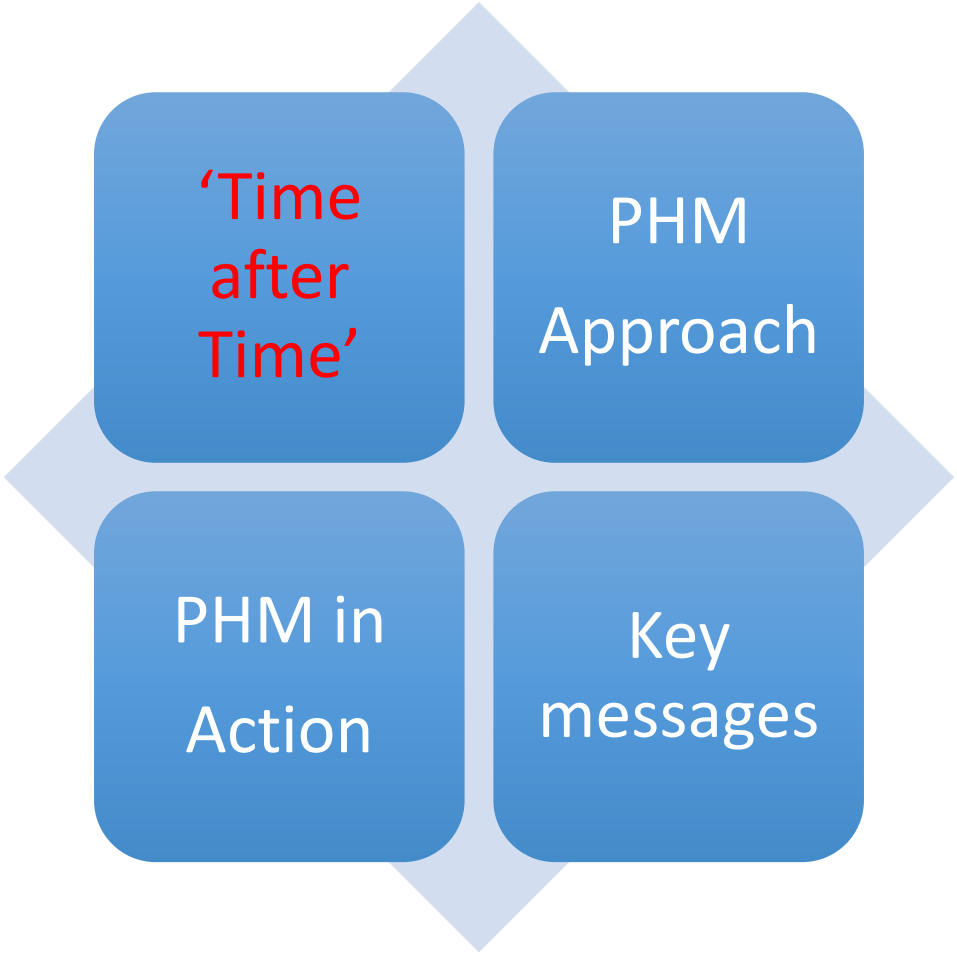
Achieving ‘Value’-
The benefits of a Population Health Management approach in delivering improved health and care outcomes and financial sustainability

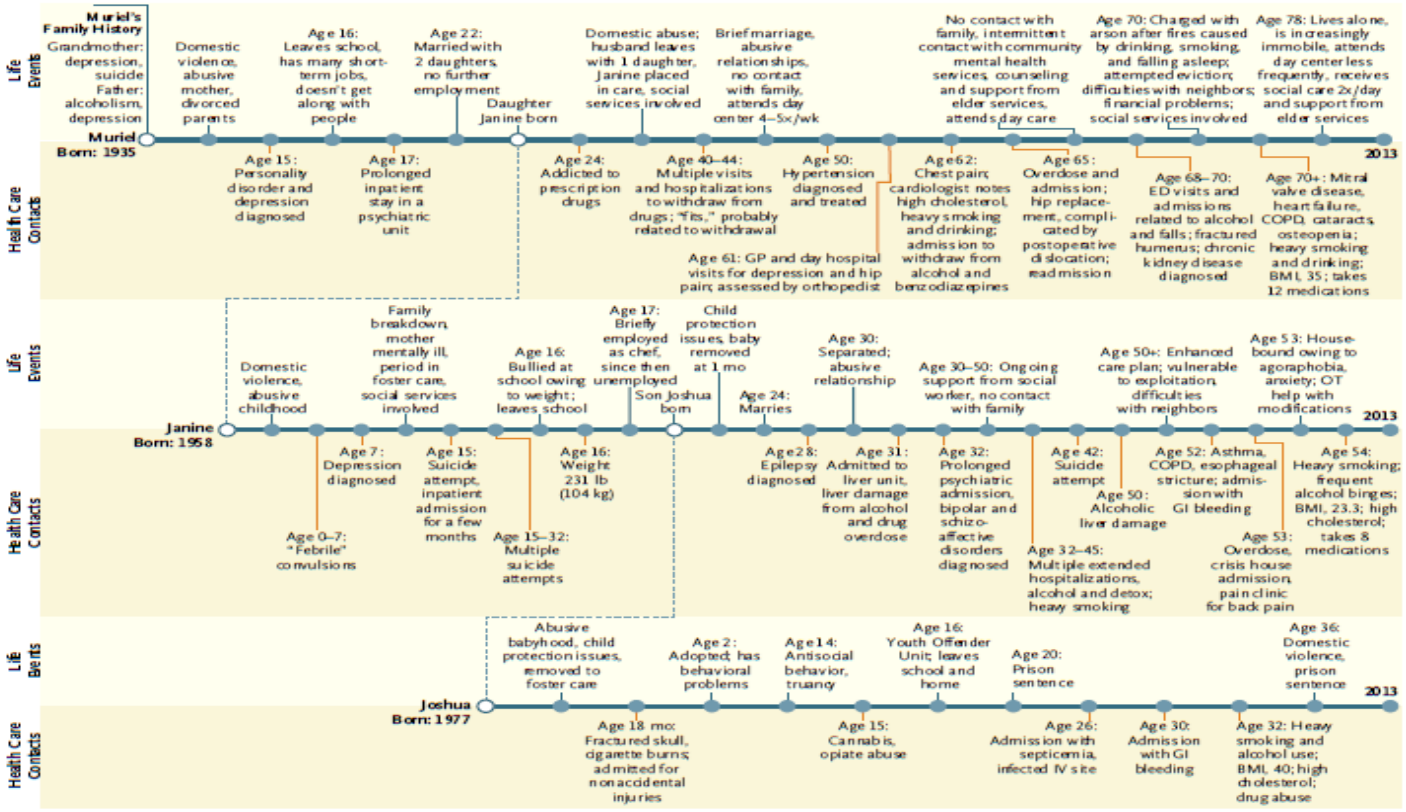
Population Health Management: responsibility for managing the overall health and well being of a defined population, and being accountable for the health and well being outcomes of that defined population.

“The goal is ambitious, the approach is simple”



Aim: Clinically led, innovative service re-design focused on an integrated model of care, planned and co-ordinated around the needs of patients and families.

Time after Time[1] — Health Policy Implications of a Three-Generation Case Study



Three key messages

- Reorganize care around achieving value for patients – and that we have to do it in more thoughtful and strategic ways
- Plan and deliver on wider system than just traditional clinical care
- Breaking the pattern requires long term investment in prevention and early intervention.

1 Sayer and Lee, NEJM Oct 2014

The Challenges:

1. Population level:

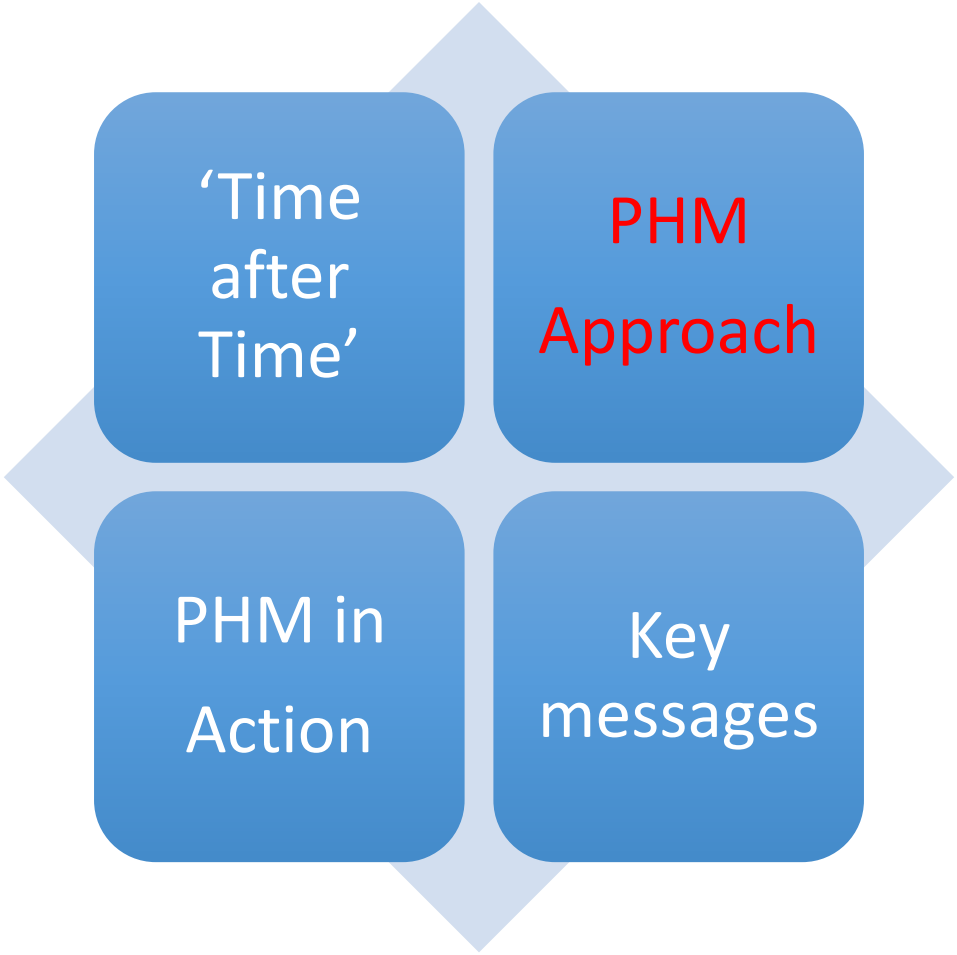
- Predictably poor health outcomes
- Lack of focus on prevention
- Lack of personal responsibility for health
- Too little supported self-management

2. Systems level:

- Reactive, poorly co-ordinated services little integration
- Focused on organisations' needs not patients'
- Fragmented, duplicative and inefficient
- Reliance on unplanned care
- Payments and incentives that do not support integration

3. Individual:

- Complex patients mirror complex system
- Primary care needs support to manage
- Health and social care not integrated
- IT systems need developing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Understanding Population Health –a Managed Approach

There are many influencing factors that impact on the health of the population.

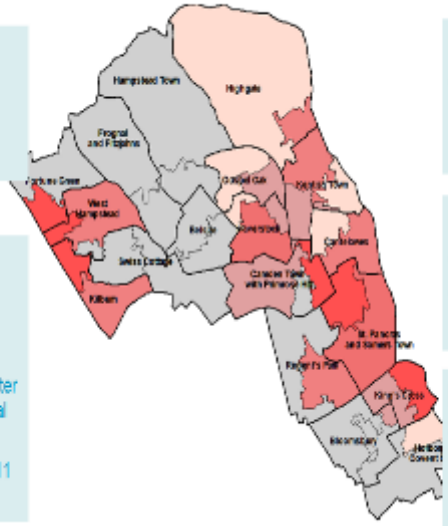
What are the Key Determinants of Health in Camden

Income	Housing	Education	Life Expectancy	Socioeconomic
Median Household Income in Camden is high at £32,625 (LDN £31552) (UK £27580)	13% of the population in Camden have a second address elsewhere in the UK or abroad, the fourth highest incidence of the London Boroughs	Highest Proportion of young people who are confirmed as being in employment, education or training (EET) Camden has the highest proportion of EET in London at 59.5% vs 41.1%. 50.5% Of Camden adult residents have degree level education	Life expectancy for men and women has improved at a faster rate over the past 10 years compared to London and England.	38.3% of population are in the highest socioeconomic class
Camden is the 6th most unequal borough, with a quarter of households with an annual income of £20,000 or less, and another quarter have an annual income of > £50000	In August 2012, 28116 received housing benefits, 29% of all households compared to 26% in London, and 31% for Inner London. Camden has one of the highest social rented households in London.	Groups that underachieve in the Camden School System: • Children Eligible for free school meals – esp. white British children • Black African children esp. Congolese and Somali • Children with special educational needs • Looked after children • 12.7% of Adults have no qualifications at all	In 2006-10 there was a 1.6 year gap in life expectancy between male residents living in the 10% most and least deprived areas (3rd highest in London) the female gap 6.2 years (6th Highest in London)	Highest benefit claimant counts are in the most socioeconomically challenged areas.

Joint Strategic Needs Assessment:

Health Inequalities
- Life expectancy gap 11.6 years in men (Cardiovascular Disease\Cancer)

Young People
- 50% black or minority ethnic, and many vulnerable children
- High levels of looked after and children with special educational needs
- 20% children aged 10-11 obese



Population
- 250,000 due to ↑ 5% in next decade

Elderly Population
- By 2017 over 85s ↑ 35%
- By 2021 ↑ 25% in dementia

Mental Illness
- 2nd ↑ prevalence of severe mental illness in England
- Alcohol misuse

Camden Census 2011

Looking at issues through a Health Lens

Right Care

Three areas of financial opportunity for Camden were identified in the latest Commissioning for value packs (Oct 2016)

- Mental Health
- Cancer
- Gastroenterology

Long Term Conditions and Mental Health packs show the CCG areas for improvement:

- Cancer screening (treatment outcomes perform in line with peers).
- High rates of gastroscopy and colonoscopy.
- IAPT waits and recovery rates
- High volumes of hospital admissions and bed days for mental health
- End of life of care
- Social factors

IAF

Camden CCG has the following areas within the **Improvement and Assessment Framework** where improvement is required.

Clinical Priority Areas that require improvement:

Cancer	Cancers diagnosed at early stage 62 day treatment
Learning disabilities	Reliance on specialist inpatient care for people with a learning disability and/or autism
Maternity	Women's experience of maternity services
Mental Health	IAPT recovery rate

Areas from the **four domains** that require improvement:

- Cancer diagnosis at early stage
- IAPT recovery rate
- Children and young people mental health services for transition
- Crisis Care Mental Health Liaison
- Women's experience of maternity services
- Digital interaction between primary and secondary care

Insights

Second highest spend per weighted population in London, reflecting reliance on acute care.

Mental Health spend amongst highest in London, but variable outcomes.

In next 10 years Camden will see growth in LTCs, including dementia and mental health. (JSNA)

Sub-populations utilise services disproportionately to their share of the population.

Deprivation increases the likelihood of someone falling within the high utilisation segment.

Co-morbidities can influence likelihood of falling in high utilisation segment e.g. mental health, dementia.

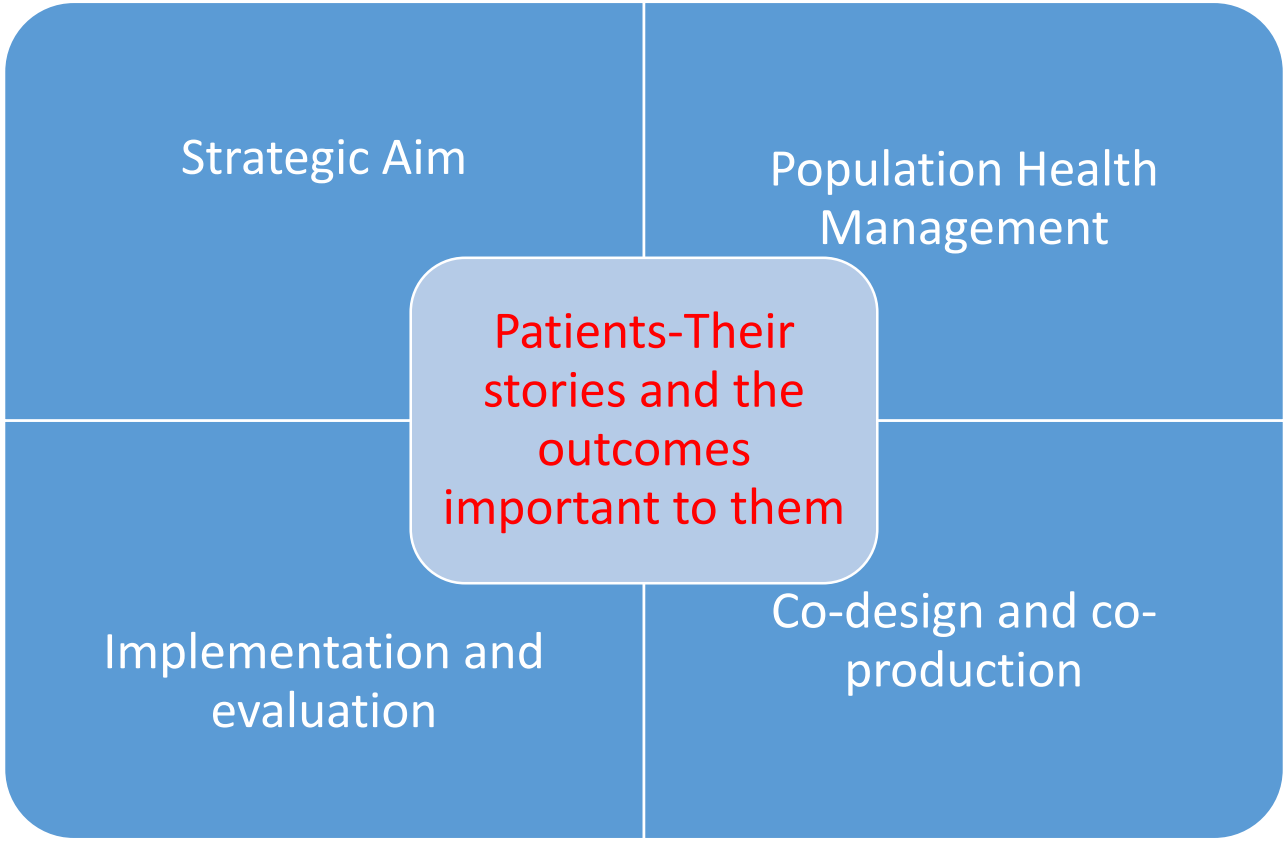
People can move both ways between the segments to better health or more complex needs.

Multiple approaches are required to meet the needs of different sub populations e.g. ACS conditions

High volume activity but low complexity versus the high cost complex but low volume

Why Population Health Management?

- **A population health management** approach starts from the perspective of understanding people, their lives and the impact of the disease processes on them, rather than treating episodes of illness and then designing and delivering pathways of care that support them
- Planning at an individual level is not practical but by **grouping patients with similar health needs** and to find ways to respond more effectively and efficiently to those needs can help deliver measurable improvements in patient outcomes and reduce costs to the system



Principles of Population Health Management

- **Identify and engage service users**

Need to understand patient behaviour and health needs.

- **Navigate service users through the system**

Provide patients with timely access to care, comprehensive services (no gaps) and coordination within the system.

- **Help service users achieve their goals**

Individuals can often describe why they struggle with improving their health. This approach engages individuals in managing their health more effectively.

- **Provide transparent measures of cost and quality**

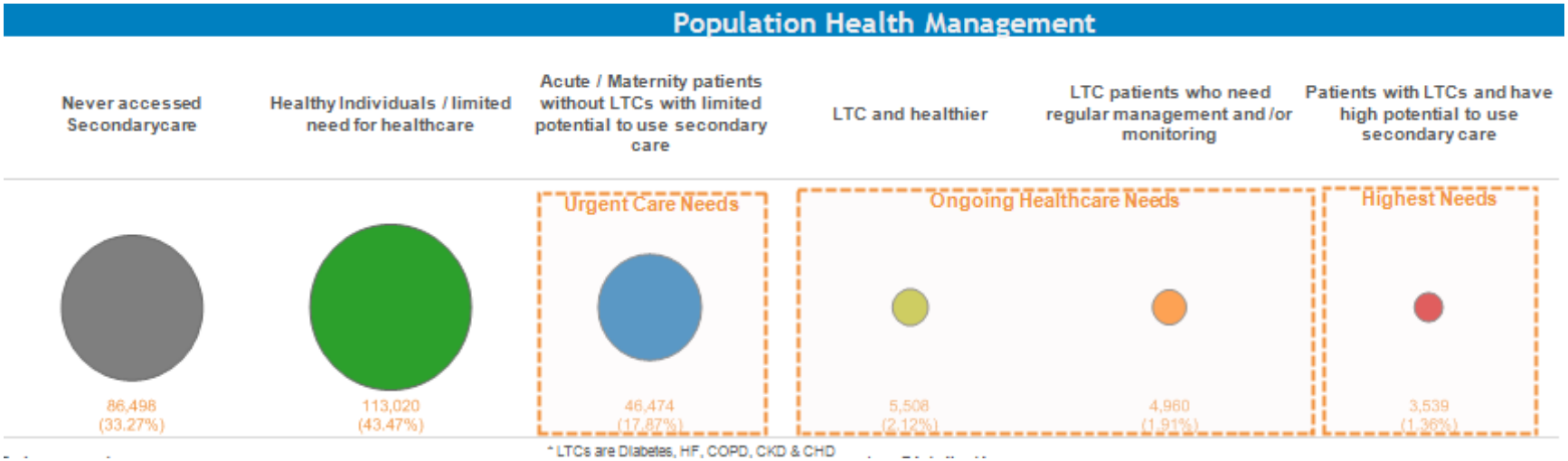
Systems need information such as utilisation across services and total cost of care at both the aggregate population, segmentation and individual level.

- **Nurture sustainable care delivery models**

New care delivery models need to contain or reduce costs throughout the entire system, not shift costs from one setting to another.

The Approach

- To use Population Health for system wide planning and outcome evaluation
- To segment populations and stratify risk
- To deliver personalised health and care to individuals
- Provides continuous health and well being



Visualisation of an inner London borough's population

- Population health is not just a dashboard
- Data needs to be put to use

Cost of Emergency Admissions for ACS Services According to Complexity of Segment

Main Segment	Population in this segment	Total Cost of Emergency ACS conditions	Admissions per patient	Cost ACS admissions per person in the segment
LTC patients who need regular management and / or monitoring	4,609	£2,036,278	1.2	£442
Patients without LTC with limited potential to use secondary care	50,903	£35,862,151	1.8	£705
LTC patients with high potential to use secondary care – most complex	3,001	£17,395,263	2.7	£5,796

Patients that were admitted for ACS fall into 3 of the segments within the population health management tool;

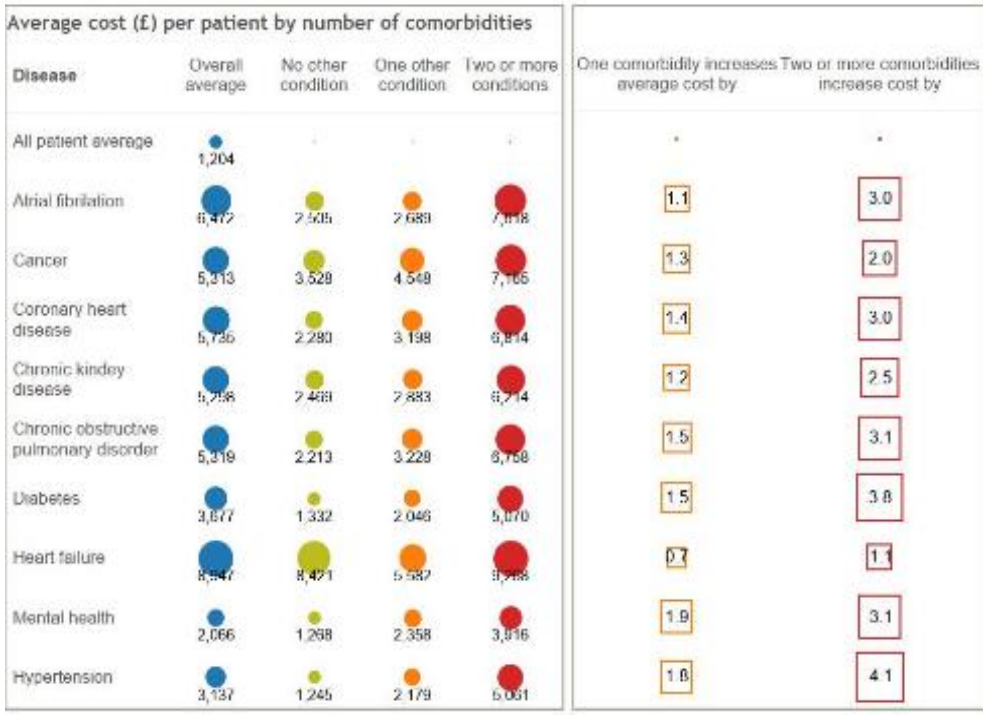
- LTC patients who need regular management and / or monitoring
- Patients without LTC with limited potential to use secondary care
- LTC patients with high potential to use secondary care – most complex

Costs vary from £442 per admission to £5,796 for the most complex patients.

Of the most complex patients :

- 74% had at least one admissions for an ACS condition
- 44% had two or more admissions

Impact of Co-existing disease on service utilization



The ability to understand and quantify the impact of different disease combinations on service utilisation enablers planners to target resources effectively. E.g. patients with Atrial Fibrillation having two or more comorbidities was found to increase the cost of care threefold.

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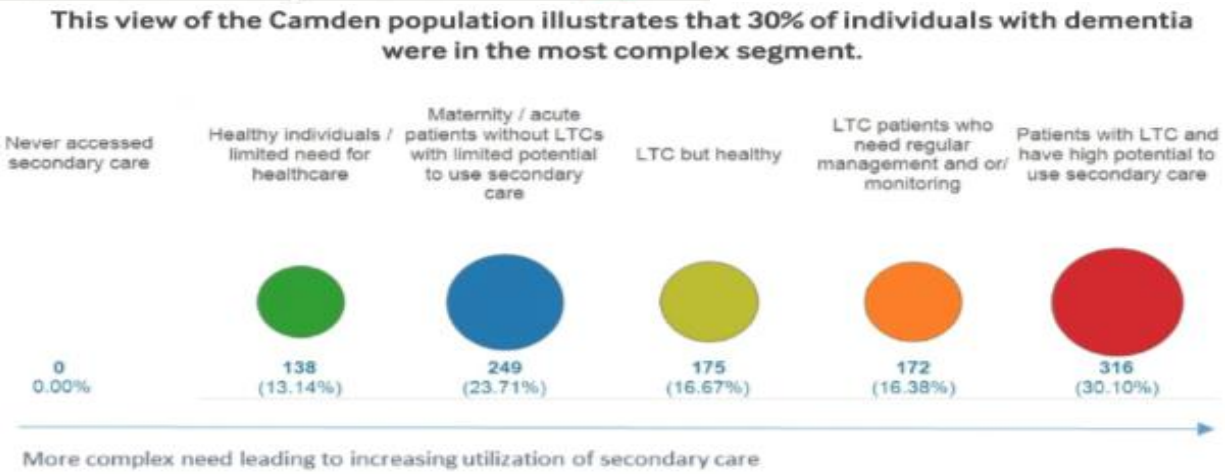
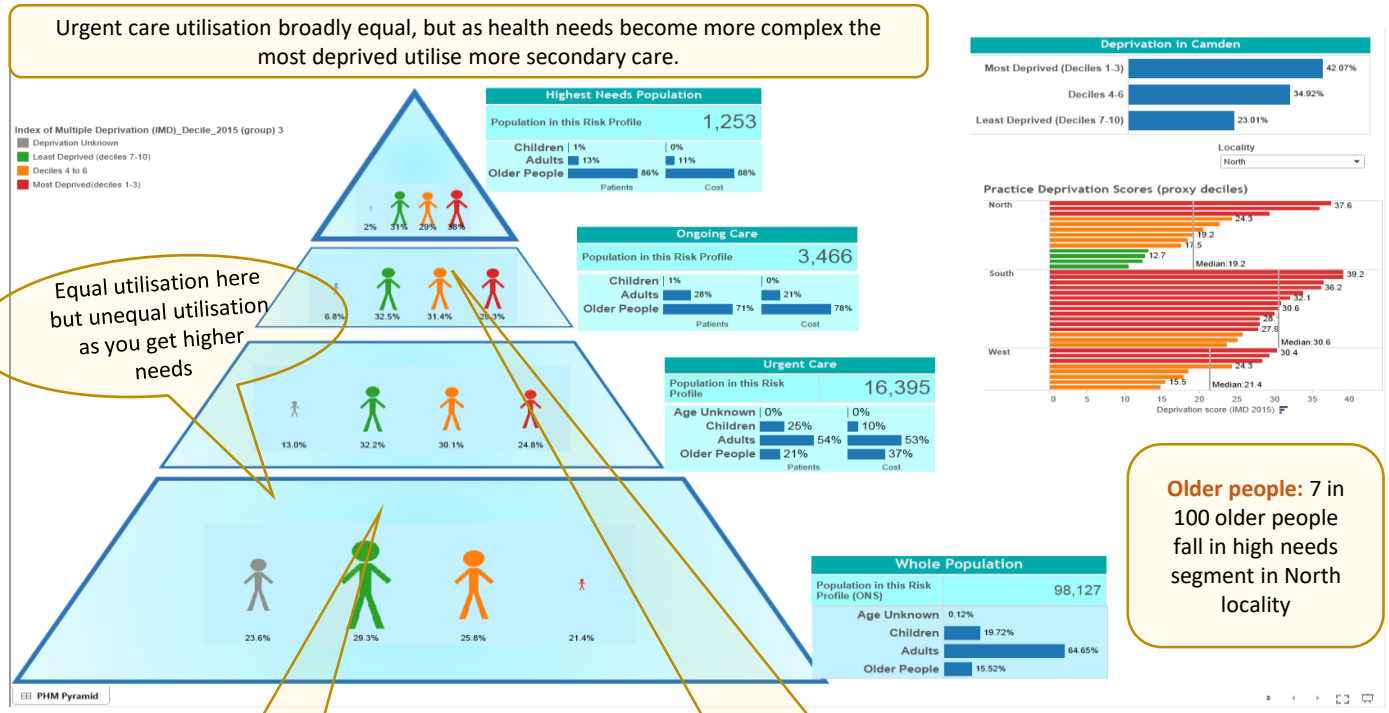
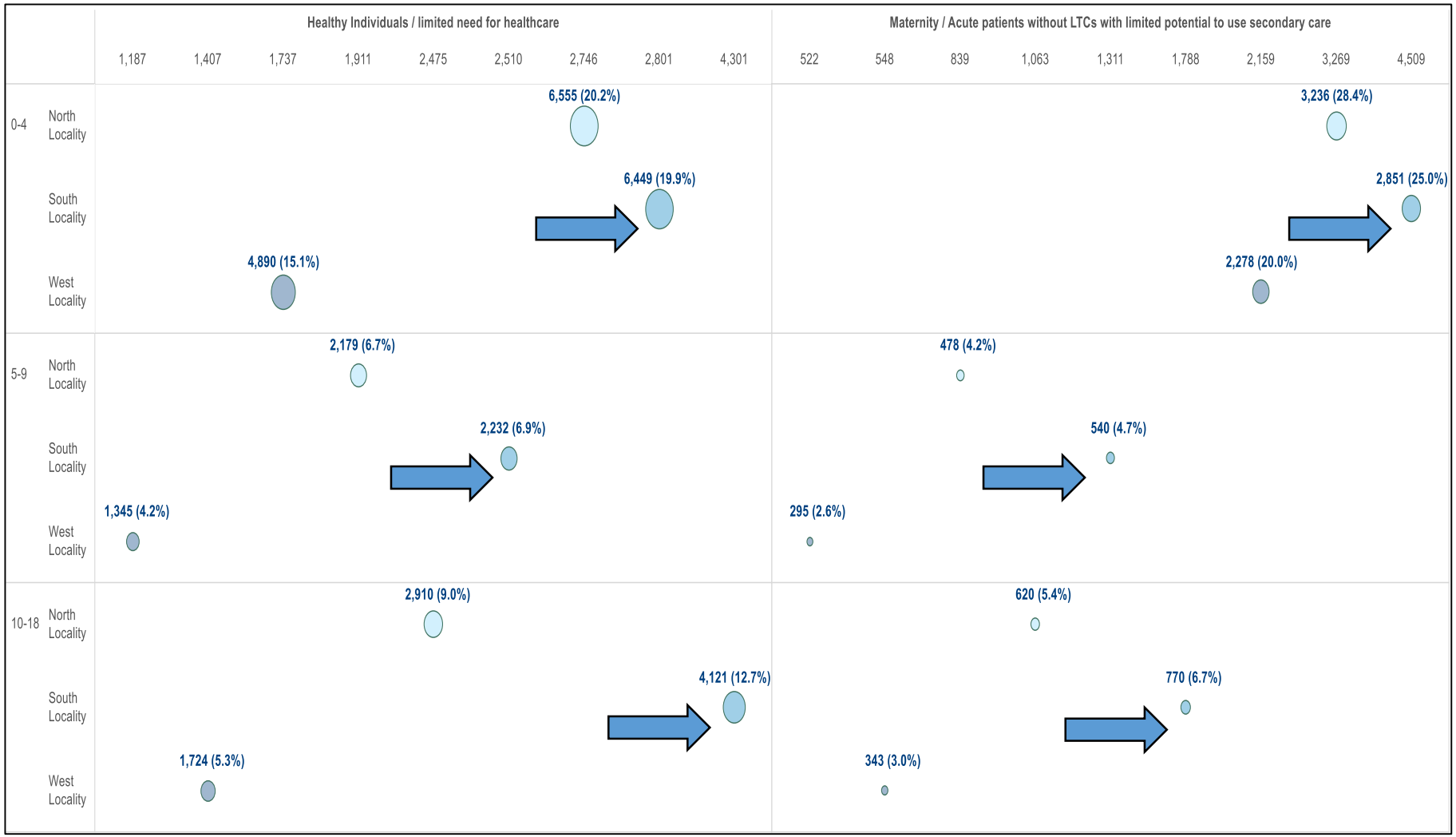


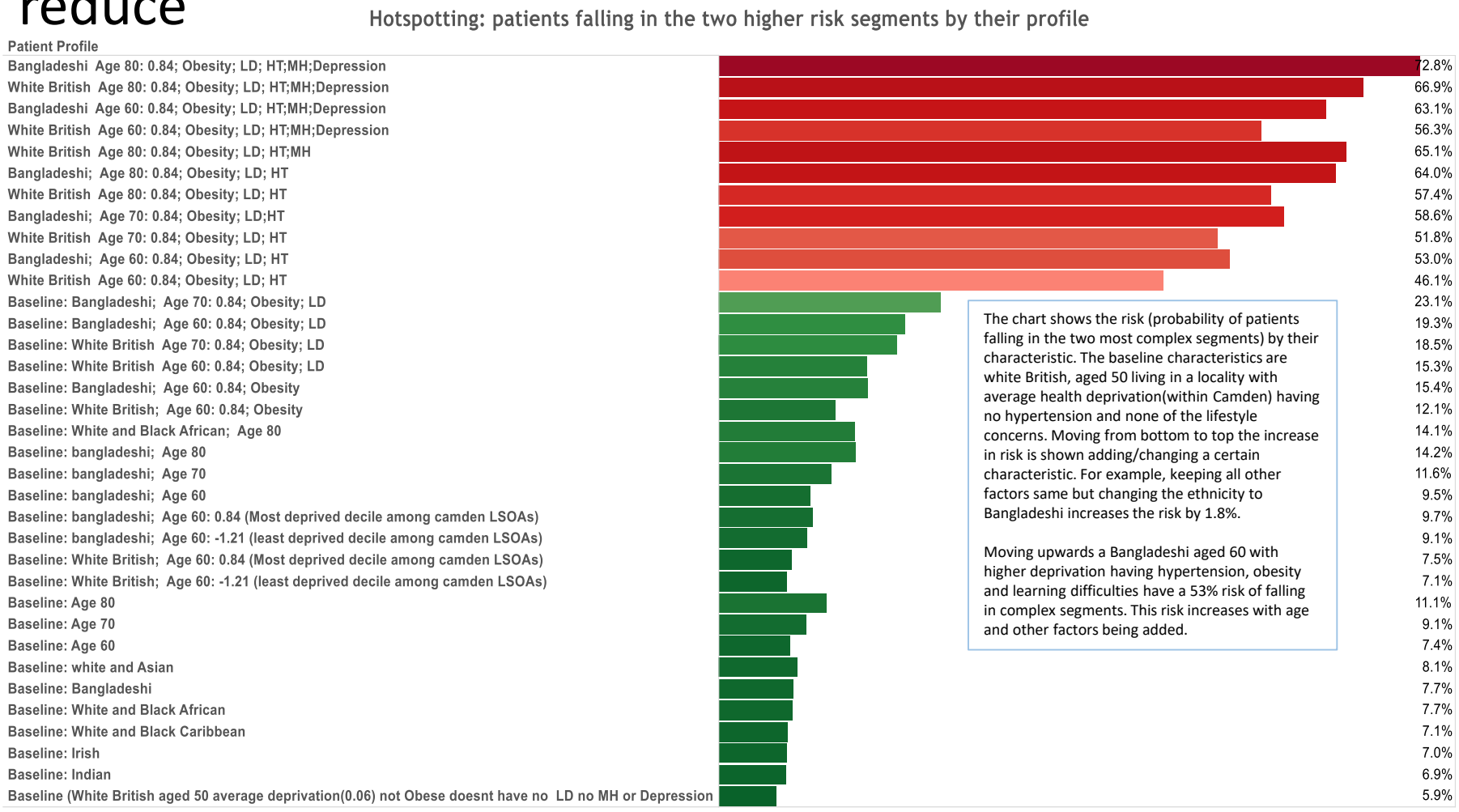
Impact of deprivation on health outcomes suggests we need to address wider determinants of health



Children: Age/Locality/Emergency Activity – Impact of wider determinants of health are manifested in over utilisation of secondary care from the most deprived locality



A data-driven process for timely identification of extreme patterns in a defined region of the healthcare system. Used to guide targeted intervention and follow-up to better address patient needs, improve care quality, and reduce



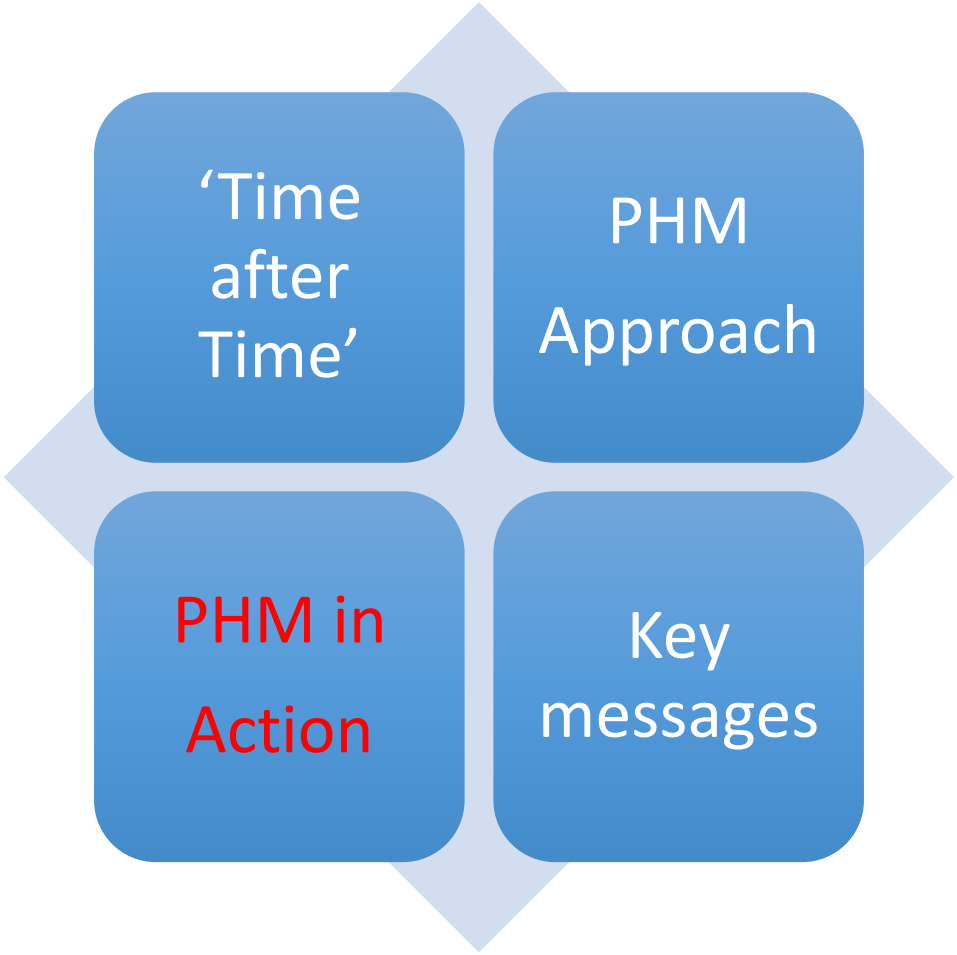
What can we learn?

Improving outcomes varies between different segments

- People who have **never utilised** services-Primary prevention to stay well
- People **generally fit and well**-Access to high quality effective and efficient services to return them quickly to normal function
- People with **long term conditions** - Early identification, community-based help and support to stay well and prevent complications
- People with **complex co-morbidities** (children, mental health or the frail elderly) - Tailored individual care packages + MDT working to maintain quality of life

The benefits of working with each segment to understand the outcomes important to them

- It **drives integration** as most patient-defined outcomes cannot be achieved without services working together
- It is **meaningful** to patients and care providers and forms a powerful incentive to those delivering care
- It makes service users **partners and advocates** of new models of care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Achieving Value-PHM in Action

Four areas identified - Outcomes poor with High Costs

- Long term conditions
- Mental health
- Frail Elderly
- Children

Within each group a targeted set of outcomes were agreed with involvement of patients and carers

New models and ways of working were developed in partnership with providers

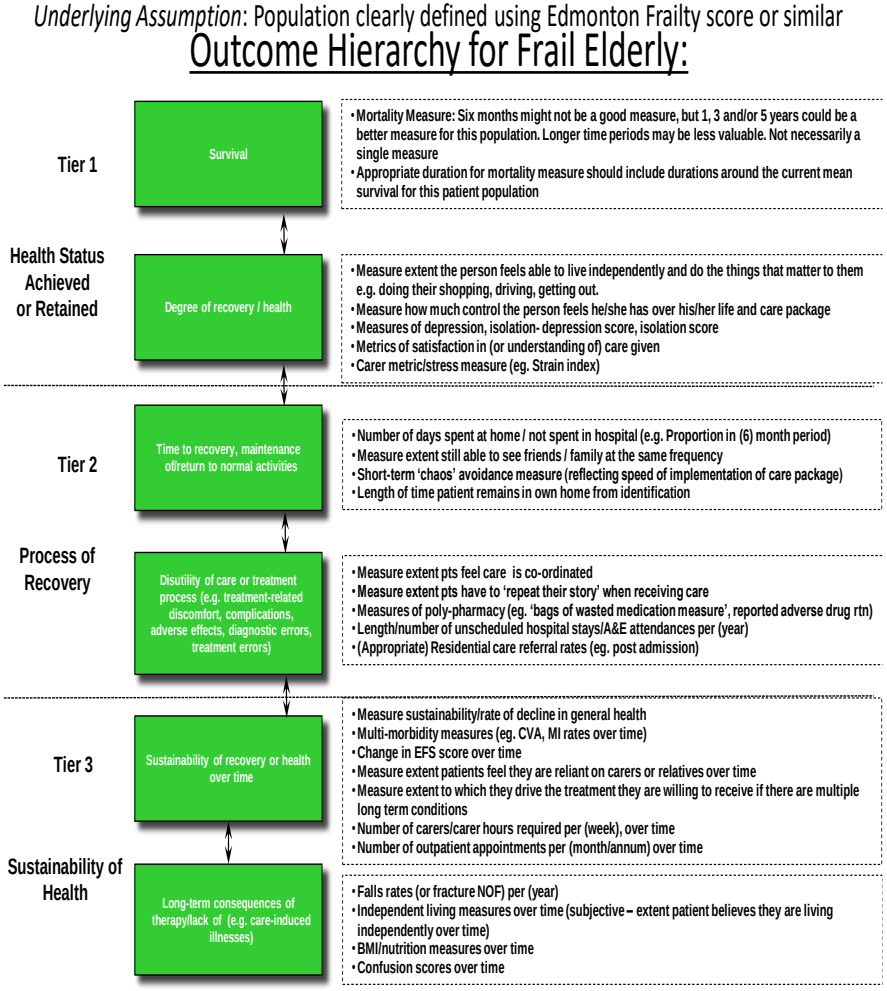
Common Themes-Achieving value

Citizens Panel	• >1000 people-identify need, define outcomes, design and support implementation and evaluation of services
Integrating Care	• Working across organisational boundaries (Gps supported by specialists in managing range LTC) • Health, LA, voluntary sector working together around childrens Transition services Mind the Gap
Increasing investment in community-based services	• Rapid response community nurses reduced hospital admissions • Working with LA/schools re prevention and integration of care for children with disability
Strengthening Primary Care	• Clear agreed pathways accessible on GP website • Training and education, peer review
Adopting a Care Planning Approach	• MDTs of providers across health and social care and wider (eg schools, housing)
Information Shared	• Integrated digital record (CIDR) • Population Health Management Tool-planning for delivery and evaluation

Population Health Management in Practice-Frail Elderly

- To deliver **high-value** care elderly patients and their caregivers were asked, "What is most important to you?"
- They defined "**time spent at home**," and care was designed to achieve that patient-defined goal in.
- That outcome — spending time at home, instead of in the hospital — became the **system measure of success.**
- Focusing on a single, clearly understood goal — defined by patients and embraced by all involved in their care — created powerful **clarity of purpose** across a complex range of providers and organizations.
- The experience shows the potential for a **patient-defined outcome** to drive the collaboration needed to integrate care.

Underlying Assumption: Population clearly defined using Edmonton Frailty score or similar



Population Health Management in Practice-Frail Elderly

Benefit to the patient:
Increased time spent at home

72% of patients spent the same amount or more time at home following MDT case management.

Improved Outcomes:
-Patient
-CCG
-Provider
-System

Benefit to the CCG:
Secondary care savings

An estimated **£560k** has been realised in secondary care savings since the MDT began.

Emergency admissions average monthly saving 2014 is **£25,770**

A&E average monthly saving 2014 is **£1140**

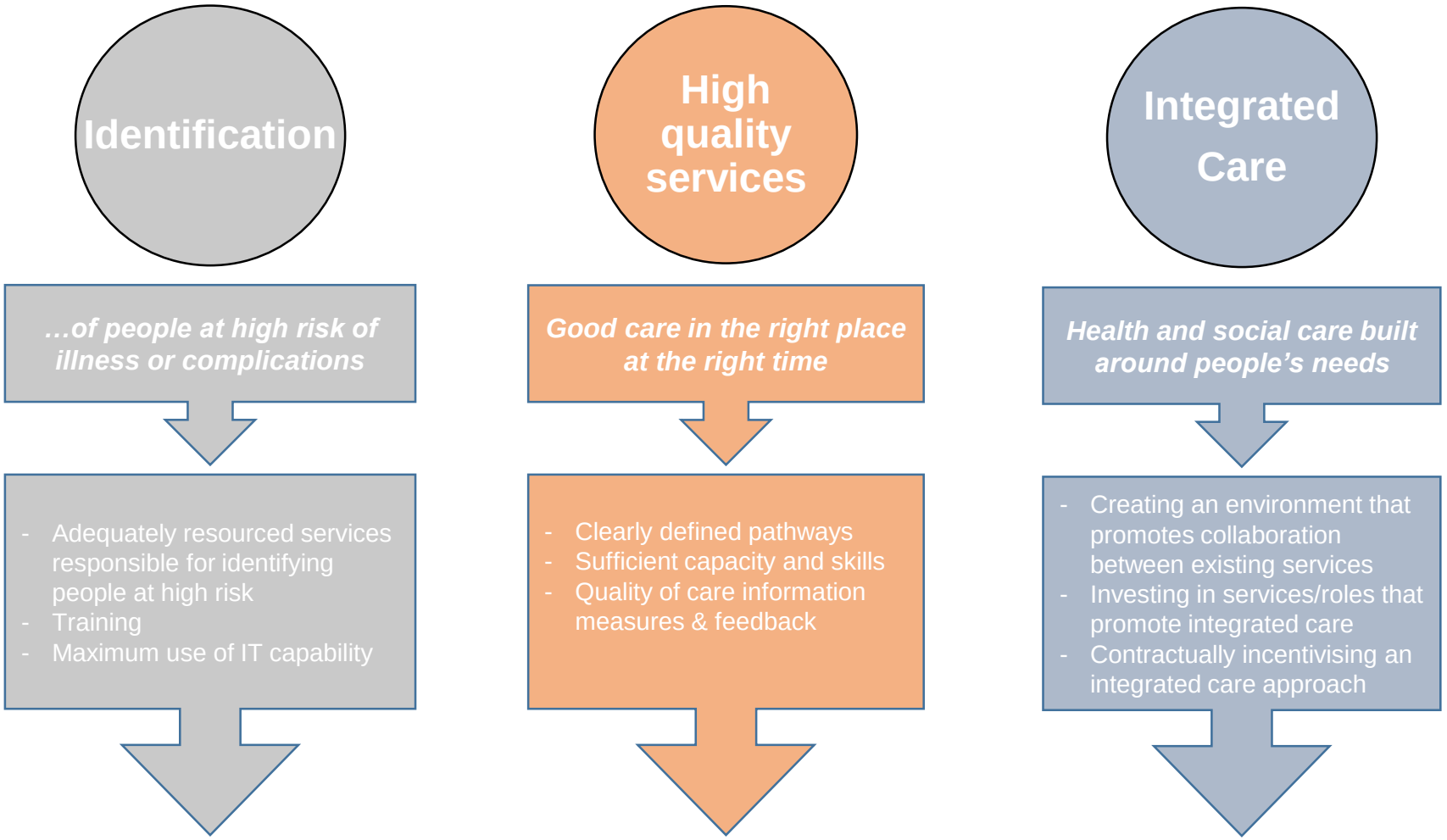
Value and the MDT

Benefit to the Provider:
Fewer emergency beddays

An **18%** reduction in emergency beddays for these patients. This extra capacity can be used to treat elective patients who actually need to be in hospital.

Sayer-NEJM Catalyst 2016

Key Strands to Deliver Improved Outcomes



Improved Outcomes

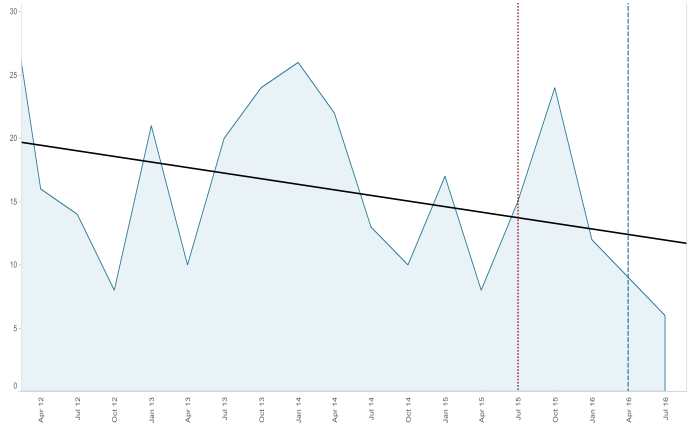
Prevention where possible - Early diagnosis - Consistent quality - Patient consultation - Review and reconfigure if necessary

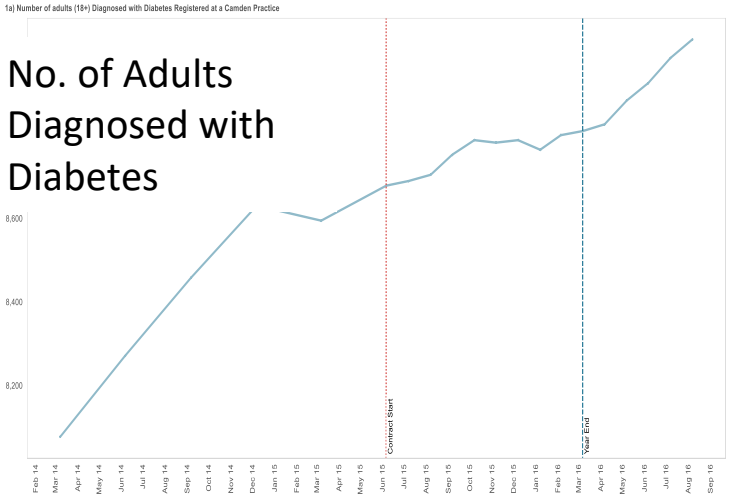
Population Health Management in Practice-Diabetes (LTC)

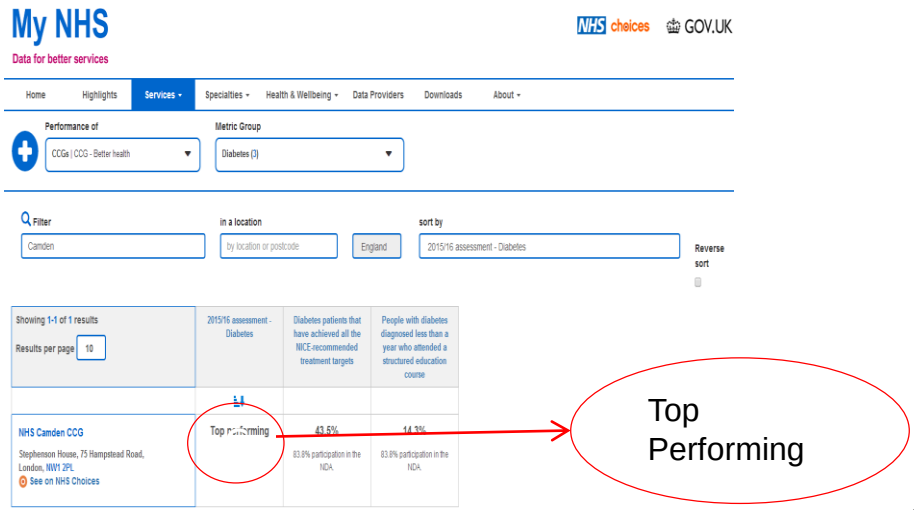
The response to the local population health challenge in Diabetes was implementation of the Diabetes Integrated Practice Unit (IPU).

Monitoring measures the impact of agreed clinical outcomes. Data developed by clinicians shows for example prevalence increasing, reductions in amputations and the number of unplanned admissions decreasing and results in a nationally-rated outstanding outcomes

No. of unplanned admissions for Hypo/Hyperglycaemia







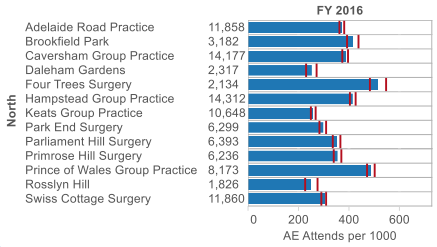
Supporting and developing Primary Care's Role in Population Health Management

Underpinning Primary Care Infrastructure | Extended Access | Improve Quality | Reduce Variability

Peer Review: GP Quality Dashboard

The dashboard presents clinical outcomes, referral rates, A&E attendances, QOF reporting and patient experience, and is presented at monthly locality meetings.

The element of peer review helps identify the variation between practices, and share the successes of good practice



Training & Education

10 Events held with a total of 728 attendees (Jan-Dec 2016)

Specialist Services

Team around the practice offers flexible approach to mental health interventions which has assessed **2042 patients** in General Practice over 2 years

Care Navigator Services supports patients to gain access to voluntary & community services, recording **1527 onward referrals** over two years

CCAS: Referral Management Hub

81% of Camden GPs agree that CCAS Provides a good service

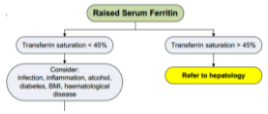
100% are called within 120 hours of Referrals being received

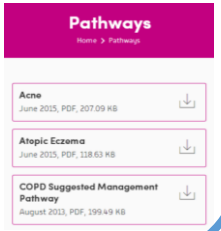
Current (63% of all 1st OP E-Referrals)	
1st OP Routine Referrals – Accepted and Rejected	31,000
Community Dermatology	2,000
PoLCE Applications Assessing	2,000
CICS Registering of Referrals	2,000

GP Website

Details of **34 clinical care pathways** are hosted on the GP website recording over 190K website hits (Jan-Dec '16)

- 92% strongly agree or agree that the site is an essential tool in their practice

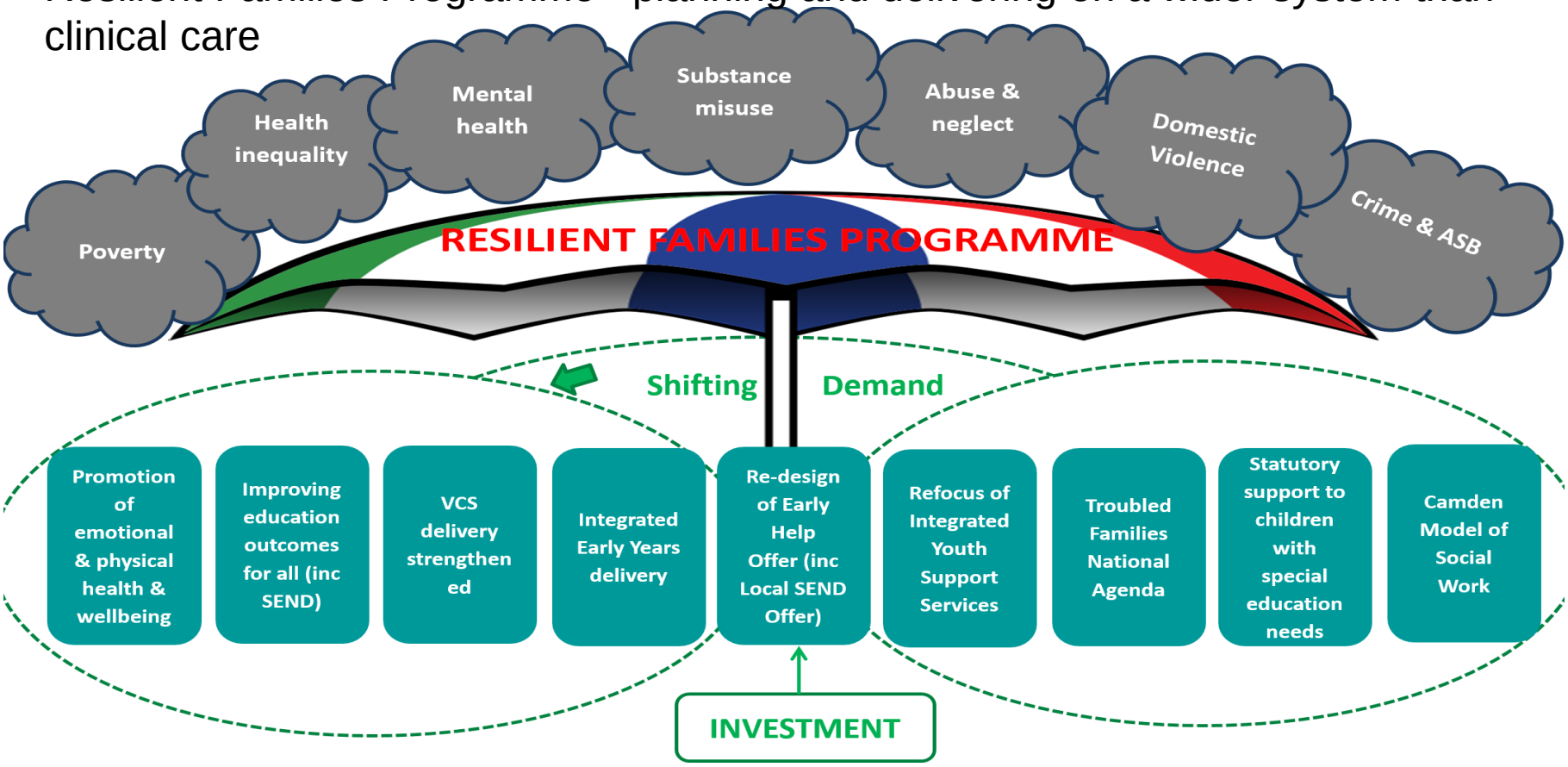




System Value –'Thrive' strategy for Childrens services

Breaking the pattern through long term investment in prevention and early intervention

Resilient Families Programme - planning and delivering on a wider system than clinical care



Aims:

- Improved outcomes for Children and Young People
- Building individual, family and community resilience
- Getting it right first time
- Better use of partnership resources

Outcomes:

1. Children and Young People safe and engaged
2. Thrive at school
3. Those with additional needs meet their full potential
4. Reduction in children living in poverty
5. Children and Young People protected from violence
6. Good physical and mental health

Examples of Impacts measured:

1. Reduce% young offenders receiving custodial sentences
2. Reduce % absences from school
3. Reduce repeat referrals to social care within 12 months
4. Reduce parental workless rates
5. Reduce Domestic Violence as presenting factor to MASH
6. Reduce % children overweight/obese

   Reduce mental health admissions

Example of Score-card

Reduce health inequalities & promote good physical and mental health

1. % of children overweight or obese
2. Hospital admission due to alcohol
3. Mental health hospital admissions

Indicator Description	Camden 2013-14	Camden 2014-15	Camden 2015-16	Camden 2016-17 Q1	Camden 2016-17 Q2	Camden 2016-17 Q3	Camden 2016-17 Q4	London	England
Hospital admissions for mental health conditions	228.3	391.6	226.5	Reported annually				94.2	87.4
Children aged 4-5 overweight or obese in Camden schools	22.2%	20.4%	20.1%	Reported annually				21.9%	22.1%
Children aged 10-11 overweight or obese in Camden schools	34.4%	34.3%	37.7%	Reported annually				38.1%	34.2%
Teenage pregnancy rates	18.1 (21012)	17.2 (2013)	16.8 (2014)	Reported annually				21.5	22.8
Hospital admissions due to alcohol specific conditions	35.5 (2012/13)	40.9 (2013/14)	37.7 (2014/15)	Reported annually				23.7	36.6

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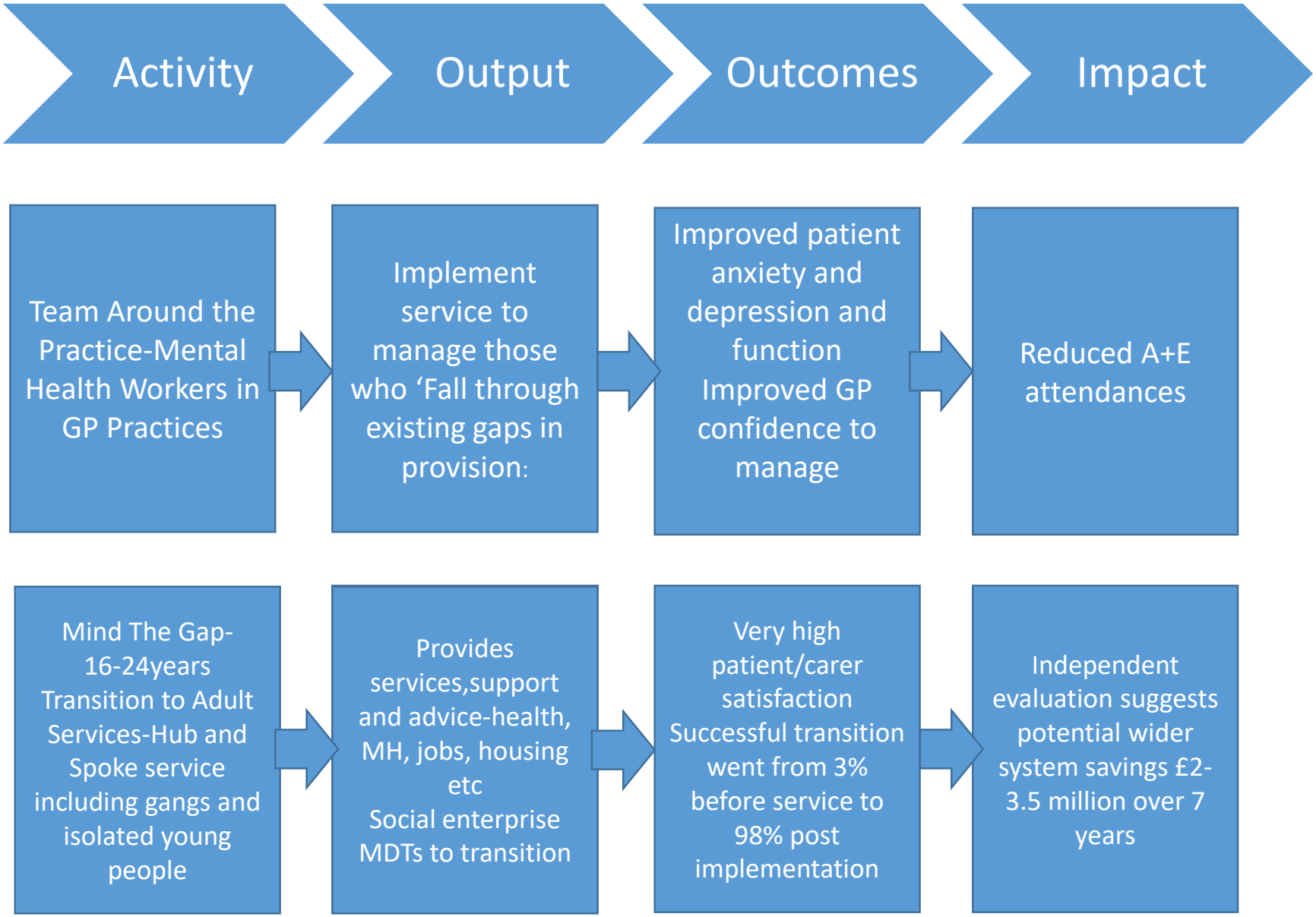
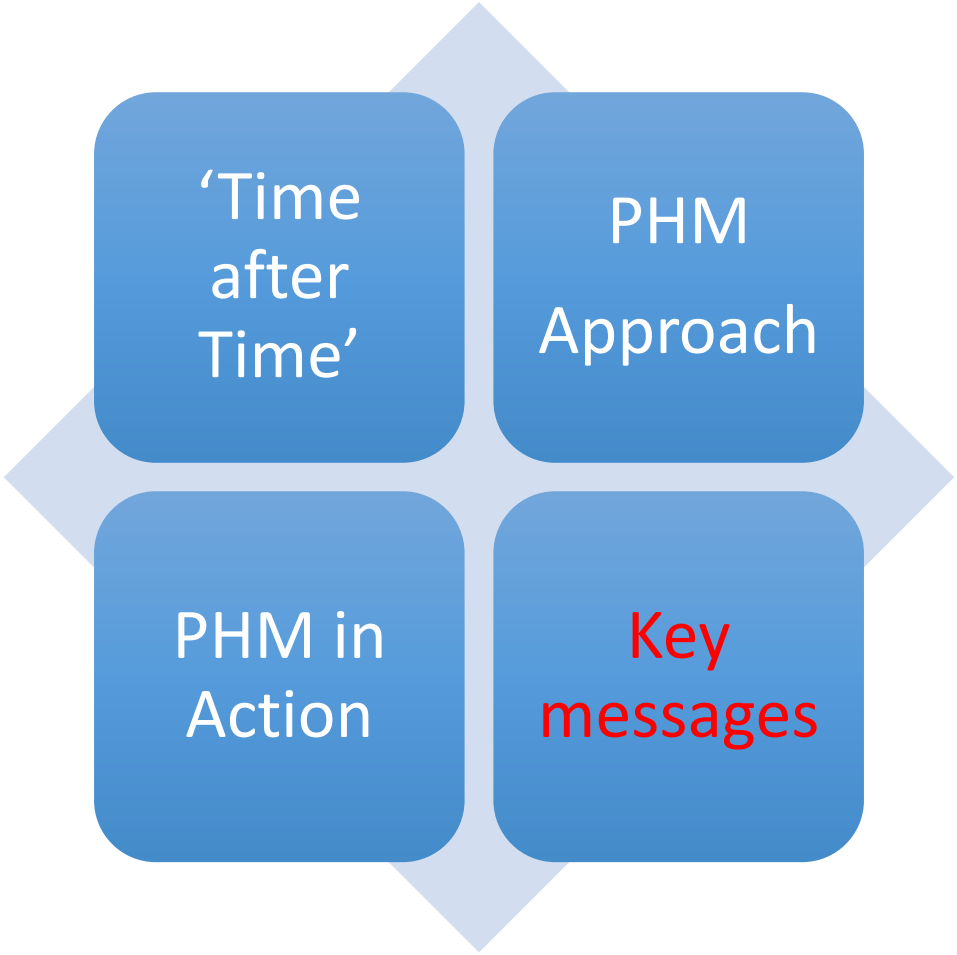
Examples of Value Chains for Mental health Initiatives

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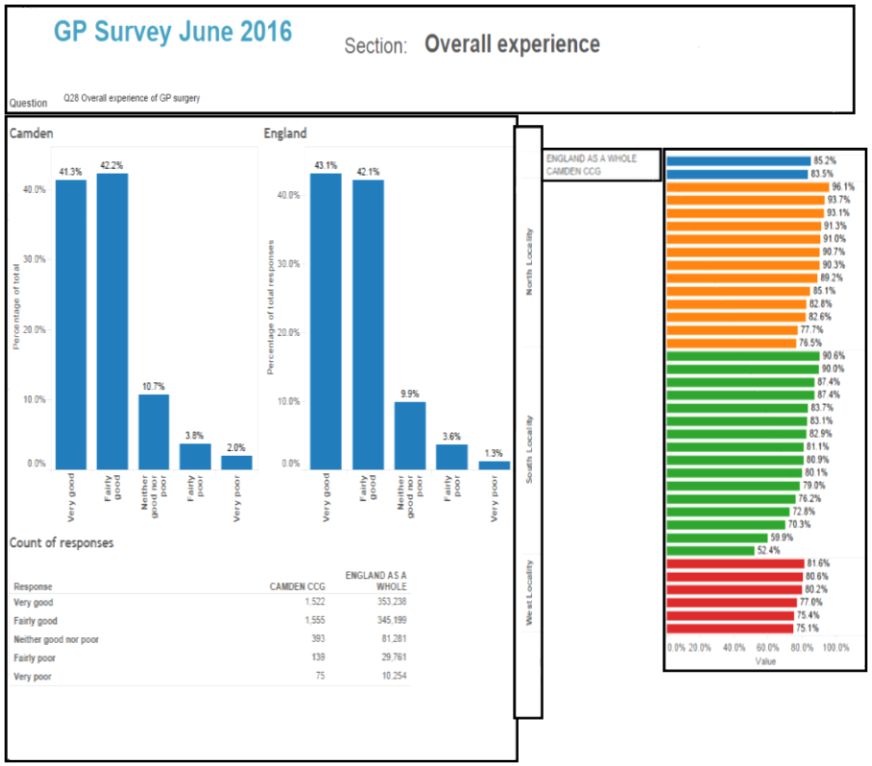
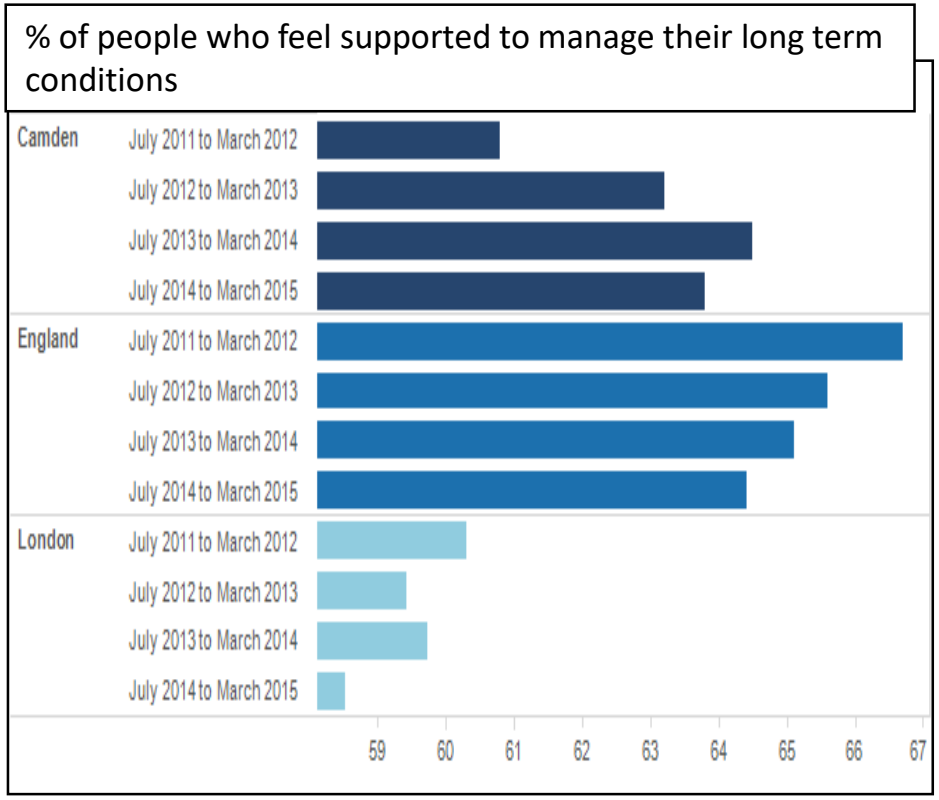
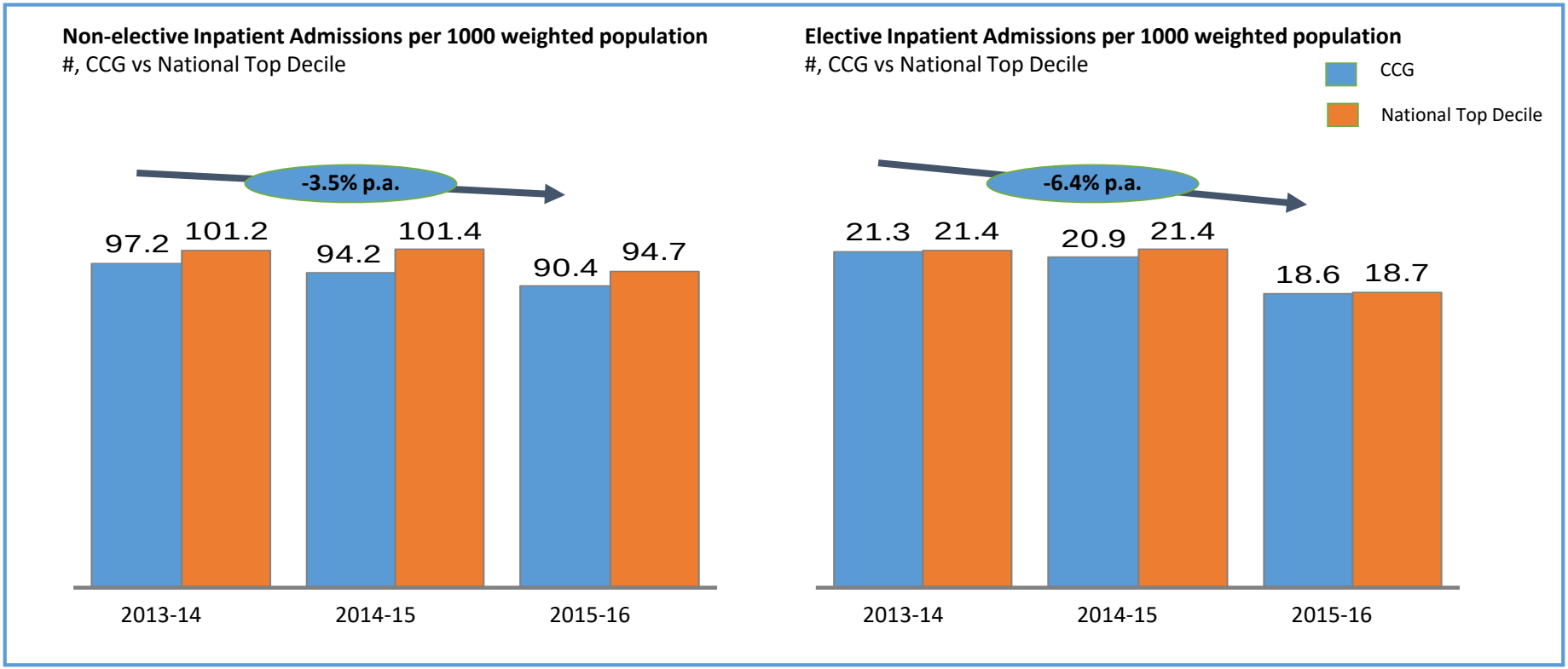
Impact of a Population Health Management Approach on Patient reported experience/outcomes





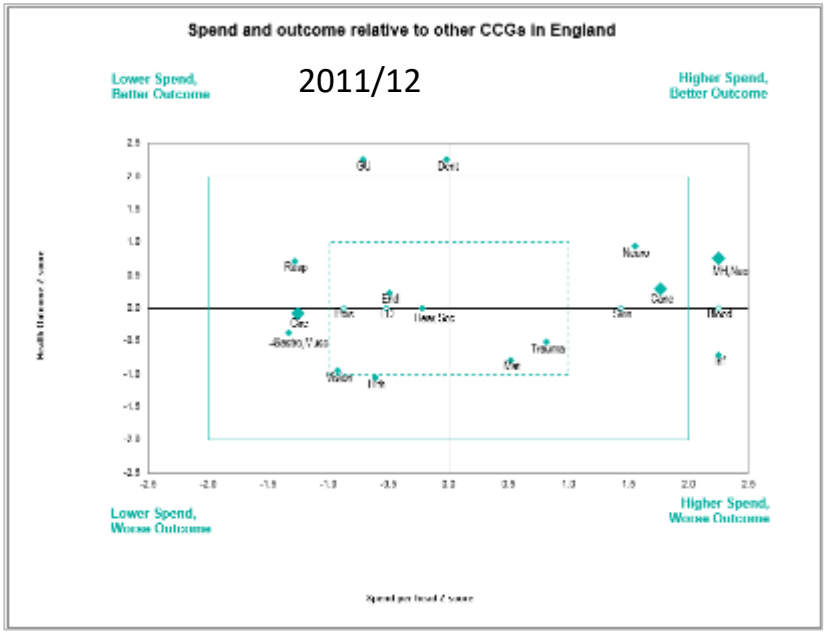
Impact of a Population Health Management Approach on Achieving Financial Sustainability

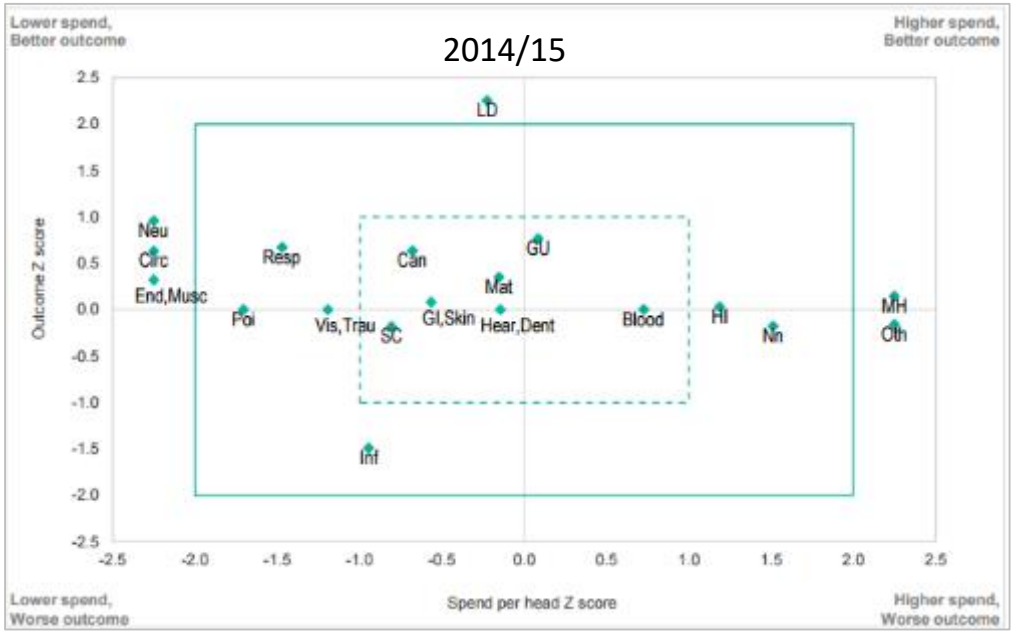
Movement to top performing CCG based on Elective and Non-elective admissions per 1000 weighted population



SOURCE: HES

Achievement of System Value through implementation of Population Health Management Approach





Source: NHS Right Care, CCG Spend and Outcome tool

Barriers and Benefits to Achieving Value through a Population Health management Approach

Barriers exist at multiple levels

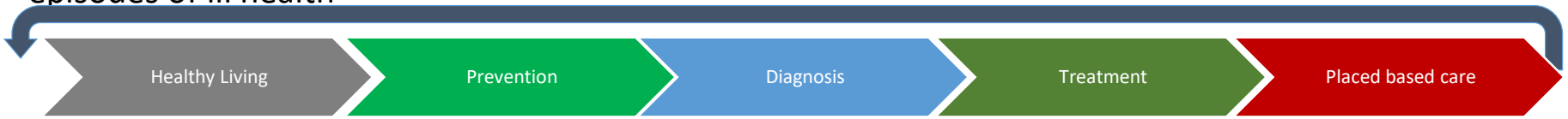
- Change management
- Contractual form
- Individuals/Organisations
- Data

Overcome through creating strong relationships with a shared vision towards place based care and away from individual organisations

Benefits

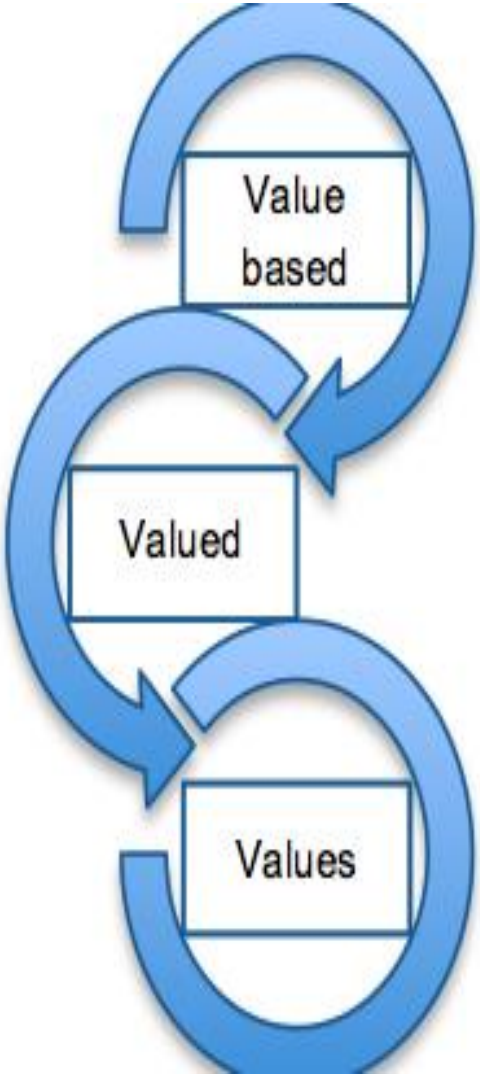
- Commissioners and providers gain better visibility into effective care delivery. They align incentives, harmonise performance metrics and prioritize resources to respond to the distinct health needs of different patient populations.
- System benefits from increased preventative care and early intervention
- Service Users receive better co-ordinated care and enjoy better health and wellbeing

Population Health is an enabler for Integrated Care Partnerships - it puts the accountability for the health of a person into the hands of an entity as opposed to asking individual providers to deal with episodes of ill health



Three connecting value based elements

- The value of the service in the sense of the outcomes achieved for the money spent.
- The importance of organisations and individuals working together in valued partnerships.
- The importance of shared values of culture and behaviour.



Future Considerations

How far should accountability **focus on outcomes**, such as population health and wellbeing, compared to activity, standards of care, and processes? Is its focus short term or long term?

How much of the accountability should be **set nationally** and how much left to local discretion?

How far should accountability be **organization-based** and how far should it be **place-based?**

How much focus should be on **accountability** to the hierarchies, and how much to patients and the local community?

Taking a **whole system value approach** it is not always easy to measure impact of specific changes especially understanding and measuring the contribution of partnership working and shared values **BUT** the combined impact of pursuing a value-based approach:

- Increases patient and professional satisfaction within new services
- Improved outcomes
- Modified demand for acute hospital care

Source: Health Foundation, 2016

And finally…….

"Before I sit down, may I just say this. We hear so much of what is wrong and we hardly ever hear of what is right. It is inevitable because only misfortune is news, and we hear all the time about this little defect and that little defect and that piece of maladministration, but you know better than I do that the National Health Service as a whole is responsible for the relief of an enormous amount of human suffering and very many young people are getting benefit from it. We are being watched by practically the whole of the world to see whether this National health Service is going to be a success. We know it is going to be a success"

Aneurin Bevan 5 May 1950