SENATOR SMITH: Suppose you had had [binoculars], could you have seen this black object [the iceberg] a greater distance?
MR. FLEET [a Titanic lookout]: We could have seen it a bit sooner.
SENATOR SMITH: How much sooner?
MR. FLEET: Well, enough to get out of the way...
Great innovations of the first and second healthcare revolutions

The First

The Second

- MRI and CT scanning
- Statins
- Antibiotics
- Coronary artery bypass graft surgery & stents
- Hip and knee replacement
- Chemotherapy
- Radiotherapy
- Randomised controlled trials
- Systematic reviews
But all health services, world wide, still face 5 major problems-

- FAILURE TO PREVENT PREVENTABLE DISEASE
- INEQUITY
- PATIENT HARM, EVEN WHEN QUALITY IS HIGH
- WASTE OF RESOURCES (MUDA)
- UNWARRANTED VARIATION IN
  - ACTIVITY
  - QUALITY, SAFETY
  - OUTCOME & COST = VALUE
the Third Healthcare Revolution is already underway

the Third Healthcare Revolution will come out of the barrel of the Smartphone
New Paradigm Healthcare

Focus on value

Population Based Systems

Change culture

Engage patients
The 21\textsuperscript{st} Century is the value century and there are 2 perspectives on value
1. the patient’s perspective
2. the population perspective and there are two types of value for populations
   a. allocative
   b. technical
Multiple Morbidity

- Mental Health 2M
- Cancers 1.4M
- Respiratory 1.1M
- Gastro-Intestinal 800k
Between Programme & Within System Marginal Analysis

- Cancers
- Respiratory
- Gastro-intestinal
- COPD (Chronic Obstructive Pulmonary Disease)
- Apnoea
- Asthma
- Triple Drug Therapy
- Smoking cessation
- Rehabilitation

O2

Marginal Analysis
Technical Value = Outcomes / Costs

Outcome = Good Outcomes – Bad Outcomes

Doing the Right Things (EBM) Right (Quality & Safety)

Costs = Money/Time/Carbon/ Opportunity Lost
The law of diminishing returns eg lab tests 10% +pa, CT, last year of life
Harmful effects increase in direct proportion to the resources invested.
After a certain level of investment the health gain may start to decline; the point of optimality.
Evidence

The values this patient places on benefits and harms of the options

Choice

The clinical condition of this patient; other diagnoses and risk factors and their social circumstances

Decision

The patient’s perspective; Value based and shared decision making
As the rate of intervention increases the balance of benefit and harm changes for the individual patient.
• Is epilepsy care in South London **better** than epilepsy care in North London?
• Who is responsible for the service for people with bipolar disorder in Ealing?
• Did the service for people who are breathless in Lewisham **improve** last year?
• Is the service for frail elderly people getting **better** in Harrow, is it better than in Sussex, and who is responsible for it?
• How many asthma services should there be in London and is that different from the number of services for inflammatory bowel disease or rheumatoid arthritis?
The Healthcare Archipelago

- General Practice
- Mental Health
- Community Services
- Hospital Services
The Commissioning Archipelago

- GENERAL PRACTICE COMMISSIONING
- PUBLIC HEALTH COMMISSIONING
- CCG COMMISSIONING
- SPECIALIST COMMISSIONING
Fractured Neck of Femur
People With Long Term Joint Problems
A **SYSTEM** is a set of activities with a common set of objectives and an annual report. Systems can focus on symptoms, conditions or subgroups of the population (also known as a service)

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
Dr Jones is a respiratory physician in the Derby Hospital Trust and last year she saw 346 people with COPD and provided evidence based, patient centred care, and to improve effectiveness, productivity and safety.
Dr Jones estimated that there are 1000 people with COPD in South Derbyshire and a population based audit showed that there were 100 people who were not referred who would benefit; she needs to practise **population medicine**.
Dr Jones, the co-ordinator of the South Derbyshire COPD Network and Service has responsibility, authority and resources (1 day a week and support) for:
- Network development
- Localisation of the Map of Medicine
- Quality of patient information
- Professional development of generalists, and pharmacists
- the carbon budget of the respiratory service (10,500T)
- 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.
The 21st Century is the century of culture; culture eats strategy for breakfast and it eats structure for breakfast, lunch and dinner.

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


**Leadership**...and a company’s culture are inextricably intertwined.


Leaders shape culture through behaviour and language
IF YOU ASKED EVERY KEY PERSON TO WRITE DOWN THE MEANING OF

Sustainability, and how it differs from Efficiency?
Value
Waste and how it differs from refuse Efficiency, and how it differs from Productivity

How consistent would be the response?
SUSTAINABILITY IS A FUNCTION OF TWO VARIABLES – WASTE AND LOWER VALUE CARE

2 MILLION CONSULTATIONS AND 10 MILLION DECISIONS A DAY

Sustainable Clinical Decision-making
Although Tiller Orders were still being used on the North Atlantic passage, in other parts of the world they’d already switched to Rudder Orders, where a hard-a-starboard order meant you put the wheel to starboard and that’s the way the bow turned. The helmsman at the time of the collision was a man... trained to Rudder Orders.’

... ‘So when Murdoch called, “Hard a-starboard,” Hitchins should have turned the wheel to port, and *Titanic* would have gone to port and avoided the iceberg.”