Healthier **Together**

Improving health and care in Bristol,
North Somerset and South Gloucestershire

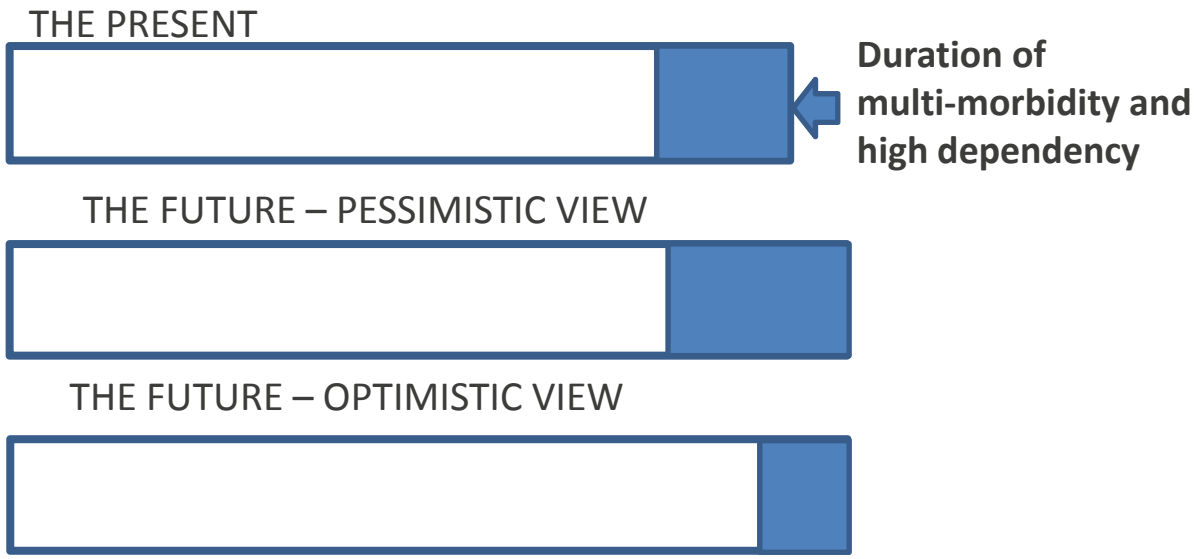
Health and Care of the Future: A visualisation not a vision

Professor Sir Muir Gray
Director of Better Value Healthcare

BNHC

The future is not a destination awaiting our arrival like Land's End

It is much more like the Great Western Railway: something we imagine, design, plan and build


THE PRESENT
Duration of multi-morbidity and high dependency
THE FUTURE – PESSIMISTIC VIEW
THE FUTURE – OPTIMISTIC VIEW

We have had 2 healthcare revolutions, with amazing impact

The First was the Public Health Revolution

The Second was the Technological Revolution supported by 50 years of increased investment and 20 years of evidence-based medicine, quality and safety improvement, e.g.

- Antibiotics
- MRI and CT
- Coronary artery bypass graft surgery
- Hip and knee replacement
- Chemotherapy
- Radiotherapy
- Randomised controlled trials
- Systematic reviews

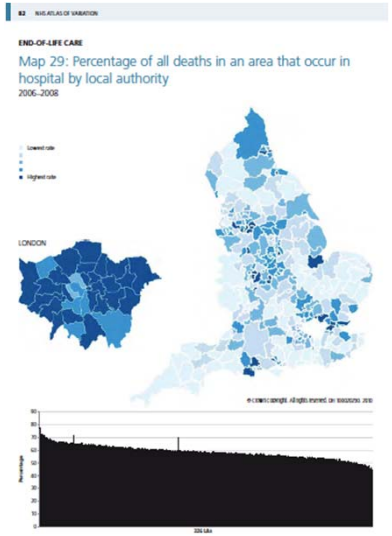
After 50 years of progress all societies still face three major problems.

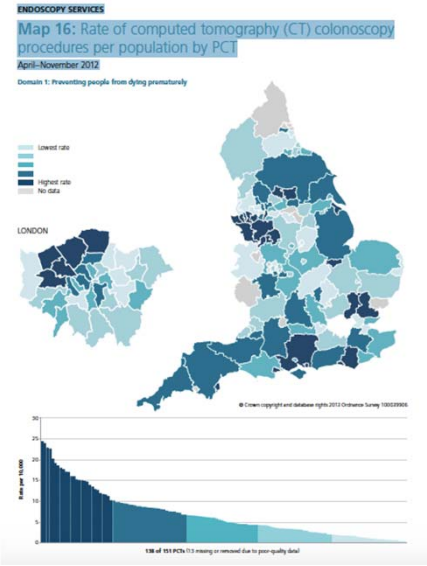
The first is unwarranted variation in healthcare, i.e.

“Variation in utilization of health care services that cannot be explained by variation in patient need or patient preferences.”

John Wennberg

Variation reveals the other two problems …

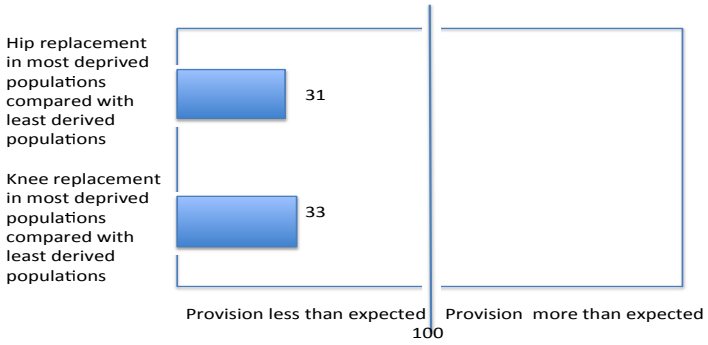




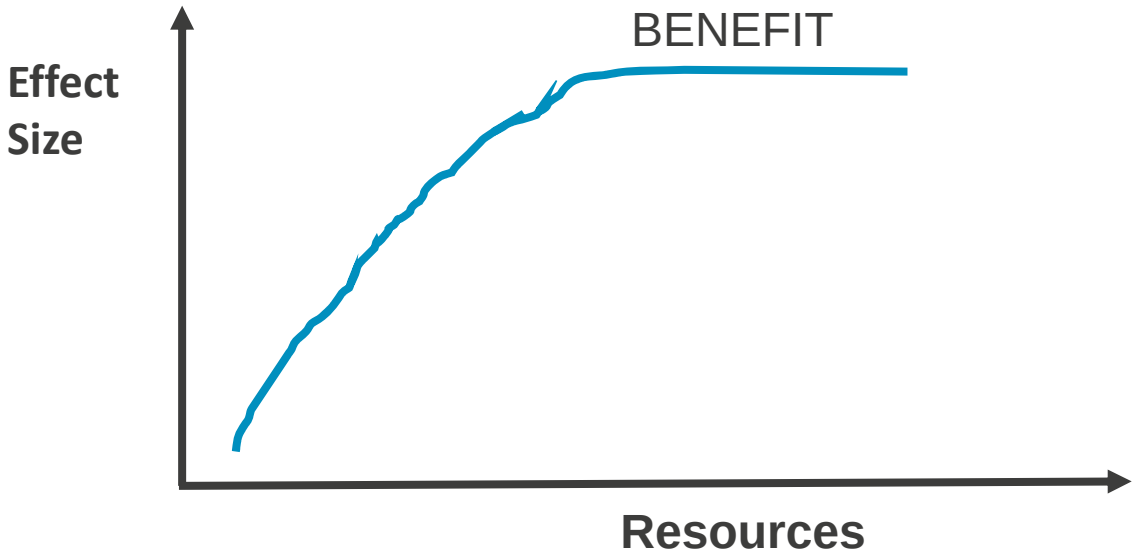
The first is Underuse of high-value interventions

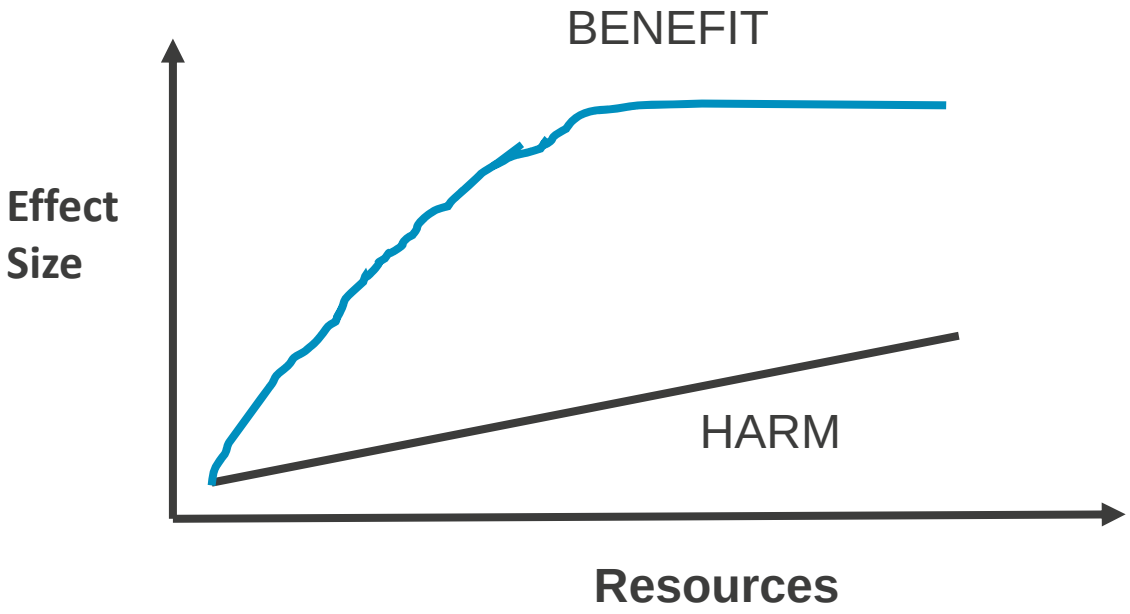
Underuse results in:

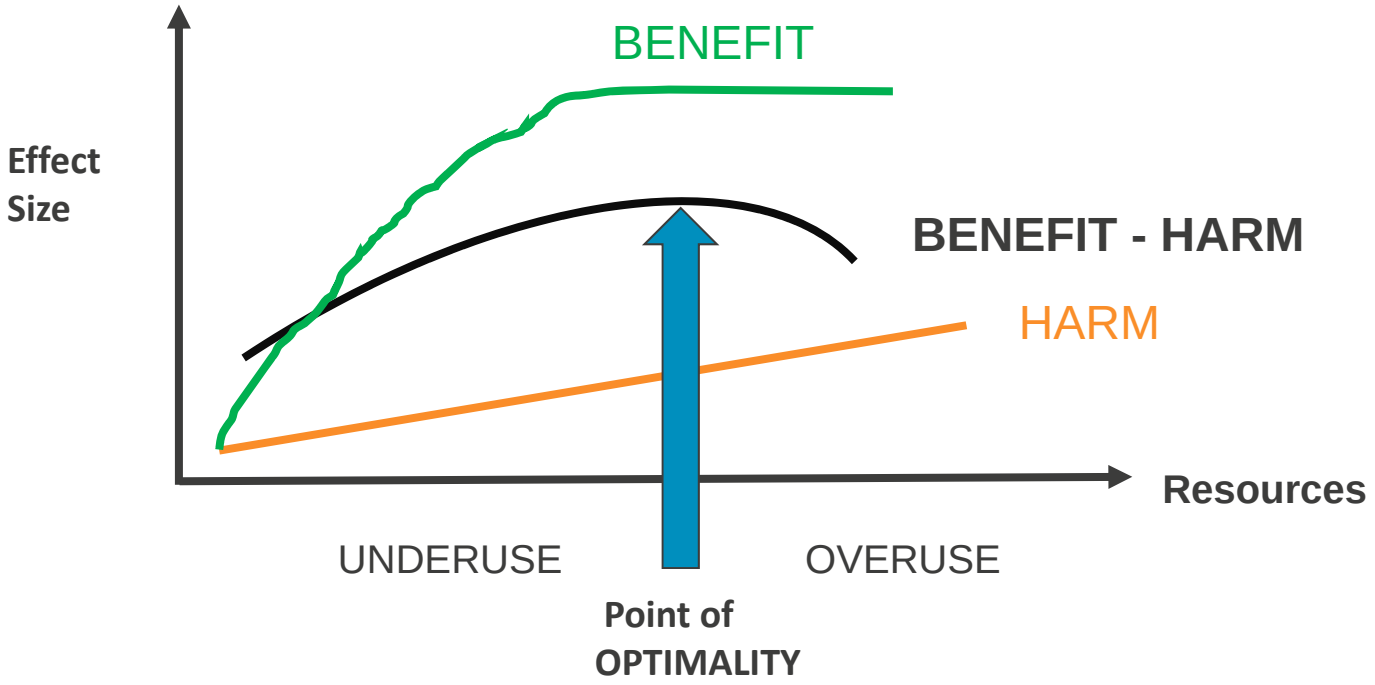
- Preventable disability and death: if we managed atrial fibrillation optimally, there would be 5,000 fewer strokes and a 10% reduction in vascular dementia
- Inequity



The second problem is overuse which:
1. always wastes resources
2. can cause harm




BENEFIT
Effect Size
HARM
Resources


BENEFIT
Effect Size
BENEFIT - HARM
HARM
Resources
UNDERUSE
OVERUSE
Point of OPTIMALITY

In the next decade need and demand will increase by at least 20 % …

What can we do?

We need to continue:

1. To prevent disease, disability, dementia and frailty to reduce need
2. To improve outcome by provide only cost-effective, evidence-based interventions
3. To improve outcome by increasing quality and safety of process
4. To increase productivity by reducing cost

These measures reduce need and improve efficiency BUT we also need to increase value.

NHS or nHS?

- Is the service for people with seizures and epilepsy in BNSSG of higher value than the service in Exeter?
- Is the service for people with inflammatory bowel disease in BNSSG in the top quartile in England in terms of outcome?
- Which network for people at the end of life in BNSSG provides the best value?
- Is the service for people with asthma in BNSSG of higher value than the service in Leicester?
- How many networks are there for people with frailty in BNSSG and which gives best value?

The aim is Triple Value

- Personal value

For the population, two types of value:

- Allocative value, determined by how well the assets are distributed to different subgroups in the population
- Technical value, determined by how well the resources allocated for investment for a particular subgroup of the population

Waste is anything that does not add value

As the Academy's report emphasises we need to develop a 'culture of stewardship' to ensure the NHS will be with us in 2028, 2038 and so on

Three new activities

1. Ensuring that every individual receives high personal value by providing people with full information about the risks and benefits of the intervention being offered
2. Shifting resource from budgets where there is evidence of overuse or lower value to budgets for populations in which there is evidence of underuse and inequity
3. Developing population-based systems

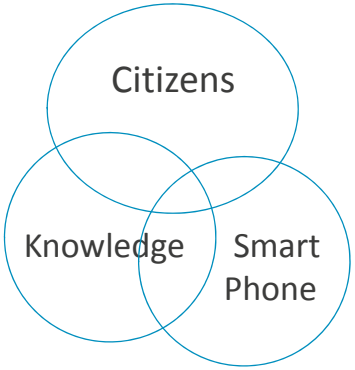
We are now in the Third Healthcare Revolution

The First

The Second

- Antibiotics
- MRI and CT
- Ultrasound
- Stents
- Hip and knee replacement
- Chemotherapy
- Radiotherapy
- RCTs
- Systematic reviews

The Third

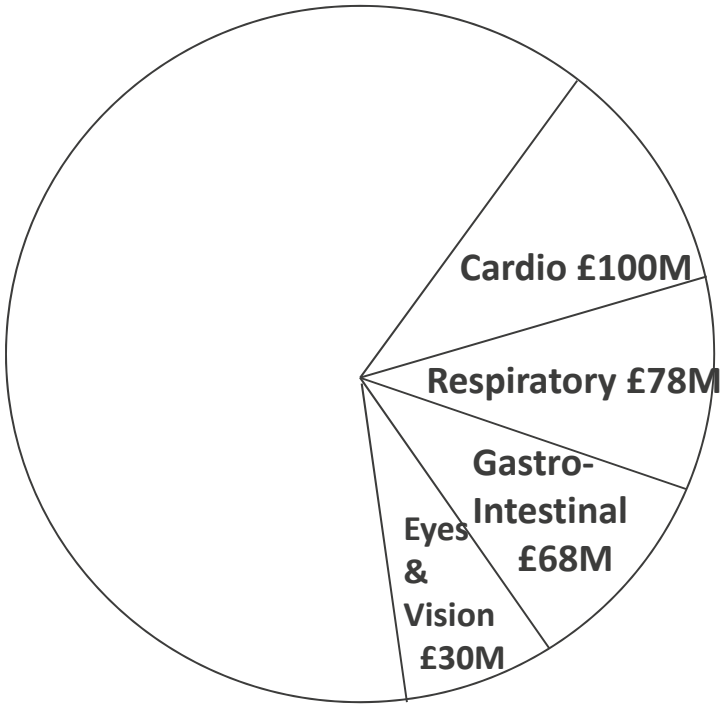


1. Ensuring that every individual receives high personal value by providing people with full information about the risks and benefits of the intervention being offered

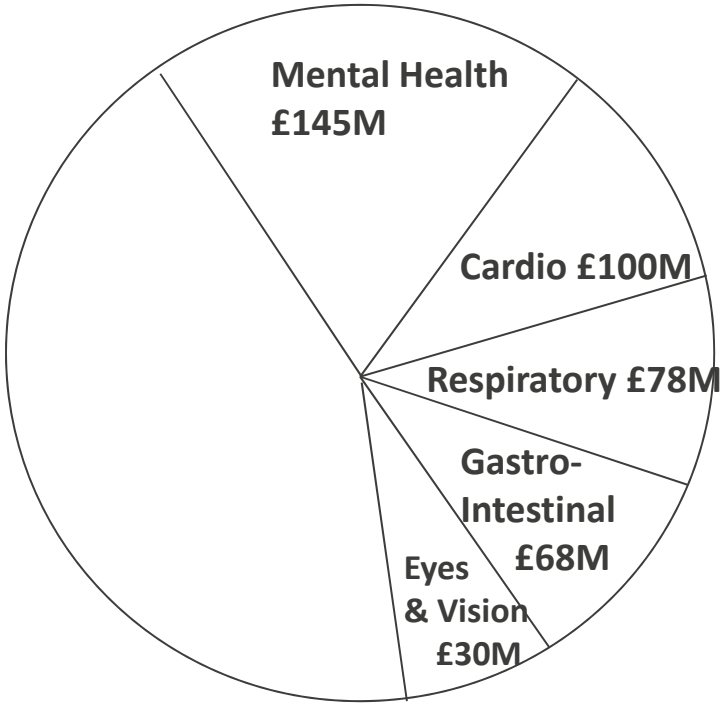
What is really bothering me most?	
What do I hope the health service can do about it?	

What is really bothering me most?	I am worried that I might have cancer because I seem more tired.
What do I hope the health service can do about it?	Exclude the possibility that my tiredness is the result of a cancer as definitely as possible.

2. Shifting resource from budgets where there is evidence from unwarranted variation of overuse or lower value to budgets for populations in which there is evidence of underuse and inequity



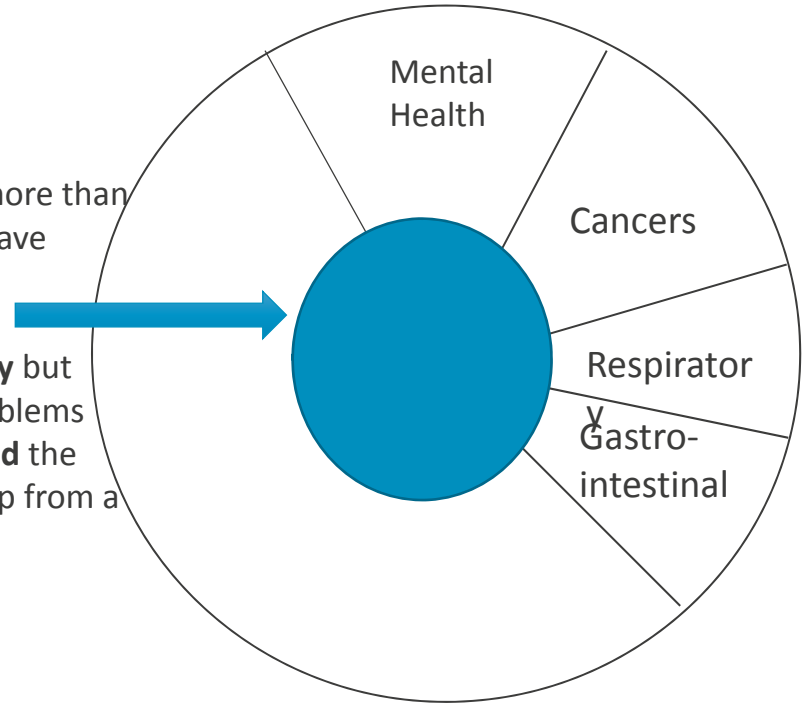
Annual spend per million

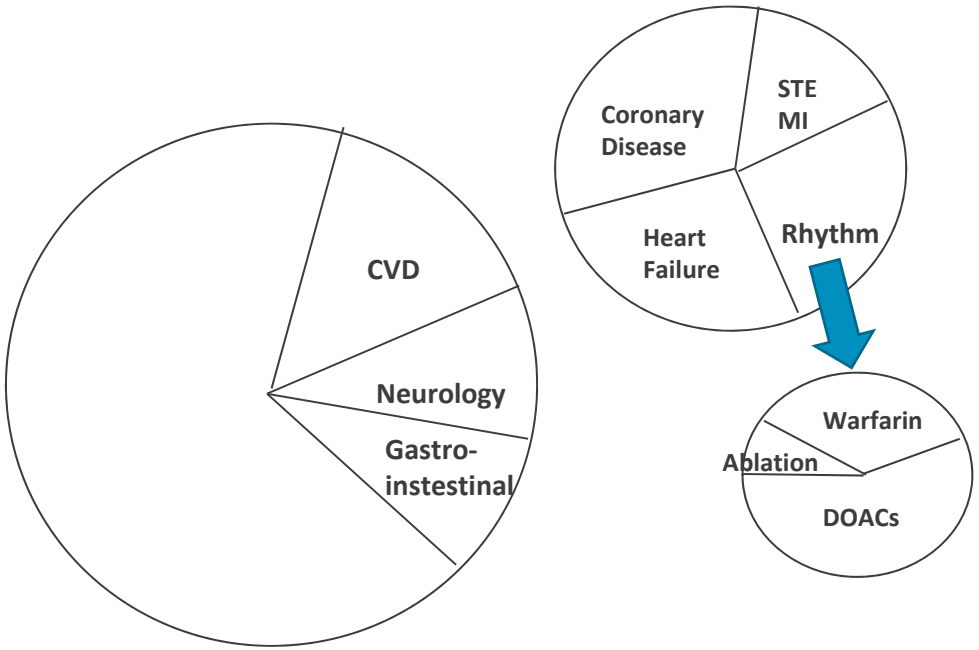


Annual spend per million

2. We are developing programme budgets determined by characteristics such older people with frailty

Many people have more than one problem; they have complex needs.
GPs are skilled in managing **complexity** but when one of the problems becomes **complicated** the Generalist needs help from a Specialist




CVD
Neurology
Gastro-
instestinal
Coronary
Disease
STE
MI
Heart
Failure
Rhythm
Warfarin
Ablation
DOACs

openheart

Direct oral anticoagulants versus warfarin: is new always better than the old?

John Burn,[1] Munir Pirmohamed[2]

To cite: Burn J, Pirmohamed M. Direct oral anticoagulants versus warfarin: is new always better than the old?. *Open Heart* 2018:e000712. doi:10.1136/openhrt-2017-000712

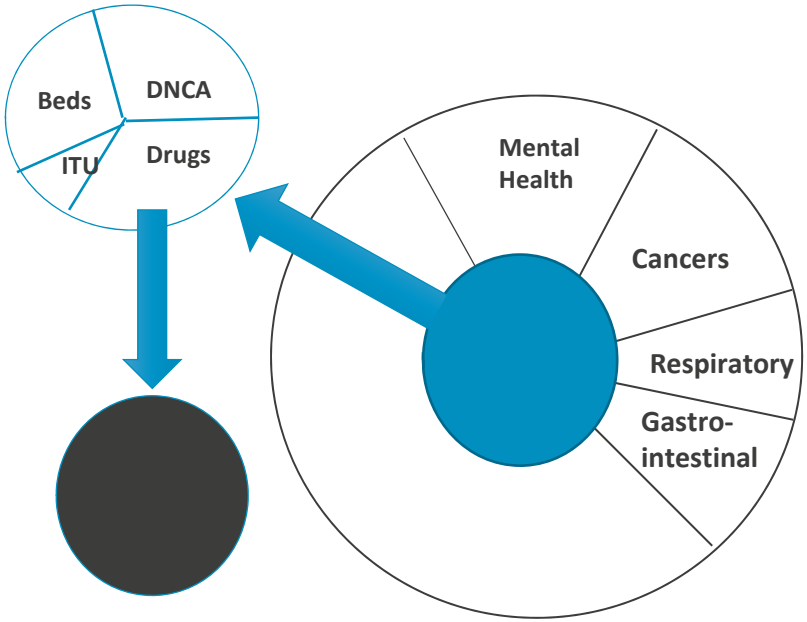
ABSTRACT

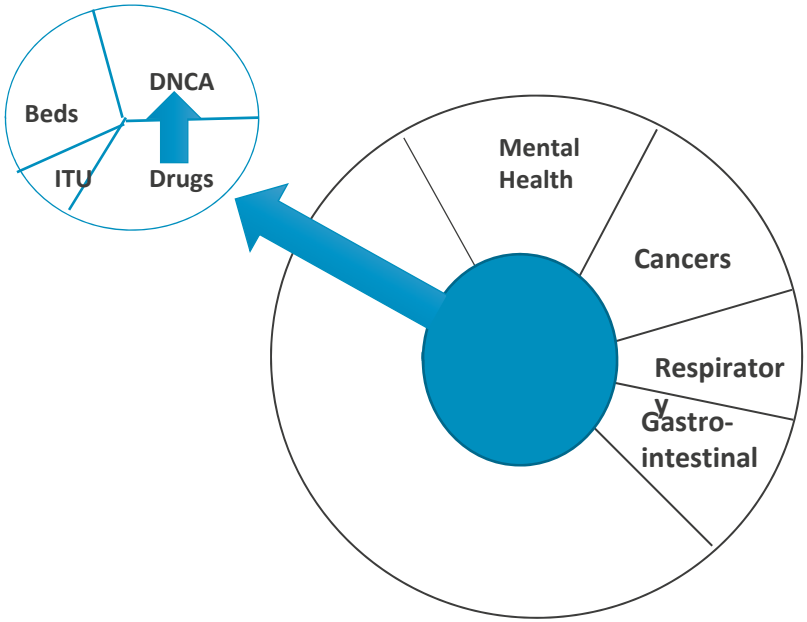
About 1.4 British million people are at risk of strokes due to non-valvular atrial fibrillation (AF) necessitating long-term anticoagulation. The vitamin K antagonist, warfarin, has a long half-life and narrow therapeutic range necessitating regular monitoring and is a common

and dose adjustment more convenient with self-testing devices.

A series of large-scale randomised controlled trials (RCTs) published over the last five years have demonstrated apparent superiority of DOACs over warfarin for key

Thus, overall NHS annual expenditure could be reduced by >£0.5B per annum in the near future without impairment of the nation's health if DOACs are restricted to those of working age and/or are shown to be sensitive to warfarin.


Beds
DNCA
ITU
Drugs
Mental Health
Cancers
Respiratory
Gastro-intestinal


DNCA
Beds
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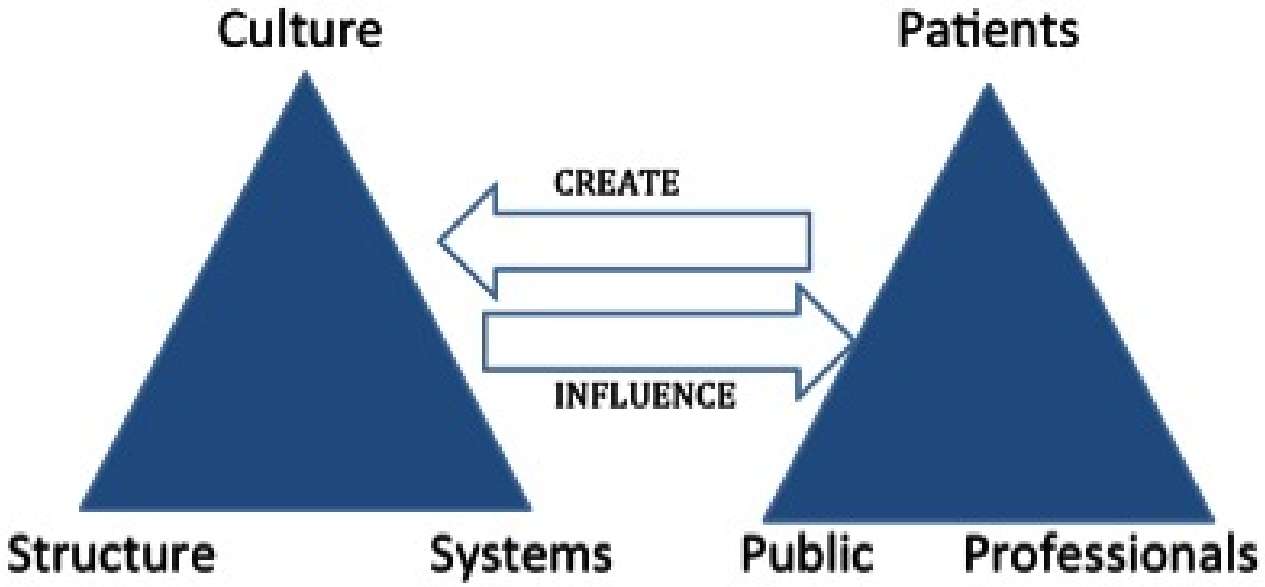
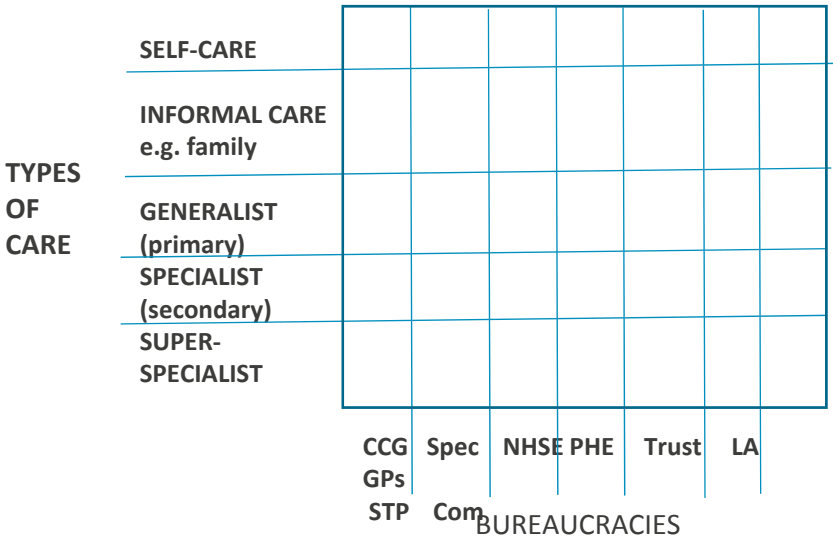
3. Develop population-based systems that not only deliver high-quality care efficiently but also:

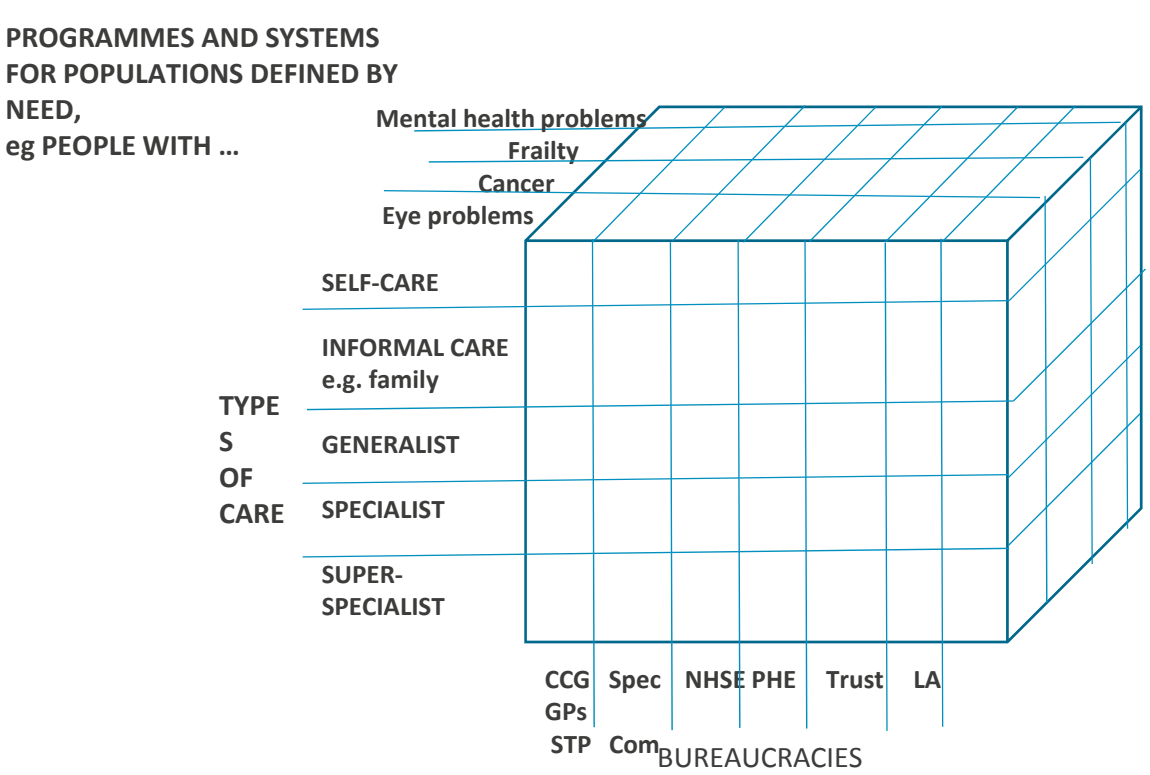
- **Address the needs of all the people in need, with the specialist service seeing the people who would benefit the most**
- **Implement high-value innovation funded by reduced spending on lower-value intervention**
- **Increase rates of higher-value intervention funded by reduced spending on lower-value intervention, e.g. shift resources from treatment to prevention**


Culture
Patients
CREATE
INFLUENCE
Structure
Systems
Public
Professionals

The Care Archipelago

The Commissioning Archipelago


TYPES OF CARE
SELF-CARE
INFORMAL CARE e.g. family
GENERALIST (primary)
SPECIALIST (secondary)
SUPER-SPECIALIST
CCG GPs STP
Spec Com
NHSE
PHE
Trust
LA
BUREAUCRACIES


PROGRAMMES AND SYSTEMS
FOR POPULATIONS DEFINED BY
NEED,
eg PEOPLE WITH …
Mental health problems
Frailty
Cancer
Eye problems
SELF-CARE
INFORMAL CARE
e.g. family
TYPE
S
OF
CARE
GENERALIST
SPECIALIST
SUPER-
SPECIALIST
CCG
GPs
STP
Spec
Com
NHSE
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LA
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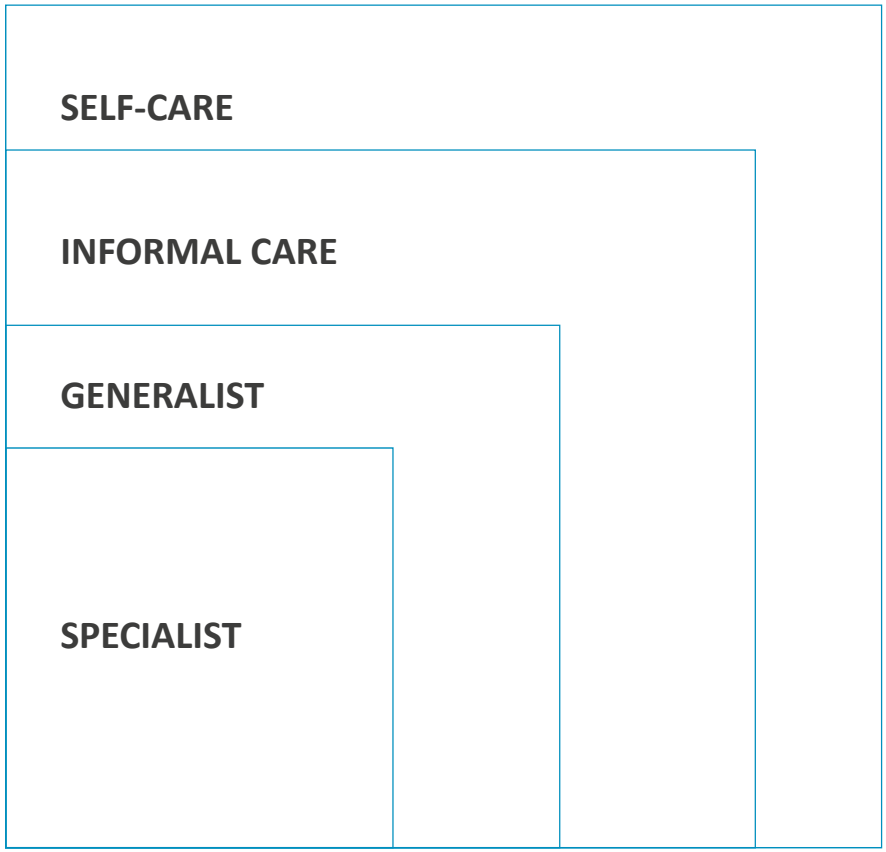
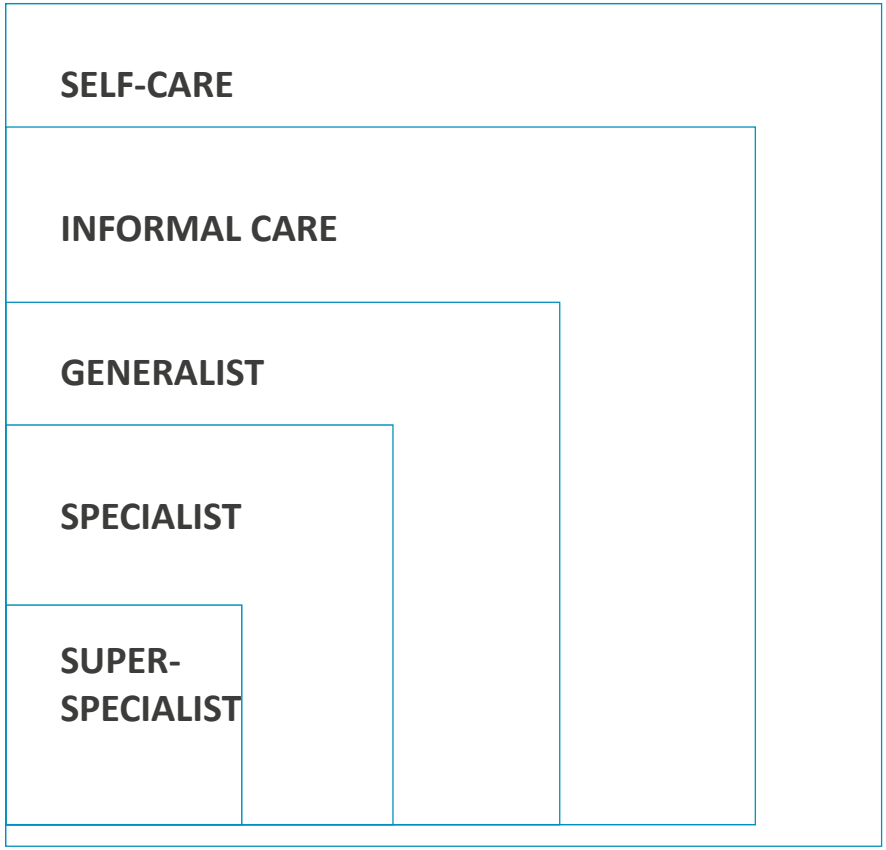

SELF-CARE
INFORMAL CARE
GENERALIST
SPECIALIST


SELF-CARE
INFORMAL CARE
GENERALIST
SPECIALIST
SUPER-
SPECIALIST

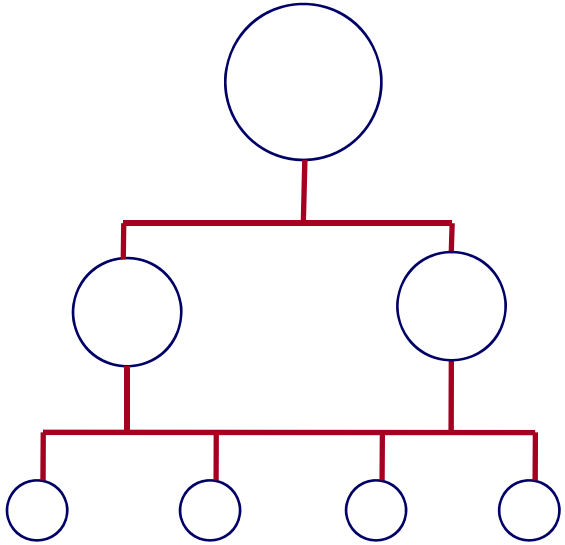
Choosing criteria and setting standards

Newborn Screening for Sickle Cell Disorders Programme Standards

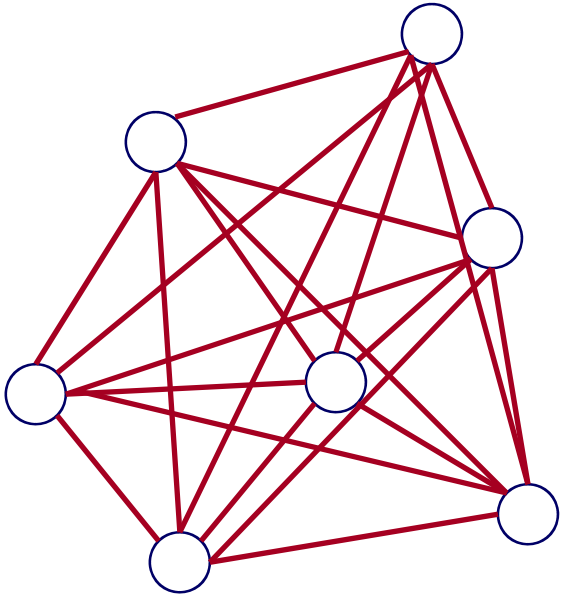
NEWBORN PROGRAMME OBJECTIVES:	CRITERIA	STANDARDS	
		Minimum (Core)	Achievable (Developmental)
Programme Outcome			
Best possible survival for infants detected with a sickle cell disorder by the screening programme	**Mortality rates expressed in person years**	**Mortality rate from sickle cell disease and it's complications in children under five of less than four per 1000 person years of life (two deaths per 100 affected children)**	**Mortality rate in children under five of less than two per 1000 person years of life (one death per 100 affected children)**
Programme Outcome			
Accurate detection of all infants born with major clinically significant haemoglobin disorders*	Sensitivity of the screening process (offer, test and repeat test)	99% detection for Hb-SS 98% detection for Hb-SC 95% detection for other variants	99.5% for Hb-SS 99% for Hb-SC 97% for other variants

An example of a national service set up as a system

Hierarchy



Network



3. Develop population-based systems that not only deliver high-quality care efficiently but also:

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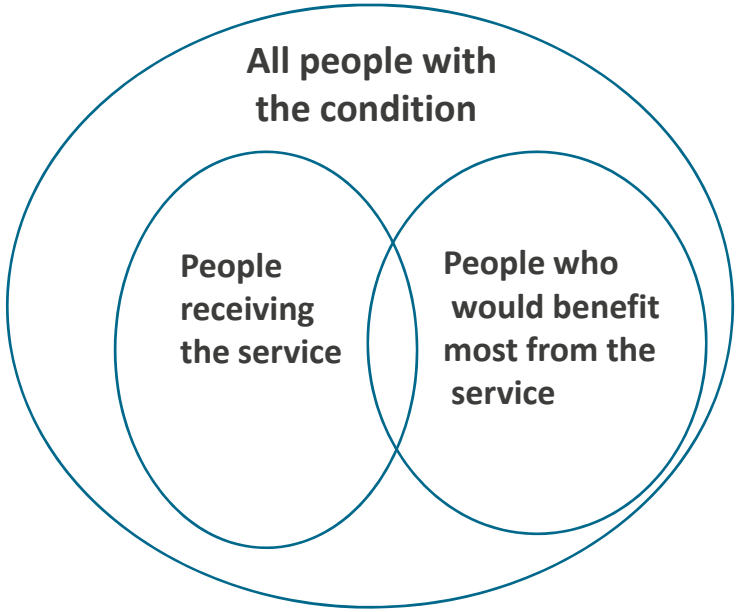
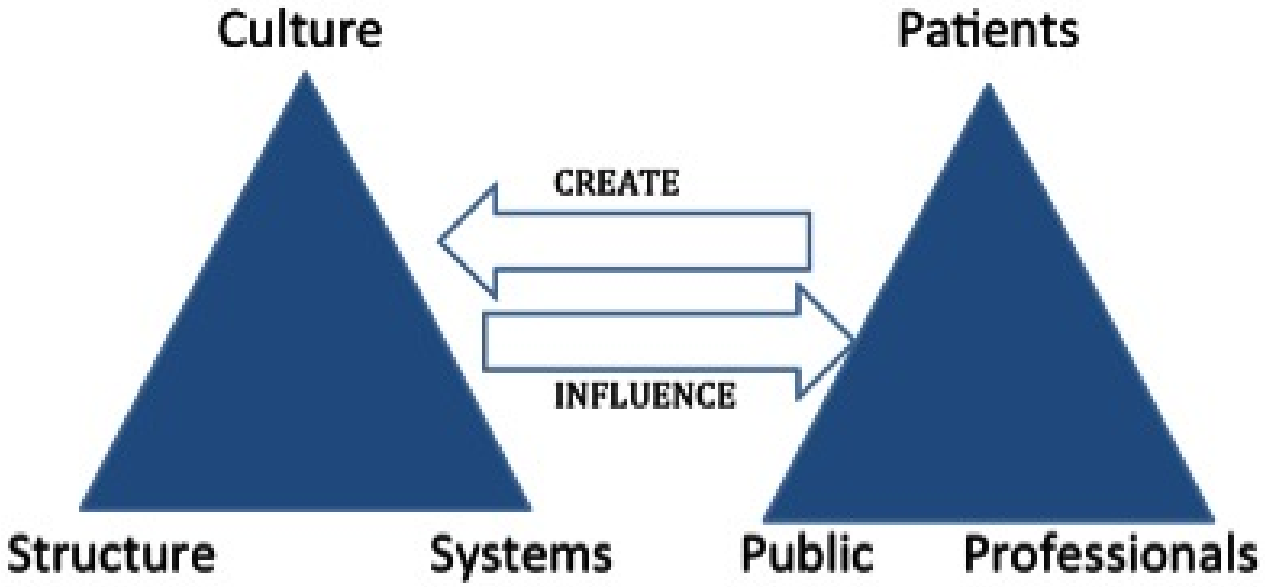

All people with the condition
People receiving the service
People who would benefit most from the service


All people with the condition who do not need to see the specialist service practise healthcare supported by generalists who are themselves supported by specialists
The right people receiving the specialist service


Culture
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Ban old language:

Acute CommunityManagerOutpatientHubandSpoke

Introduce new language

A SYSTEM is a set of activities with a common set of objectives and outcomes, and an annual report. Systems can focus on symptoms, conditions or subgroups of the population (delivered as a service the configuration of which may vary from one population to another)

A NETWORK is a set of individuals and organisations that deliver the system's objectives (a team is a set of individuals or departments within one organisation)

A PATHWAY is the route patients usually follow through the network

A PROGRAMME is a set of systems with a common knowledge base and a common budget

A new set of skills and tools

What is the relationship between value and efficiency?

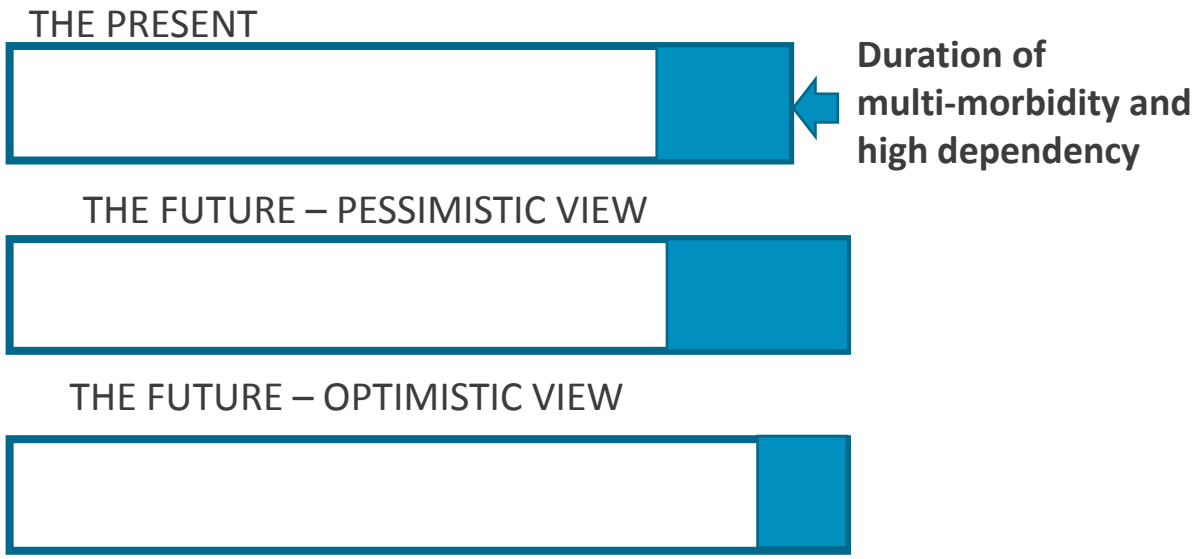
What is the relationship between value and quality?

What is meant by the optimal use of resources?

How would you assess the culture of an organisation?

What is a system and what is a network?

Work like an ant colony; neither markets nor bureaucracies can solve the challenges of complexity


THE PRESENT
Duration of multi-morbidity and high dependency
THE FUTURE – PESSIMISTIC VIEW
THE FUTURE – OPTIMISTIC VIEW

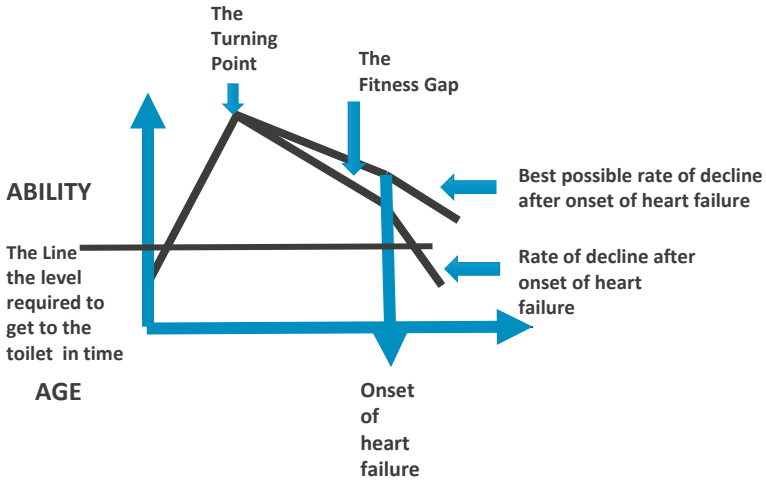
Prevention can reduce the risk of disease

- Heart disease: heart attacks and heart failure
- Stroke
- The type of dementia known as vascular dementia due to diseases of the blood vessels, and the small clots that result from atrial fibrillation
- Kidney failure and other complications of type 2 diabetes (Walking Deficiency Syndrome)
- Severe joint disease necessitating joint replacement
- Cancer
- Depression
- Frailty

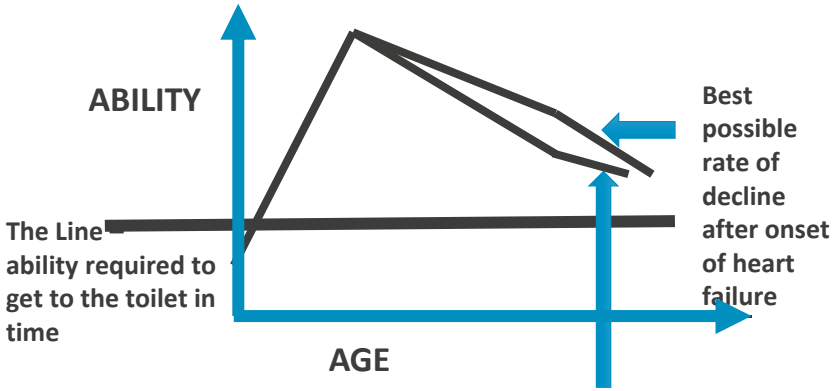
Prevention can reduce not only the risk of disease, but also the risk of:

- disability
- frailty
- dementia
- the need for social care
- winter pressure

The Fitness Gap



The Fitness Gap often gets wider faster after the onset of a long-term condition, and may drag the person below 'The Line'



thebmj

BMJ 2017;359:j4609 doi: 10.1136/bmj.j4609 (Published 2017 October 11)

ANALYSIS

Focus on physical activity can help avoid unnecessary social care

A concerted effort to provide support and opportunities for physical activity can help older adults maintain independence and lessen the costly burden of social care, argue **Scarlett McNally and colleagues**

Scarlett McNally *consultant orthopaedic surgeon*[1], David Nunan *senior researcher*[2], Anna Dixon *chief executive*[3], Mahiben Maruthappu *health executive*[4], Kenny Butler *health and wellbeing lead*[5], Muir Gray *public health doctor*[6]

National Activity Therapy Service