

20th Century Health Care

Clinician-centred
Patient as passive complier
Focus on cure and effectiveness
Increase quality
More is better
Good care for known patients
Hospital as focus
Public sector bureaucracy
Driven by finance
High carbon usage
Challenges met by growth



21st Century Health Care

Patient-centred
Citizen as co-producer of wellbeing
Focus on prevention, care & harm
Reduce waste and increase value
More is not always better
Equitable care for populations
Focus on systems
Pluralistic networks
Driven by knowledge
Low carbon usage
Challenges met by transformation

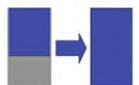
We have had two healthcare revolutions, with amazing impact

The First



The Second

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



Progress in the last 40 years has been amazing but all health services, everywhere, still face 5 major problems one of which is unwarranted variation which reveals the other four problems – the value problems

- HARM, from **over- diagnosis & over-treatment** even when quality is high
- INEQUITY, from **underuse** by groups in high need
- WASTE OF RESOURCES through low value activity
- FAILURE TO PREVENT DISEASE & DISABILITY

And new, additional, challenges are developing

- RISING EXPECTATIONS
- INCREASING NEED
- FINANCIAL CONSTRAINTS
- CLIMATE CHANGE

Variation in utilization of health care services that cannot be explained by variation in patient illness or patient preferences.
Jack Wennberg

From 1948 the dominant paradigm
was that healthcare was...

From 1948 the dominant paradigm was
that healthcare was...FREE

In the 70's and 80's the dominant paradigm
was effectiveness and evidence based

In the 90's the dominant paradigm was
cost effectiveness

From 2000 the paradigm was quality and
safety

for the next 20 years the paradigm will be ..

VALUE

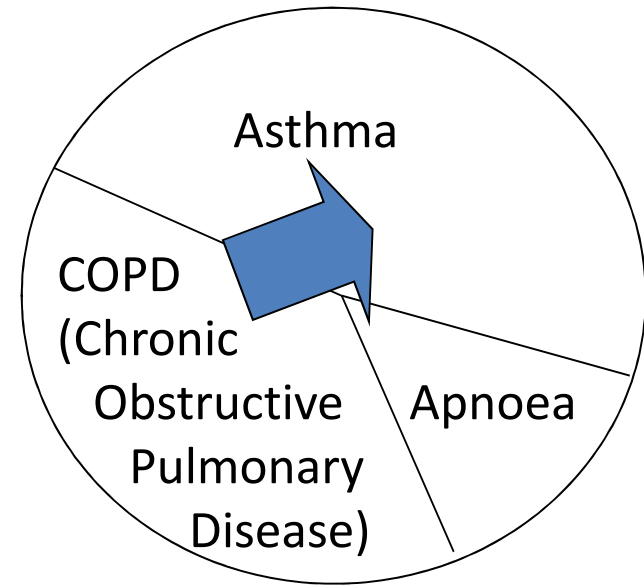
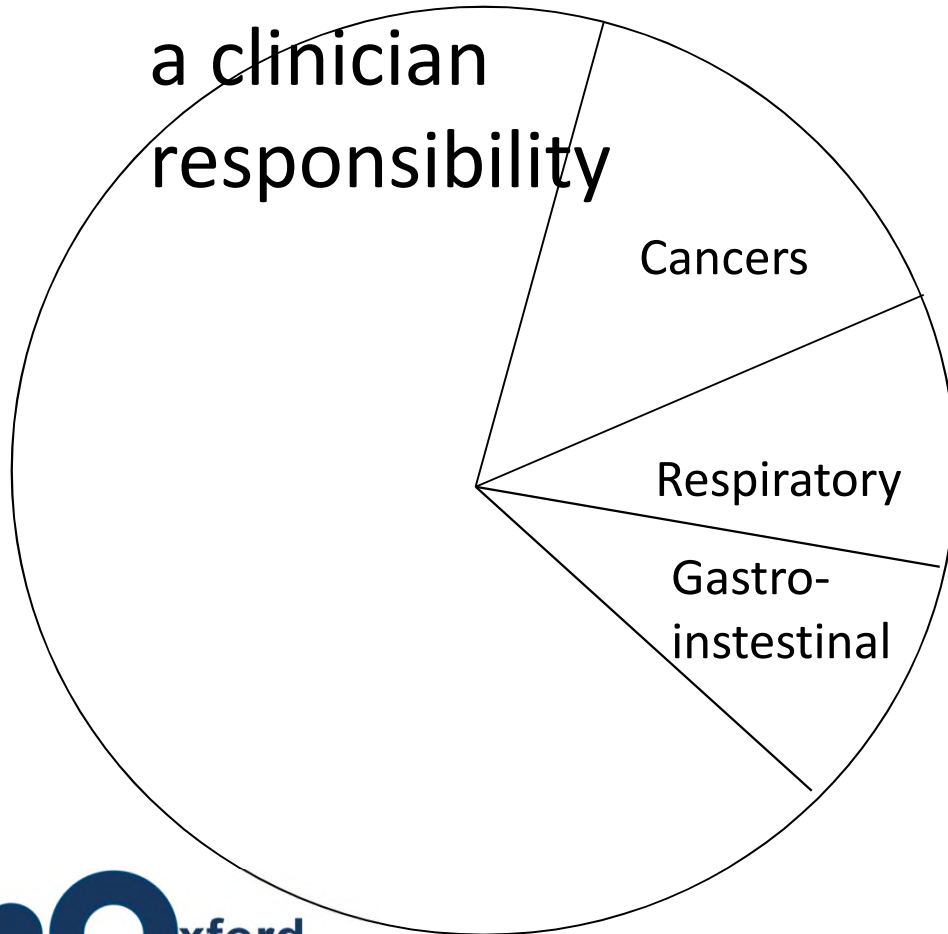
The Aim is **triple value** & **greater equity**

- Allocative, determined by how the assets are distributed to different sub groups in the population
 - Between programme
 - Between system
 - Within system
- Technical, determined by how well resources are used for all the people in need in the population
- Personalised value, determined by how well the decisions relate to the values of each individual

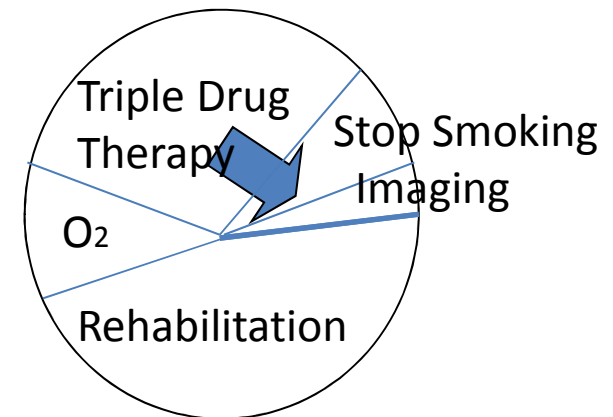
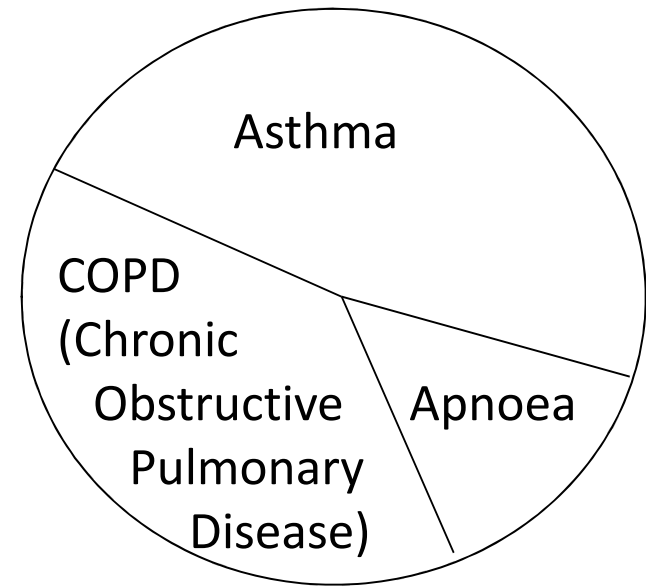
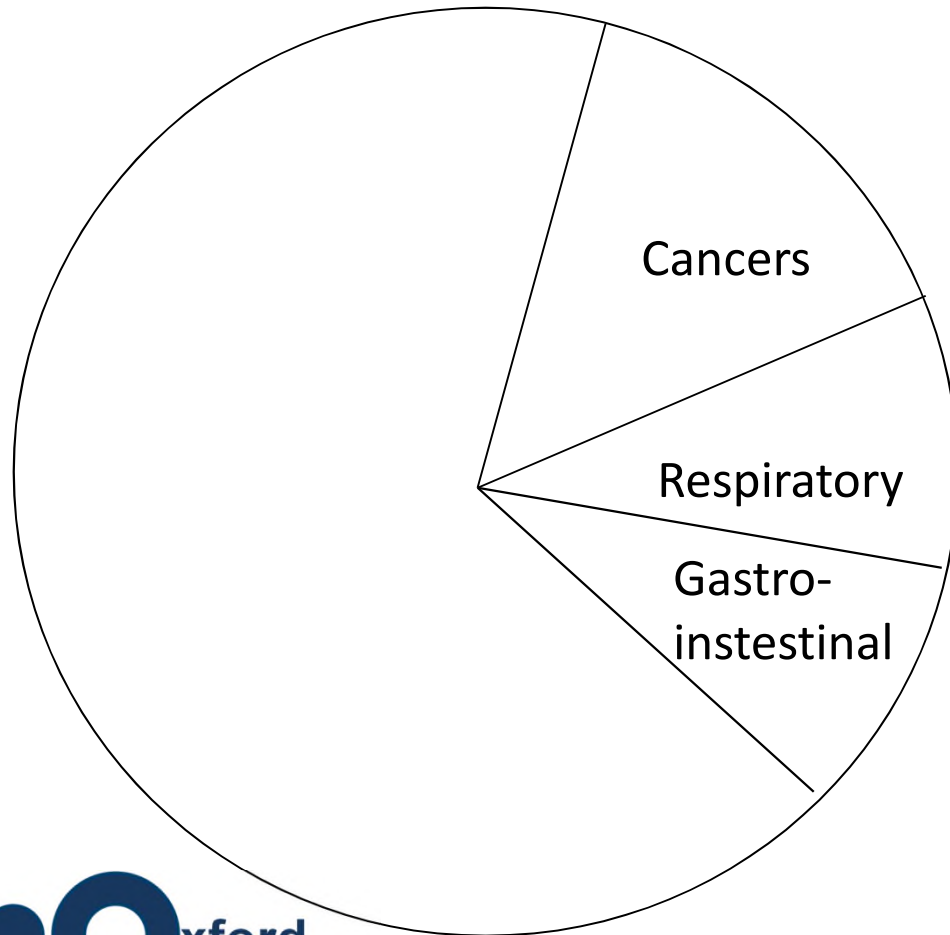
ACADEMY OF
MEDICAL ROYAL
COLLEGES

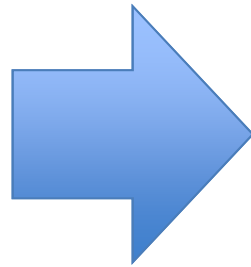
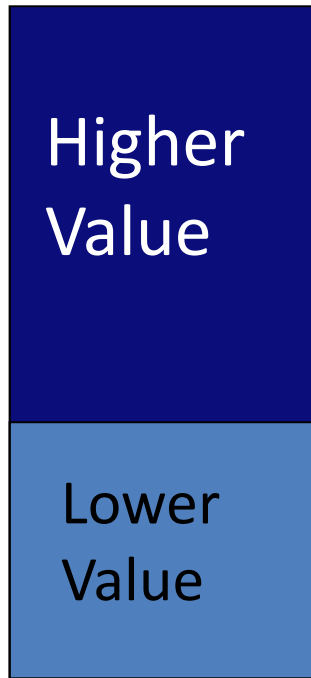
Protecting resources,
promoting value:
a doctor's guide
to cutting waste in
clinical care

Within Programme,
Between System
Marginal analysis is
a clinician
responsibility



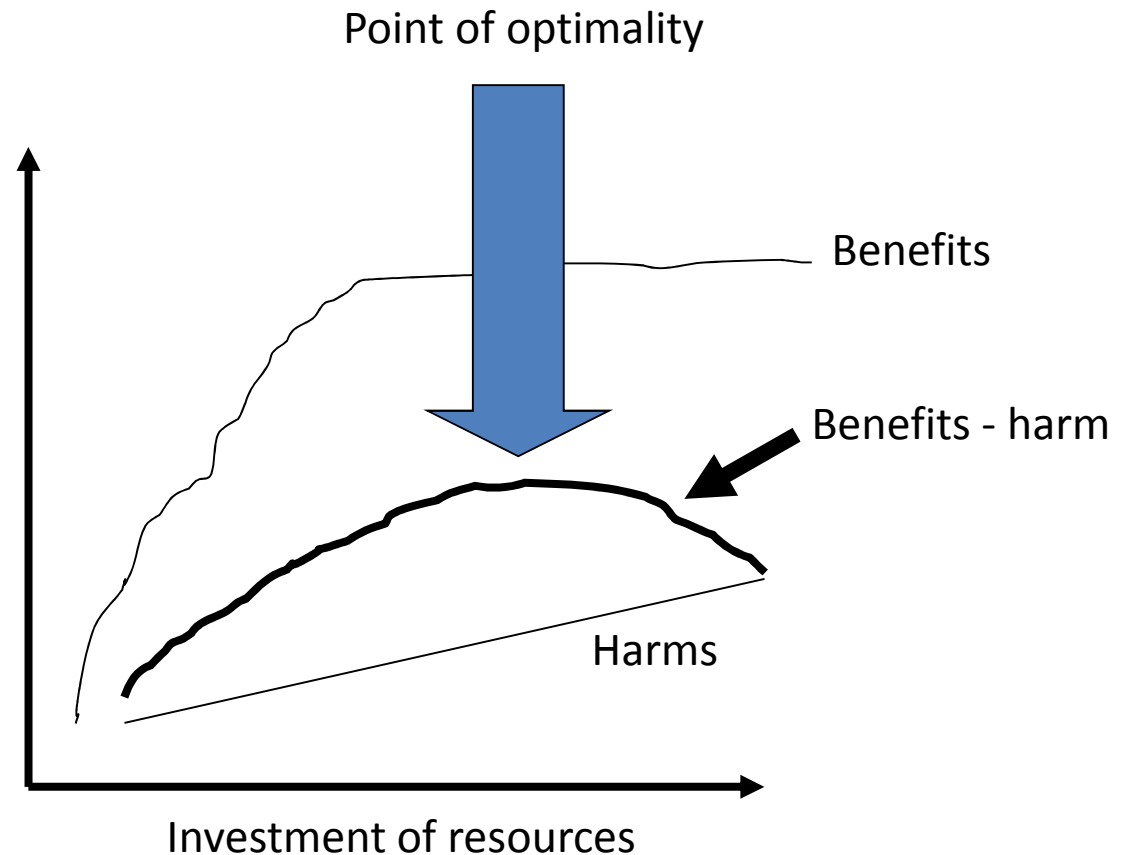
2. Carry out Within System Marginal Analysis





1. Reduce lower or negative value activities

After a certain level of investment, health gain may start to decline



**Deliver Care
through
High Quality,
Safe Systems**

**Develop clinical
focus on
Populations**

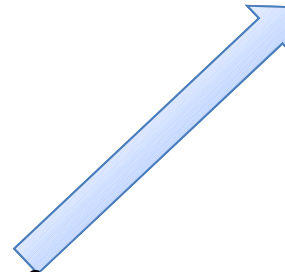
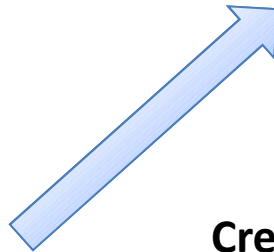
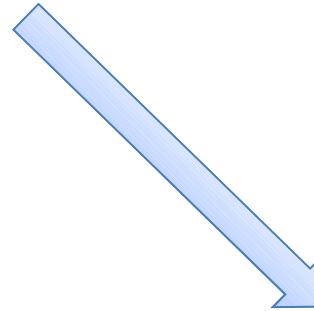
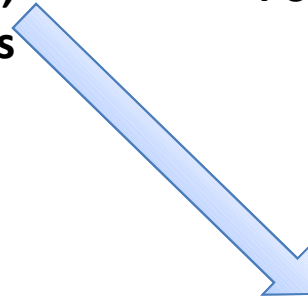
**LOWER VALUE
(BUREAUCRACY
BASED CARE)**

DIGITAL KNOWLEDGE

**HIGHER VALUE
(PERSONALISED &
POPULATION
BASED CARE)**

**Personalise
Care &
Decision –
making to
prevent over
diagnosis**

**Create a
culture of
Stewardship,
Financial &
Carbon**



The Care Archipelago

GENERAL
PRACTICE

MENTAL
HEALTH

COMMUNITY
HEALTH
SERVICES

SPECIALIST
SERVICES

SOCIAL
SERVICES

The Commissioning Archipelago

GP/
Pharmacists/
optometrists

152
Local
Authorities

211 CCG's

Public
Health
England

Specialist
commissioning

The Professional Archipelago

GPs &
Practice
Nurses

Social
workers

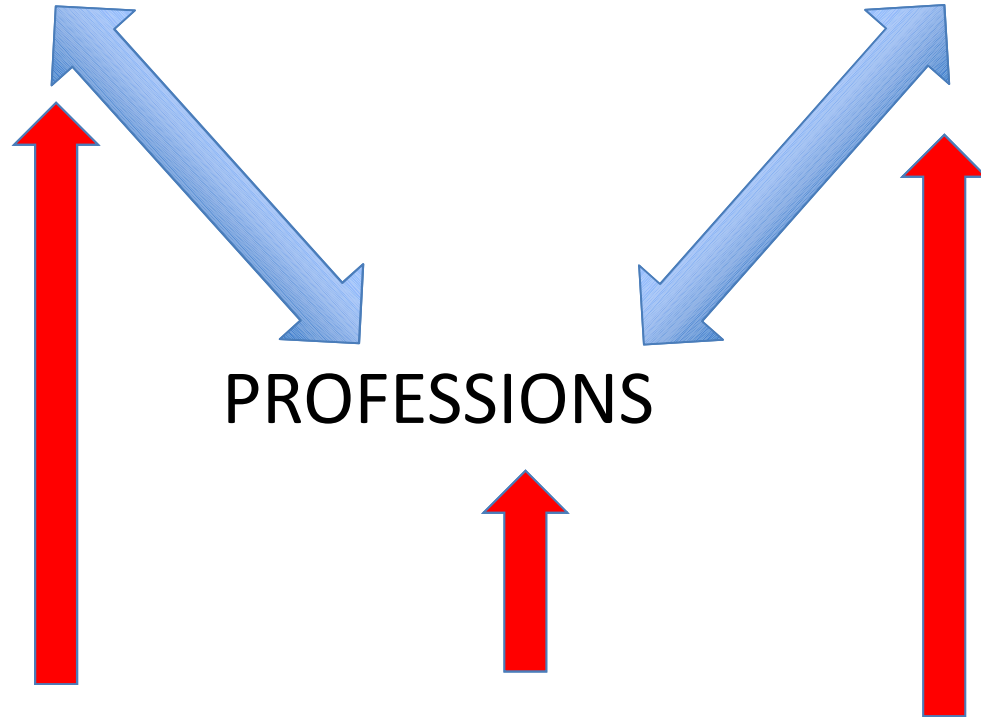
Mental Health
Professionals

Public
Health
Directors

Housing
Staff

A&E staff

JURISDICTIONS ↔ INSTITUTIONS



PROFESSIONS

REGULATORS AND INSPECTORS

“complexity is the dynamic
state between chaos and
order”

Kieran Sweeney (2006)
Complexity in Primary care
radcliffe

Chaos.....Complexity.....Order

Person aged 87, 5 diagnoses
8 prescriptions, cared for by
Daughter with alcoholic husband

Man aged 57 with
Psychosis, drug dependence, and severe
epilepsy

woman aged 73,
webuser, with T2 Diabetes, STEMI,
high blood pressure, homeopathy
woman aged 67 painful hip &
mild depression

Man aged 67 with
Dukes A colorectal ca.

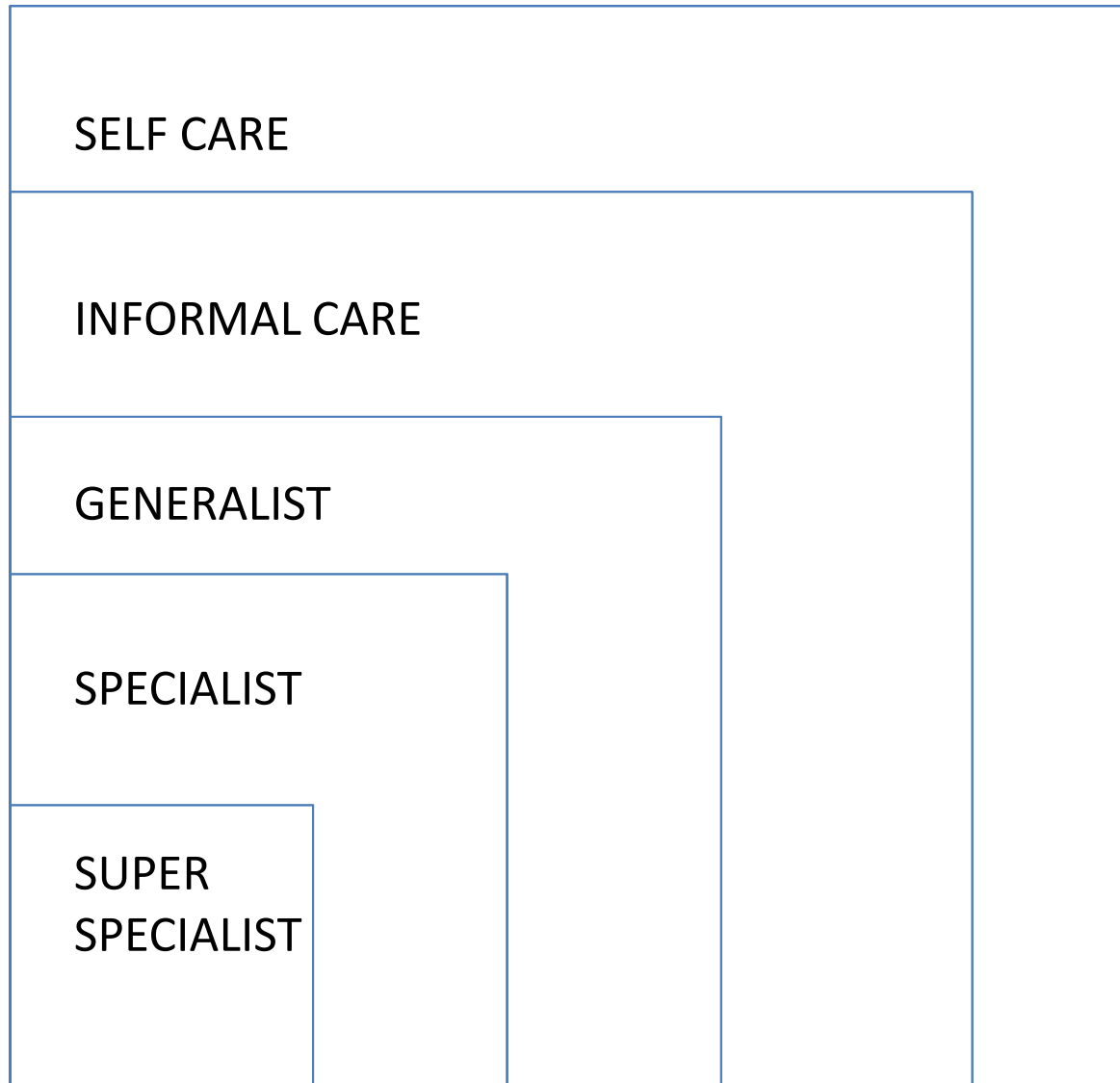
Man aged 23, Potts#
Football

woman aged 45
invited for cervical
screening

Systems, not bureaucracies

Population healthcare focus primarily on 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, not on institutions , or specialties or technologies. Its aim is to maximise value and equity for those populations and the individuals within them

System architecture

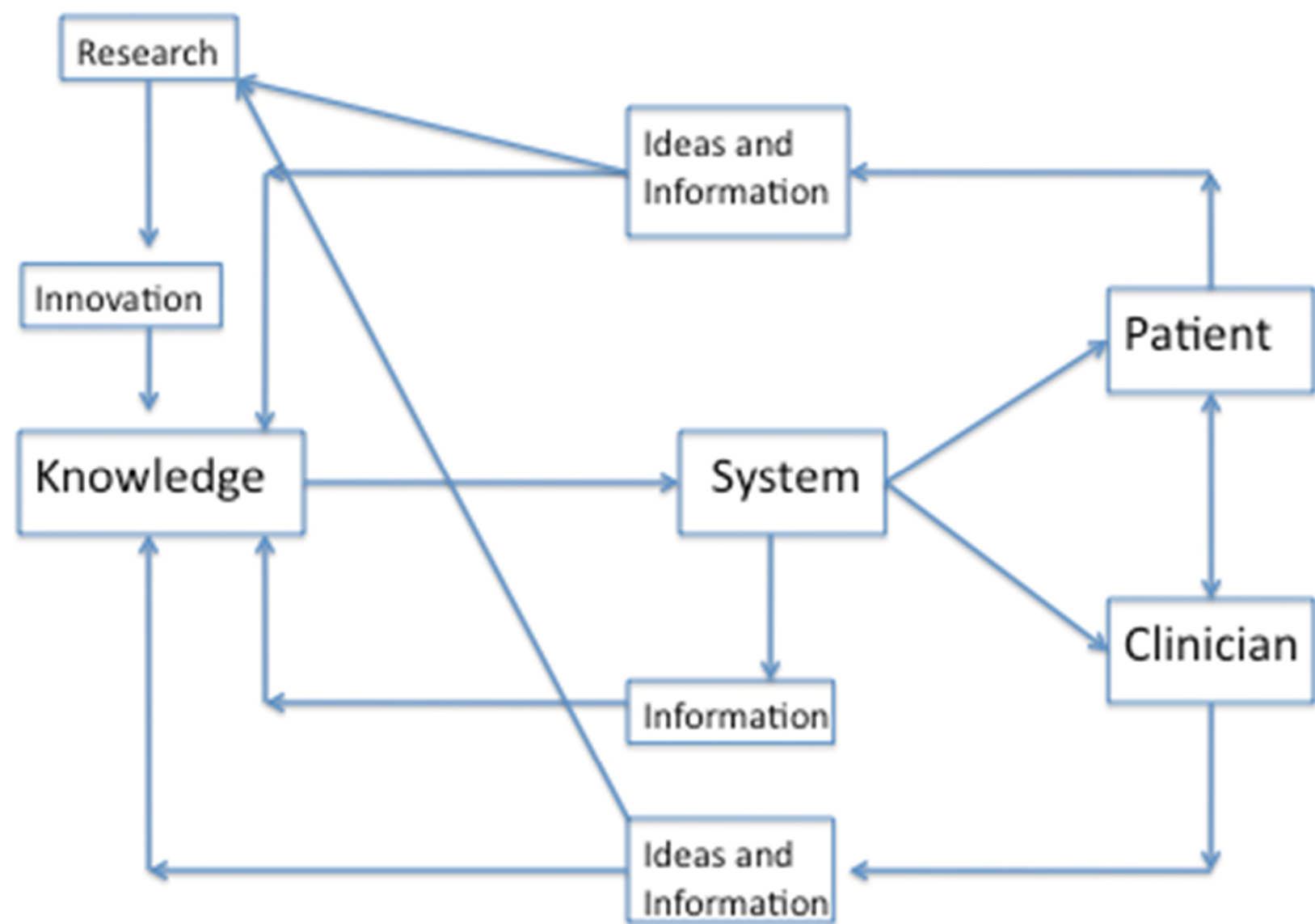


System design

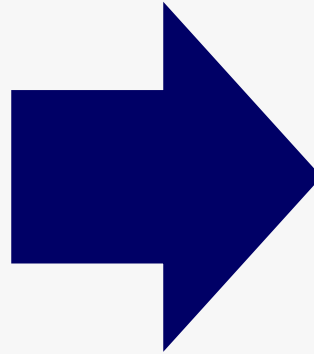
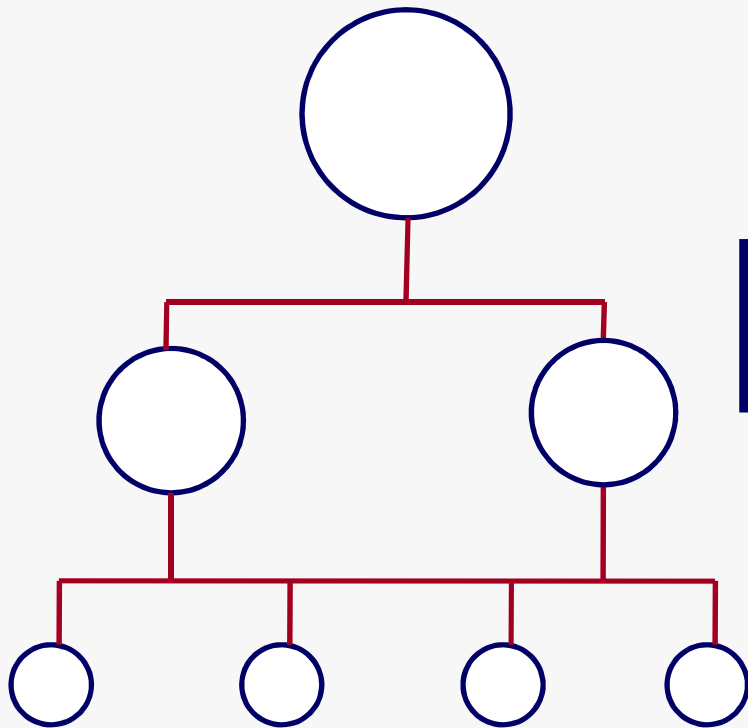
Newborn Screening for Sickle Cell Disorders Programme Standards

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

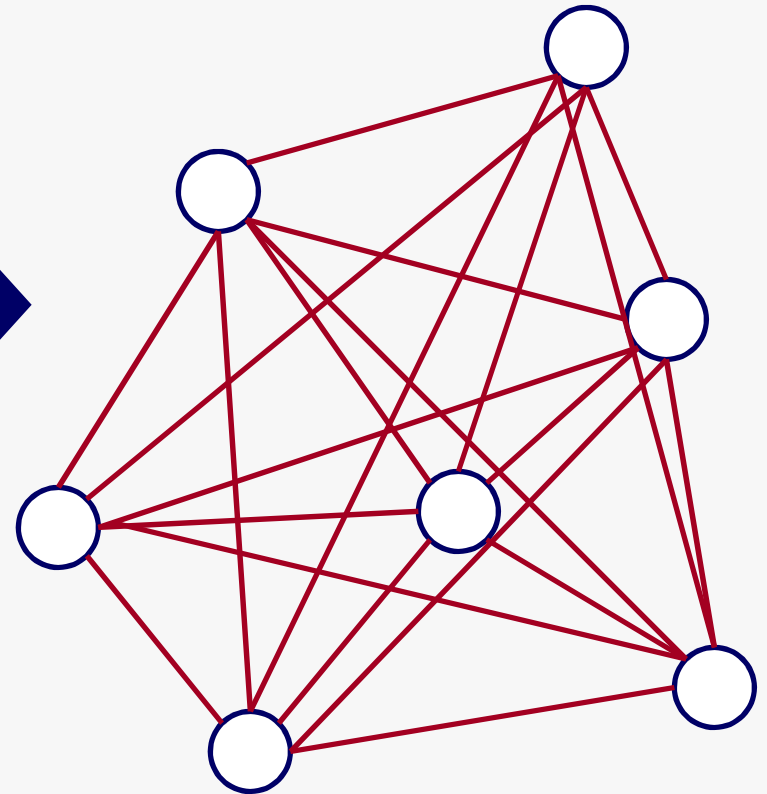
This is an example of a national service set up as a system



Hierarchy



Network



**Deliver Care
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High Quality,
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**Develop clinical
focus on
Populations**

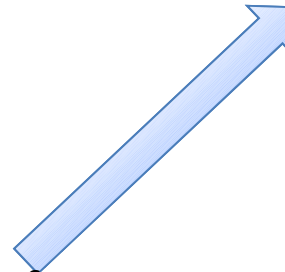
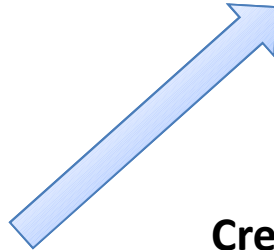
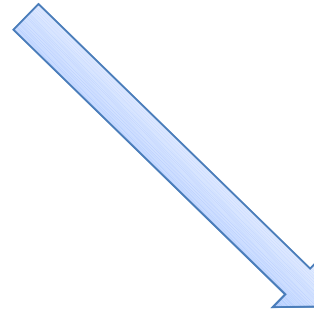
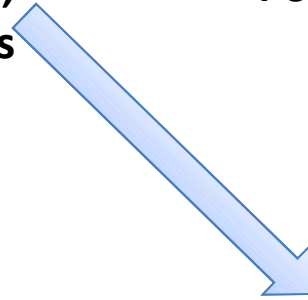
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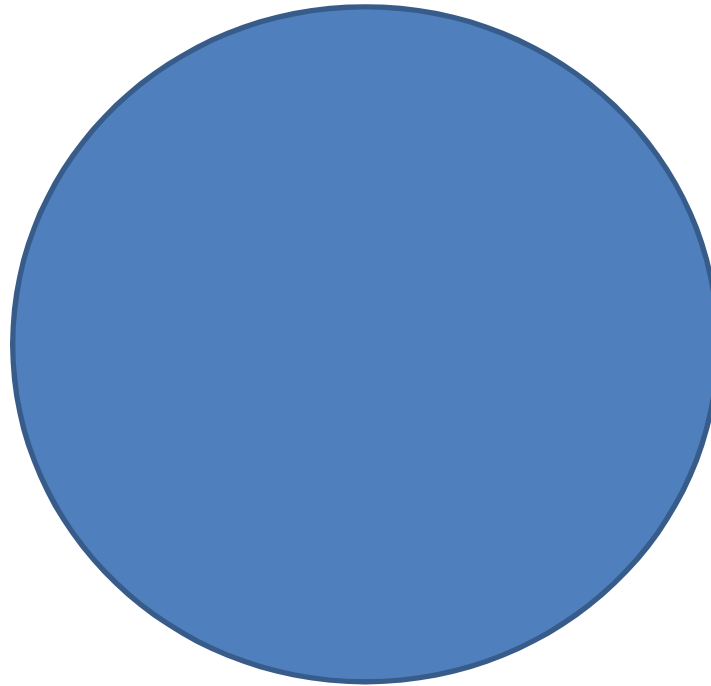
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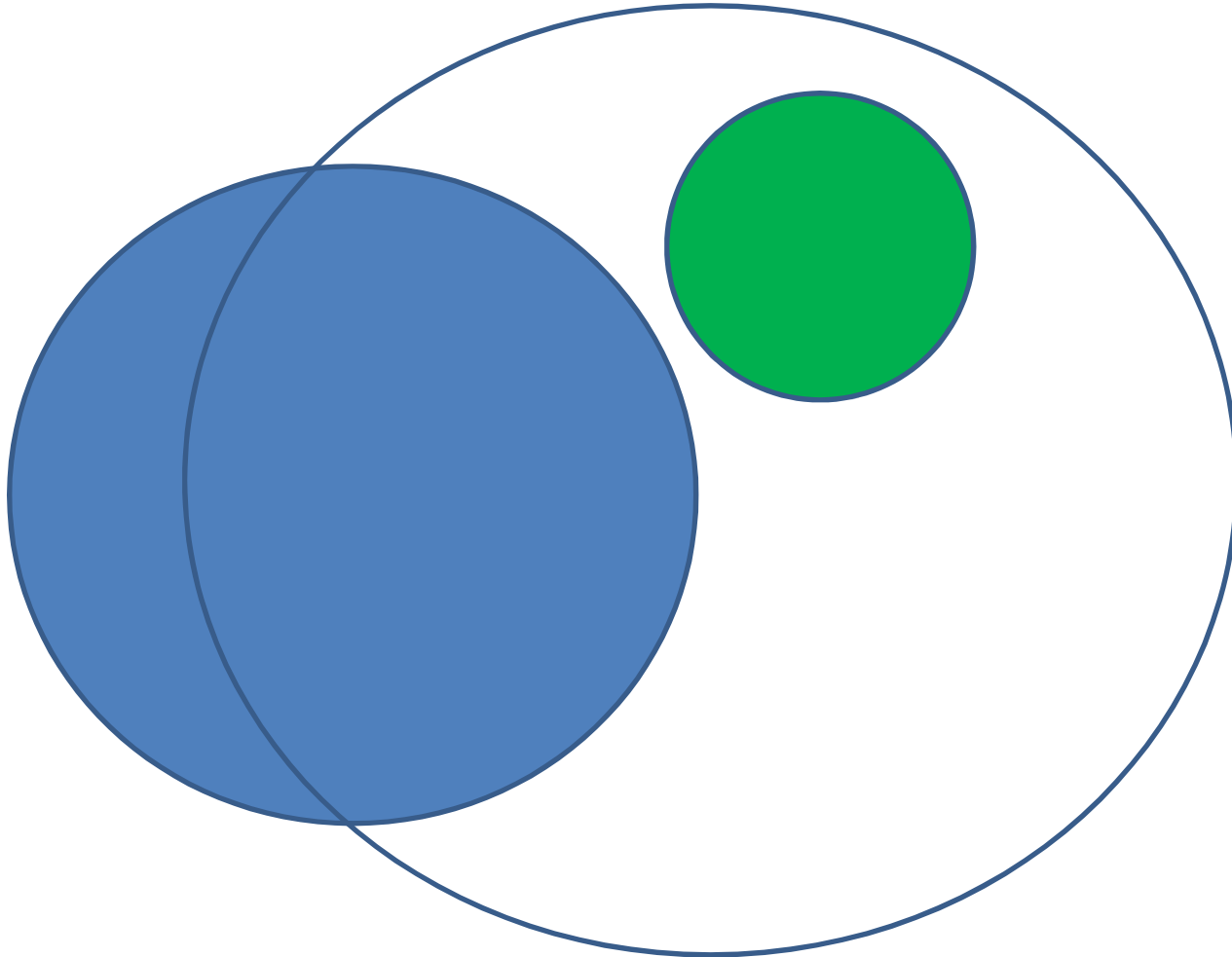
**Create a
culture of
Stewardship,
Financial &
Carbon**

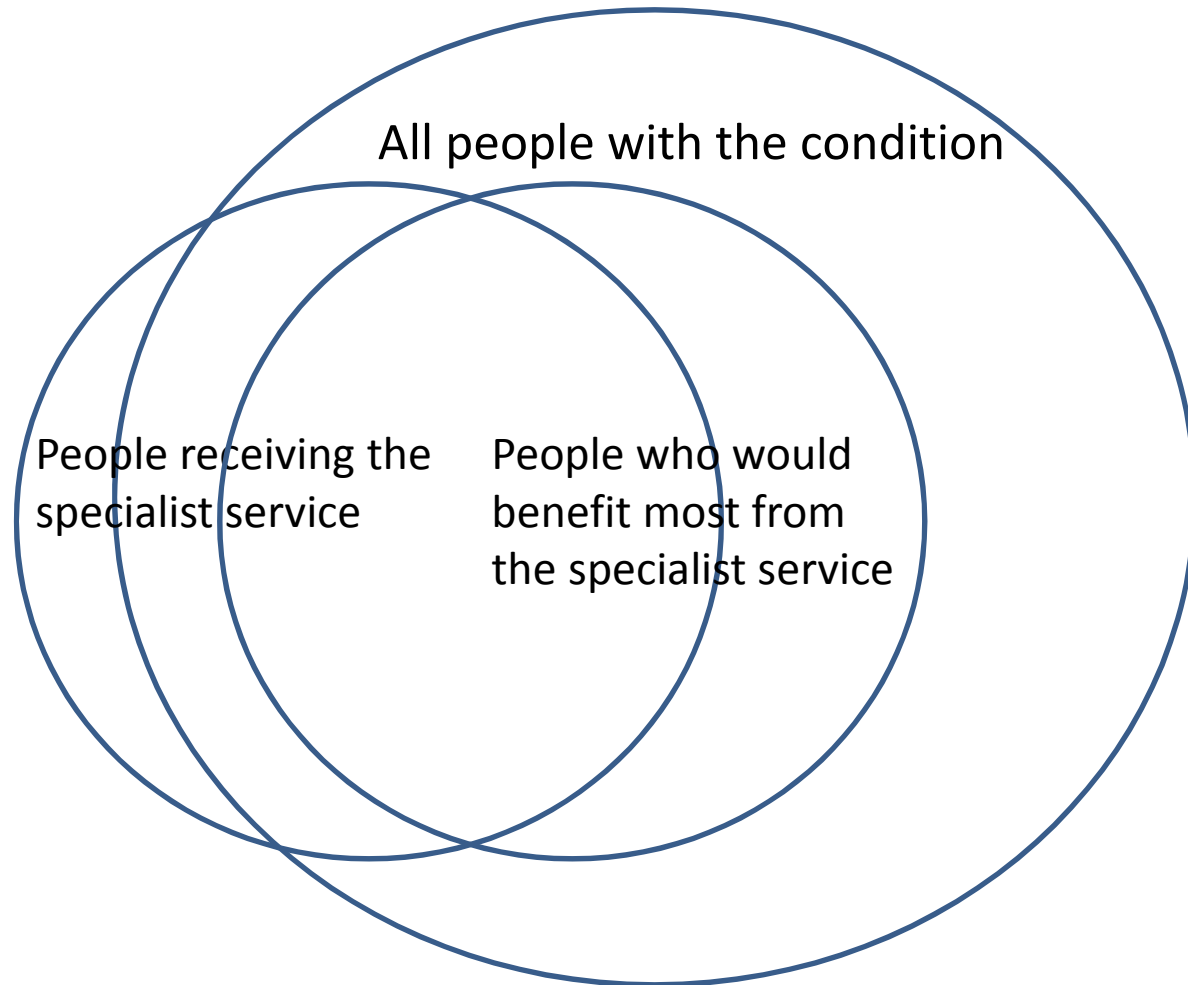


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Working with Public Health to reduce smoking

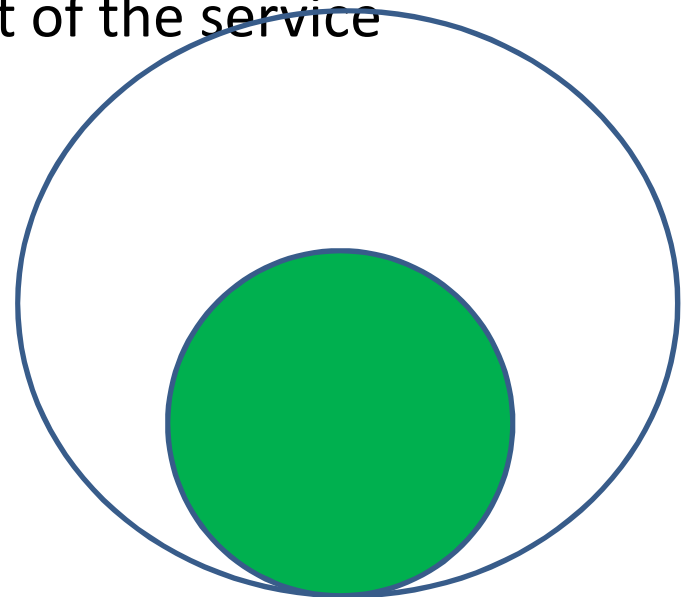
Network development

Quality of patient information

Professional development of generalists, and pharmacists

Production of the Annual Report of the service

She is keen to improve her performance from being 27th out of the 106 COPD services, and of greater importance, 6th out of the 23 services in the prosperous counties



Grab File Edit Capture Window Help

Healthcare Public Health

www.healthcarepublichealth.net/the-falls-and-fragile-fracture-prevention-programm.php

Home ★ Newsletters ★ The Community ★ Learning ★ The Knowledge ★ Toolkit ★ National Programmes

Falls and Fragile Fracture Prevention - the Triple F Programme

People in old age often fall and often have fragile bones. The overlap between the two, leads to over 250,000 fragility fractures per year in the UK including 68,000 hip fractures. Falls and fragility fractures are a major cause of

- Emergency department attendance
- Hospital admission and duration of stay
- Mortality
- Increased disability assessing the admission to residential care.

What is needed is a population based programme on falls and fragile fracture prevention. A number of departments are already working on this but it needs a coordinated population based approach linking all the major professional organisations and charities, for example the National Osteoporosis Society. Already work has started in Wiltshire and Hertfordshire led by the Public Health Department with a production of the first draft of a system of care. What is needed is a two year programme to ensure that the whole population of England is covered by population based services. This will follow the strategic path set out below

Slide 27 of 31

arthritis or a common charac

af-systems.yolasite.com/resources/NC%20London%20%26%20N%20Hertfordshire%20-%20AF%202013%20Annual%20Report.pdf

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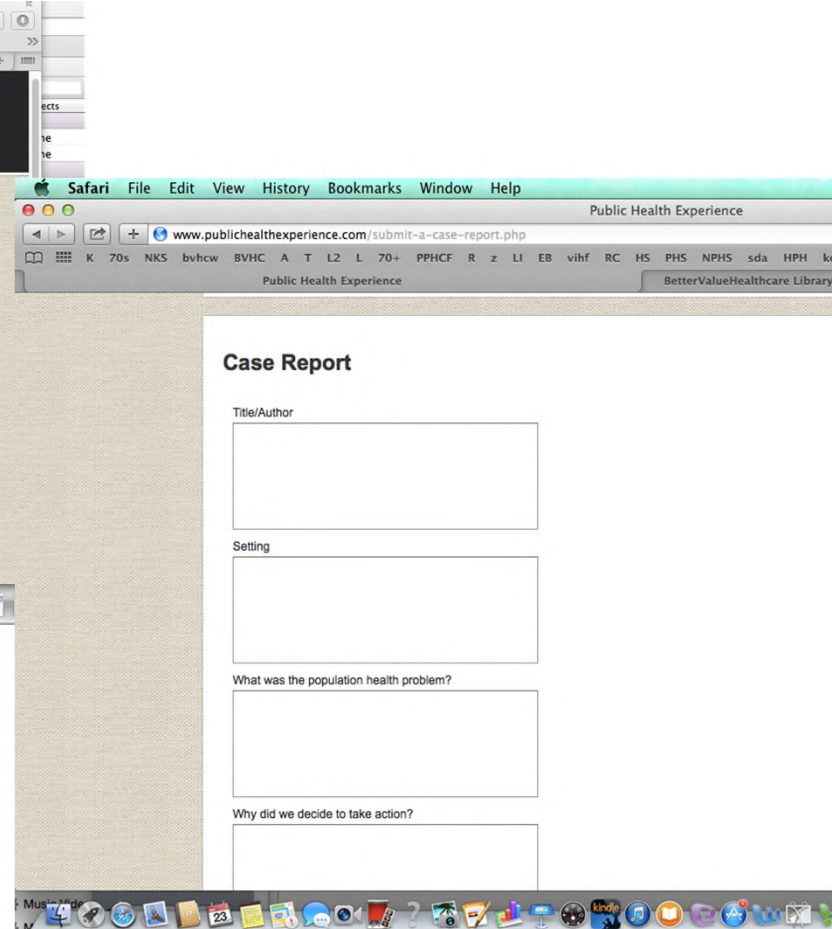
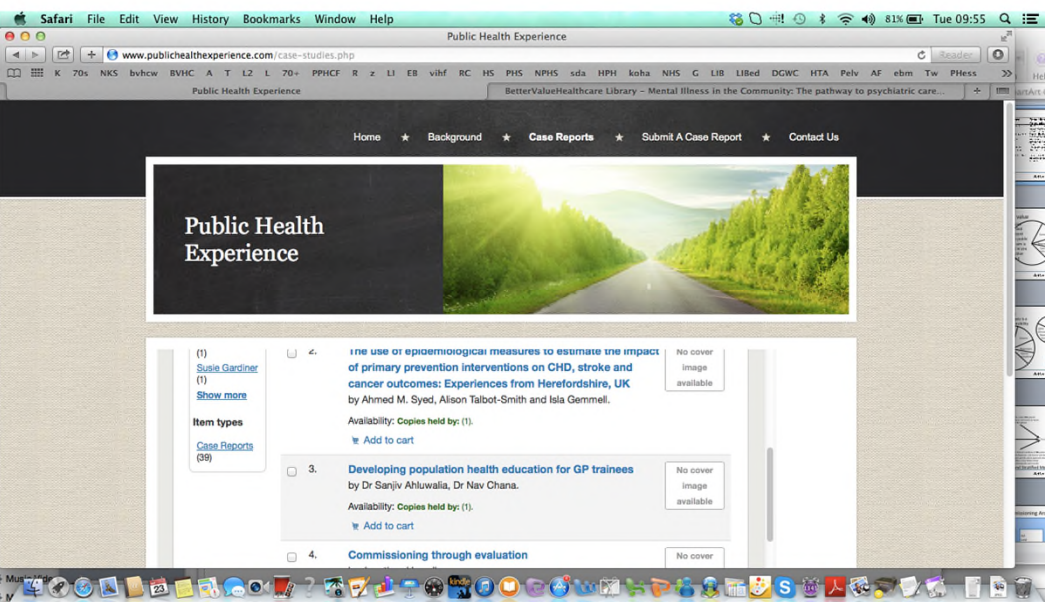
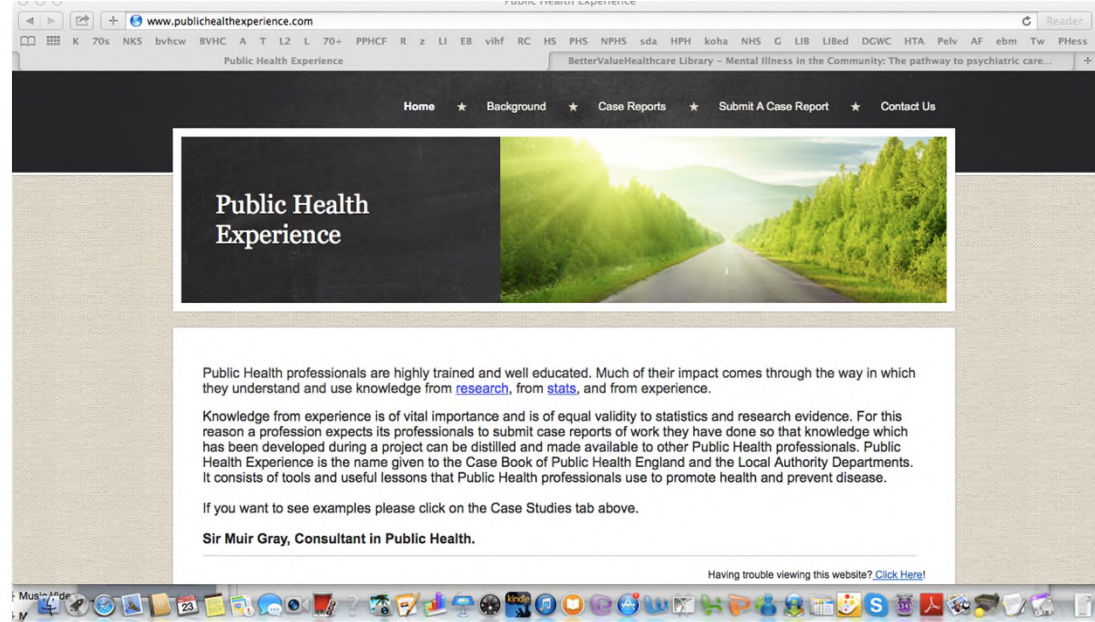
Population Name	NC London and North Hertfordshire
Population Size	1.6 million
Report for 12 months ending	July 2013
Number of practices in the population	213
Participating practices - number (%)	Hub and Spoke 33 (15%)
Total number of patients from participating practices	~ 2100
Patients diagnosed with AF in participating practices – number and % of total patients	Approx 75 - 85%
% of patients risk assessed using CHADS2	Approx 75 - 80%
Number and % of patients with:	CHADS2 score of 0: Available 2014 CHADS2 score of 1: Available 2014 CHADS2 score of >1: Available 2014
% of patients with C2 score of >2 on an Oral Anticoagulant (OAC)	?
% of patients with C2 scores of >2 on Aspirin	?
NEQAS data	Participation in NEQAS (yes or no): YES % of results within consensus: 95% Mean % deviation:
Mean clinic TTR (Time-in-Therapeutic-Range)	64

66% Zoom SmartA

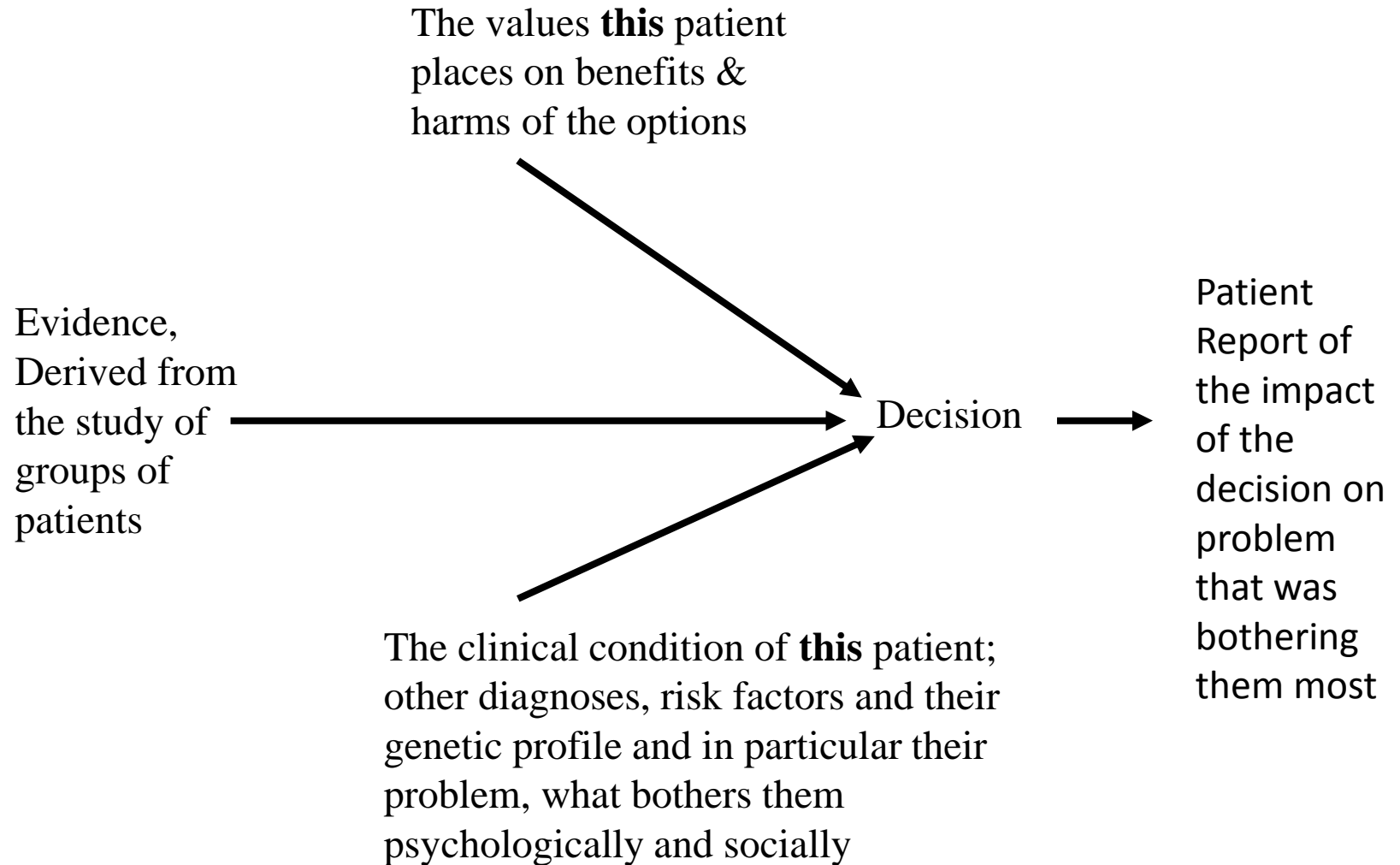
Helish Decisions in

Helish Decisions in

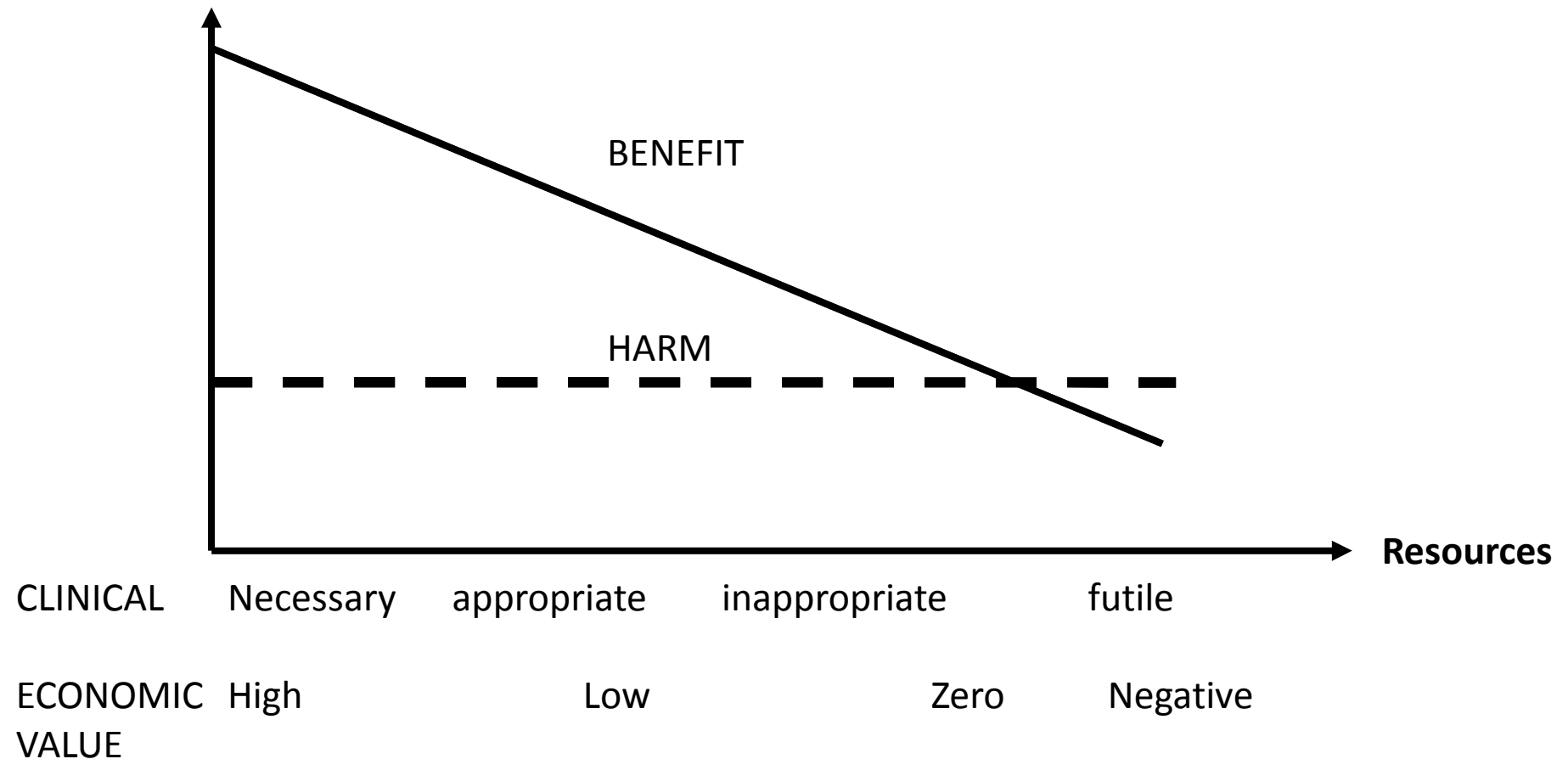
Chaos.....Complexity



Personalised decision making & outcome



As the rate of intervention in the population increases, the balance of benefit and harm also changes for the individual patient



Ban old language

PrimarySecondaryAcuteCommunityManagerOutpatientHubandSpoke

Introduce new language

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(delivered as a **service** the configuration of which may vary from one population to another)

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(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

Digital knowledge is driving the third healthcare revolution

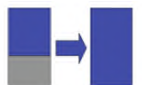
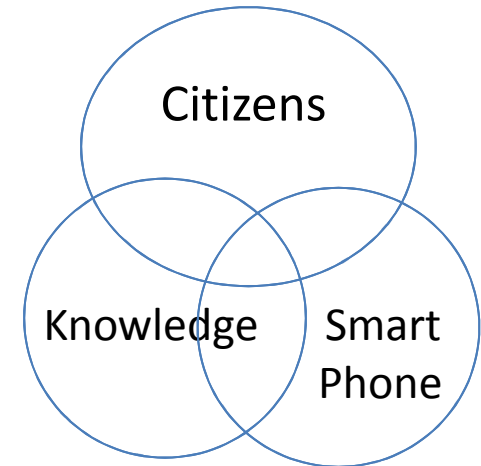
The First Public Health

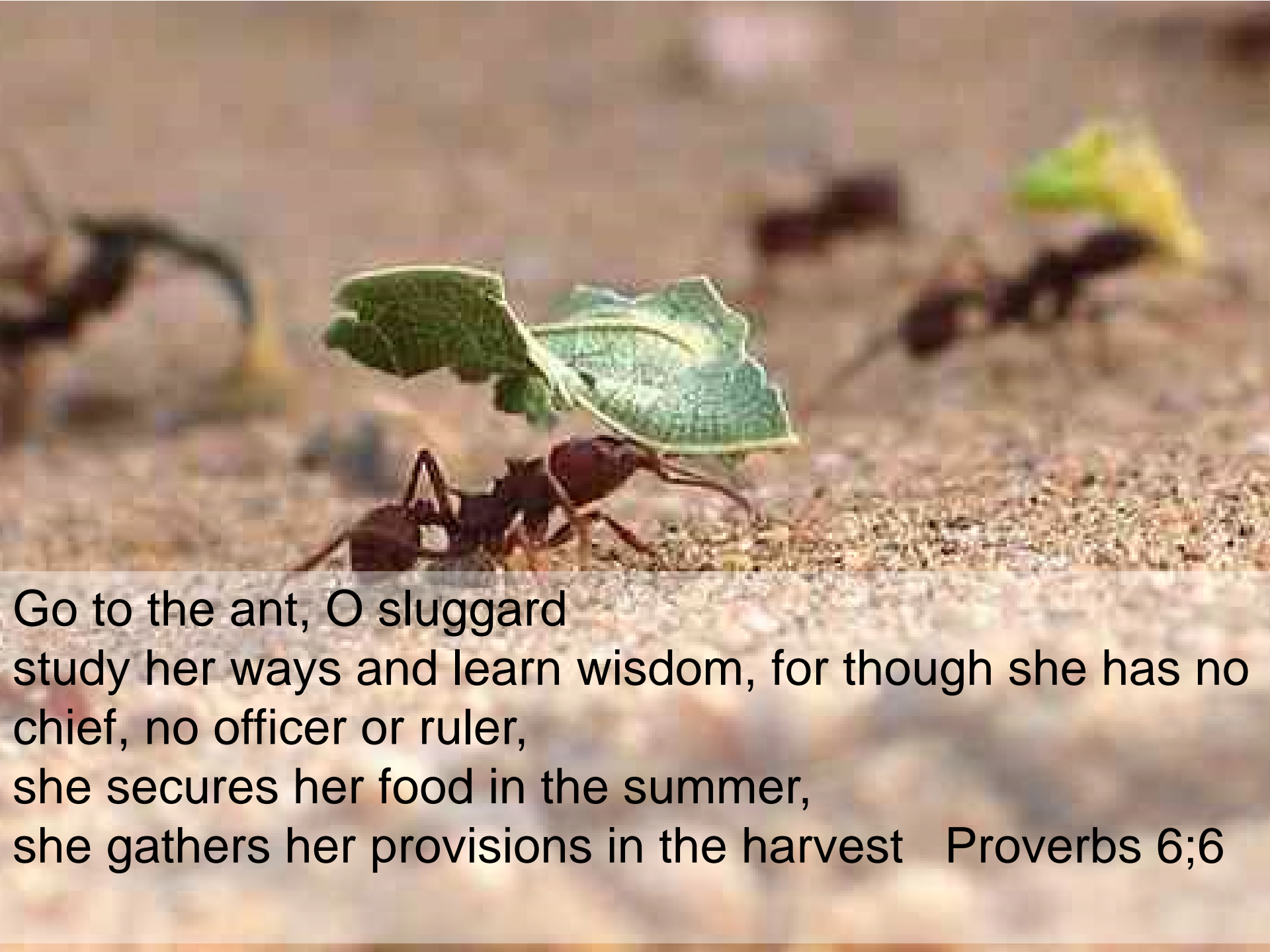


The Second High Tech

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

the Third Networking





Go to the ant, O sluggard
study her ways and learn wisdom, for though she has no
chief, no officer or ruler,
she secures her food in the summer,
she gathers her provisions in the harvest Proverbs 6;6

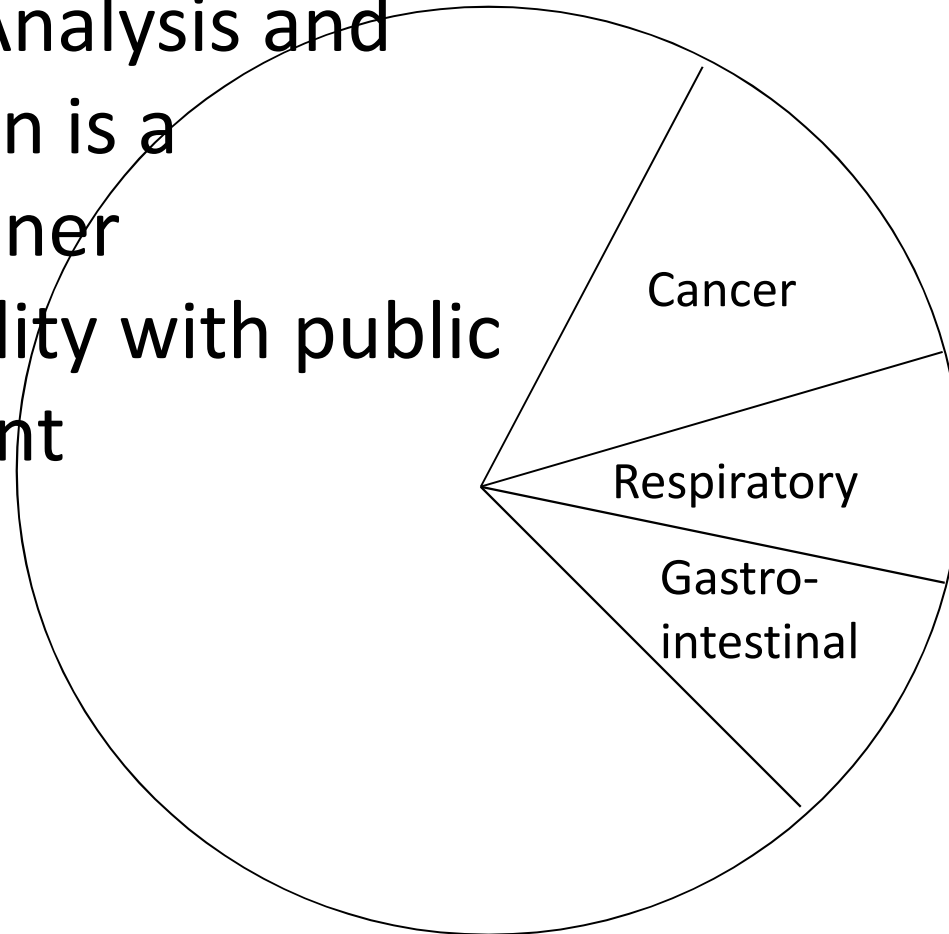
10 QUESTIONS ABOUT VALUE

- 1. How much money should be spent on healthcare?
- 2. How much money should be top-sliced for research, education and information technology? (and for specialised services?)
- 3. Has the money for healthcare been distributed to different parts of the country by a method that recognises variation in need and maximises value for the whole population?

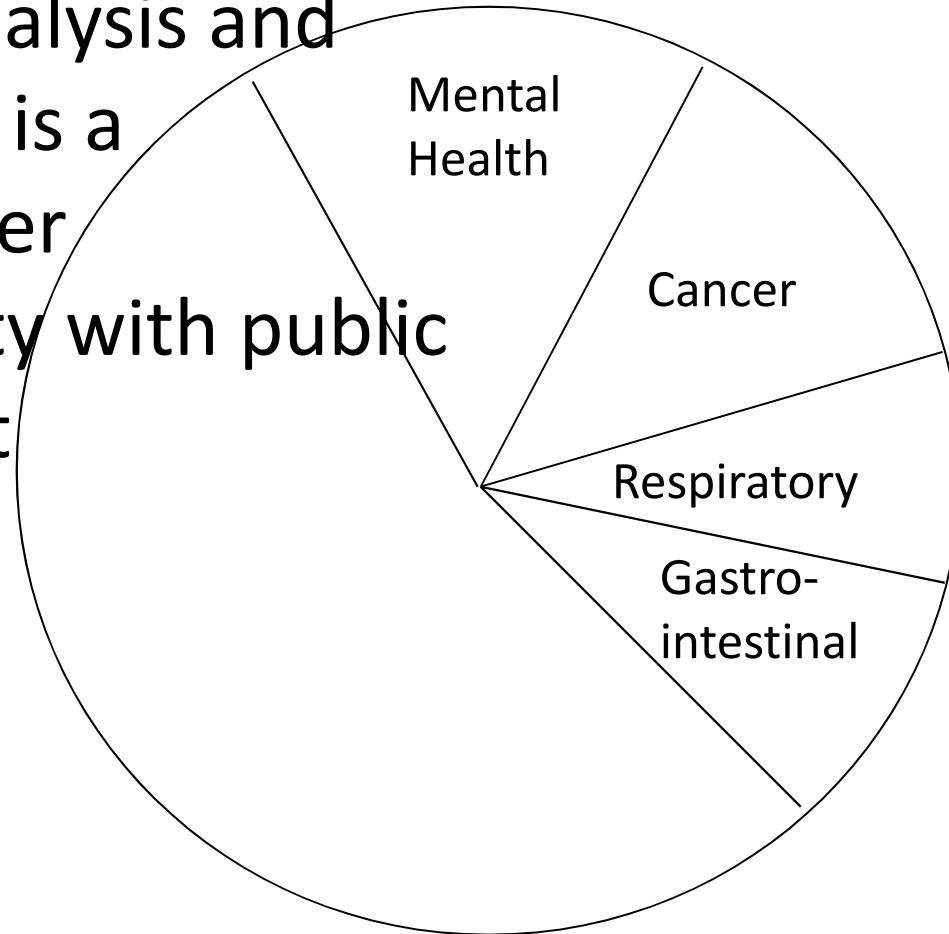
10 QUESTIONS ABOUT VALUE

- 4. Has the money for care been distributed to different patients groups, e.g. people with cancer or people with mental health problems, by a process of decision-making that is not only equitable but also maximises value for the whole population?
 - Have the resources within one programme budget been allocated to optimise value

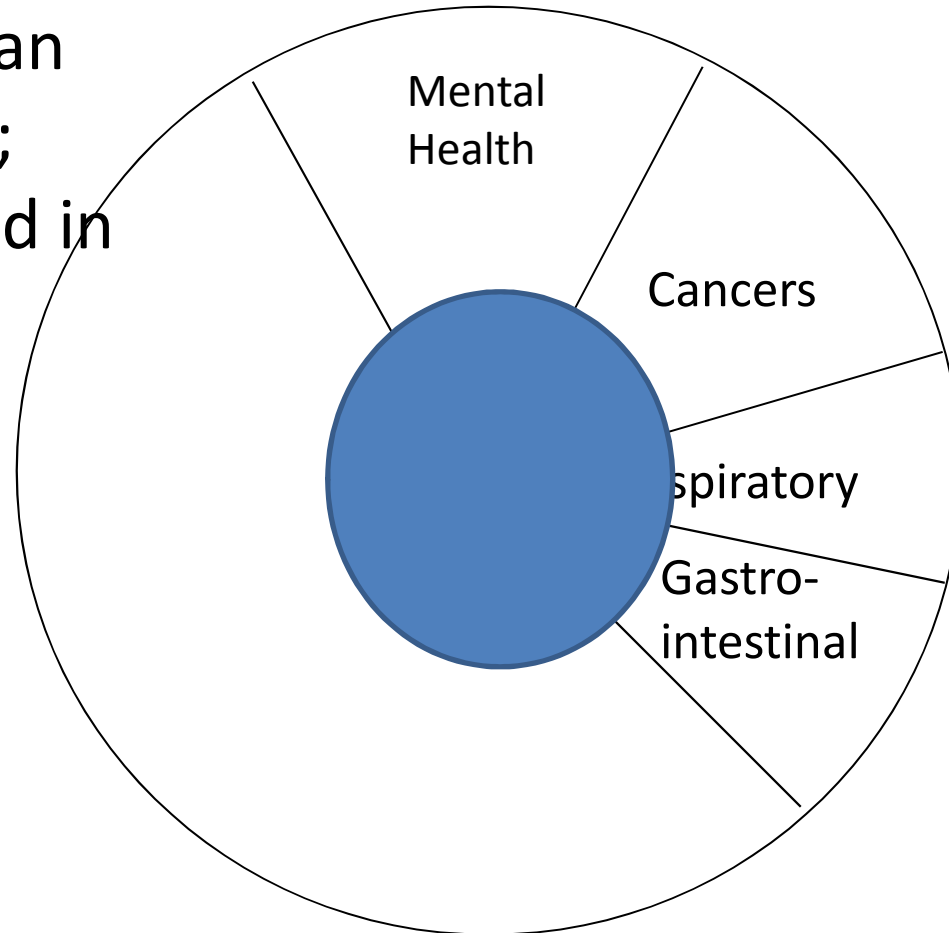
Between Programme
Marginal Analysis and
reallocation is a
commissioner
responsibility with public
involvement



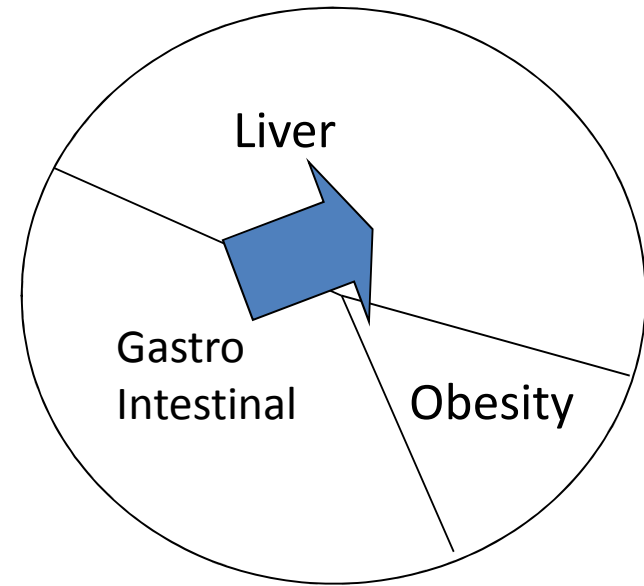
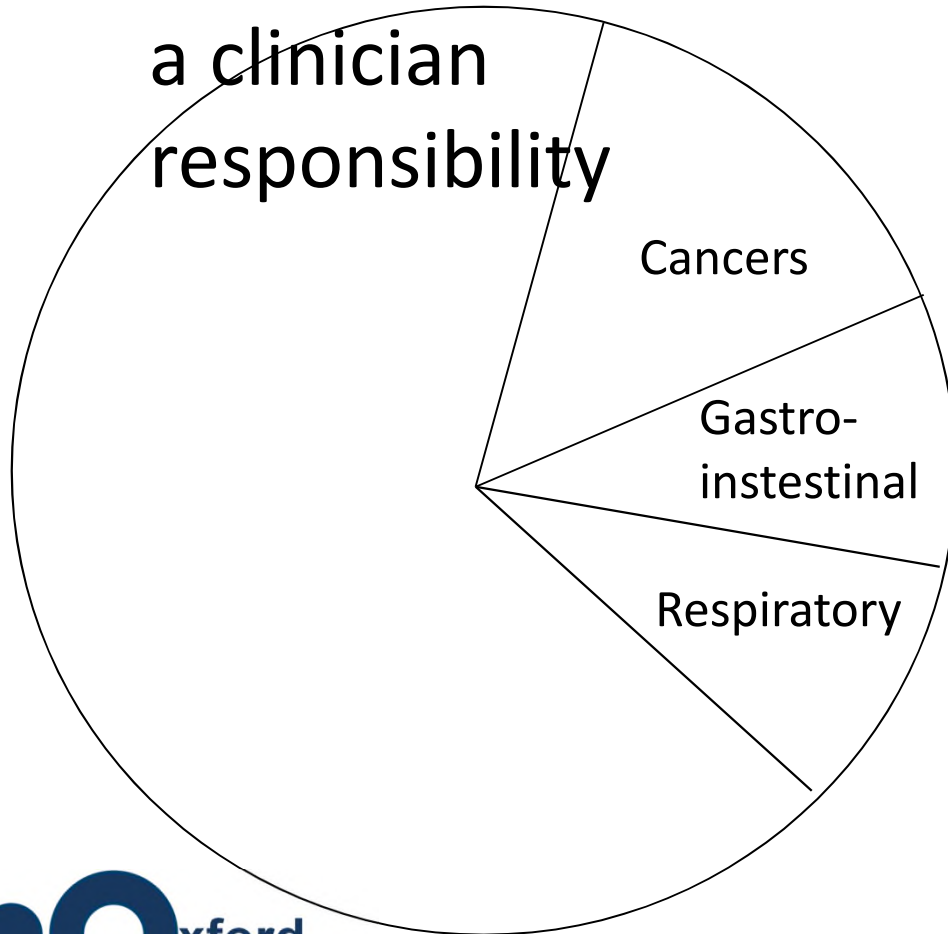
Between Programme
Marginal Analysis and
reallocation is a
commissioner
responsibility with public
involvement



Many people
have more than
one problem ;
GP's are skilled in
managing
complexity



Within Programme,
Between System
Marginal analysis is
a clinician
responsibility



Technical Value (Efficiency) = Outcomes / Costs

Outcome= Benefit (EBM +Quality) – Harm (Safety)

Costs (Money + time + Carbon)

10 QUESTIONS ABOUT VALUE

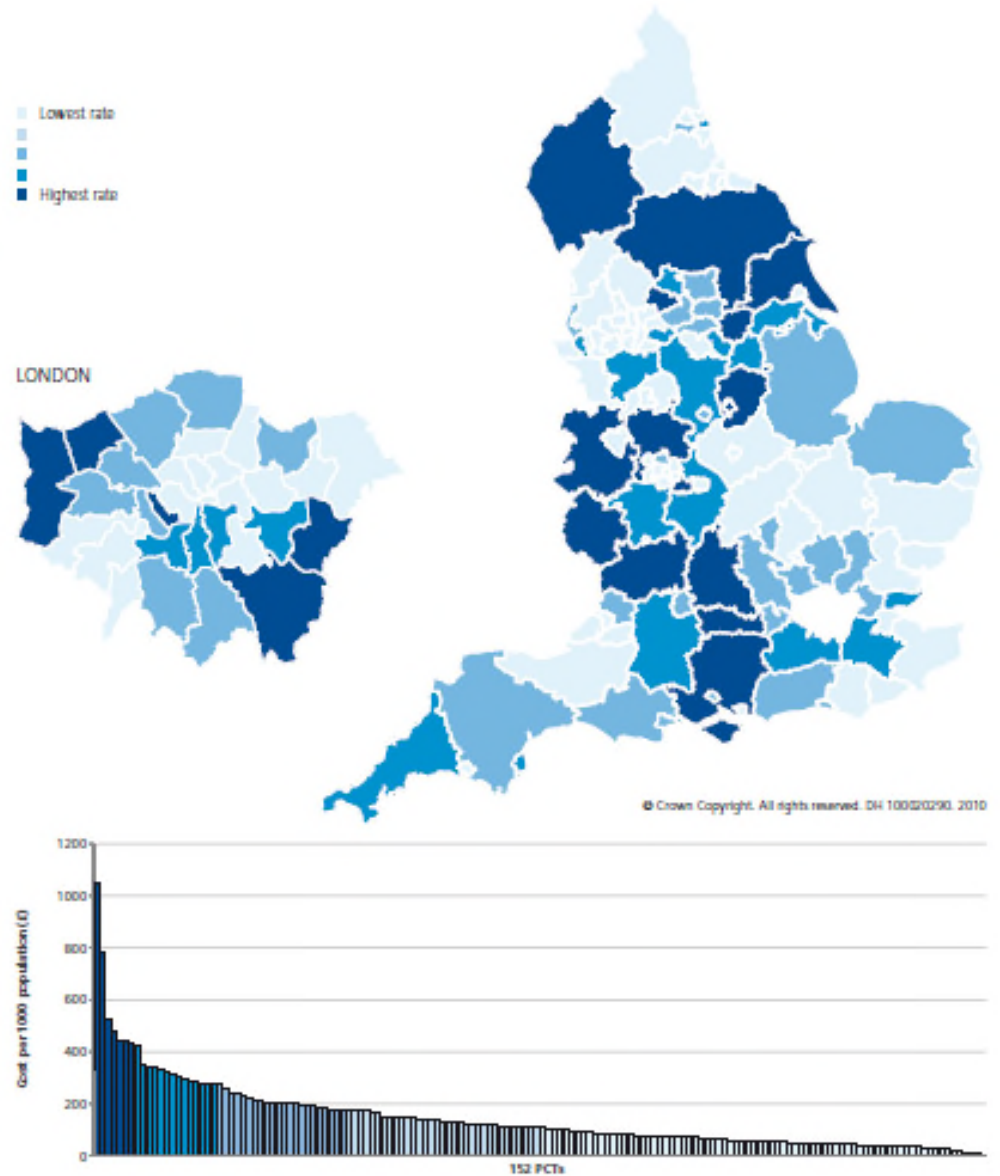
- 8. Are the resources that have been allocated being used on the right interventions?

4 Increase High Value Innovation by
Disinvestment from Lower Value
Interventions and ensure that any
innovation without strong evidence of
high value is introduced using the IDEAL
method to ensure evaluation



Rate of anterior cruciate ligament reconstruction expenditure per 1000 population by PCT Weighted by age, sex, and need; 2008/09

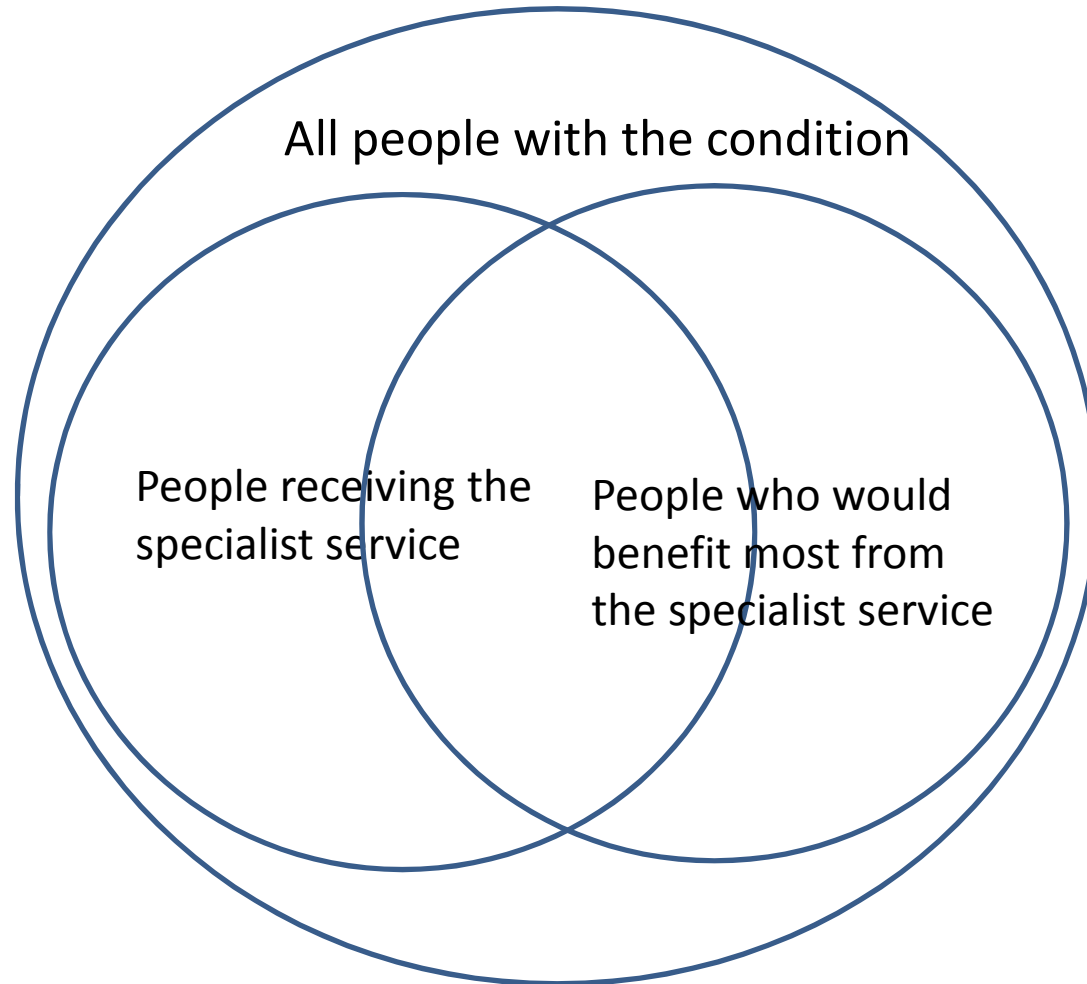
The variation among PCTs in the rate of expenditure for anterior cruciate ligament reconstruction per 1000 population is 50-fold.



10 QUESTIONS ABOUT VALUE

- 9. Are the right patients being offered the high value interventions?

3. See the right patients



Hip replacement
in most deprived
populations
compared with
least deprived
populations

31

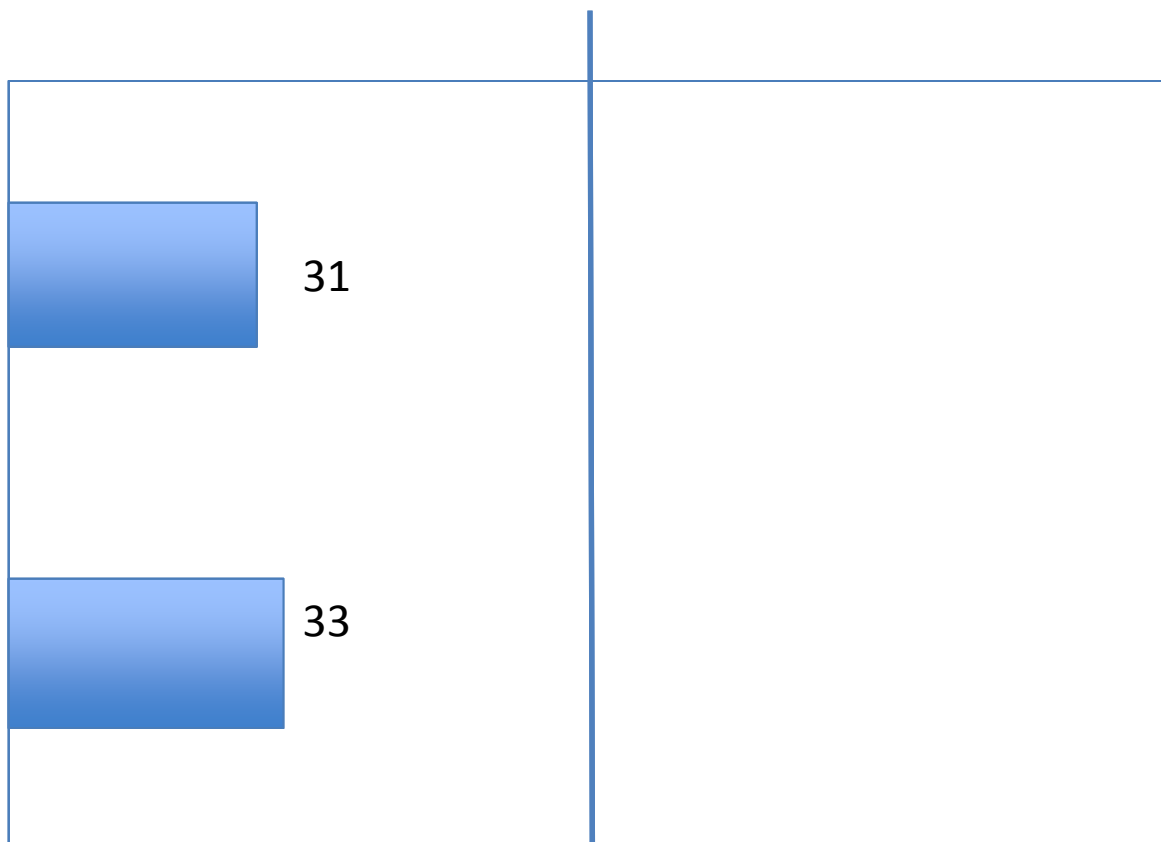
Knee replacement
in most deprived
populations
compared with
least deprived
populations

33

Provision less than expected

Provision more than expected

100



10 QUESTIONS ABOUT VALUE

- 10 (should really be No 1) Are we sure that every individual patient is getting what is right for him or her?

The Healthcare Archipelago

GENERAL
PRACTICE

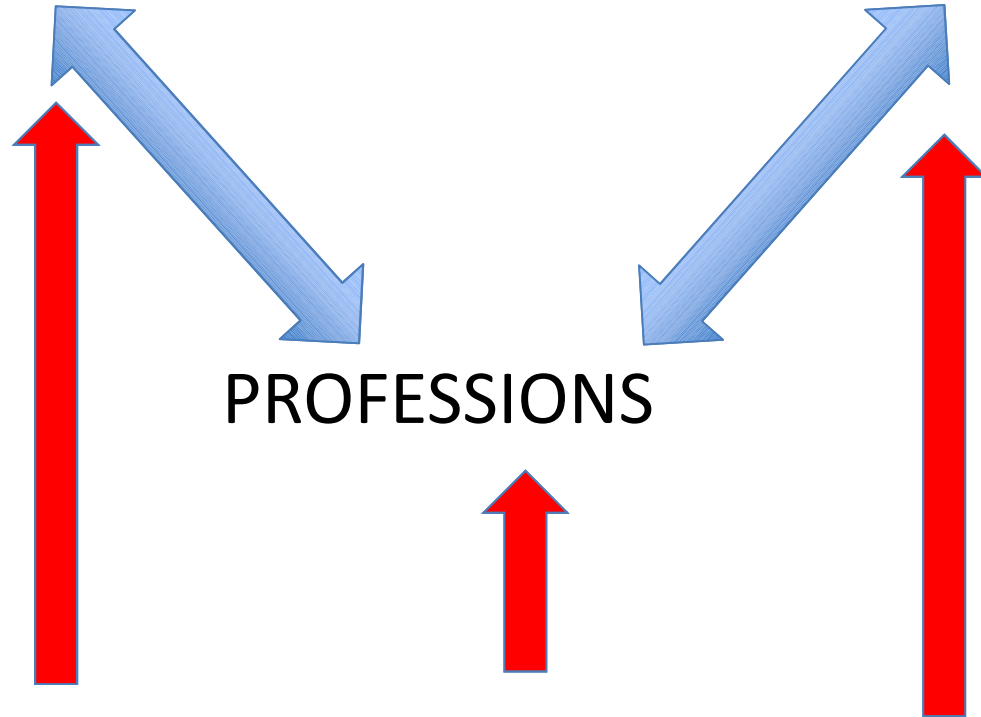
MENTAL
HEALTH

COMMUNITY
SERVICES

PUBLIC
HEALTH
SERVICES

HOSPITAL
SERVICES

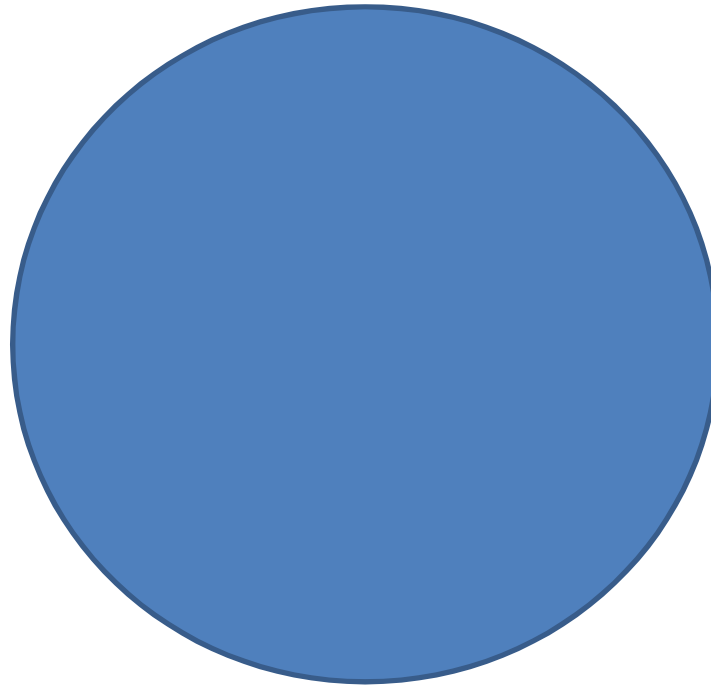
JURISDICTIONS ↔ INSTITUTIONS



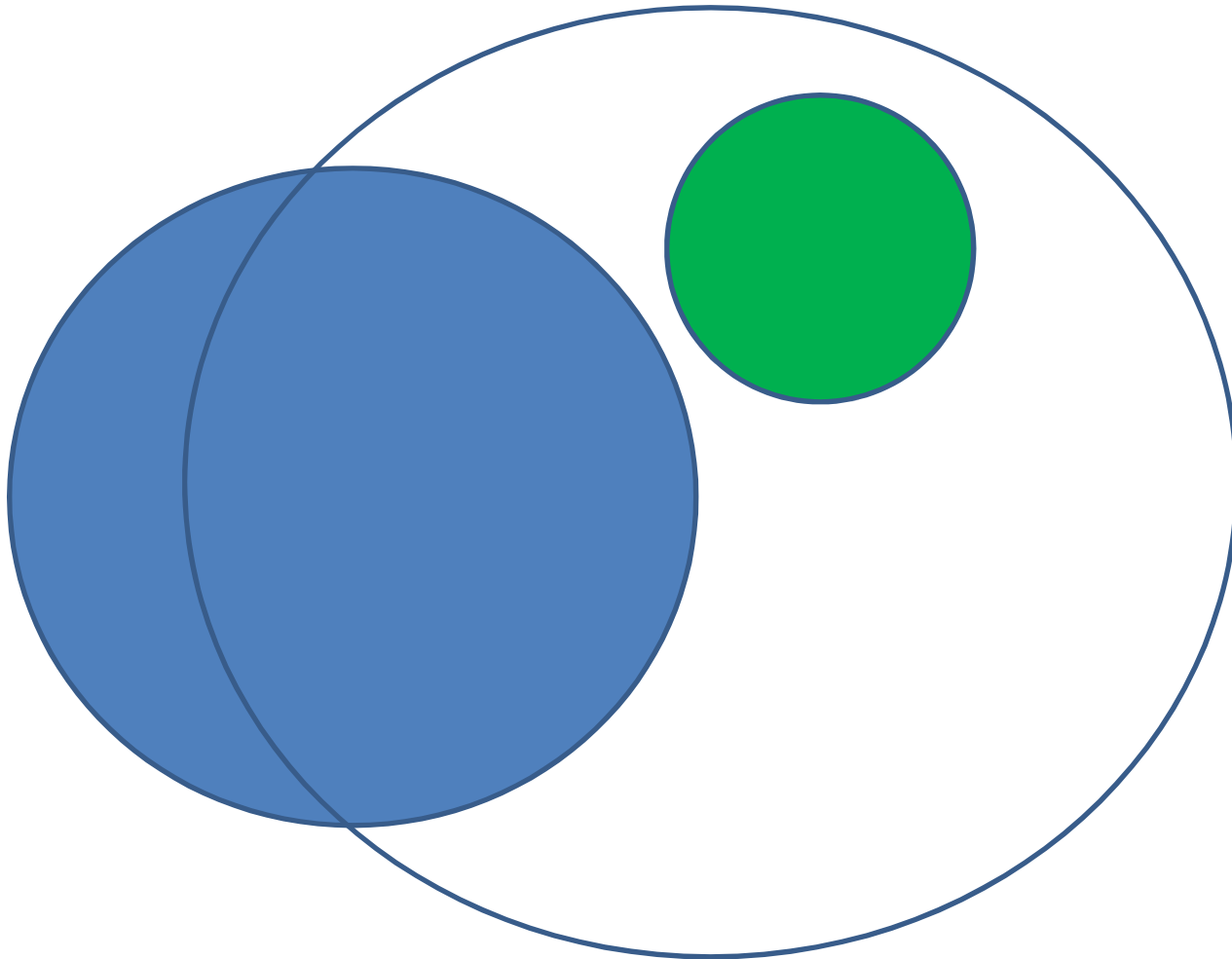
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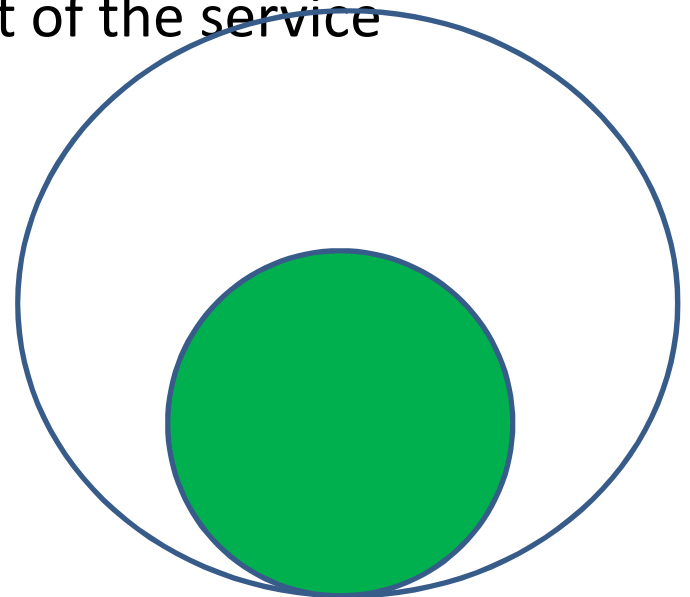
Network development

Quality of patient information

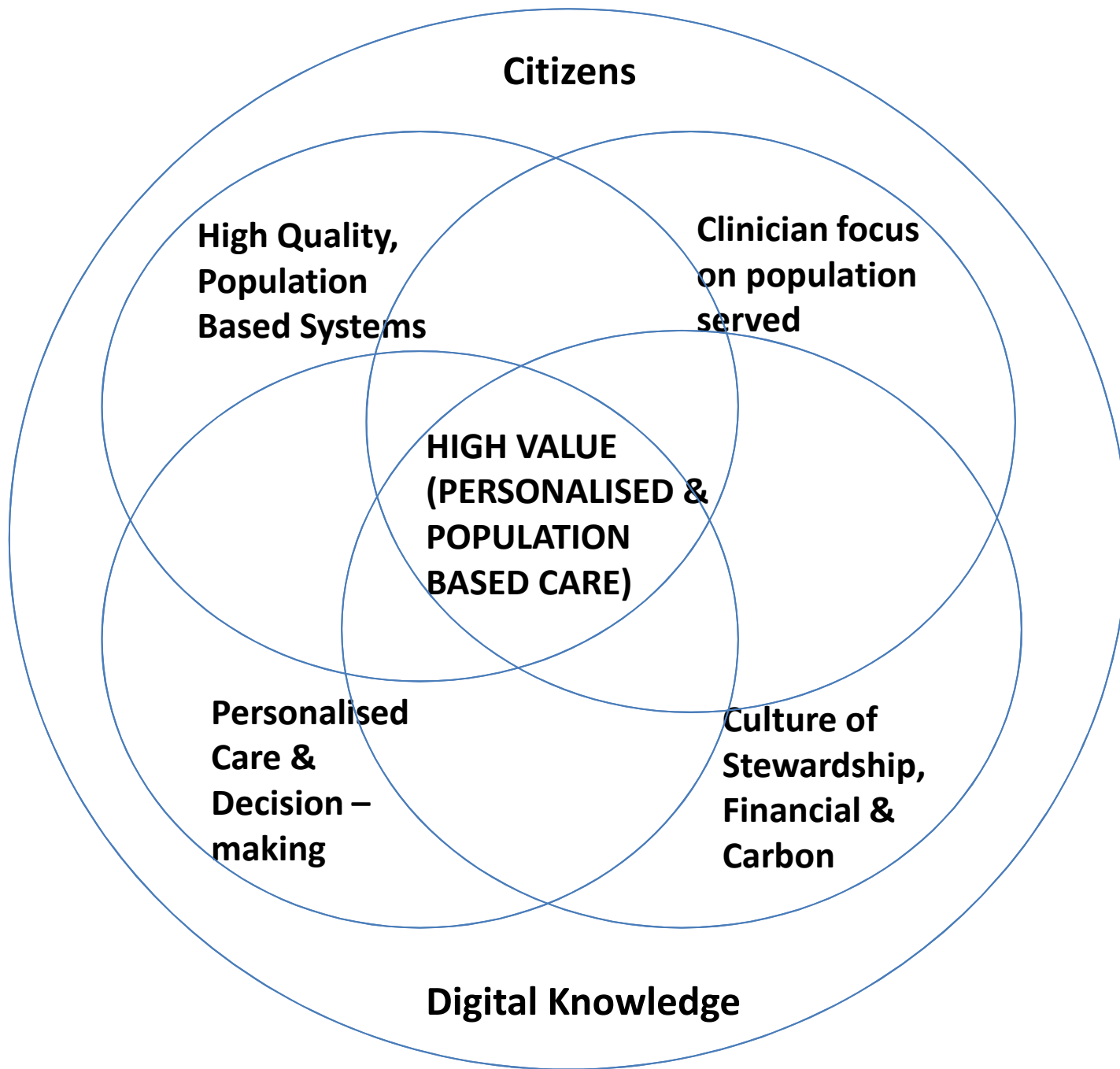
Professional development of generalists, and pharmacists

Production of the Annual Report of the service

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<i>Responsibility</i>	<i>Action</i>
Productivity	Doing things cheaply
Efficiency	Doing the right things right
Better value	Doing the right things
Sustainability	Doing things greenly
Equity	Doing things fairly
Population	Doing things to help all patients in the population, not just the referred patients.



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STEWARDSHIP to hold something in trust for another

“Culture...the shared tacit assumptions of a group that it has learned in coping with external threats and dealing with internal relationships.”

Schein, E.H (1999) The Corporate Culture Survival Guide

“Leadership ...and a company’s culture are inextricably intertwined.”

Morgan, J.M. and Liker, J.K. (2006) The Toyota Product Development System

“Waste (muda) is anything that does not add value to the outcome” Taiichi Ohno

ohno

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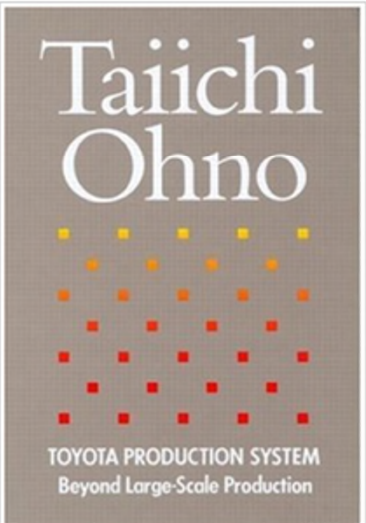
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Released Wednesday 14 December

What does Toyota mean by the word waste?

Book review by Sir Muir Gray



Taiichi Ohno


TOYOTA PRODUCTION SYSTEM
Beyond Large-Scale Production

The Toyoda family played a dominant part in the history of the Toyota Motor Corporation, always honourable and positive, but there were other key people apart from family members who made the company what it is today.

The most famous of these is **Taiichi Ohno**, charismatic, ferocious and relentless personality who developed the Toyota Production System and waged unrelenting war on *muda*.

The stories are legion. For example, when he thought there was too much inventory space beside a production line, one of the seven types of wastes, he got an electric saw and simply cut the twelve foot high stacks of shelves down to six feet, thus reducing the inventory space by 100% – problem solved.

His book **The Toyota Production System** should really be



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