



Health Systems in Transition – a global perspective

Building Tomorrow's Health Services

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**Ten years of...
Bridging the gap between
evidence and policy-making**

<http://www.euro.who.int/observatory>



A partnership that reflects evidence-based policy-making

- **International agencies**

- WHO Regional Office for Europe, the European Investment Bank, the World Bank, the Open Society Institute



- **National and regional governments**

- Belgium, Finland, Greece, Norway, Spain, Sweden and Slovenia, as well as the Veneto Region of Italy

- **Academia**

- the London School of Economics and Political Science (LSE), the London School of Hygiene & Tropical Medicine (LSHTM)



Three transitions

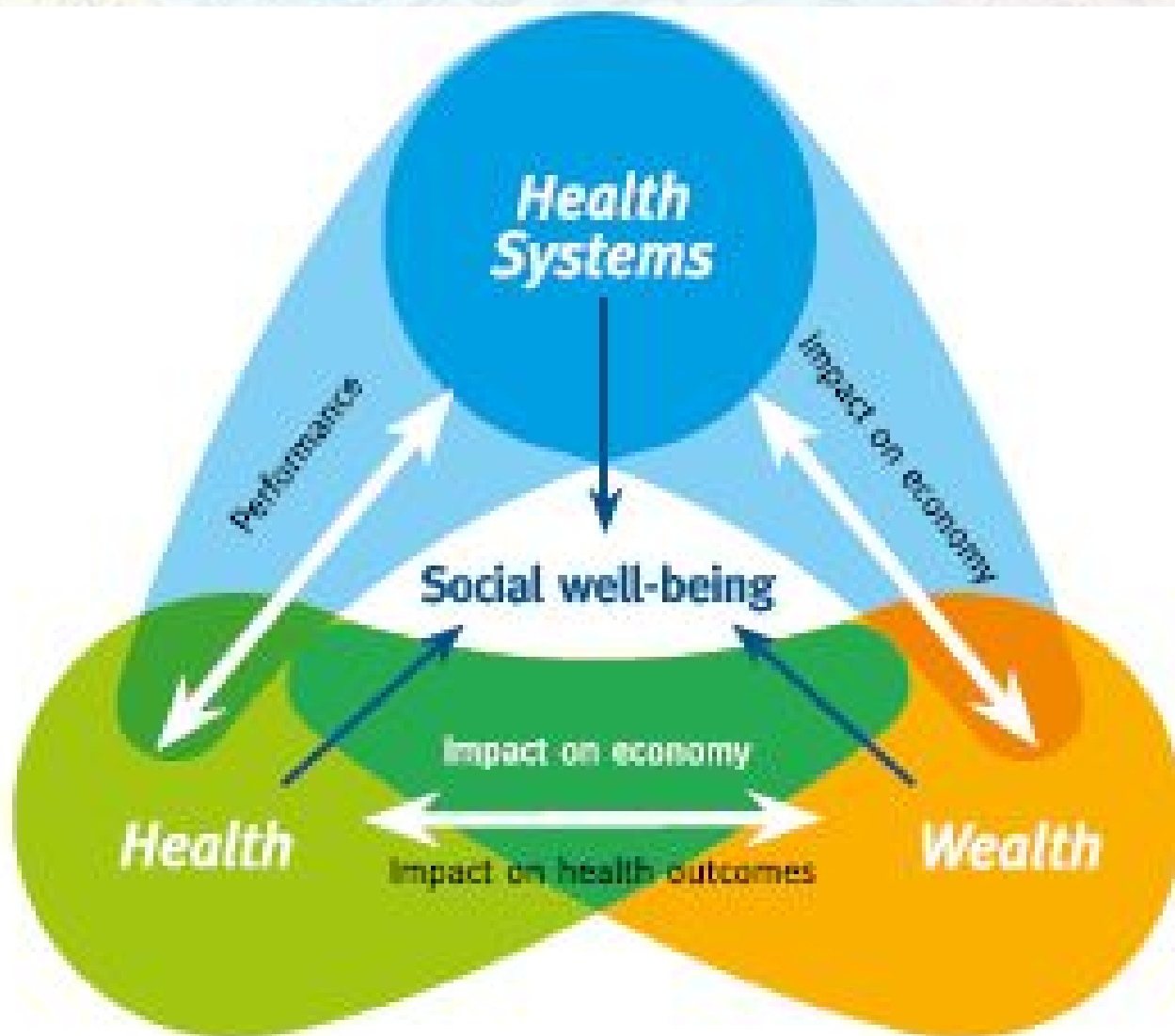
- How we think about health systems
- The role of the hospital
- The nature of disease

Transition 1: thinking about health systems

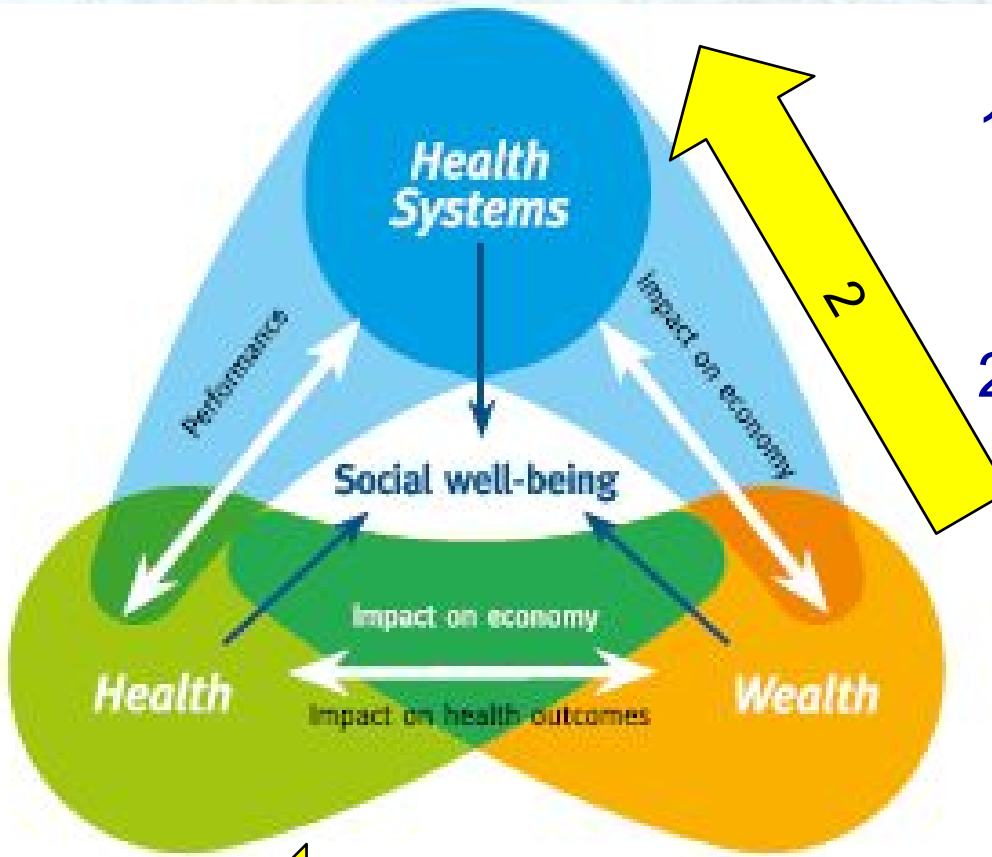
- What are we actually trying to achieve?
- Whatever it is, can we afford it?
- And can we afford it for everyone?

If we can't answer the first question, it is difficult to answer the rest

Three sets of relationships

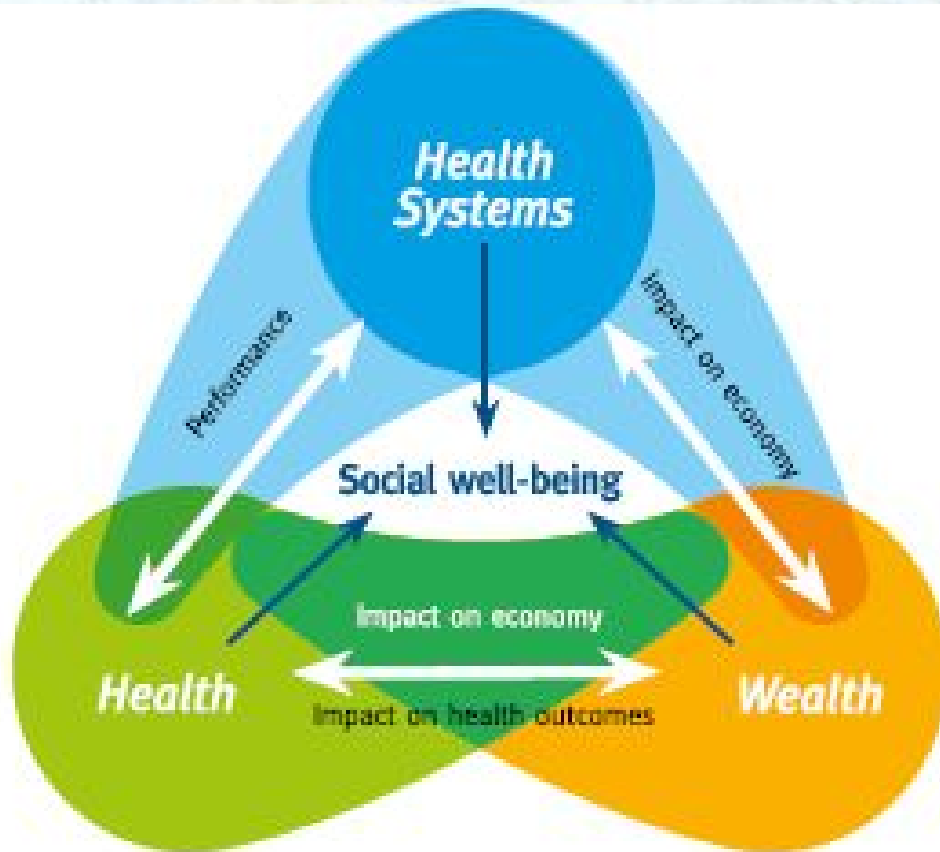


The easy bits

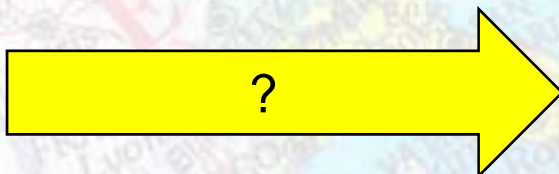


1. Wealthy people (and countries) can make healthier choices
2. Greater wealth provides more money to spend on health systems (if you chose to do so)

Does better health increase wealth?



- It does in poor countries (commission on Macroeconomics and Health)
- If you are unhealthy, you cannot work in agriculture or extractive industries
- Is this also true in high income countries dominated by service industries and technology?



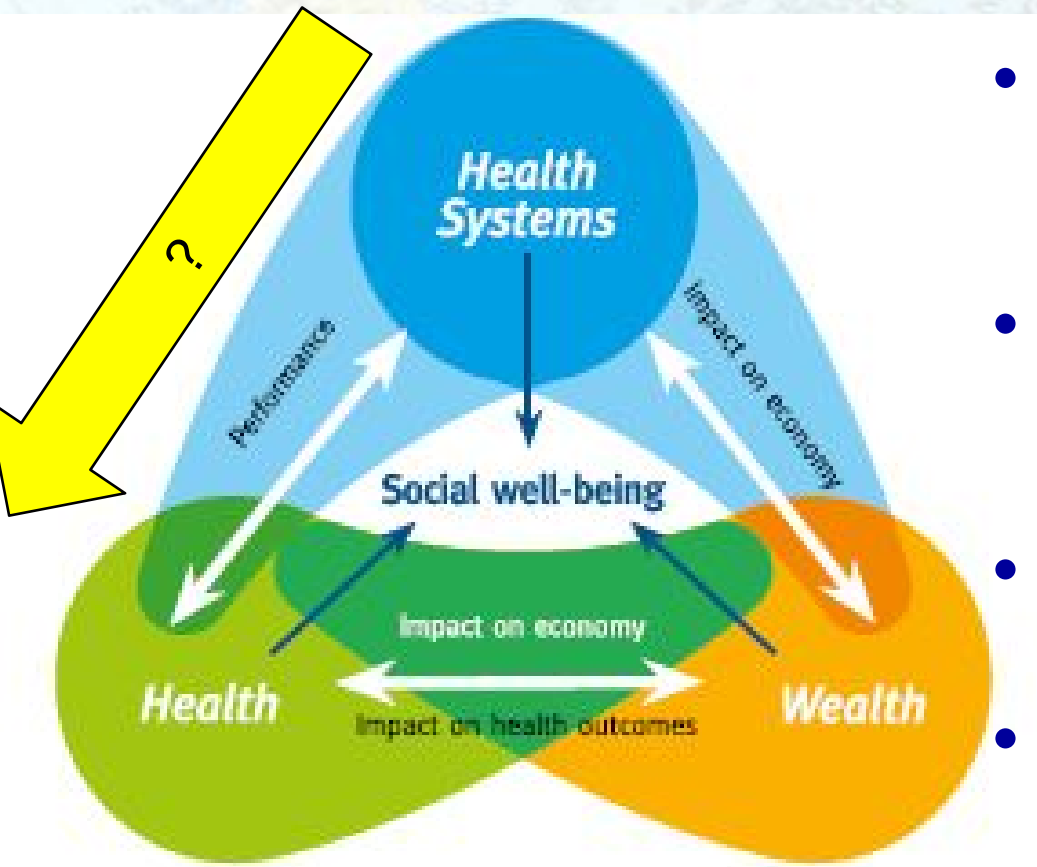
Possible mechanisms

Health people might:

- Be more productive when they are working
- Work more
 - Staying in work until retirement
 - Working more hours per week
- Invest in their own education, as they have more to look forward to
- Invest in pension funds, as they can expect to get the money back

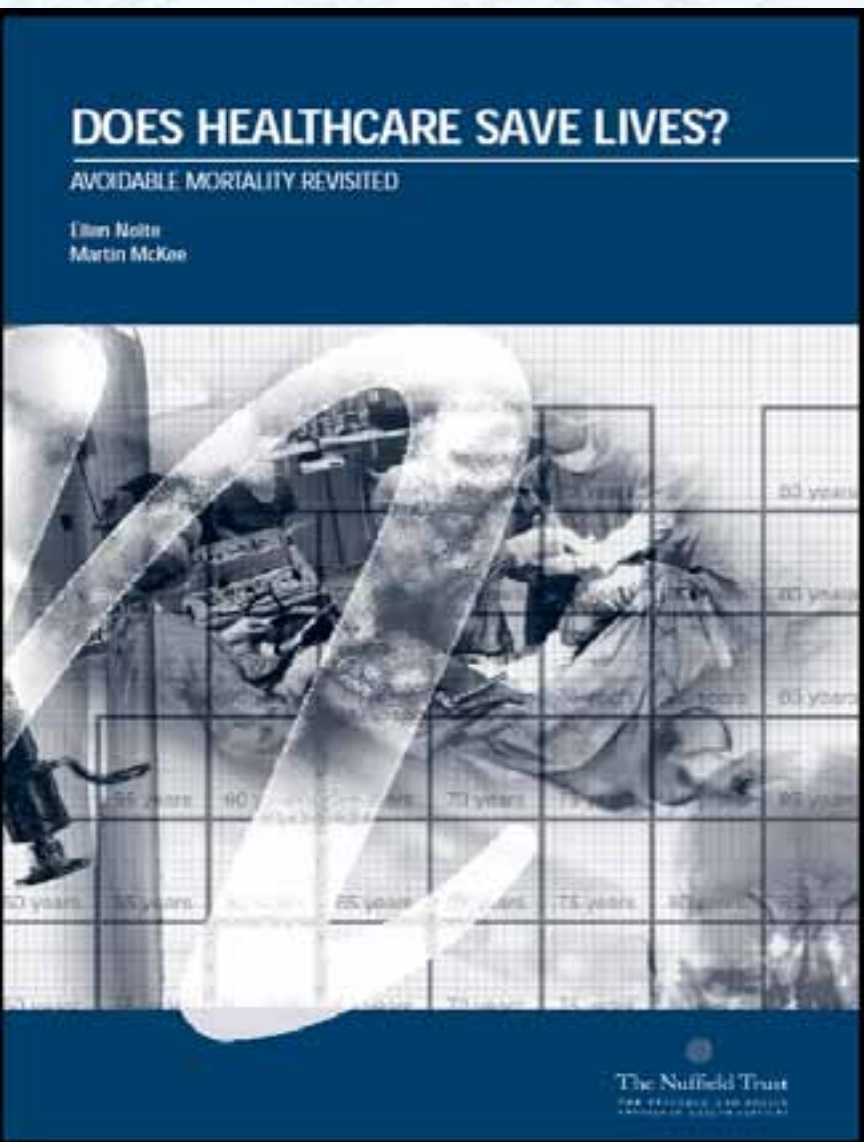


Do health systems improve population health?

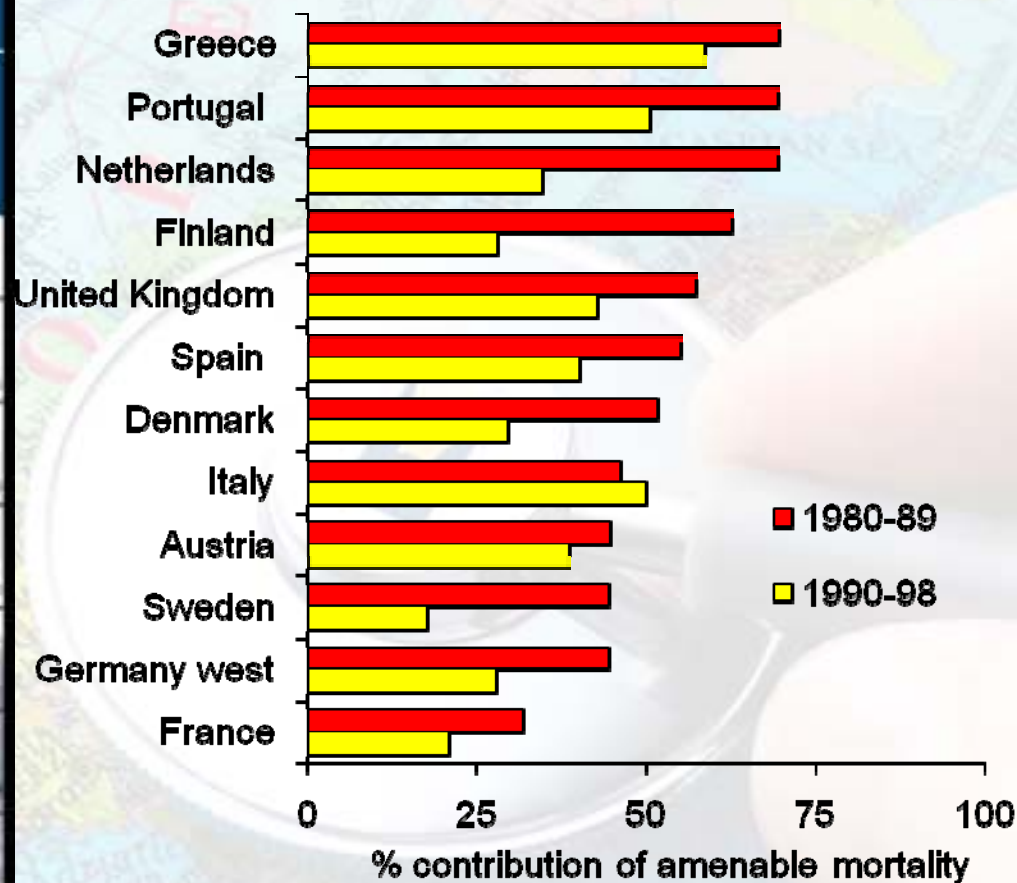


- For a long time, the public health community said “not much”
- Big gains were from things like clean water and adequate nutrition
- True before mid 1960s, when health care contributed little
- Is it true now?

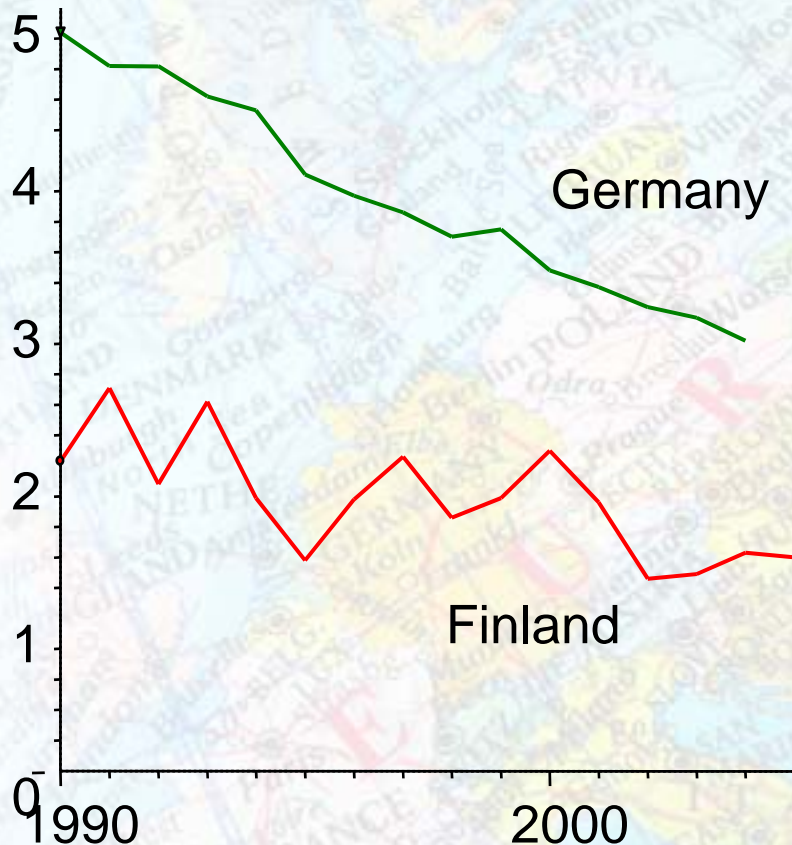
Health systems → health



Contribution of health care to gains in life expectancy



More may not be better: Preventing deaths from cervical cancer



Number of cervical smears in a lifetime:

– Germany – 50

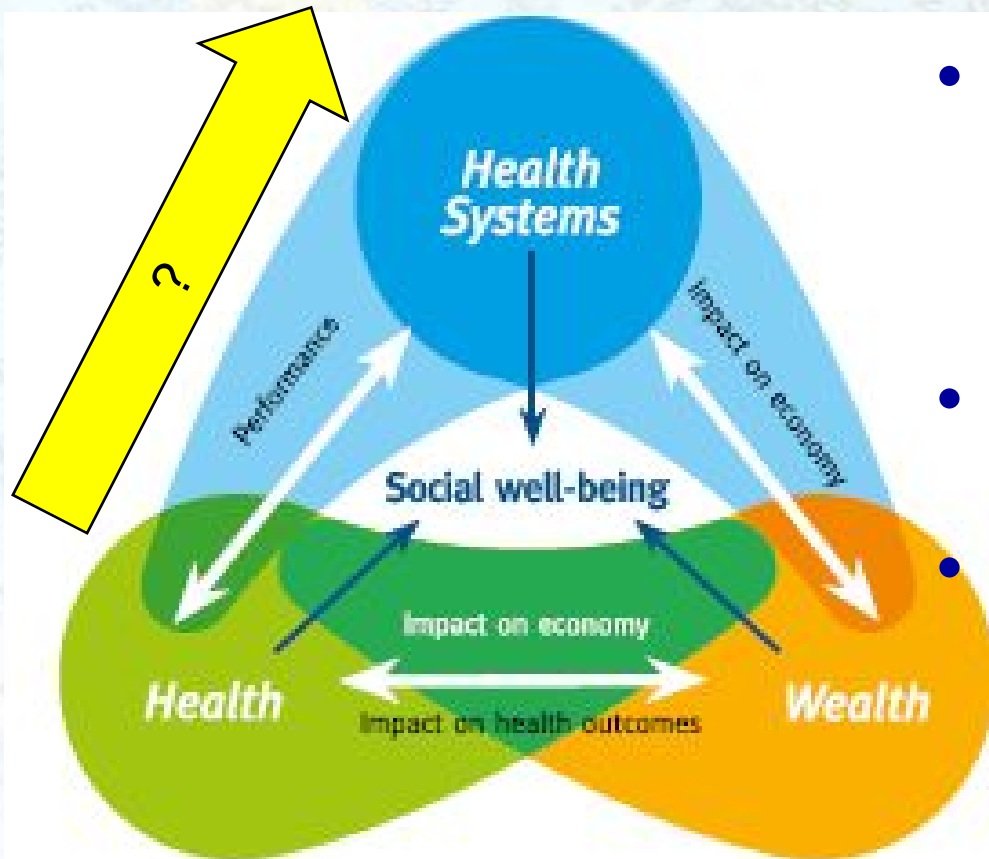
– Finland – 7

- It is better to pay people to achieve goals, not just to do things

The implications

- The performance of health systems should be measured in health gain
 - (OK – I know it is not easy – and the effects will not be visible at once)
 - Five year cancer survival can only be measured more than 5 years after you change policies – obvious, isn't it!
- Health care should be effective
 - Models of care should be designed to maximise health gain

Does better health reduce demands on health systems?



- If everyone lived to 100 and then dropped dead, we wouldn't need to spend anything on health care
- Nice idea, but not feasible in our life time
- But can we move in this direction?

Wanless Report: UK Treasury (not Ministry of Health!)

The questions

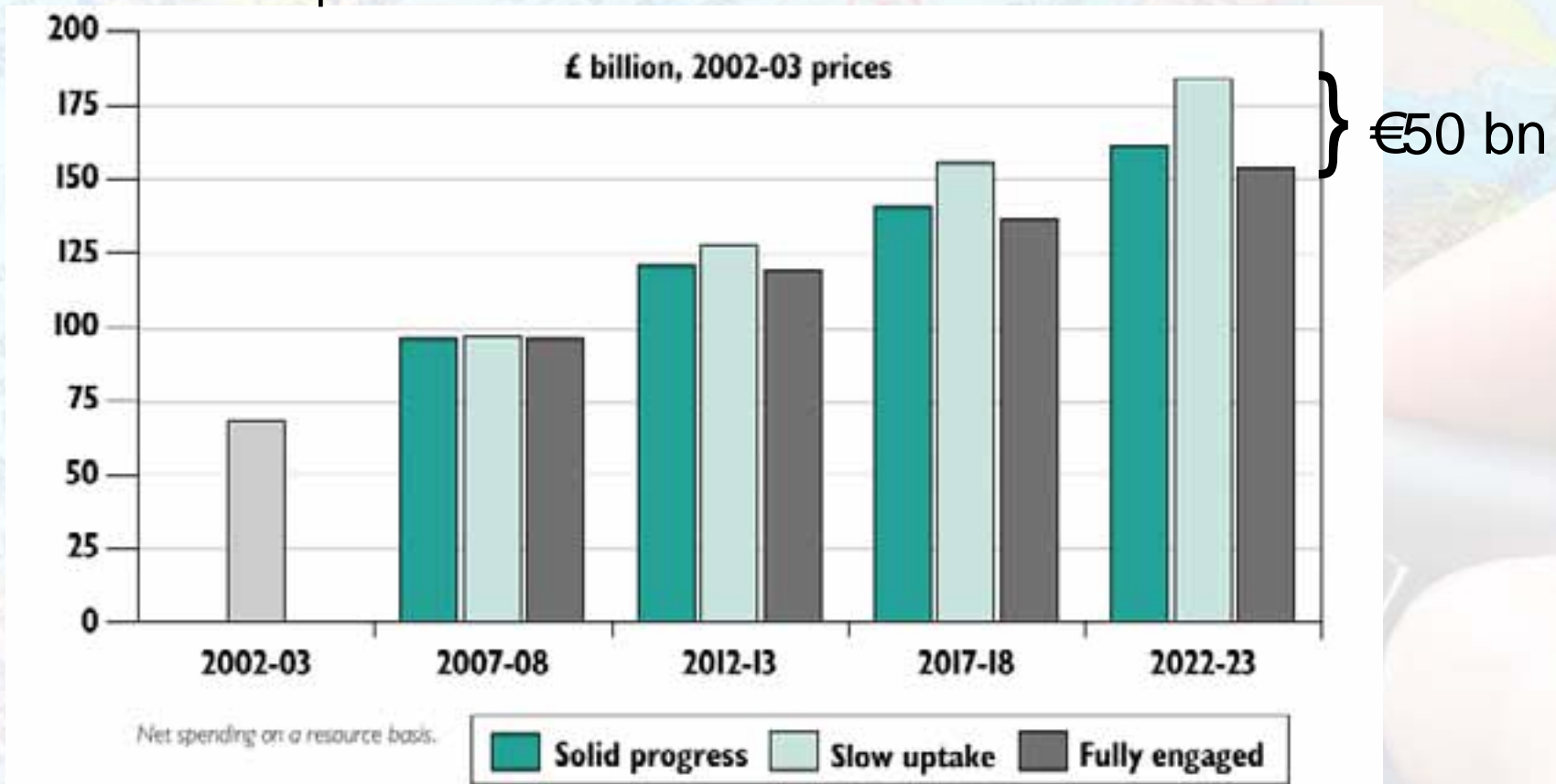
- What is the best way to pay for health care?
- How can we minimise the growth in expenditure

The answers

- General taxation
- Make sure that:
 - Diseases are prevented from occurring
 - Treatment provided is timely and effective
- “Fully engaged” health system

The potential impact

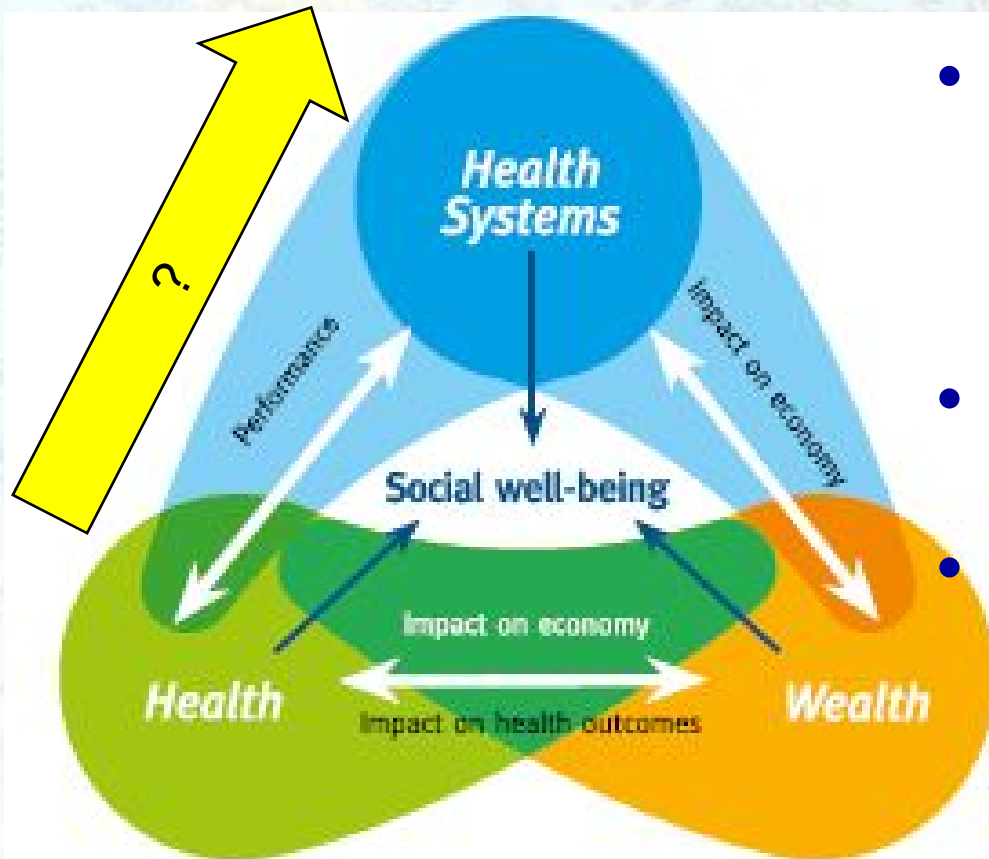
Anticipating the future: Projections of future expenditure on UK NHS under three scenarios



Fully engaged = major commitment to health improvement

Source: Wanless Report

Can health systems promote economic development?



- If everyone lived to 100 and then dropped dead, we wouldn't need to spend anything on health care
- Nice idea, but not feasible in our life time
- But can we move in this direction?

There are different ways of spending money

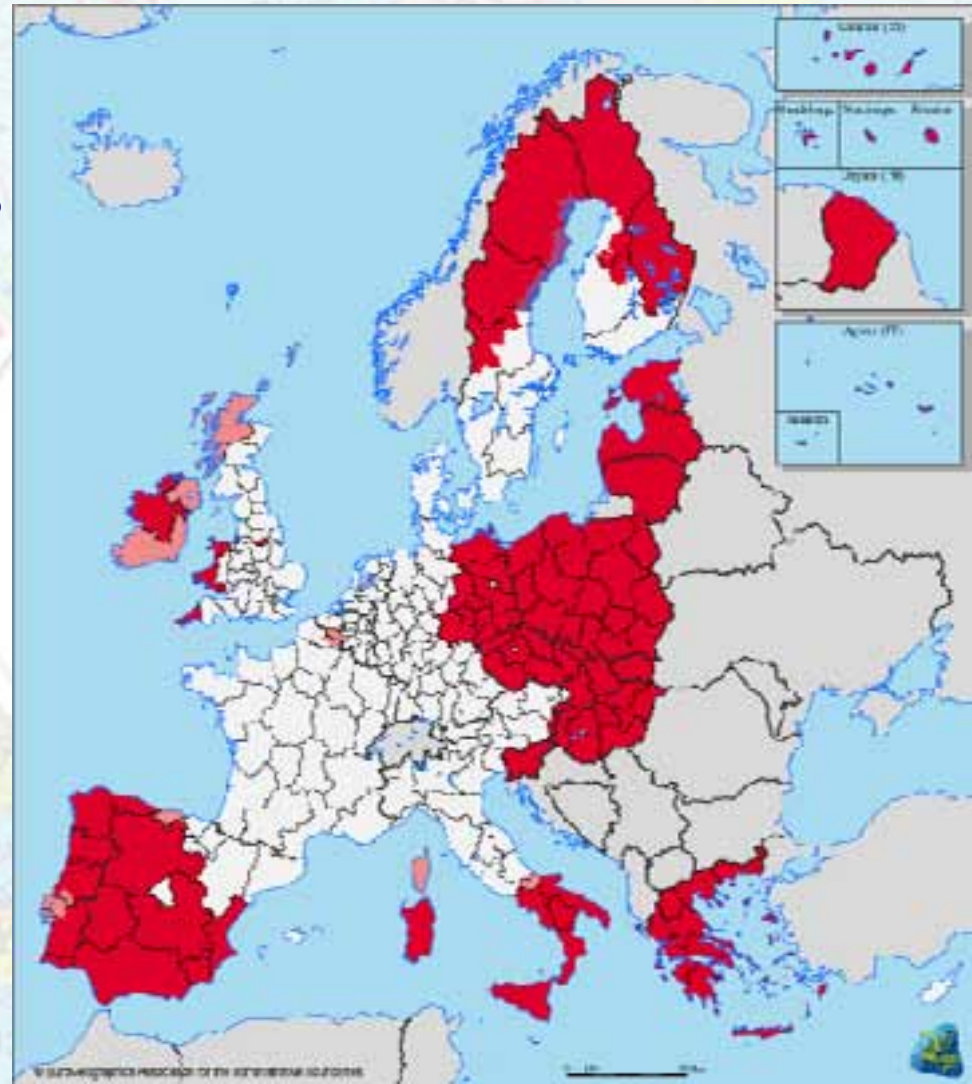
So you want to build a new hospital?

- Issue a single call for tenders, for the whole thing (construction, furniture, technology)
 - A handful of global companies have the capacity to bid
 - In fact, they can probably lift the bid documents off the shelf
 - Profits will be repatriated, supplies will be sourced from abroad, and local economy will get little benefit
 - If project fails, contractor will walk away
- Divide project into smaller tranches
 - Local small and medium enterprises can bid
 - Local employment will increase
 - Health of local population will improve
 - Contractors will be there when you need them

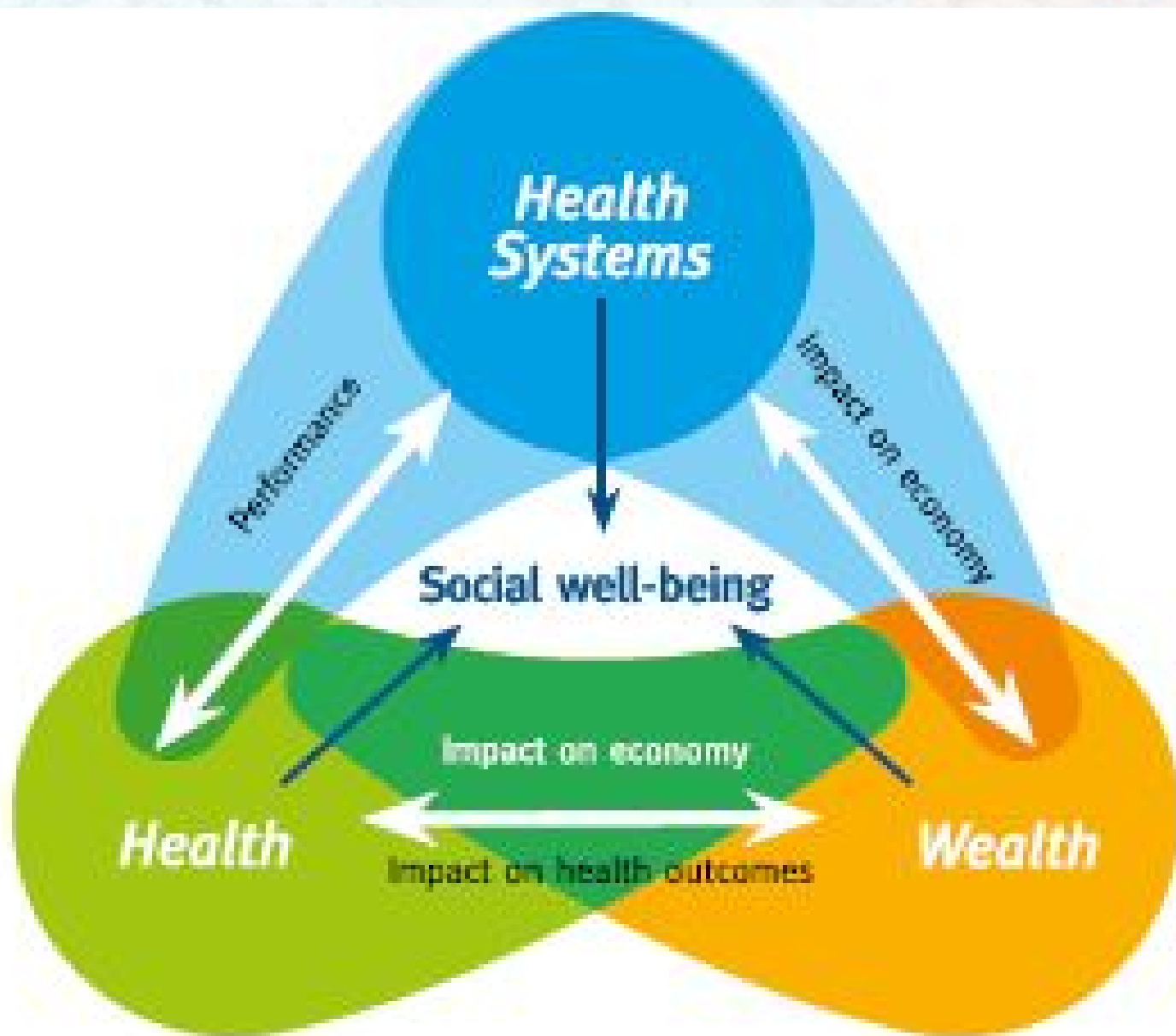
Health systems → wealth

Investment in health facilities in deprived areas can be a critical factor in facilitating inward investment

A key issue for EU structural funds



Towards a virtuous circle?



Transition 2: the changing role of the hospital

If we want to know where we are going, we should ask where we have come from

Health professionals before the 19th century

- Surgeons
 - Part-time barbers
 - Judged by speed of completing amputations
- Physicians
 - Masters of “watchful waiting”
 - Judicious application of herbal remedies
- Nurses
 - Sisters of mercy

Health technology before the 19th century

- Pharmaceuticals
 - A few actually beneficial (digitalis, some herbs)
 - Most seriously toxic (arsenic)
- Diagnostics
 - Look, feel, and think
- Surgical equipment
 - Saws
 - Molten pitch
- Interventional medicine
 - Cupping
 - Bleeding



The hospital before the 19th century

- Places of rest, prayer, and contemplation
- Patients patiently waiting for death or deliverance
- Admission significantly increased your risk of dying
- So most health care provided at home



A revolution

- Safe surgery
 - Anaesthesia
 - Asepsis
- Imaging
 - X-rays
- Laboratory medicine
 - Biochemistry
 - Haematology
 - Bacteriology

The rationale for the acute hospital

The emergence of scientific medicine



The times, they are a changing

- The acute hospital
 - Operating theatres – short acting anaesthesia, minimally invasive surgery
 - Imaging – ultrasound, mobile MRI
 - Laboratories – micro-arrays, near patient testing
 - Teaching – patients now in community, not hospitals
 - **Multi-drug resistant infections**

Deconstructing acute care

- Surgery
 - To free-standing surgical centres
- Medicine
 - To polyclinics
- Obstetrics
 - To free-standing midwife-led birthing centres
- Imaging
 - CT scanners in trailers and ultrasound in offices
- Laboratories
 - In desktop kits

So what is left?

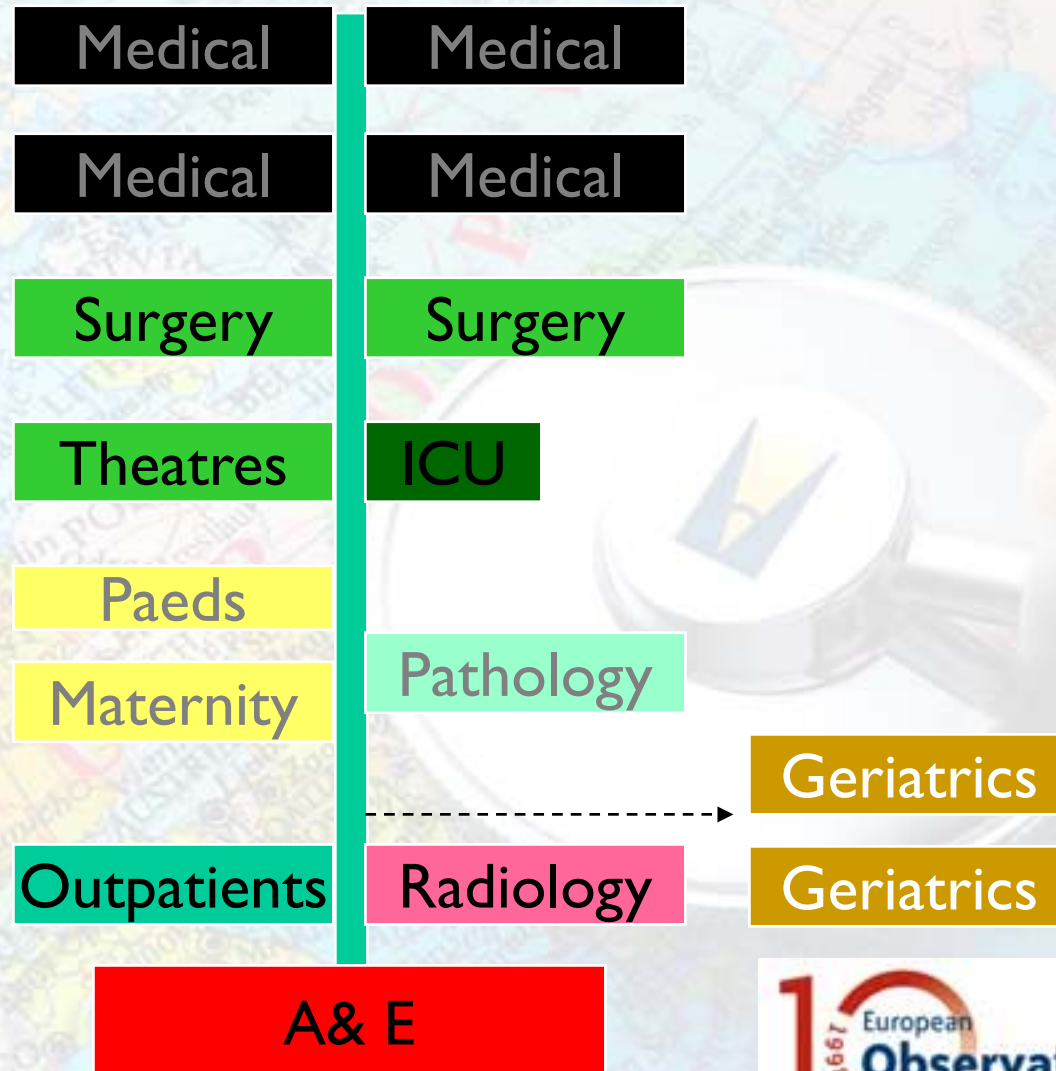
Reconstructing acute care

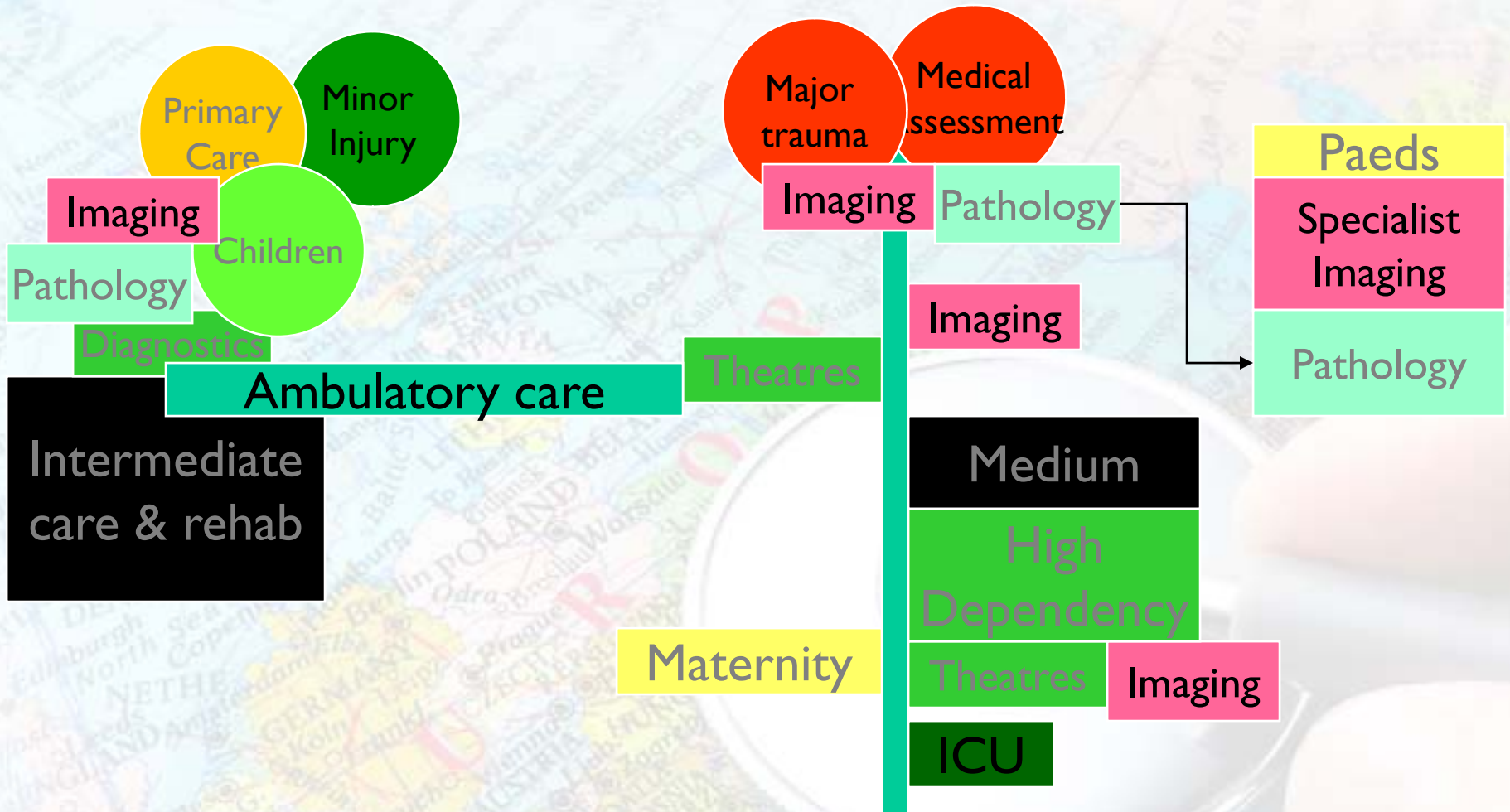
- A family is injured in a high speed car crash
- They arrive at an emergency department
 - There is no paediatric service – it has been moved into the community
 - The eye injuries cannot be treated as the ophthalmologists have been relocated to a free-standing surgical centre to concentrate on waiting lists for cataracts
 - The complex hip fracture cannot be treated, because the orthopaedic surgeons have been relocated to a free-standing surgical centre to concentrate on waiting lists for knee replacements
 - There is no microbiologist to speak to about the wound infection because the service has been moved 200 km away

Maybe hospital care is just changing – it has before

- 1950s - Orthopaedic surgeons threatened with extinction
 - Polio immunization meant no more need for tendon transplants
 - Streptomycin meant no more need to operate on tuberculous spines
- Saved by the invention of the hip replacement by John Charnley
 - And then the knee and shoulder replacement

How to design a hospital





Changing circumstances: Known knowns and unknown unknowns

“there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns, the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones.”

Donald Rumsfeld

Transitioning to the hospital of the future – some basic principles

- Flexibility
 - Expect the unexpected
 - Plan to be wrong
- Sustainability
 - Take a whole life perspective
- Seeing the big picture
 - Clinical networks
 - Seamlessly bridging the primary-secondary interface community
- Investing in staff
 - Buildings allow things to happen, people make them happen

Built in flexibility: The Netherlands

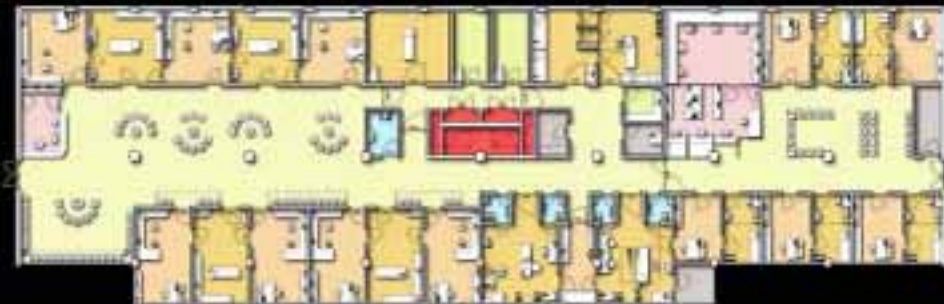
Martini Hospital. Groningen

- Four segments

- “hot floor” with capital intensive functions unique to the hospital, including the operating rooms, diagnostic imaging, and intensive care facilities (24%).
- Hotel segment - low care nursing departments where residential function is predominant (27%).
- Office segment – administration and outpatient units (except ophthalmology) (36%).
- Factory segment - laboratories and kitchens (13%).



nursing wards



outpatient clinic



office

Acuity adaptable rooms: USA

- Allow patient to remain in the same bed, which adapts to meet changing needs.
- Family zone, patient zone, caregiver zone.
- All equipment and supplies easily accessible
- Acuity adaptable headwalls and computer technology located on the patient's bed, so vital data recorded without disturbing patients.
- Staff zone equipped to minimize movement around facility.
- Nursing stations, with computer access and servers for supplies, are decentralized.

Methodist Hospital, Indianapolis

Integrated services: Northern Ireland

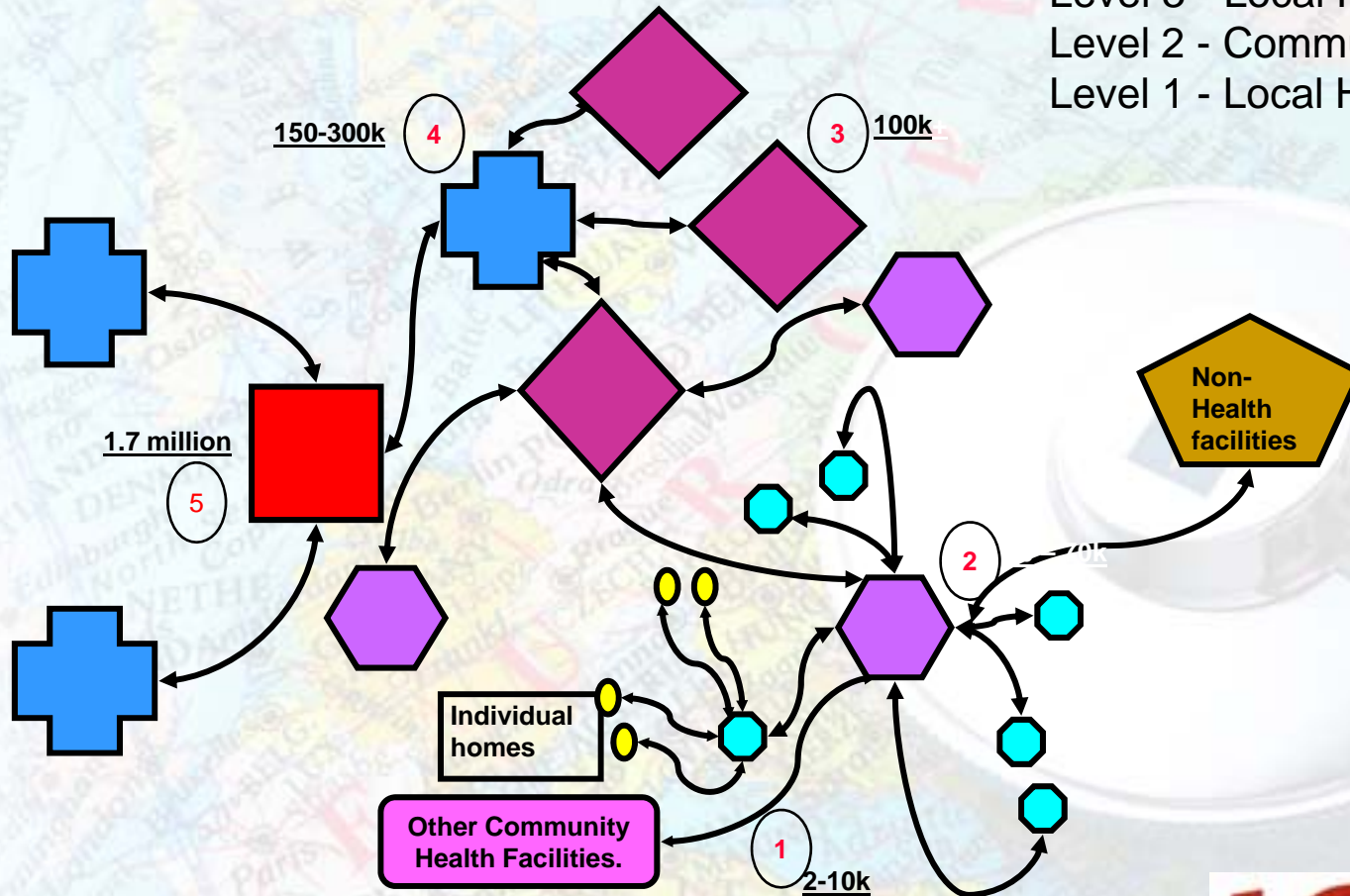
Level 5 - Regional Hospital

Level 4 - Acute Hospital

Level 3 - Local Hospital

Level 2 - Community Health Centre

Level 1 - Local Health Centre



Ideas not to be replicated: Independent Surgical Treatment Centres in England

- Paid 11% above NHS rates plus a further subsidy to cover bidding costs
- Compliance with contracts uncertain but estimated that only about 70% of contracted work being done
- Data were so variable and incomplete as to render “any attempt at commenting on trends and comparisons between schemes and with any external benchmarks futile”
- “increasing evidence” that they are “unable to manage complications”

Cheap, convenient, and deadly

- “Some Hospitals Call 911 to Save Their Patients ”
 - A 44 year old man underwent thoracic surgery in a small specialist hospital in Texas
 - He developed respiratory problems
 - There was no medical care on site
 - The nurses called 911 to get help from a nearby full service hospital
 - He died

New York Times, 2 April 2007

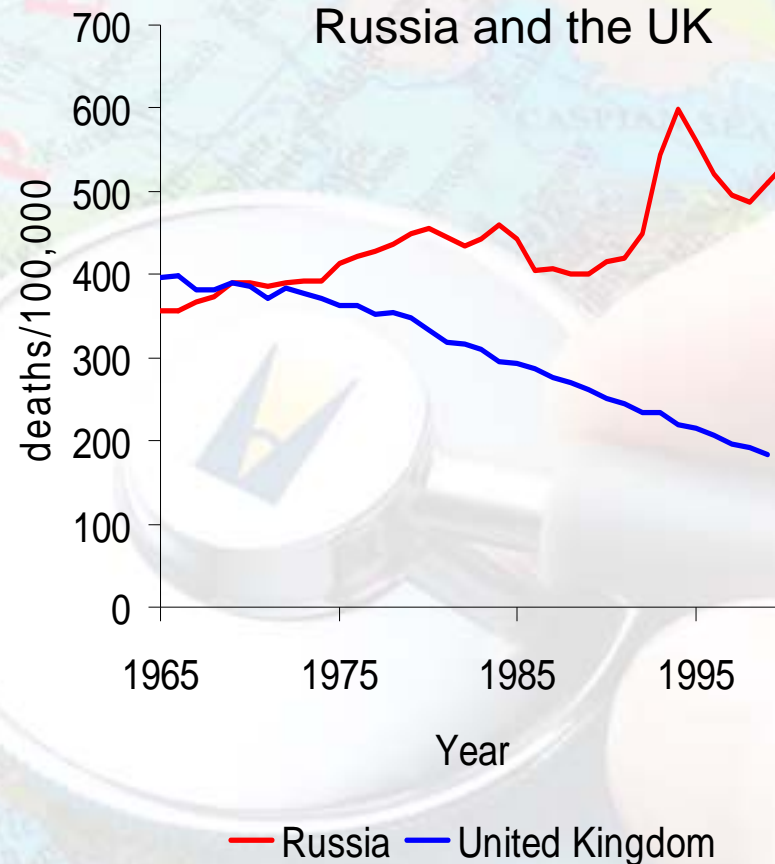
UK Private Finance Initiative

- Private sector intrinsically better at managing projects than public sector
 - If so, why leave public sector with even more complex task of managing the Public Private Partnership?
- More likely to complete on time
 - Except time from project conception to completion may be longer
- Transfers risk to private sector
 - Except, risk comparator “pseudo-scientific mumbo-jumbo”
Official from United Kingdom National Audit Office
- Serious quality problems
- **Once built, can't be changed (except at enormous expense)**

Transition 2: The rise of chronic disease

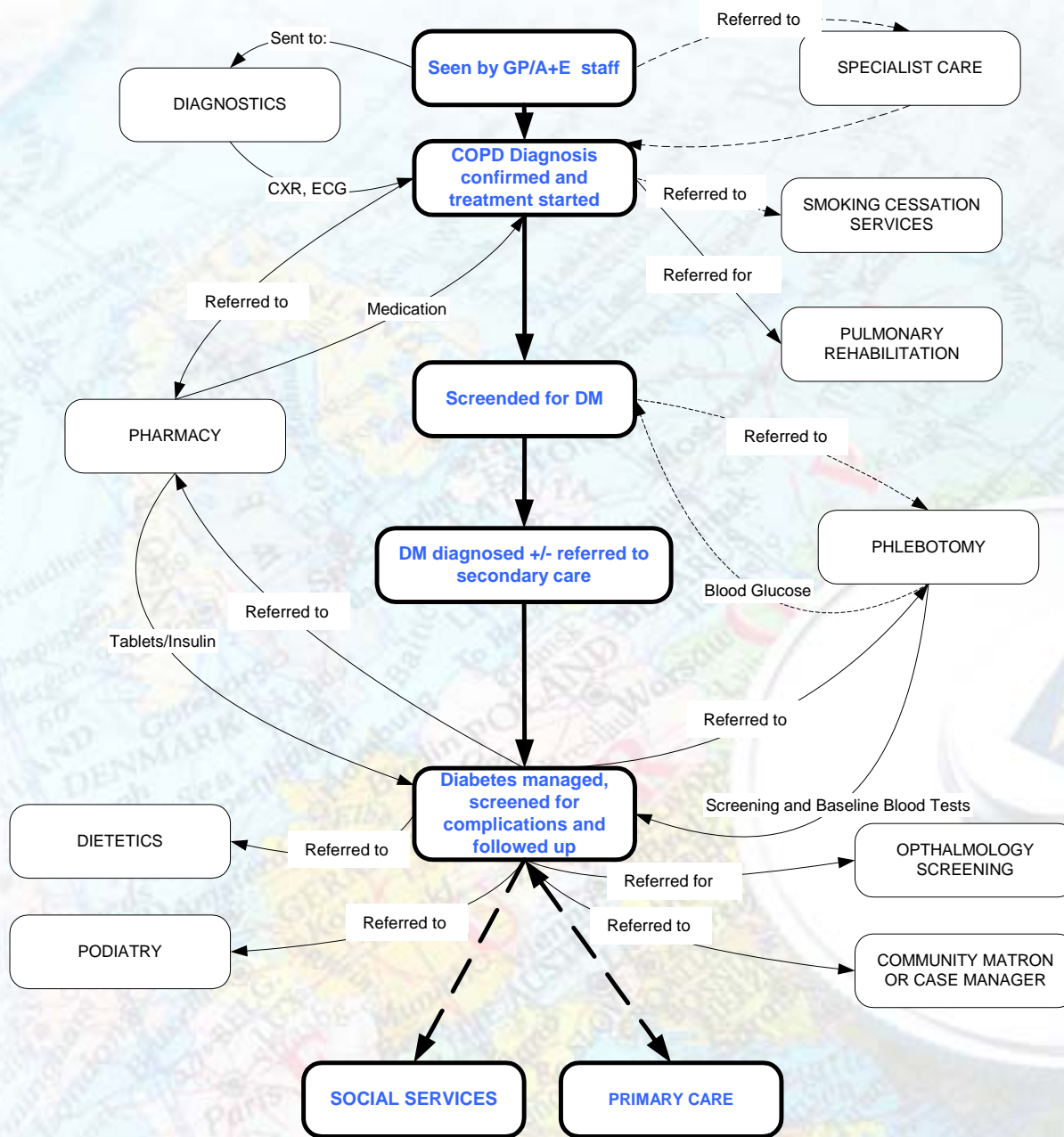
- The mass medication of the population
 - Anti-hypertensives (thiazides, beta blockers, ACE inhibitors)
 - Bronchodilators (steroids, beta sympathomimetics)
 - Anti-inflammatories (NSAIDs, COX 2 inhibitors)
 - Anxiolytics (benzodiazepines)
 - Anti-depressants (MAO inhibitors, Tricyclics, SSRIs)
 - Anti-Parkinsons, anti-epileptics, oral hypoglycaemics etc etc.
- Now possible to survive with complex chronic diseases

The impact of modern medicine: avoidable mortality in Russia and the UK



However

- Not just one, but multiple disorders
- Not just one, but multiple medications
- Not just one, but multiple settings
- Not just one, but multiple professionals



A patient journey: England

A 54 year old woman with type II diabetes and COPD who has a leg ulcer and moderate retinopathy. She is also slightly overweight (BMI of 27).

Source: Singh & Fahey, 2008

Some lessons

- Payment systems make a difference
- Integrated care is essential – developing networks
- If you fail to plan, you plan to fail
- It matters who does what

Payment systems

- Countries using fee for service have had to devise new approaches
- France
 - ALD (*affections de longue durée*) procedure
 - Financial mechanism (exemption from co-payments) to protect people with specified long-term conditions from excessive health care costs
- Germany
 - Disease Management Programmes (DMPs)
 - Highly structured and regulated, based on contracts between insurance funds and providers
 - Disease-specific: diabetes type 1 and 2, CHD, breast cancer, asthma/COPD

Networks

- France
 - Réseaux de Santé to strengthen coordination, continuity and interdisciplinarity of health care
 - ~ 450 networks (2006); ~ 80% address chronic conditions (incl. cancer), mostly diabetes
- Netherlands
 - ‘Transmural’ care: *“care, attuned to the needs of the patient, provided on the basis of co-operation and co-ordination between general and specialised caregivers with shared overall responsibility and the specification of delegated responsibilities”* ~ 500+ initiatives

Networks

- Sweden
 - Chains of care'
 - coordinated activities based on guidelines and agreements
(~ managed clinical networks for specific patient groups)
- Germany
 - Health insurance funds enter into selective contracts with network of providers, often targeting specific diseases at interface between acute hospital and rehabilitation

Plans

- France
 - 2007 national Public Health Plan on the quality of life of people with chronic illness
- Denmark
 - Chronic disease management as integral part of broader strategy for (NCD) disease prevention & health promotion
- England
- National Service Frameworks
 - select set of conditions, e.g. diabetes, CHD, cancer, mental health, older people, long-term (neurological) conditions

Skill mix

- Very difficult where countries have legal barriers or use fee for service
- Sweden - nurse-led clinics
 - Part of/in addition to primary health care centres (PHCC)
 - Most common for diabetes; also: hypertension, asthma/COPD, heart failure, chronic neurological disorders
 - Integral part of hospital departments of internal medicine
 - Run by (specialist) nurses with doctors as consultants

Examples of better outcomes with nurse-led care

- Reduced mortality and admissions with heart failure (Sweden)
- Better glycaemic control in diabetes (Netherlands)
- Improved detection of diabetic nephropathy (UK)
- Better management of anticoagulation (UK)
- Better management of COPD (UK)



To conclude: observations from abroad

- The importance of not being surprised by the future
- The importance of getting the payment system right
- The importance of clinical leadership to make things happen
- The importance of dialogue

Thank you
for
your attention

Analysing Health

Systems and Policies

