends that networks should develop a range of different levels of urgent and emergency care to provide more flexible options to access acute medical care, in more convenient locations, with extended opening times and more direct access to competent clinical decision makers – the right person, in the right setting, first time. This must be fast, safe and efficient high quality care appropriate to the patients’ need. The suggested models diminish the traditional boundaries between community and hospital-based care and will provide greater integration of all acute services within the local network.

3.2.4.2 Improved flow

Models are varied and tend to adapt over time. Reduction in hospital admissions have been reported through a number of case studies, with successful models being attributed to a design that addresses local need. Services have reported that often there is no clinical difference in the severity of conditions for those presenting as an emergency case or those who were referred to an outpatient clinic. Services may also be designed so that GPs can get direct advice from consultants on any potential medical emergencies.

Combining outpatients geriatric referrals and emergency patients at Sheffield Teaching Hospitals NHS Foundation Trust has proven successful in managing patient flow and reducing unplanned admissions;

due to a backlog of referrals to outpatient services, patients were often admitted to hospital as emergency admissions before receiving / attending outpatient appointments; providing same day outpatient services has reduced unplanned admissions (The Health Foundation, 2012).

- The NHS Institute for Innovation and Improvement Ambulatory Emergency Care Delivery Network (2011a? and 2011b?) has published two successful case studies that have helped reduced unplanned hospital admissions: the Weston Experience, and the Middlesbrough experience:
- A medical day case unit run by physicians where patients are assessed and treated on the same day (Weston Experience).
- An ambulatory care service adjacent to the hospital; clinical risk scores are used to identify which conditions can be treated in an ambulatory way (Middlesbrough experience).

3.2.4.3 Integrated teams - admission avoidance and facilitated discharge

There is evidence to suggest that effective discharge planning can assist the shift of care from acute to community services. Purdy (2010) reports a positive association between structured discharge planning and unplanned hospital admissions, in particular the use of individualised discharge plans, quoting a Cochrane review from 2010 which found re-admissions to hospital were significantly reduced by around 15 per cent for patients allocated to structured individualised discharge planning. This Cochrane Review has since been updated (Shepperd et al, 2013) and concludes: "The evidence suggests that a discharge plan tailored to the individual patient probably brings about reductions in hospital length of stay and readmission rates for older people admitted to hospital with a medical condition."

A meta review of systematic reviews (Mistiaen, 2007) of discharge interventions for adult populations found that discharge planning worked most effectively as part of a package of care and when discharge planning and discharge support are combined; the reviewers concluded that evidence seems to support a reduction in readmissions but is limited as to effect on length of stay and health care use after discharge. Hyde et al (2000) conducted a systematic review of 9 controlled studies to analyse the effectiveness of supported discharge for older people with undifferentiated clinical problems after an acute admission. More patients receiving supported discharge remained at home at follow-up and there were no significant differences in mortality.

The evidence suggests a multidisciplinary approach to discharge and post-discharge care is effective. For example, a randomised controlled trial (Preen et al, 2005) involving patients with chronic cardiorespiratory conditions found multidisciplinary planning improved outcomes relating to quality of life; patient satisfaction; and increased integration.

3.2.5 Getting better - reablement and rehabilitation

For frail elderly patients, early supported discharge may require reablement services which have been shown to be effective in supporting independent living. Glendinning et al (2010) conducted a longitudinal study, following up a group receiving home-care reablement and a control group receiving conventional home care. They noted satisfaction from service users and carers who reported improved confidence and independence and a desire for more support to improve mobility and undertake activities outside the home. Reablement was associated with a decrease in subsequent use of social care

services: the costs for the group receiving reablement were 60% lower than for those receiving conventional home care. However, the authors note this was offset by the initial cost of reablement. Initially (the first 8 weeks), the reablement group had higher healthcare costs, which may have been because this group included more people referred from hospital discharge. For the remaining 10 months, there was no statistically significant difference in healthcare costs between the two groups.

3.2.6 End of life care

For many patients at the end of life, the preferred place of death is home. Up to half of those who died in hospital could have died at home. Commissioning is seen as the single key mechanism for making sure that the right services are available to meet local need, and that they are sensitive to the needs of those approaching the end of life regardless of their condition. (Thomas K and Paynton D, 2013). Meeting patient needs could help reduce costs; reducing deaths in hospital by delivering more care outside the acute setting could save £180m per year (Addicott R and Hiley J, 2011).

3.3 Planned care

3.3.1 A partnership portal or patient portal

The use of patient portals can be used to support self-care. NHS England (2014b), in their report on the future of pathology services, outline a vision for patient-centred healthcare which could include:

- The ability for individuals to access records and test results through their own health portal accessed online or on personal digital devices. This would also support personal health budgets, enabling individuals to commission their own health services, and to seek support and advice from the most appropriate specialist.
- The advancement of technology will enable cheap and easy point of care testing, in health environments or by patients themselves. Results can be shared with appropriate health professionals and integrated with patient records.

Although this is a vision for the future, there are already examples of portals supporting self-care. The report showcases the Renal Patient View project which allows kidney patients to access their test results along with information and advice on their condition.

3.3.2 Patient navigation

National Voices (2011b) sets out a service user perspective of what person-centred coordinated ('integrated') care should be: "My care is planned with people who work together to understand me and my carer(s), put me in control, co-ordinate and deliver services to achieve my best outcomes". Key to the definition is the need for the service user to receive clear information and communication, empowering the patient to be in control. There is a need to acknowledge the needs of patients who may need additional support. For example, the Royal College of Nursing (2013) notes the potential for anxiety in accessing health services, recommending that risk issues (vulnerability, risk of harm, medication management) be considered to develop proactive plans to balance independence with safety. In their work on improving patient flow the Health Foundation (2013) illustrate the impact to

patients of poorly managed processes and recommend processes are reviewed to assess quality at each step.

3.3.3 Partnership care

The Royal College of Physicians, Royal College of General Practitioners and Royal College of Paediatrics and Child Health joint paper, Teams without walls (2008) set out a vision for a health system where professionals from primary and secondary care work together in teams, across traditional health boundaries, to manage patients using care pathways designed by local clinicians. The integrated model would enable generalists (GPs, primary care nurses) and specialists (consultants, specialist nurses) to cooperate and collaborate in both the process of commissioning and providing health services that are sensitive to the needs of the local population.

In a perspectives paper on using the NHS and social care workforce to meet our needs now and in the future Imison and Bohmer (2013) use a sporting analogy to describe how generalists and specialists need to learn to work together: “medicine can no longer be a racquet sport between generalist and specialist – batting the patient backwards and forwards, it needs to be a team game, generalists and specialists working together with the patient”.

The commission of generalism (Royal College of General Practitioners and Health Foundation, 2011) recommends that training in generalism, including experience of general practice, be a core training requirement for specialists. This is so GPs and hospital consultants can learn together and from each other, and from patients; to communicate directly person-to-person with each other for the benefit of patients and their families, and to jointly use the revolution in electronic communication tools to deliver the information and support which patients need to look after themselves. Such integration and continuity across the primary/secondary care divide is essential if the benefits of generalism are to be realised for the good of patients and their families.

3.3.4 A standalone diagnostics and treatment centre

The Royal College of Surgeons of England (2007) endorses the separation of emergency and elective surgery:

“Separating elective care from emergency pressures through the use of dedicated beds, theatres and staff can if well planned, resourced and managed reduce cancellations, achieve a more predictable workflow, provide excellent training opportunities, increase senior supervision of complex/emergency cases, and therefore improve the quality of care delivered to patients”.

In addition to reduced cancellations, the guidance highlights other improvement leading to enhanced patient experience and safety, including:

- earlier investigation;
- definitive treatment and better continuity of care;
- reduced hospital-acquired infection risks;
- reduced length of stay;
- improved supervision of trainees.

As well as separating emergency and elective care, units will need to stream elective care into minor, intermediate and complex and will need to consider post-operative arrangements for recovery depending on the 'level' of elective surgery provided (Royal College of Surgeons of England, 2007). Guidance from the Royal College of Surgeons of England and Association of Surgeons of Great Britain and Ireland (2013) recommends the co-location of higher risk elective procedures in the same hospital as emergency surgery.

NHS England has identified elective specialty centres as a potential intervention in their Anytown health system. NHS England (2014a) has cited the Elective Orthopaedic Centre (EOC) in South West London. The EOC is an NHS Treatment Centre providing regional elective orthopaedic surgery services (including inpatient, day-case and outpatient) established by the four South West London acute Trusts to deliver strategic change in the delivery of planned orthopaedic care.

Since opening in January 2004, the EOC has earned a reputation as a centre of excellence for elective orthopaedic surgery with excellent outcomes, low complications and high patient satisfaction. Quality improvements, procurement savings, improved efficiency and reduced patient complications have been realised. The centre has consistently achieved operational targets and length of stay, infection rates and PROMs.

In a proposed new model for planned care provision in south west London (Better Service Better Value, 2012) the Planned Care Clinical Working Group agrees that day-surgery should be the default, and admission as the exception. The model shows that the majority of elective surgical care should take place in one of three settings: a day surgery unit, an elective surgery centre and in a major acute or specialist centres, anticipating that the majority of elective spells will occur as day cases in their current location. The remaining care will be broadly split into equal proportions and occur in an elective centre/centres and in major acute/specialist centres.

The report states that "the benefits of consolidating day case surgery from more than one hospital on the elective surgery centre site whilst still providing good local access to day surgery across south west London should be considered as part of the overall development of options for acute services in south west London. This might apply to the more difficult procedures as they are moved from an inpatient to a day-case setting, or where expensive capital equipment is needed" (Better Service Better Value, 2012).

A scoping review of research into strategies for improving outpatient effectiveness and efficiency (Roland et al, 2006) looked at approaches to reduce waiting times for specialist care using alternatives to outpatient treatment. The review focused on four broad strategies:

- **Transfer:** The substitution of services delivered by hospital clinicians for services delivered by primary care clinicians. This included: minor surgery, diabetes care, GPs with special interests (GPSIs), discharge from outpatient follow-up, and direct access for GPs to hospital tests and services.
- **Relocation:** Shifting the venue of specialist care from outpatient clinics to primary care without changing the people who deliver the service. This included: shifted outpatient clinics,

telemedicine (as a 'virtual' form of relocation); and attachment of specialists to primary care teams.

- Liaison: Joint working between specialists and primary care practitioners to provide care to individual patients. This included shared care and consultation liaison.
- Professional behaviour change: Interventions intended to change the referral behaviour of primary care practitioners, including referral guidelines, audit and feedback, education and financial incentives.

Diagnostic services, in particular blood sciences and imaging, are key to timely diagnosis and monitoring of treatment. Diagnostics are often highlighted as a bottleneck in the patient pathways as speed of clinical investigation and clinical decision making depends upon diagnostic services and thus poor availability of these services can lead delays elsewhere in the system. Diagnostic services rely on a number of staff to deliver timely services; any changes to diagnostic services require coordination of a number of staff, including phlebotomists, porters, and laboratory technician staff, which requires an understanding of the role each person plays in achieving patient flow improvements. The Health Foundation report, *Improving Patient Flow* (2013), cites how co-ordinated changes in working patterns for phlebotomist, porters, and laboratory technician staff at South Warwickshire Foundation NHS Trust increased the number of same-day blood test results available on ward rounds from less than 15% to over 80%; phlebotomist working hours changed to coincide with end of the nursing handover. Changes to the portering routine enabled two porters to 'shuttle' between the phlebotomist and the laboratory, delivering small quantities of blood samples in real time. One laboratory technician changed their working day to start at 8.00am and finish earlier in the afternoon laboratory enabling staff to process blood samples as they came in.

Enhanced recovery programmes have resulted in significant changes to the pathway for surgical patients. The process of pre-operative assessment is evolving, involving multiple professionals (NHS *Improving Quality*, 2013) engaged in the patient's pathway. There is an increase in shared decision making prior to admission focused on enabling patients to make an informed choice and contributing personally towards getting a high quality outcome. Pre-operative assessment might include multi-professional input to discharge planning, an agreed care pathway plan including length of stay, likely time to return to activities of daily living and return to work, and pre-operative Patient Reported Outcome Measures (NHS *Improving Quality*, 2013). There are implications for resource management in ensuring appropriate staff (e.g. nurse, consultant anaesthesiologist, diagnostic services) are available at the appropriate points of assessment, investigation, review and care planning (Roberts and Fenech, 2010). Enhanced recovery has been promoted widely within the NHS, with a national programme from 2009-2011 (Enhanced Recovery Partnership Programme) and a signed consensus statement in 2013 from various professional bodies. There are now numerous studies and reviews on enhanced recovery and increasing examples of implementation but the evidence base remains patchy. The concept of enhanced recovery originates from colorectal surgery in Denmark (Kehlet and Wilmore, 2008) and many of the studies focus on this specialty.

There are a number of studies, synthesized most recently in an NIHR-funded review (Paton et al, 2014a, 2014b). Much of the evidence stems from colorectal surgery, understandable given its origin, suggesting a reduction in length of stay by 0.5 days compared to conventional care, with no significant difference in readmissions or mortality. The findings in relation to patient experience and quality of life are less clear. The ERPP programme focused on four surgical specialties; colorectal, gynaecology, musculoskeletal and urology. A recent report from NHS Improving Quality (2013) notes that enhanced recovery initiatives are now being seen in maternity and acute care.

NHS Improving Quality (2013) suggest pathways should follow the 5 Ps:

- Primary care “fitness for referral” to manage risks
- Patient involvement to encourage shared decision making
- Rehabilitation, assessment and care planning
- Pain relief, fluid management and anaesthetics
- Preparation for discharge

References

- Academy of Medical Royal Colleges (2007) Acute health care services - report of a working party, Available at: http://www.aomrc.org.uk/publications/reports-a-guidance/doc_details/67-acute-health-care-services-report-of-a-working-party.html.
- Addicott R and Ham C (2014) Commissioning and funding general practice: making the case for family care networks, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/commissioning-and-funding-general-practice-kingsfund-feb14.pdf.
- Addicott R and Hiley J (2011) Issues facing commissioners of end of life care, Kings Fund, Available at: <http://www.kingsfund.org.uk/publications/issues-facing-commissioners-end-life-care>.
- AHRQ (2010) Connecting those at risk to care: a guide to building a community "HUB" to promote a system of collaboration, accountability and improved outcomes, AHRQ, Available at: <http://www.innovations.ahrq.gov/guide/HUBManual/CommunityHUBManual.pdf>.
- Ambulatory Emergence Care Delivery Network (2011a?), Ambulatory Emergency Care: The Middlesbrough Experience, Institute for Innovation and Improvement, Available at: http://www.institute.nhs.uk/images/Ambulatory_Emergency_Care/AECDN_CaseStudy_Dev2c.pdf.
- Ambulatory Emergence Care Delivery Network, Treating emergency patients in a day: The Weston Experience, Institute for Innovation and Improvement, Available at: http://www.institute.nhs.uk/images/Case_Studies/Weston_case_study.pdf
- Bardsley M et al (2013) Evaluating integrated and community-based care: how do we know what works? Nuffield Trust. Available at: <http://www.nuffieldtrust.org.uk/publications/evaluating-integrated-and-community-based-care-how-do-we-know-what-works>
- Barry V and Patel M (2013) An overview of compassionate communities in England, Murray Hall Community Trust, and Available at: http://www.compassionatecommunities.org.uk/files/PDF/CC_Report_Final_July_2013-2.pdf.
- Baqir W et al (2011) Cost analysis of a community pharmacy "minor ailment scheme" across three primary care trusts in the North East of England, Journal of Public Health, 33 (4), 551-555.
- Bate P and Robert G (2006) Experience-based design: from redesigning the system around the patient to co-designing services with the patient, Quality and Safety in Health Care, 15, 307-310.
- Belisario JSM et al (2013) Smartphone and tablet self-management apps for asthma, Cochrane Database of Systematic Reviews, 11.
- Bennett L and Humphries R (2013) Making best use of the Better Care Fund, Available at: <http://www.kingsfund.org.uk/publications/making-best-use-better-care-fund>.
- Best A et al (2012) Large-system transformation in health care: a realist review, Milbank Quarterly 90 (3), 421-456.
- Better Service Better Value (2012). Planned Care Clinical Working Group – Final Clinical Report. NHS South West London. Available at: <http://www.bsbv.swlondon.nhs.uk/wp-content/uploads/2012/09/2012-03-01-Report-Final-Clinical-Report-Planned-Care.pdf>
- Carson D, Clay H, and Stern R (2010) Primary Care and Emergency Departments. Primary Care Foundation. Available from: http://www.primarycarefoundation.co.uk/images/PrimaryCareFoundation/Downloading_Reports/Reports_and_Articles/Primary_Care_and_Emergency_Departments/Primary_Care_and_Emergency_Departments_RELEASE.pdf
- Centre for Reviews and Dissemination (2013) Consolidating urgent care services. CRD. Available at: <http://www.york.ac.uk/inst/crd/pdf/Consolidating%20urgent%20care.pdf>

Centre for Workforce Intelligence (2013) A strategic review of the future healthcare workforce: Informing the nursing workforce – summary report, CfWI, Available at: <http://www.cfwi.org.uk/publications/horizon-scanning-a-strategic-review-of-the-future-healthcare-workforce-informing-the-nursing-workforce>.

ComRes (2014) RCGP UK GPs Study - March 2014, ComRes, Available at: http://www.comres.co.uk/polls/RCGP_GPs_Study_March_2014.pdf.

Corben S and Rosen R (2005) Self-management for long term conditions, Kings Fund.

Corrigan P et al (2013) People powered commissioning: embedding innovation in practice, Nesta, Available at: <http://www.nesta.org.uk/publications/people-powered-commissioning-embedding-innovation-practice>.

Coulter A et al (2013), Delivering better services for people with long term conditions: building the house of care, Kings Fund.

Craig R et al (2009) Health Survey for England 2008: physical activity and fitness: summary of key findings, Health and Social Care Information Centre, Available at: <http://www.hscic.gov.uk/catalogue/PUB00430/heal-surv-phys-acti-fitn-eng-2008-rep-v1.pdf>.

Da Silva D (2011) Evidence: Helping people help themselves. A review of the evidence considering whether it is worthwhile to support self-management. Health Foundation.

De Jongh T et al (2012) Mobile phone messaging for facilitating self-management of long-term illness, Cochrane Database of Systematic Reviews, 12

De Lusignan S et al (2013) Giving patients online access to their records: opportunities, challenges and scope for service transformation, British Journal of General Practice, 63 (611), 286-287.

Deakin TA et al (2005) Group-based training for self-management strategies in people with type 2 diabetes mellitus, Cochrane Database of Systematic Reviews, 2.

Dennis SM et al (2013) Do people with existing chronic health conditions benefit from telephone coaching? A rapid review, Australian Health Review, 37 (3), 381-388.

Department of Health (2010) Improving the health and well-being of people with long term conditions: world class services for people with long term conditions, Department of Health, Available at: http://www.yearofcare.co.uk/sites/default/files/pdfs/dh_improving%20the%20h%26wb%20of%20people%20with%20LTCs.pdf

Dixon S et al (2009) Is it cost effective to introduce paramedic practitioners for older people to the ambulance service? Results of a cluster randomised controlled trial, Emergency Medicine Journal, 26:446–451. doi:10.1136/emj.2008.061424.

Dudley RA et al (2000) Selective referral to high-volume hospitals, JAMA, 283 (9), 1159-1166, Available at: <http://jama.jamanetwork.com/article.aspx?articleid=192451>.

Duerden M et al (2013) Polypharmacy and medicines optimisation: making it safe and sound, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/polypharmacy-and-medicines-optimisation-kingsfund-nov13.pdf.

Duke SAS et al (2009) Individual patient education for people with type 2 diabetes mellitus. Cochrane Database of Systematic Reviews 2009, 1.

Edwards N (2014) Community services: how they can transform care, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/community-services-nigel-edwards-feb14.pdf.

Effing T et al (2007) Self-management education for patients with chronic obstructive pulmonary disease. Cochrane Database of Systematic Reviews, 4

Evidence Adoption Centre (2011) Models of Care Managing Emergency Department Attendances. Available at: <http://commissioning.libraryservices.nhs.uk/wp-content/uploads/2013/05/Review-of-the-Models-of-Care-Managing-Emergency-Department-Attendances.pdf>

Fisher B (2013) Patients' access to their electronic record: offer patients access as soon as you can, British Journal of General Practice, 63 (611), e423-ee425.

Foster G et al (2007) Self-management education programmes by lay leaders for people with chronic conditions, Cochrane Database of Systematic Reviews, 4.

Future Hospital Commission (2013) Future hospital: caring for medical patients, Royal College of Physicians, Available at: <http://www.rcplondon.ac.uk/sites/default/files/future-hospital-commission-report.pdf>

Georghiou T, Blunt I, Steventon A, Lewis G, Billings J, Bardsley M. Predictive Risk and Health Care: An Overview. Nuffield Trust; 2011. Available at: http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/Predictive-risk-and-health-care-an-overview_0.pdf

Glanville J et al (2010) Impact of hospital treatment volumes on patient outcomes, York Health Economics Consortium.

Glendinning C et al (2010) Home Care Re-ablement Services: Investigating the longer-term impacts (prospective longitudinal study) Social Policy Research Unit, University of York.

Gouldie R and Goddard M (2011). Review of Evidence on What Drives Economies of Scope and Scale in the Provision of NHS Services, Focusing on A&E and Associated Hospital Services. A report for the OHE Commission on Competition in the NHS. Centre for Health Economics, University of York. Available from: <http://ohe.org/object/download.cfm?lib=liDownload&id=515>

Greenhalgh T et al (2009) The sharing stories model of diabetes self-management education for minority ethnic groups: a pilot randomised controlled trial, National Institute of Health Research.

Halm EA et al (2002) Is volume related to outcome in health care? A systematic review and methodologic critique of the literature, Annals of Internal Medicine, 137, 511-520. Abstract available at: <http://www.ncbi.nlm.nih.gov/pubmed/12230353>.

Halter M et al (2013) The contribution of physician assistants in primary care: a systematic review, BMC Health Services Research, 13, 233, doi:10.1186/1472-6963-13-223.

Ham et al (2012) Transforming the delivery of health and social care: the case for fundamental change, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/transforming-the-delivery-of-health-and-social-care-the-kings-fund-sep-2012.pdf.

Ham C and Curry N (2011) Integrated care summary: What is it? Does it work? What does it mean for the NHS? Kings Fund. Available at: <http://www.kingsfund.org.uk/publications/articles/integrated-care-summary-what-it-does-it-work-what-does-it-mean-nhs>.

Health Foundation (2013) Improving the flow of older people: Sheffield Teaching Hospital NHS Trust's experience of the Flow Cost Quality improvement programme, Available at: http://www.health.org.uk/media_manager/public/75/publications_pdfs/Improving%20the%20flow%20of%20older%20people.pdf.

Health Foundation (2012) Improving Patient Flow. Available at: <http://www.health.org.uk/public/cms/75/76/313/4196/Improving%20patient%20flow.pdf?realName=T67pC0.pdf>

Health Foundation (2011) Getting out of hospital? Available at: <http://www.health.org.uk/publications/getting-out-of-hospital/>.

Health Foundation (2010) Evidence scan: complex adaptive systems, Health Foundation.

HM Government (2010) Healthy lives, healthy people: our strategy for public health in England, Stationery Office, and Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216096/dh_127424.pdf.

HSCIC (2013a) National Child Measurement Programme: England, 2012/13 school year, Public Health England,

Available at: <http://www.hscic.gov.uk/catalogue/PUB13115/nati-chil-meas-prog-eng-2012-2013-rep.pdf>.

HSCIC (2013b) Statistics on Smoking, England - 2013, HSCIC, Available at:

<http://www.hscic.gov.uk/catalogue/PUB11454>.

HSCIC (2013c) Statistics on Women's Smoking Status at Time of Delivery - England, Quarter 4, 2012-13, HSCIC,

Available at: <http://www.hscic.gov.uk/catalogue/PUB11039>.

Hyde C J, Robert I E, Sinclair A J (2000) The effects of supporting discharge from hospital to home in older people. Age and Ageing; 29(3): 271-279

Imison C (2011). Reconfiguring hospital services. The Kings Fund. Available from:

<http://www.kingsfund.org.uk/sites/files/kf/briefing-on-reconfiguring-hospital-services-candace-imison-kings-fund-september-2011.pdf>

Imison C and Bohmer R (2013). NHS and social care workforce: meeting our needs now and in the future? Kings

Fund. Available at: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/perspectives-nhs-social-care-workforce-jul13.pdf

Independent Reconfiguration Panel (2010) Learning from Reviews, Available from:

<http://www.irpanel.org.uk/lib/doc/learning%20from%20reviews3%20pdf.pdf>

Jovicic A et al (2006) Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials, BMC Cardiovascular Disorders, 6. Available at:

<http://link.springer.com/article/10.1186%2F1471-2261-6-43#page-1>

Kehlet H and Wilmore DW (2008), Evidence-based surgical care and the evolution of fast-track surgery, Annals of Surgery, 248, 189-98.

King et al (2013) The MAGIC programme: evaluation, Health Foundation, Available at:

<http://www.health.org.uk/public/cms/75/76/313/4173/MAGIC%20evaluation.pdf?realName=hrsgE6.pdf>.

Kings Fund (2013) Urgent and emergency care: a review for NHS South of England, Available at:

<http://www.hsj.co.uk/Journals/2013/05/02/z/d/s/Kings-Fund-report-urgent-and-emergency-care.pdf>

Krogsboll LT et al (2012) General health checks in adults for reducing morbidity and mortality from disease, Cochrane Database of Systematic Reviews, 10.

Laforest S et al (2012) The role of social reinforcement in the maintenance of short-term effects after a self-management intervention for frail housebound seniors with arthritis, Canadian Journal on Aging, 31 (2), 195-207

Langford K et al (2013) Networks that work: partnerships for integrated care and services, Nesta, Available at:

<http://www.nesta.org.uk/publications/networks-work-partnerships-integrated-care-and-services>.

Latour CH et al (2007) Nurse-led case management for ambulatory complex patients in general health care: a systematic review. Journal of Psychosomatic Research, 62(3):385-95

Lewis G et al (2013) Impact of "Virtual Wards" on hospital use: a research study using propensity matched controls and a cost analysis. NIHR. Available at http://www.nets.nihr.ac.uk/__data/assets/pdf_file/0011/87923/FR-09-1816-1021.pdf.

Linden A et al (2010) Motivational interviewing-based health coaching as a chronic care intervention, Journal of Evaluation in Clinical Practice, 16 (1), 166-174.

Lupari M et al (2011) “We’re just not getting it right”--how should we provide care to the older person with multi-morbid chronic conditions?. *Journal of Clinical Nursing*, 20(9-10), 1225–35.

Mistiaen P, Francke AL, Poot E (2007). Interventions aimed at reducing problems in adult patients discharged from hospital to home: a systematic meta-review. *BMC Health Services Research*, 7.

Murray CJ et al (2013) UK health performance: findings of the Global Burden of Disease study 2010, *The Lancet*, 381 (9871) 997-1020.

Murray CJ (1994) Quantifying the burden of disease: the technical basis for disability-adjusted life years, *Bulletin of the World Health Organisation*, 72 (3), 429-445.

Murray GD and Teasdale GM (2005) The relationship between volume and health outcomes, Available at: <http://www.sehd.scot.nhs.uk/nationalframework/Documents/VolumeOutcomeReportWebsite.pdf>.

National Audit Office (2013) Emergency admissions to hospital: managing the demand, National Audit Office, Available at: <http://www.nao.org.uk/wp-content/uploads/2013/10/10288-001-Emergency-admissions.pdf>.

National Audit Office (2011) Transforming NHS ambulance services, Available at: <https://www.nao.org.uk/report/transforming-nhs-ambulance-services/>

National Voices (2011?) Integrated care: what do patients, service users and carers want?, Available at: http://www.nationalvoices.org.uk/sites/www.nationalvoices.org.uk/files/what_patients_want_from_integration_national_voices_paper.pdf

National Voices (2011b). A narrative for person-centred coordinated (‘integrated’) care. National Voices. Available at: <http://www.nationalvoices.org.uk/sites/www.nationalvoices.org.uk/files/narrative-coordinated-care.pdf>

Naylor C et al (2011, updated 2013) Transforming our health care system: ten priorities for commissioners, Kings Fund.

Nesta (2013) The business case for people powered health, Nesta, Available at: http://www.nesta.org.uk/sites/default/files/the_business_case_for_people_powered_health.pdf.

Newbronner L et al (2013) Sustaining and spreading self-management support, Health Foundation.

NHS Confederation et al (2013) Changing care, improving quality: reframing the debate on reconfiguration, NHS Confederation, Available at: <http://www.nhsconfed.org/resources/2013/06/changing-care-improving-quality-reframing-the-debate-on-reconfiguration>.

NHS England (2014a) Any town health system: a guide to finding further information on the interventions, NHS England, Available at: <http://www.england.nhs.uk/2014/01/24/any-town/>.

NHS England (2014b) National Pathology Programme Digital First: Clinical Transformation through Pathology Innovation. Available from: <http://www.england.nhs.uk/wp-content/uploads/2014/02/pathol-dig-first.pdf>

NHS England (2013a) Transforming urgent and emergency care services in England, Urgent and Emergency Care Review, End of Phase 1 Report. Available at: <http://www.nhs.uk/NHSEngland/keogh-review/Pages/published-reports.aspx>

NHS England (2013b) Transforming urgent and emergency care services in England, Urgent and Emergency Care Review, End of Phase 1 Report, Appendix 1 – Revised Evidence Base from the Urgent and Emergency Care Review. Available at: <http://www.nhs.uk/NHSEngland/keogh-review/Pages/published-reports.aspx>

NHS England, South (2014) Safe, compassionate care for frail older people using an integrated care pathway: practical guidance for commissioners, providers and nursing, medical and allied health professional leaders, NHS England.

NHS Future Forum (2011?) The NHS’ role in the public’s health, Department of Health, Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216423/dh_132114.pdf.

NHS Improvement (2009) Atrial fibrillation in primary care: making an impact on stroke prevention: National priority project final summaries, NHS Improvement, Available at: <http://webarchive.nationalarchives.gov.uk/20130221101407/http://www.improvement.nhs.uk/LinkClick.aspx?fileticket=%2bLIKN1gSgOA%3d&tabid=62>

NHS Improving Quality (2013), Enhanced recovery care pathway: a better journey for patients seven days a week and better deal for the NHS, Available at: <http://www.nhs.uk/resources/publications/enhanced-recovery-care-pathway-review.aspx>

NHS Institute for Innovation and Improvement (2012). Directory of Ambulatory Emergency Care for Adults. Available at: http://www.institute.nhs.uk/option.com_joomcart/Itemid,26/main_page,document_product_info/products_id,181.htm

NICE (2014) Encouraging people to have NHS Health Checks and supporting them to reduce risk factors, NICE, Available at: <http://publications.nice.org.uk/encouraging-people-to-have-nhs-health-checks-and-supporting-them-to-reduce-risk-factors-lgb15/introduction>.

NICE (2010) Prevention of cardiovascular disease, NICE, Available at: <http://www.nice.org.uk/nicemedia/live/13024/49273/49273.pdf>.

Nurmatov U et al (2012) Effectiveness of holistic interventions for people with chronic obstructive pulmonary disease: systematic review of controlled clinical trials, PLOS One, Available at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0046433>

Office for National Statistics (2013) Drinking habits amongst adults 2012, ONS, Available at: http://www.ons.gov.uk/ons/dcp171778_338863.pdf.

Oliver D et al (2014) Making our health and care systems fit for an ageing population, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/field/publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf.

PAGB (2010) PAGB annual review: the campaign for real self-care; Proprietary Association of Great Britain

Pal K et al (2013) Computer-based diabetes self-management interventions for adults with type 2 diabetes mellitus, Cochrane Database of Systematic Reviews, 3.

Palmer K (2011) Reconfiguring hospital services: lessons from South East London, Kings Fund, Available at: http://www.kingsfund.org.uk/sites/files/kf/Reconfiguring-hospital-services-lessons-South-East-London-Kings-Fund-March-2011_0.pdf.

Parker G et al (2011) Experiences of and influences on continuity of care for service users and carers: synthesis of evidence from a research programme. Health and Social Care in the Community 19: 576–601.

Parsons S et al (2010) Self-management support amongst older adults: the availability, impact and potential of locally based services and resources, National Institute for Health Research.

Paton F et al (2014a), Effectiveness and implementation of enhanced recovery after surgery programmes: a rapid evidence synthesis, BMJ Open, in press.

Paton F et al (2014b), Initiatives to reduce length of stay in acute hospital settings: a rapid synthesis of evidence relating to enhanced recovery programmes, NHS Institute for Health Research, Health Services and Delivery Research Programme, in press.

Preen DB et al (2005) Effects of a multidisciplinary, post-discharge continuance of care intervention on quality of life, discharge satisfaction, and hospital length of stay: a randomized controlled trial, International Journal for Quality in Health Care, 17 (1), 43-51.

Press VG et al (2012) Interventions to improve outcomes for minority adults with asthma: a systematic review. Journal of General Internal Medicine.2012;27(8):1001-1015.

Public Health England (2013) The National Cardiovascular Intelligence Network: Cardiovascular disease key facts: Public Health England, Available at:

<https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&uact=8&ved=0CFAQFjAF&url=http%3A%2F%2Fwww.yhpho.org.uk%2Fresource%2Fview.aspx%3FRID%3D188005&ei=anGEU-f2GojfOY3BgagC&usg=AFQjCNG8dsyhYWbLGq9YXuxTxgSErUBsZg&bvm=bv.67720277,d.ZGU>

Purdy S et al (2012) Interventions to reduce unplanned hospital admission: a series of systematic reviews, National Institute for Health Research/University of Bristol, Available at:

<http://www.bristol.ac.uk/primaryhealthcare/docs/projects/unplannedadmissions.pdf>.

Purdy S (2010) Avoiding hospital admissions, What does the research evidence say, Kings Fund. Available at:

<http://www.kingsfund.org.uk/publications/avoiding-hospital-admissions>.

Roberts J and Fenech T (2010), Optimising patient management before and after surgery, Nursing Management, 17 (6), 22-24.

Robinson S (2014) QOF could make NHS Health Checks value for money, say researchers, GP, 28 January, Available at: <http://www.gponline.com/qof-nhs-health-checks-value-money-say-researchers/cardiovascular-system/article/1228882>.

Roland et al (2006). Outpatient Services and Primary Care: A scoping review of research into strategies for - improving outpatient effectiveness and efficiency. NHS Service Delivery and Organisation R&D Programme from the National Primary Care Research and Development Centre and Centre for Public Policy and Management of the University of Manchester.

Ross S et al (2011) Case management: what it is and how it can best be implemented, Kings Fund, Available at:

http://www.kingsfund.org.uk/sites/files/kf/Case-Management-paper-The-Kings-Fund-Paper-November-2011_0.pdf.

Rowe A and Hogarth A (2005) Use of complex adaptive systems metaphor to achieve professional and organisational change, Journal of Advanced Nursing, 51 (4), 396-405.

Royal College of General Practitioners (2013a). Medical Generalism: Impact Report, May 2013. RCGP. Available at:

<http://www.rcgp.org.uk/policy/rcgp-policy-areas/~media/Files/Policy/A-Z-policy/Medical-Generalism-Impact-Report-March-2013.ashx>

Royal College of General Practitioners (2013b). The 2022 GP: A Vision for General Practice in the future NHS. RCGP.

Available at: <http://www.rcgp.org.uk/campaign-home/~media/Files/Policy/A-Z-policy/The-2022-GP-A-Vision-for-General-Practice-in-the-Future-NHS.ashx>

Royal College of General Practitioners (2013c) The 2022 GP: compendium of evidence, RCGP, Available at:

<http://www.rcgp.org.uk/campaign-home/~media/Files/Policy/A-Z-policy/The-2022-GP-Compendium-of-Evidence.ashx>.

Royal College of General Practitioners and Health Foundation (2011). Guiding patients through complexity: Modern medical generalism. Health Foundation. Available at:

<http://www.health.org.uk/public/cms/75/76/4299/2763/COMMISSION%20REPORT%20ON%20MEDICAL%20GENERALISM%20OCTOBER%202011.pdf?realName=xbuUe5.pdf>

Royal College of Nursing (2013). Dignity in health care for people with learning disabilities, Second Edition. Royal College of Nursing. Available at: http://www.rcn.org.uk/_data/assets/pdf_file/0010/296209/004439.pdf

- Royal College of Physicians (2012a) Care closer to home: narrative report, Available at: http://www.rcplondon.ac.uk/sites/default/files/care-closer-to-home-narrative-report_0.pdf.
- Royal College of Physicians (2012b) Hospitals on the edge? Available at: <http://www.rcplondon.ac.uk/projects/hospitals-edge-time-action>.
- Royal College of Physicians (2007). Acute medical care: The right person, in the right setting – first time. Report of the Acute Medicine Task Force. Available at: http://www.rcplondon.ac.uk/sites/default/files/documents/acute_medical_care_final_for_web.pdf
- Royal College of Physicians, Royal College of General Practitioners, and Royal College of Paediatrics and Child Health (2008). Teams without walls. Available from: http://www.rcplondon.ac.uk/sites/default/files/teams-without-walls-1_0.pdf
- Royal College of Surgeons of England (RCS, 2013). Reshaping surgical services: principles for change. Available from: <http://www.rcseng.ac.uk/publications/docs/reshaping-surgical-services>
- Royal College of Surgeons of England (2007). Separating emergency and elective surgical care: Recommendations for practice. Available at: http://www.rcseng.ac.uk/publications/docs/separating_emergency_and_elective.html
- Royal College of Surgeons of England and Association of Surgeons of Great Britain and Ireland (2013). Emergency General Surgery. Available at: http://www.rcseng.ac.uk/healthcare-bodies/docs/emergency_general_surgery.pdf.
- Sager MA et al (1996) Functional Outcomes of Acute Medical Illness and Hospitalization in Older Persons, Archives of Internal Medicine, 156 (6), 645-652.
- Shepperd S et al (2013) Discharge planning from hospital to home. Cochrane Database of Systematic Reviews;1.
- Smith S et al (2013) An evaluation of the performance of the NHS Health Check programme in identifying people at high risk of developing type 2 diabetes, BMJ Open, 3:e002219 doi:10.1136/bmjopen-2012-002219.
- Snooks H et al (2012) Support and assessment for fall emergency referrals (SAFER 2) research protocol: cluster randomised trial of the clinical and cost effectiveness of new protocols for emergency ambulance paramedics to assess and refer to appropriate community-based care, BMJ Open, 2012;2: e002169. doi:10.1136/bmjopen-2012-002169.
- Spurgeon P et al (2010). Evaluating Models of Service Delivery: Reconfiguration Principles. National Institute for Health Research Service Delivery and Organisation programme. Available from: http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1304-063_V01.pdf
- Takeda A et al (2012) Clinical service organisation for heart failure. Cochrane Database of Systematic Reviews, 9.
- Temperley J et al (2013) People helping people: peer support that changes lives, Nesta, Available at: <http://www.nesta.org.uk/publications/people-helping-people-peer-support-changes-lives>.
- Thomas K and Paynton D (2013) RCGP Commissioning Guidance in End of Life Care, RCGP, Available at: <http://www.rcgp.org.uk/~media/Files/CIRC/EOLC/RCGP-EOLC-Guidelines-Apr-2013.ashx>
- Turnbull J et al (2014) The work, workforce, technology and organisational Implications of the '111' single point of access telephone number for urgent (non-emergency) care: a mixed-methods case study, Health Services and Delivery Research, 2 (3).
- Turner J et al (2010) Building the evidence base in pre-hospital urgent and emergency care: a review of research evidence and priorities for future research, University of Sheffield, Available at: http://www.sheffield.ac.uk/polopoly_fs/1.436551/file/Evidence-base.pdf.
- Warner G (2012) Community-based self-management programs for improving participation in life activities in older adults with chronic conditions, Cochrane Database of Systematic Reviews, 9.
- Willis T (2012) NHS health checks and QOF increase overtreatment, BMJ, 345, e6172.

Young AF et al (2012) Support for self-management of cardiovascular disease by people with learning disabilities, Family Practice, 29 (4), 467-475.