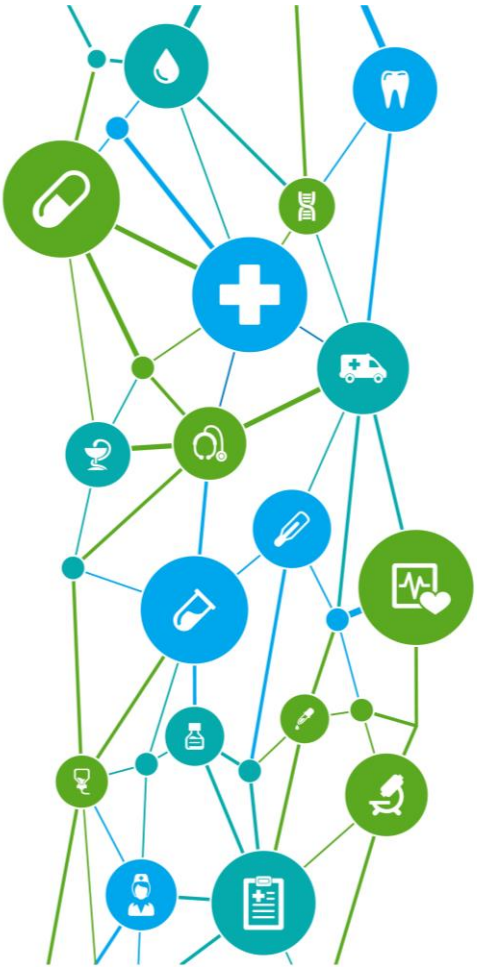
Evaluation: of the Population healthcare programmes approach



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Authors declaration of interests

Both authors have links with the organisations involved in delivery of the AF and FFF programmes reviewed within this study; Mandy Harling is based within the national Healthcare Public Health team within Public Health England and Anant Jani, is based within the Value Based Healthcare Programme at Oxford University, and has provided VBHP project leadership for these population healthcare programmes.

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1. Introduction

1.1 Background

Public Health England (PHE) and the Value Based Healthcare Programme at the University of Oxford (VBHP) have collaborated since 2013 on the delivery of two national programmes of work; focused on designing and disseminating outcomes based healthcare systems for people at risk of strokes and vascular dementia due to atrial fibrillation, and people at risk of falls and fragility fractures. Both programmes use a population healthcare or systems approach model, which is based on organising care and interventions for a population around a common condition, symptom or treatment. The term 'programme' is used here to refer to a set of healthcare systems with a commonality, for example those for the identification, care, treatment and management of particular respiratory conditions.

The Population Healthcare Programme has an evolving model and approach and in light of this during 2015 PHE and VBHP undertook a qualitative evaluation project. This aimed to explore the experiences of participants taking part in the atrial fibrillation and falls and fragility fractures programmes; to understand what had worked well for them, to identify any areas for further development; and to explore participant perceptions of the benefits and any limitations of the model and approach being used.
This evaluation did not review project delivery information or outputs for either programme as this is documented elsewhere in annual reports and activity reviews from the atrial fibrillation (AF) and falls and fragility fractures (FFF) programmes.

1.2 Executive summary

This evaluation explores the benefits and experiences from applying a systems level approach to the planning and delivery of health and care services. The healthcare system in England is at a crossroads following a period of considerable fracture in many pathways, commissioning arrangements and operating systems for health and public health. The healthcare system is now at a juncture, with an increasing focus on prevention and earlier intervention at the core of the NHS England Five Year Forward View, the NHS Planning guidance and the sustainability and transformation planning process. This focus on prevention is also reinforced within the integration agenda and Vanguards programmes, and by recent recommendations from Lord Carter's review of hospital productivity and performance for reducing unwarranted variations in care; where improving factors such as system level access to data, and support for system level approaches such that from Right Care[1] are recommended.

[1] Department of Health (2016) Operational productivity and performance in English NHS acute hospitals: Unwarranted variations; independent report by Lord Carter of Coles

This report explores the applicability of a systems approach for the design and delivery of healthcare, by reviewing participant and programme lead experiences from the AF and FFF population healthcare programmes, delivered collaboratively by PHE and VBHP. The AF and FFF programmes have developed models and frameworks for initiating and delivering a systems-based healthcare approach; which could provide useful and transferable learning for others. The AF and FFF population healthcare programmes have also tested methods to support implementation and delivery at scale; often drawing from local clinical and practice-based learning to help inform a bottom-up approach. An example of this is where the AF and FFF teams have used learning from participants' experiences regarding local data access during the pilot phases of both projects, to help inform plans for the development of national population profiles for both AF and FFF.

2. Population healthcare programmes

2.1 Introduction

The aim of the population healthcare approach to health service design is to support change to help maximise value and equity through using a systems approach to focus on populations in need and by viewing the components within a pathway as a whole unit, rather than as separate institutions or specialities. For example delivering care to populations defined by a common need which may be a symptom, such as breathlessness, a condition such as arthritis, or a common characteristic such as frailty in old age to maximise value for those populations and the individuals within them. This is distinct from population health, a broader concept focussing on the health status of a population which is affected by many factors other than healthcare. The key aims of the population healthcare model piloted by PHE and VBHP are to develop system models which can firstly be assessed and compared and can then subsequently be used to support the implementation and commissioning of future health and care services.

This evaluation is a qualitative study, which involved telephone and face to face interviews in spring and early summer 2015 with both programme participants and leads. It should be noted that data collection took place during February to December 2015, and due to this, the report may not capture more recent developments for both programmes. As the population healthcare programmes project had both an evolving and multi-agency model, this evaluation was undertaken to gather views on the benefits and any limitations of the model and approach. Findings from the interviews have been distilled into this report, which will be used to inform future developments and approaches for the project.

2.2 Systems approach

The model adopted by the population healthcare programme draws from the system theory approach, where a system is defined as a set of common objects or people with relationships and interactions that make them part of a larger whole; who are working together for a common function or purpose. The components within a system *'must be capable of working together to achieve shared goals; otherwise they are merely individual parts with separate missions*[2]*.'*

Adopting a systems approach enables reflection on the components within a care pathway as a whole unit. This approach avoids focussing on individual components and delivers two key benefits; to help better understand the role that each object or factor has in supporting delivery of the overarching aim, and to enable review of the flows and information exchanges within the system. This in turn enables the

[2] Baker, GR et al (2008) high performing healthcare systems, delivering quality by design. Longwoods Publishing Corporation.

identification of any bottlenecks or issues within the system operation.
Applying a systems theory approach can help improve the quality of healthcare systems and delivery, 'as *systems thinking allows healthcare professionals to see the entire system and recognize the importance of the relationships among its component parts.'*[3] Healthcare systems involve a number of dimensions, factors and structures and as such need to be viewed as complex systems with dynamic components and *'nonlinear interactions [and] emergent, self-organised behaviour'*[4] *and relationships.* In fact, due to the evolving and adaptive nature of healthcare systems, where they will '*often find ways to compensate […] to continue its function'*,[5] it is argued they should be viewed as complex adaptive systems, with both a capacity for learning and the ability to change and adapt through *self-organisation, learning and reasoning*. [6] [7]
As a system, health and care pathways include interconnected organisations within a system that will adapt and produce their own pattern of behaviour over time[8], with *'the flow of information between systems creates decision and action points.'*[9]

Drawing from systems theory, a set of questions were developed to guide applying this approach to healthcare systems; which formed the kernel of the population healthcare approach adopted by PHE and VBHP:

- Is there a clear single aim for the system?
- Is there a set of objectives?
- For each objective, has one or more criteria been chosen to measure progress?[10]

There is a risk from not adopting a system approach when considering the organisation of health and care. According to Sir Muir Gray this would limit any impact that can be made on the existing *Brownian motion, duplication, unwarranted variation and failure to maximise value* within the service.[11] Whist Seddon underlines the case for adopting a systems approach within social care, where '*fragmentation of work to fit with internal departmental requirements means needy people experience any number of assessments, each requiring the answers to much the same questions*.'[12] This is set against a backdrop of rising numbers of people now living with long term conditions in England (currently 15.4 million), and an increase in those living with multiple-morbidities or conditions, which is expected to reach 2.9 million

[3] Petula (2005) Journal for Healthcare Quality Web Exclusive Vol. 27, No. 6, pp. W6-2–W6-6 www.nahq.org/journal
[4] Lipsitz, L.A. (2012) Understanding Health Care as a Complex System, The Foundation for Unintended Consequences. JAMA; July 18, 2012, 308(3) (p.243).
[5] [13]Cordon CP (2013) System theories: An overview of various system theories and its application in healthcare, American Journal of Systems Science 2(1): 13-22.
[6] Rihani S. (2002) Complex Systems Theory & Development Practice. Zed Books.
[7] Norberg, J, Cummind, G (2008) complexity theory for a sustainable future, Columbia University Press.
[8] Meadows DH (2009) thinking in systems, a primer. Earthscan, London.
[9] ibid
[10] Gray M, JA (2011) How to build healthcare systems, Offox Press Ltd.
[11] ibid
[12] Seddon J (2008) Systems thinking in the public sector, Triarchy Press.

people in England by 2018[13]. According to NHS England, treatment for people with long term conditions utilises significant proportions of health care services including '50% of all General Practice appointments and 70% of all days spent in hospital beds; and their care absorbs 70% of hospital and primary care budgets in England.'[14]
The adoption of a systems approach to the organisation and management of care for people with long term conditions could help deliver significant improvements in the coordination and management of care; supporting earlier interventions; whilst also helping to reduce duplication and increase efficiency for health and care services.

A systems approach recognises the interrelations between health and care components and helps when seeking to either facilitate or build sustainable change within a healthcare system. With a track record of managing complex and challenging situations across a number of different clinical, commissioning and professional networks; healthcare systems already have experience of sharing learning and drawing on the experiences of peers as part of a learning experience.[15] This cascade and sharing of learning and experiences is a key benefit in Senge's learning organisation approach, and enables systems to adapt and develop and continue to improve. This learning approach should be encouraged throughout an organisation according to Ikujiro Nonaka[16]:
'inventing new knowledge is not a specialised activity [..] it is a way of behaving, indeed a way of being, in which everyone is a knowledge worker.'

Neubauer[17] highlights that a balance needs to be reached between the internal systems within an organisation, and its alignment with its dynamic environment and *'dynamic responsiveness'* to environmental changes. This requires organisations to be regularly monitoring and responding to the changing environment, and making internal adjustments to enable them to adapt and respond to the wider system. For organisations engaging with the AF and FFF population healthcare programmes, the aim is to support these improvement processes and developmental learning, to help optimise access to earlier prevention; and high quality care and treatment.

[13] This estimate refers to people with 3 or more long term conditions.
[14] NHS England, Domain 2: Enhancing quality of life for people with long-term conditions. Accessed 1.3.2016
[15] Benkler, Y. (2006), The Wealth of Networks. How Social Production Transforms Markets and Freedom. Yale University Press.
[16] Harvard Business Review on Knowledge Management (1987) The Definitive Resource for Professionals. Harvard Business School Press. (p.49).
[17] Neubauer (2012) Systems Theory in Context of Modern Healthcare Organizations, You Tube Health & Administration channel

2.3 Population healthcare programme: System design and methodology

The population healthcare model provides an opportunity to address unwarranted variation in healthcare delivery whilst enhancing treatment value and effect through adopting a systematic approach. This requires review of the various components of the healthcare system for an area of care or pathway, and how they relate to each other; for example levels of care, clinical domains, professional bodies and standards setters, and commissioners and regulators; who are all part of an inter-related whole. Consideration of which model within the system approach that should be used is crucial, for example a *simple system* would involve a one way information flow. Whereas the AF and FFF population healthcare programmes refer to a *complex adaptive model*, such as that described by Norberg and Cumming; involving multiple layers of information and data flow. The systems model within the AF and FFF programmes help to scale improvement activity at pace; by identifying activity that can be undertaken once, for example at a national level, that can then provide or develop practical and efficient tools and models to aid local implementation.

There are existing population healthcare programmes with a track record of delivery, for example those used in the national screening and immunisation programmes within England. The systems approach helps address a potential horizontal arrangement of healthcare into primary, secondary and tertiary care which could lead to a focus on institutional roles or bureaucracy, rather than the patient and clinician as decision-makers. The population healthcare programmes' methodology is built on collaborative working with multi-stakeholder groups, incorporating all key stakeholders from relevant care pathways. These stakeholders could include patients, GPs, specialists, nurses, and allied health professionals, IT leads and commissioners and others; who then engage and help identify and design an ideal population-outcomes based system of care; which supports a standardised approach for collecting outcomes data across a condition or treatment pathway. Data collection in the early phases of the AF and FFF programmes was collated via brief local programme annual reports. These intended to also enable comparison of services across England, to identify baselines for treatment or practice, and to support services to benchmark against others and to identify:

- What is our local performance year on year; and where is improvement required?
- What are our local network and pathway issues?
- Are there any critical deficiencies in our services (for both commissioners and providers)?

The key principles of the population healthcare model align with the Future Engagement and Deliver (FED) leadership approach[18]. A library of these programme principles were mapped to enable population healthcare programmes to utilise them, and are included below:

Future

- Define the scope of the system
- Identify the population to be served
- Clarify the aims and objectives of the service
- Establish common delivery and success criteria to each objective
- Identify levels of performance that can be used as quality standards and markers for delivery

Engage

- Identify and engage key partners in a network
- Design and confirm the group membership for oversight
- Design network membership
- Engage local leads and areas to identify and disseminate good practice models
- Create action learning opportunities for participants
- Support building clinical and service leadership for this condition area via training and education

Deliver

- Map the most commonly used pathways for the condition
- Identify all the resources used in the system (system budget)
- Produce a system specification
- Prepare a plan to build the system
- Agree communications channels and key messaging
- Support data collaboration and data sharing arrangements across primary, secondary and community care settings
- Map the current commissioning positions for the condition, and estimate the scale of need and unmet need
- Prioritise the different activities within the system using the STAR tool
- Develop an economic model to help build the business case for local delivery
- Develop a community of practice to share learning, to support working through local challenges and to identify further needs in the system.

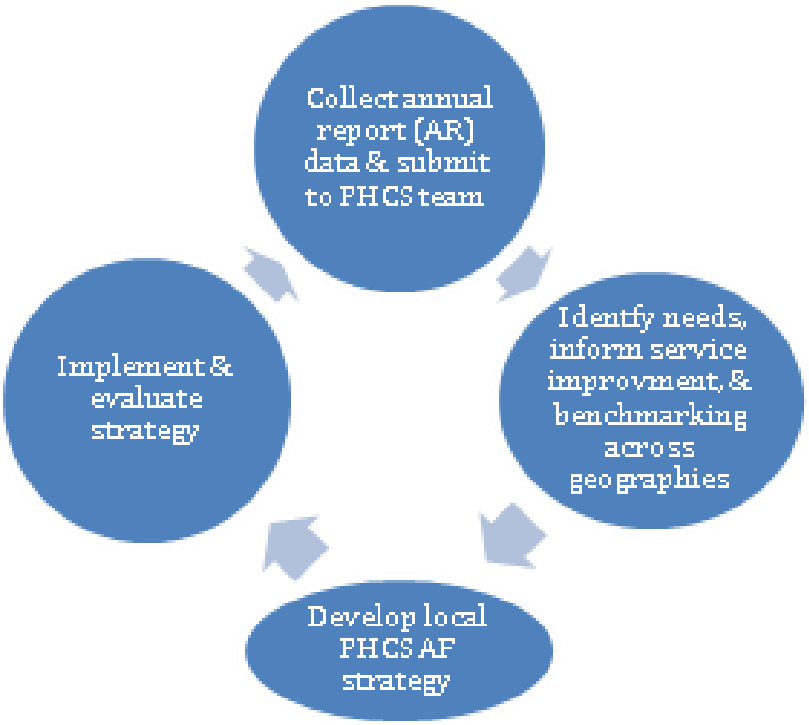
An example of the delivery process devised by VBHP and used in the initial delivery phase of the AF and FFF programmes, is included for information in appendix A

Central to the population healthcare programme model for both the early and current phases is being able to utilise learning from practice. This is managed within the programmes through a 'bottom-up' approach, where locations with existing good practice are engaged, and the views and learning from service leads are gathered to then inform programme approaches.

[18] Radcliffe, S (2012) Future - Engage - Deliver: The Essential Guide to Your Leadership

www.futureengagedeliver.com/

The cyclical process within the initial population healthcare programme model is demonstrated below. In addition to data collection, annual reporting and benchmarking there are stages for reviewing service planning, commissioning and areas of quality and delivery improvement, to help drive changes in patient outcomes.



3. Methods

Design

Data collection for this study was conducted using semi-structured telephone interviews with programme participants and contributors, and face to face interviews with programme leads. A qualitative approach was adopted to elucidate participant experiences and their perceptions of the benefits and limitations of the model and approach being used. The interview questions were piloted with members of another population healthcare programme which focusses on pelvic pain. This feedback enabled the questions to be clarified and further refined.

Interviews were conducted with seven programme participants and six programme leads during February-April 2015. Information was also gathered at two FFF Pioneer events; a teleconference and a face to face workshop in London in May 2015; and at a post evaluation review session with national programme leads in December 2015. Study participants were employed in a variety of roles including a GP with a specialist interest and a Consultant.

Participants were provided with a study information sheet that detailed confidentiality and process arrangements, the purpose of the study. Participants also completed consent forms prior to being interviewed.

Recruitment

A purposeful snowball sampling approach was used for the recruitment of participants to the study. This was utilised because this is a small scale study, exploring the perceptions and experiences of participants and project leads who are already engaged in this programme. It should be noted that the recruitment of the study cohort could have led to some participant self-selection bias, as not all of the people we approached to take part in interviews ended up taking part. Due to time constraints, we were unable to systematically elucidate the reasons for non-participation in the study.

Analysis

Qualitative interviews were recorded. There was not a budget available to transcribe the interviews, but the interviewers utilised a note book margin memo recording system during the interviews. These memos we then used to form the basis for codes, categories and themes, plus any relationships between the different categories. A narrative analysis was used to identify themes within the research data; and meaning coding and themes emerged from the interview data itself, rather than starting with any pre-determined themes or codes. Initial themes and coding were revisited during the analysis phase, where researches coded emerging themes during reviews of the interview and workshop audio files.

The themes were analysed and then interpreted across the interviews, to identify broader themes that were then mapped across the research project.

To minimise bias, especially as one of the research team was also a programme lead for one of the projects under study; a peer review of identified themes was also undertaken. This enabled peer scrutiny, review and comparison of the themes and the weighting ascribed to these within the findings. This process involved each reviewer listing to the interview files of their peer, and then undertaking a critical enquiry of the findings. Where there was any disagreement regarding the themes identified, a discursive process was adopted.

4. Programme context

4.1 Overview

The organisation of healthcare in the UK involves a number of different jurisdictions, institutions, professions, regulators and inspectors, which can reflect a *'Healthcare Archipelago'* of distributed services, which according to Sir Muir Gray can *'hinder the ability of health professions to focus on the needs of the patient.'*

Additionally, a number of pressures exist for the health and care system, including:

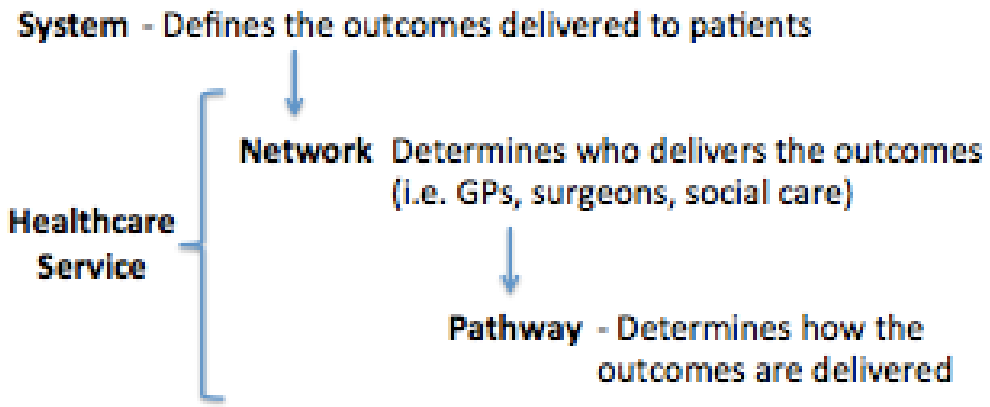
- Wider NHS system changes
- The movement of public health responsibilities into local authority
- Potential communication barriers
- A background of austerity measures and reducing public finance budgets
- Integration agenda across health and social care
- Expectations to increase savings, efficiencies and reduce waste across NHS and social care and local authorities.

Against this background and challenges, the NHS England Five Year Forward View Planning guidance offers interesting opportunities for a systems based approach: An excerpt from this can be found in appendix d at the end of this document.

The Value Based Healthcare Programme (VBHP) model is based upon working with healthcare systems, networks and pathways; with a primary focus on systems. These terms which are applied to healthcare settings are defined as:

- Systems; What is being delivered
- Networks; Who is delivering the care
- Pathways/services; How the care is delivered

The diagram below reflects the relationship between systems, networks, pathways and healthcare services within the population healthcare programmes model:



The population healthcare programme uses an outcomes based approach, viewing networks, pathways and services as variables whose position in a programme pathway may change or be modified, to help deliver improvements for that condition at a system level. This focus then allows for regional or local differences in demography, local politics, and resources and avoids a 'one-size fits all' approach for delivery; enabling and reflecting local service configurations and models. The idea of an outcomes based approach which sits at the heart of the population healthcare programme, is driven by evidence that networks, pathways and services can work towards a common aim unified by a focus on patients or populations with a particular condition.

4.2 Evolution of the programme model

It should be noted that this evaluation took place in 2015, during a phase of evolution for the AF and FFF programme models. The scope, interview questions and focus for this evaluation project were based upon the early model of population healthcare approach. But during conducting the evaluation, it became clear that developments were evolving in both programme models. Some of this has been captured in the narrative discussions with programme leads, and is included in the discussion of findings in this report.

The focus of both the AF and FFF programmes were underpinned initially by the same delivery model outlined above but differences in approach then evolved. One likely factor for this is the programmes were at different developmental stages when PHE began to collaborate on delivery; with AF in year 2 with a developed dashboard,

a project working group and recruited populations whereas FFF had no prior development at that stage. In addition atrial fibrillation has a clear evidence base and established clinical pathway for identification, intervention, care and treatment of cases. Whereas falls and fragility fractures covers a complexity of different needs and settings, with differences of opinion on the evidence base for interventions and delivery models. Whilst arrangements for the delivery of care for AF can vary widely[19] falls has the additional complexity of a fall incident being deemed as an episode or event, rather than a universal category such as that available for AF. For this reason, collecting health and care system data on falls can be more problematic than for AF, adding layers of complexity when establishing a systems approach.

Following the emergence of the new treatment agents for AF - which lessened requirements to measure treatment activity at a local level - and an increase in work at local levels to support the uptake of the new treatments, including by Academic Health Science Networks; the model for the AF population healthcare programme evolved to enable a focus on influencing national policy, guidance and systems. Key stakeholders identified that strengthening system leadership should be a key programme priority moving forward; to help build awareness and consensus for the prioritisation of AF across the healthcare system.

Local learning from leads who participated in the AF programme also highlighted the value of standardised templates and pathways, particularly within clinical IT and decision support systems. And the evolution in the model for the AF programme has enabled a focus on national 'do once' activity to support local efficiencies.
The AF programme evolution did reduce capacity available for regular touchpoints with local programme members, which was reported as a challenge by some participants that we spoke to during the evaluation.

Participants highlighted they had found input from the population healthcare programme leads useful, and valued feeling connected, engaged and updated on national activity. This has been highlighted as an area that can be strengthened.
It should be noted that the AF project also experienced challenges during year 2 due to the loss of some programme capacity to support population recruitment and engagement.

"Model for AF is very different for FFF, as AF has a clear approach if you have CHAD[20] score of certain level you then require a particular approach. Yet FFF is far less defined. Although it can be described as a population based system, getting it all to hang together in the NHS is tricky." Programme participant.

[19] Although there is general agreement on treatment efficacy for AF, the sectors and setting for delivery of anticoagulation services vary widely. For example Bradford manages this through GP services, whilst Brentwood through community settings; and north London through hospital out-patient appointments.
[20] Please note this refers to CHA2D2-VASc

5. Evaluation findings

Introduction

Participants had joined the AF and FFF population health programmes to help raise awareness of the issues for either AF or FFF and to champion and drive local changes in practice. The motivation for many was to contribute to delivering improvements in pathways interventions and care to improve patient outcomes, and ultimately to help reduce patient morbidity. With AF, there was interest in members supporting local protocol updates for anticoagulation prescribing to reflect the emerging evidence on stroke reduction treatment changes for AF moving away from aspirin towards titrated new anticoagulation agents.

A positive factor for participants was that timing of the national programme chimed with local changes, which was crucial to enable input at a local level. Timing for the AF programme coincided with the local decommissioning of existing treatment models for many areas, and the planning of local reviews to update treatment and pathway models to reflect the recent NICE guidance and Quality Standard. Both participants and programme leads were keen to help align different local plans and activity across the country, and to work on bringing this prevention work together through championing and raising awareness of the approach and also cascading local learning. This fits well with a do once and share approach.

For programme leads, there was an additional aim, to be able to develop a series of demonstrators for both AF and FFF; practical and reusable models of approach for quality improvement regarding AF and FFF, and to be able to test the scalability of population healthcare model from this pilot phase.

Evaluation findings
5.1. Process and programme management

5.1.1 Programme model:

Areas for improvement identified

1. Some participants reported struggling with being able to describe the population healthcare programme model, and recommended a summarised briefing note be created for participants of any future programmes, to provide a snapshot of the model to use for example, when discussing with colleagues.

2. Participants highlighted that implementing quality programmes at scale requires resources and time, and that a critical component for success is reliant on engaging motivated and dedicated individuals; those local champions to take the work forward. Participants felt that for some regions this may have been a gap, and it should be recognised that the population healthcare programme approach *"will not work without individuals to drive and challenge it."* Programme participant.

3. A risk was highlighted by some participants from the strong local determination built into the delivery arm of the programme model; and that local prioritisation could risk detracting from the clarity of the model at a local level. It was suggested this be factored for, in any information provided to future programme or project participants, to recognise they may need to plan for addressing this locally during delivery.
"*Prioritisation of what to do next may get muddy as you get to a network level. Can get endless conversations on relative investments, and querying of the standards previously set, and what should do next."* Programme participant.

4. Participants felt that implementation science, and in particular behaviour change approaches should be integral to the population healthcare programme model, and this was a current information gap; as behaviour change would l be significant for rolling out a programme amongst local professional groups. Participants felt that information on how to effect behaviour change for example with clinicians, and in and across local systems, would aid their local delivery and the delivery of any future programmes or projects.

5. There was also a request for implementation support to be more integrated into the programme model, for example by detailing some of the 'how to' for participants when approaching delivery of the programme in practice. This was viewed as a current gap for the programme model that was evaluated in 2015. In addition, making information available on

practical factors to aid local delivery was recommended, such as useful data sources. Participants also wanted the programme in 2015 to be more explicit regarding where the likely barriers may be, and the need for them to factor for these in their programme delivery.
"[useful to] make it more explicit where the likely barriers are." Programme participant.

5.1.2 Programme model:

Areas identified as already working well

1. The system approach which is at the core of the population healthcare programme model, resonated for many participants with their local approach and direction of travel locally. For the FFF programme, participants highlighted how this aligned well with local integration activity and plans within their regions.

2. For the AF programme, participants felt the model and approach helped in standardising the delivery of evidence based care and treatment; particularly for consistency of messages with national guidance from NICE. And it also complemented the direction of travel for FFF (with the integration agenda).

3. Participants felt the population healthcare programme model and aims when evaluated in 2015 were fairly clear, and that the model benefitted from being able to describe clear population outcomes which are laid out in programmes, for example in annual report indicators.

4. Participants were particularly positive about the delivery route for the programmes not being prescribed, and the flexibility this provided. This was an important factor as it allowed for work to be undertaken for the population healthcare programme, regardless of local service, workforce and commissioning models.
"Philosophy for the programme is great, as it allows for people to approach from different perspectives, and it provides flexibility."

5. For participants, being able to input to defining programme indicators was seen as important. Although participants flagged that some areas of practice, such as primary prevention, were omitted in an early annual report indicator set. They highlighted that this was later addressed though, following participant input. Participants also recognised the iterative nature of developing the annual report indicator set, which was part of the initial programme model, and welcomed the opportunity to be able to help refine these for their programme.

5.1.3 Evolution of the programme model: update

a. Reducing impact on local capacity

In response to learning from the pilot phases, the delivery models for the AF and FFF programmes have evolved from the original VBHP and PHE model. A key driver in this was the experience of many local leads who participated, particularly those within public health teams and in primary care, who were operating with considerable local challenges and limited capacity. A particular challenge for these participants was local data access, and establishing cross-sector data sharing agreements which created significant time pressures and draws for some. This was a common challenge for many participants and impacted on around 13 public health teams in phase one of the FFF programme. To minimise impact for future participants, a do once and share national coordinating approach has now been adopted. For example for FFF and AF, national population profiles are being planned, to limit the input required for data collection at a local level. This builds on and is informed by local data collection experiences and activity from the pilot of the FFF programme. Both the AF and FFF programmes are planning national coordinated approaches for data collection and dissemination.

As part of the national 'do once and share' approach in September 2015 PHE collaborated with the British Heart Foundation, the Stroke Association, NHS England and other stakeholders to deliver a national 'AF and Stroke: We can do better' conference and webpage. The event supported consensus to be reached on AF as a national priority; and helped support national, regional and local commitments that will enable programme delivery at scale. Other national activity in development for the AF population healthcare programme includes:

- Development of an AF economic model and a quality improvement dashboard
- Development of proposals to NICE on new AF quality indicators for general practice and CCGs
- Collaboration with relevant Academic Health Science Networks and Strategic clinical Networks to identify and disseminate AF practice across the system.

b. Increasing opportunity for value and comparison

The pilot phases of the AF and FFF programmes provided limited opportunity to develop a dialogue on value or comparison, due to the focus on local data collection. For the FFF programme, intelligence collated on falls identification and treatments has provided useful local service

snapshots, but provides limited scope for extrapolating. With a self-selected cohort, there is a risk of potentially masking or missing areas of unwarranted identification or service variation for falls. Even though the FFF programme achieved 10% population coverage within year one, limited generalisations can be made about the FFF system performance based on this intelligence. To help build a system performance picture, the AF and FFF programmes are moving towards producing national profiles to support quality improvements across local populations.

c. National strategy input

The FFF programme held a workshop with the National Institute for Health Research public health representatives and leads from the national Hip Fracture Audit, to explore the benefits for local project delivery via national collaboration. Identification of gaps in the evidence base regarding FFF were highlighted and taken forward by the NIHR team. These gaps were identified through activity within the FFF programme when developing the service specification with programme members.

The emergence of new treatment agents for AF which helped facilitate a surge in local and regional support for AF, including work by Academic Health Science Networks; had led to the AF programme reviewing their approach and prioritising input to national strategies. Year 3 of the AF programme will see the review and agreement of a national AF dashboard; along with population recruitment and work to strengthen the community of practice network.

5. Evaluation findings

5.1 Process and programme management

5.1.4 Programme process:

Areas for improvement identified

1. Whilst many felt their role in the programme when evaluated in 2015 was clear, some participants stated they would have benefited from a clearer scope of their role and the types of activities they would need to initiate or lead, and an estimate of the time it may take to be able to deliver on this. Although the programme annual report timescales which were a key component of early phases of the programmes; were discussed, there was less information available on the operational milestones and how to reach them. For those who may have joined a programme or cohort at a later stage, participants felt it would have been useful to provide a recap copy of the programme plan or mandate. For some, their first input was at the annual report stage, and they felt it would have been helpful to know how this fitted as part of the broader programme plan.

2. Participants highlighted the benefits of advance notification of timelines and key activity milestones, *"Timeframes for the annual report process were challenging, as it did not allow for data cleansing."* Programme participant.

3. Participants highlighted the need for clarity in terminology used within the programmes, as this could prove a barrier for local input if it appeared more complex than it needed to be.
"Terminology is perhaps sometimes overcomplicated for what it is. Public health teams may think the project is quite onerous, and yet it is not. It is much more straightforward than that." Programme Participant.

4. It was also highlighted that the programmes need to provide clarity on the data sources being utilised within the annual reporting process, and to check that they are not reinventing the wheel and creating further unnecessary work. Further discussion on where data is aspirational, or is intended to utilise existing or mandatory data sets would be welcomed by some participants.
"Being clear on the data sources, [and that often they are] not new sources. The reporting can become part of the annual public health report. Some data is aspirational and need to [also] get the balance right between primary and secondary prevention." Programme Participant.

5.1.5 Programme process:

Areas identified as already working well

1. Being able to share learning and experiences with peers in the programme was viewed as a key asset of the approach, both to share detail of local challenges and to learn from others in how these were overcome; as well as being able to informally assess local delivery performance against others.
"[it is] useful to know where we are and how we are doing in delivery. The benchmarking from the programme is particularly useful for us."
Some participants did highlight that further consideration by programme leads of how these learning opportunities are structured would be useful, for example some of the larger events were reported by some stakeholders as being *"weighted more towards showcasing rather than a space for ideas sharing."*

2. The approach adopted in the FFF programme of teleconference and workshop meetings with FFF programme pioneer leads from around the country coming together to share their experiences, challenges and learning was welcomed. The opportunity to also input into refining indicators within the annual report process at these events was well received by programme participants. A participant from the FFF programme outlined how beneficial this approach was for the programme *"Good to bring people together and share learning face to face in workshops."*

3. Participants highlighted their interest in being part of a support network and the learning opportunities this provided, including informal learning regarding models and approach of what has worked elsewhere. Plus also being able to explore others learning on how they have been able to link either the AF or FFF programme to other local or national agendas, and then bring people along on the project.

5.2. Infrastructure findings

Data access was reported as a common challenge across both the AF and FFF programmes. There were several reasons for this, but for FFF in particular participants highlighted that the move for public health teams from the NHS to local authorities has had significant impact on their team's access to acute trust falls related data. For the FFF programme, some participants had experienced challenges in collating data for the annual report submission, as indicators or questions in the annual report went beyond mandated requirements of currently compiled data, for example for the national hip fracture audit. Coding for data provides another challenge for programme participants, as for FFF some trusts within a region developed different codes and systems for indicators and data collection.

5.3. Key learning

For participants of the FFF project, although they had faced challenges in accessing data, it was felt that being involved in the population programme was beneficial in helping to overcome or navigate around these, through sharing learning and having access to tips from others.

Being involved in the FFF programme had further benefits for some regarding data access, as one participant relayed that they had been able to identify some data items were available to them that their service had previously thought unobtainable. This knowledge had arisen through their requests for data as part of a FFF annual report process, and they have now discovered they have access.

The programme's annual report process highlighted for participants that some datasets are not being routinely captured, for example, one region had had a FLS in place for 12 months, but not significant levels of data were available yet. Other learning also emerged regarding how local interventions and activity data is captured. For example, in one area in the FFF cohort, strength and balance classes did not differentiate between classes for those who had had a fall, and those who had not had a fall, but were deemed at risk.

Participants highlighted learning on keeping messaging simple, including for clinical teams. For example for AF having a core clear message for the programme locally, such as that aspirin is ineffective and anticoagulation should be the default position. This again was felt by participants as a key benefit of collaborating with others from around the country, to be able to share local messaging approaches and experiences.

5.4. Benefits and outcomes generated

A key benefit for many participants was that the programme enabled them to connect with others from around the country and it fostered knowledge exchange.

Sharing and learning from other's practice was a tangible benefit for those participating in both the AF and FFF programmes and being involved in the population programme also strengthened and enabled participants in a local leadership or championing role for either AF or FFF within their organisation or region. The visibility and leverage secured from being part of the national pilot programmes enabled some participants to then secure senior local buy-in and support for quality improvement activity locally.

When the interviews were conducted, the AF programme was further progressed than the FFF programme as it had started a year earlier, so we were able to gather feedback on some of the local outcomes already generated such as: the programme had helped to demystify the evidence base for AF for the healthcare sector generally, and also in how this translates for local prescribing and formulary, and for local practice. This was especially highlighted for the new generation of pharmacotherapies for AF, NOACs and it was felt that local work as part of the AF programme cohort had helped to drive local changes in prescribing and formulary for NOACs.

For programme leads, a key benefit has been being able to support and enable system leadership for AF or FFF within health and care services. The population healthcare programmes it was felt have also given a platform to highlight issues around informatics and interoperability and to be able to work together with others on system level solutions.

5.5. Resource development

A participant outlined their local work on integrating their AF project locally into another CCG programme to support integration. An AF System architecture project that has run locally in one region (parallel to the AF programme) has been successful, and included setting up an AF template in System 1 which enables cascade and data extraction, with an algorithm and decision support aid built into the template.

Another participant outlined their local work to develop read codes, an AF decision guide (built into EMIS) and an AF training model and programme running across their region. This participant is also involved in developing local service specifications for AF in primary care for reviewing an AF patient and entering them into a anticoagulation service.

5.6. Challenges

Changes across the healthcare system were highlighted as a challenge for many participants. This had significant impact on data access, with participants trying to access data across different local constituencies and sectors. The movement of public health teams into local authorities, and the challenges this now posed for accessing acute sector data was a significant factor for participants of the FFF programme.

Local challenges were also flagged where local existing guidance may contradict for example, NICE guidance, especially for AF regarding the treatment approach for anticoagulation in those with a risk for stroke. Useful learning for future cohorts of the programme would be to incorporate or factor into timelines for local changes in clinical approach that further time may need to be allocated to enable for example local protocol changes, as these all take time. For the AF programme, in one local area a latest version of a template had only recently been green lighted (to allow free access to NOACs prescribing).

Non-anticipation of NICE guidelines was also a challenge highlighted for some participants, where the guidance had helped raise awareness of AF, and had resulted in an increase of patients locally, but local systems and approaches, particularly regarding if local protocols were consistent with NICE recommendations, and system capacity had not been reviewed in advance of this.

5.7. Learning from aligned programmes

The National Pelvic Pain (NPP) Initiative began in 2012 with the goal of helping to decrease the impact of pelvic pain in patients suffering from this condition. As part of this initiative, the VBHP team worked with national clinical and service leads to develop a minimum data set to help indicate the performance of different services across the country with the aim of optimising care for patients with pelvic pain. The outcomes defined for this initiative can be seen here: http://www.chronicpelvicpainsystems.yolasite.com/cpp-systems.php.

One distinguishing factor for this programme has been the key involvement of a patient lead who also leads a national Pelvic Pain Network. This lead was instrumental in helping drive the programme via the existing national pelvic pain network and through active engagement with those delivering services for patients with chronic pelvic pain. For the 2013 cohort participants submitted annual reports covering a total population of 4.2 million people; and by 2014 the number of participating populations had increased and the annual reports covered a total population of 11.3 million people.

It is interesting to note that the majority of participants in both cohorts were unable to provide data for all 10 core questions in the outcomes indicator set due

to challenges for identifying and tracking the care delivered to these patients, as there currently is no ICD-10 code for chronic pelvic pain. Despite the lack of data, populations have continued to be engaged and new populations came on board because of an acutely felt need to address this problem and the appreciation felt for being able to share learning amongst the community of practice the VBHP team were able to create and support.

6. Recommendations

1. It is recommended that for any future programmes they factor for addressing local implementation challenges such as behaviour change insights, to support enabling change in local clinical practice. And that any programme activity timing coincides with relevant national strategy, guidance updates or other activity where possible.

2. The evolution of the model in the AF and FFF programmes should continue to build on recent experiences from the ‘do once and share’ approach. Where possible undertaking activity at a national level that can help reduce impact on those delivering at a local level.

3. Development of the programme model with applicability for integrated health and care, as demonstrated within the FFF programme, is also welcomed and should be continued.

4. The FFF programme demonstrated effective engagement via teleconferences and webinars. Further use of these is recommended for future programmes to provide opportunity to capture local practice, and to facilitate shared learning.

5. Both AF and FFF programmes provide a valuable system leadership role by supporting local leads to locally prepare ahead of the launch of relevant national guidance, strategy or system changes; for example when a NICE guideline is updated relevant indicators are launched. It is recommended that any future programmes draw on this learning.

6. The AF and FFF programmes model examined within this study has demonstrated a positive benefit for the systems approach; showing that it can enable local service improvement at both pace and scale. These programmes provide useful transferable learning for others; when seeking models to support implementation of health or care service changes at pace and scale.

7. Participants also identified that the system approach was useful at the time of evaluation, with a backdrop of fragmentation across many health and care pathways. It is recommended that any future evaluations of population healthcare programmes explore in detail the particular challenges or benefits from utilising a systems approach.

7. Appendix

a. Initial programme delivery model (2015)

Table below details how the principles of the population healthcare programme approach are were integrated into a delivery model in 2015.

Timeline	**Step**	**Responsible Partner(s)**
Workshop 1	1. Define the scope of the system 2. Define the population to be served 3. Reach agreement on the aim and objectives of the service	Local partners and VBHP
Workshop 2	* Refine objectives if necessary 4. For each objective, find one or more criteria	Local partners and VBHP
Workshop 3	* Refine criteria if necessary 5. For each of the criteria identify levels of performance that can be used as quality standards *(N.B. this can be done after the workshop as well)*	Local partners and VBHP
In between workshops	6. Identify and map current resources used in the system, for the pathway, intervention or condition to create a system map. This may also help to indicate the current spend across partners including commissioners for this intervention or condition. This stage will also incorporate assessing the use of the model in developing systems and 'annual reports'. Prioritising within the project plan can be supported through using the STAR tool http://startool.org/about/ 7. Define all the partners so that they can be engaged in a peer or Clinical Network as part of their input to the population healthcare programme. As part of this, they can also input towards the development of a system specification for the condition or intervention. 8. Define the existing pathways and key decision points in the patient's journey 9. Prepare with key stakeholders, an outcome based specification (annual report template) ; describing also the risks that will have to be managed	Local partners
Workshop 4	10. Introduce the system nationally	Local partners and VBHP

Appendix
b. Study methods (interview questions)
Participant interview questions

Evaluation of VBHP and PHE Population Healthcare Programmes AF and FFF

PHE and VBHP are interested to hear about your experience so far of taking part in the project, and to explore your thoughts on the benefits and any limitations of the model and approach being used.

Thank you for agreeing to take part in this short (approximately 30 minute) telephone interview, to capture your insights on the project so far, information on any barriers or levers that you have encountered whist initiating or taking forward your work locally, and any further support that may be useful for taking the project forward.

Questions

1. Why did you join the AF/FFF population programme?
2. What outcomes or benefits were you hoping to achieve for your organisation by participating in the programme?
3. Has the programme supported or enabled this so far?
b. If no, how can we improve this going forward?
4. Were requirements clear regarding the input required from you (or your service) when you signed up for this programme?
b. If no, what could have been done to have made this clearer for you?
5. What are your thoughts on the model used to underpin the programme?
6. Where roll out is already underway in your organisation/region, how many people are involved in this work so far?
7. Have you encountered additional information or support needs whilst involved in the programme?
b. If so, what have these been?
8. Have you faced any challenges whilst rolling the programme out across your organisation or region?
b. Where there have been challenges, what may be useful to help overcome them?
9. Have you accessed any peer support via the programme?
If so, how did you access this? And how useful has this been?
10. Are there any further resources that would be useful, to help you in rolling out the programme across your organisation or region?
11. Looking back over your experience of the programme so far, is there any learning you would pass onto others thinking of joining a future population programme?
12. Any further comments.

PHE and VBHP leads Interview questions

PHE and VBHP are interested to hear about your experience so far of leading and delivering the project, and to explore your thoughts on the benefits and any limitations of the model and approach being used.

Thank you for agreeing to take part in this short (approximately 30 minute) interview, to capture your insights on the project so far.

Questions

1. What are your expectations for the AF/FFF Population Healthcare programmes?

Prompts: Outcomes expected? Any surprises?

2. Has the delivery of the programme so far met your expectations?

b. If no, how can this be improved going forward?

3. How clear to you is your role/contribution required for the delivery of the programme?

Prompts: Partner responsibilities? Evolving/developing roles?

4. How has the time/capacity required of you so far measured against initial plans?

5. As this is a jointly delivered project, what has your experience been of collaborative working so far with PHE/VBHP?

b. Is there any learning from this to take forward?

Prompts: clarity on roles/responsibilities? Funding and budgets? Demonstrating outcomes? Programme support? Benchmarking and project milestones? Information governance (e.g. hosting data)

6. What learning have you gained from being involved in the project so far?

Prompts: any unexpected benefits or outcomes?

7. Moving forward, what would you like to see from the AF/FFF programme?

8. Any further comments

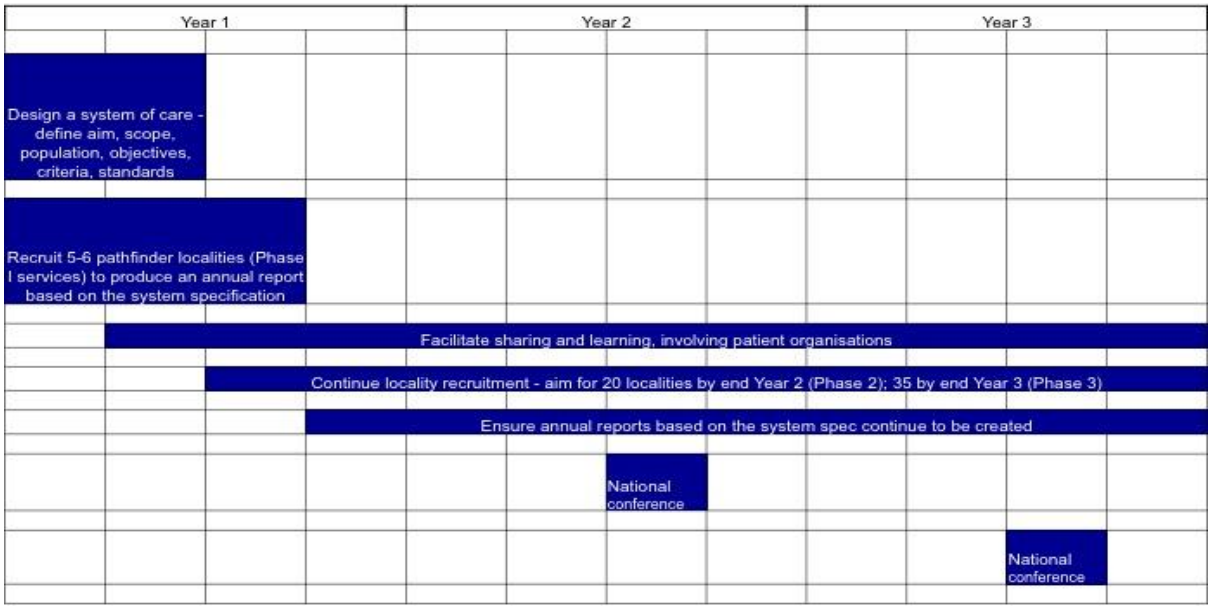
Thank you for taking part in this interview.

Appendix

c. VBHP Population Healthcare Programme model

- Design and Rollout of a National system of care

Design and Rollout of National Systems of Care



Year	Step
1	1. Identify one population in which the population is well served and prepare system specification through knowledge harvesting 2. Recruit the first cohort of population based services (a service is the operational unit responsible for delivering the system to a defined population. It consists of a network of representatives of key organisations) Test and refine the specification with other population based services 3. Support the preparation of the first annual reports of the First Cohort Services 4. Facilitate sharing and learning, involving patient organisations
2	5. Recruit the Second Cohort of populations 6. Support the preparation of the annual reports of the First and Second Cohort services ***** Facilitate sharing and learning, involving patient organisations
3	7. Facilitate sharing, learning & improvement involving patient organisations 8. Recruit the third and final Cohort of populations 9. Support the preparation of the annual reports of Cohorts 1,2 and 3 preferably with the patients' organisation acting as the recipient Produce the first national annual report ***** Facilitate sharing and learning, involving patient organisations
4 and beyond	10. Focus on continuous quality improvement ***** Facilitate sharing and learning, involving patient organisations

Appendix
d. NHS England Five Year Forward View Planning guidance

NHS England Five Year Forward View Planning guidance excerpt

6 We are asking every health and care system to come together, to create its own ambitious local blueprint for accelerating its implementation of the Forward View.

7. Planning by individual institutions will increasingly be supplemented with planning by place for local populations. For many years now, the NHS has emphasised an organisational separation and autonomy that doesn't make sense to staff or the patients and communities they serve.

8. System leadership is needed. Producing a STP is not just about writing a document, nor is it a job that can be outsourced or delegated. Instead it involves five things: (i) local leaders coming together as a team; (ii) developing a shared vision with the local community, which also involves local government as appropriate; (iii) programming a coherent set of activities to make it happen; (iv) execution against plan; and (v) learning and adapting.

15. Spanning providers and commissioners, these plans will set out the mixture of demand moderation, allocative efficiency, provider productivity, and income generation required for the NHS locally to balance its books.

16. The STP will be the umbrella plan, holding underneath it a number of different specific delivery plans, some of which will necessarily be on different geographical footprints.

17. The first critical task is for local health and care systems to consider their transformation footprint – the geographic scope of their STP.

18. Transformation footprints should be locally defined, based on natural communities existing working relationships, patient flows and take account of the scale needed to deliver the services, transformation and public health programmes required, and how it best fits with other footprints such as local digital roadmaps and learning disability units of planning.

Source: NHS England. (2015) Delivering the Five Year Forward View: NHS planning guidance 2016/17 – 2020/21. (p.4,6)

Appendix
e. Better Value Healthcare Glossary for systems, networks and pathways in health and healthcare

Led by Sir Muir Gray, BVHC (now VBHP) has developed a 21st Century healthcare glossary to help clarify meaning of commonly used terms, to improve both dialogue and decision making. It includes over 1000 terms and their meanings in use. Some definitions can be unwieldy for everyday use so where appropriate, a shorter bottom-line definition is used. An excerpt of key terms is included below.

• **Clinical Micro System:** The basic unit of a health service, for example a team in theatre or a primary care team and its patients.

• **Complex Adaptive System:** Nonlinear systems whose behaviour is defined to a large extent by local interactions between their components and which are capable of evolution.

• **Criteria:** Measures of progress towards an objective - they can be measures of process or outcome.

• **Culture:** Culture is the set of important understandings (often unstated) that members of a community share in common.

• **Hard and Soft Systems:** In hard systems all partners are seeking the same objectives; in soft systems some partners have objectives in conflict.

• **Network:** If a system is a set of activities with a common set of objectives, the network is the set of organizations and individuals that deliver the systems.

• **Outcome:** “Outcome is the result of a process, including outputs, effects and impacts.”

• **Open and Closed Systems:** In closed systems external factors have no influence, the more open the system the more it is liable to be influenced by external factors.

• **Pathways:** The actual care process of pathway experienced by each individual patient/client; also described as maps that define best practice.

• **Programme:** A set of systems with a common knowledge base and a common budget.

• **Standards:** Agreed attributes and processes designed to ensure that a product service or method will perform consistently at a designated level.

• **Standardisation:** The necessary foundation on which tomorrow’s improvements will be based on the best you know today.

• **System:** A set of activities with a common set of objectives with an annual report.