



From evidence to action in health policy making: a mission impossible?

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President

Italian National Institute of Health

Agenda

- **The changing health landscape**
- **A perfect storm?**
- **Possible actions**
- **Opportunities and challenges**
- **Final remarks**

Common challenges

People live longer and have less children.

People migrate within and between countries, cities grow bigger.

Non communicable diseases dominate the disease burden.

Depression and heart disease are leading causes to healthy life years lost.

Infectious diseases, such as HIV, tuberculosis remain a challenge to control.

Antibiotic-resistant organisms are emerging.

Health systems face rising costs.

Primary health care systems are weak and lack preventive services.

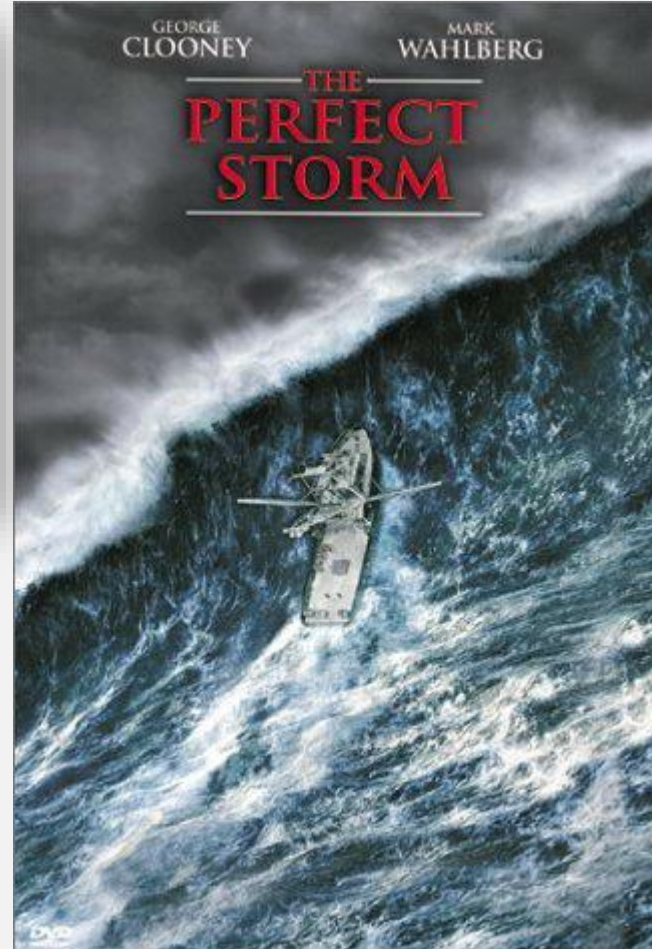
Public health capacities are outdated.

The changing health systems landscape is preparing for the “perfect storm”

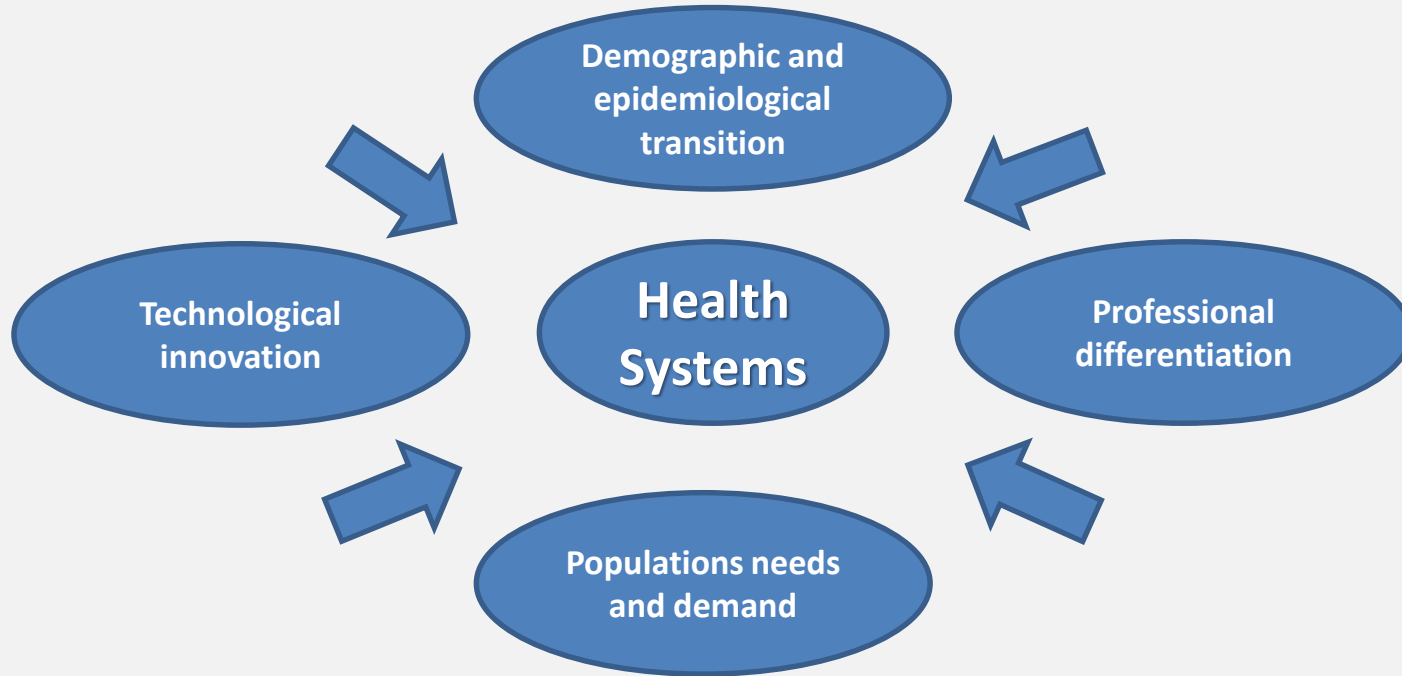


A "**perfect storm**" is an expression that describes an event where a rare combination of circumstances will aggravate a situation drastically.

The term is also used to describe an actual phenomenon that happens to occur in such a confluence, resulting in an event of unusual magnitude.



The waves of demand and supply

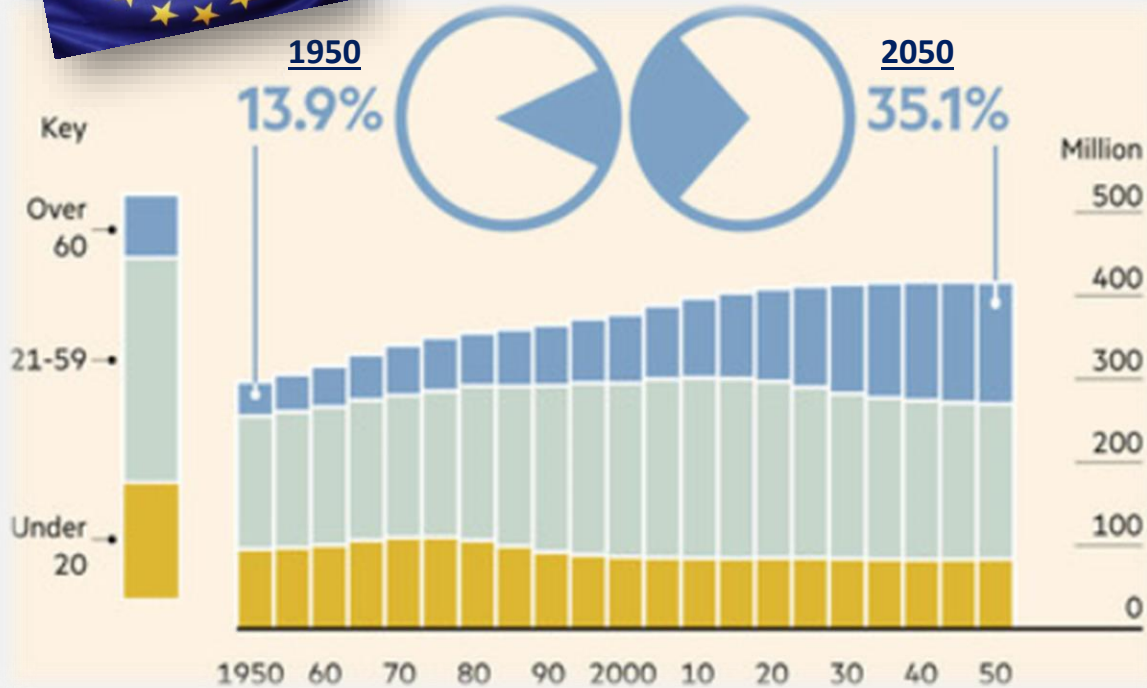


Demand

DEMOGRAPHY: By 2050 over 1/3 of EU population will be over 60 years old (UN)



% of EU population aged +60



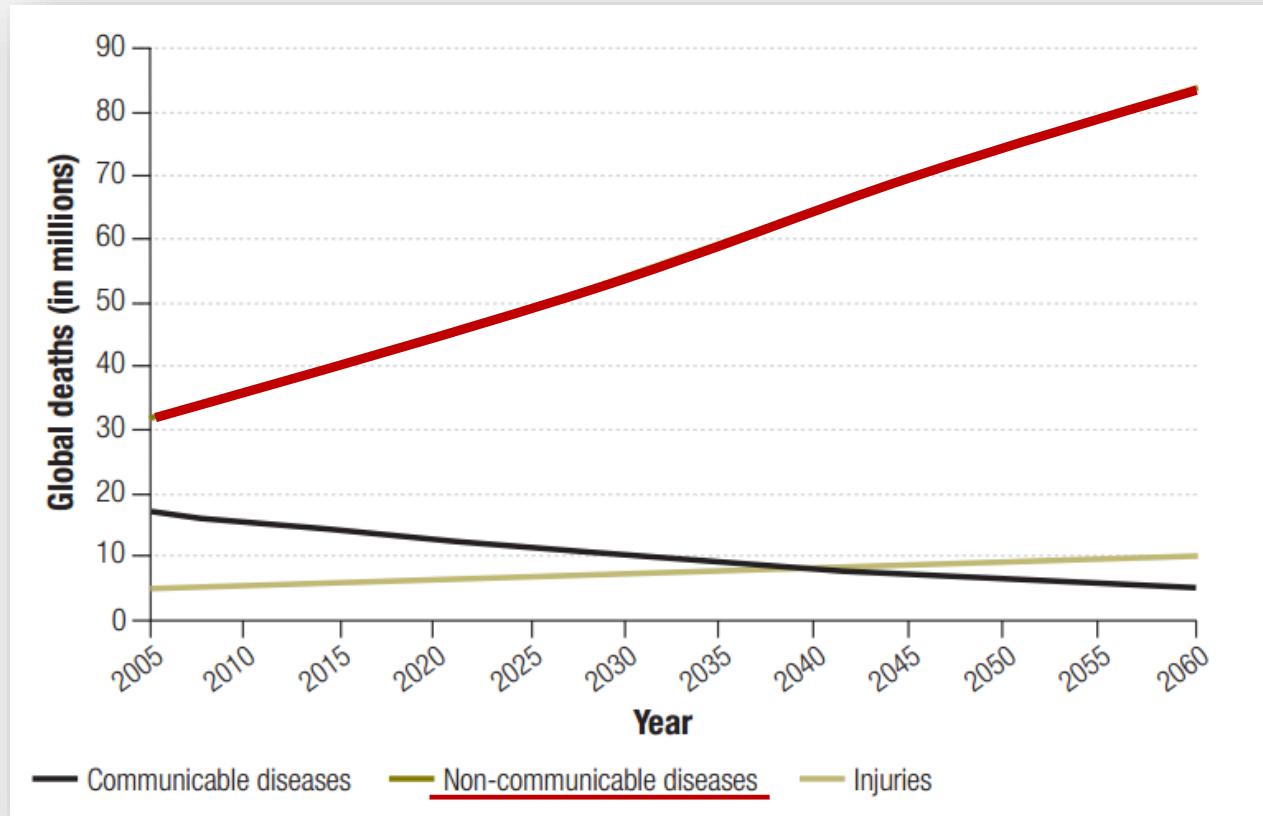
70s



2017

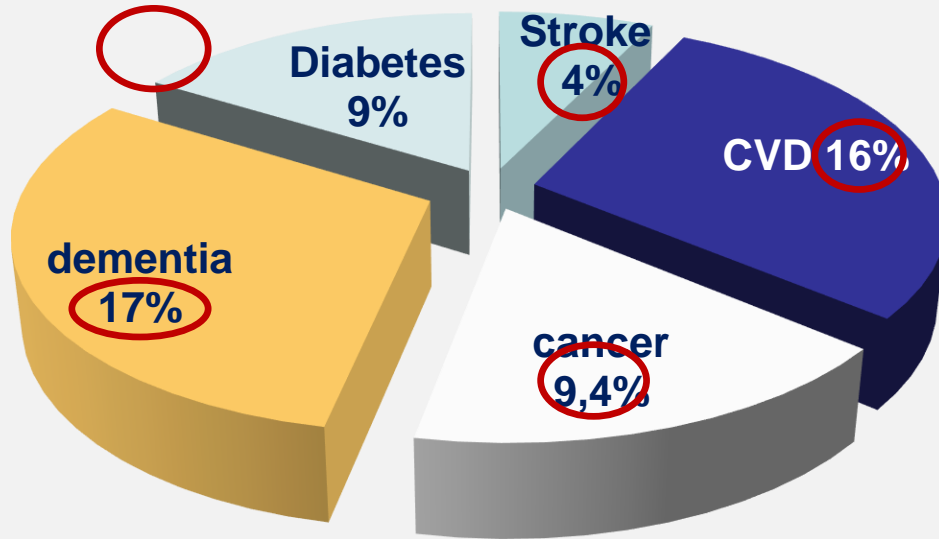


Chronic diseases



Chronic conditions and economic burden

It has been estimated that the commonest chronic conditions are costing the EU countries **more than 1 trillion Euros per year, which is expected to increase to 6 trillion Euros by the middle of the century.**
In UK the cost of chronic conditions such as stroke, heart diseases, diabetes, cancer and dementia pile up to over 50% of total healthcare expenditure.



No country can afford this

Technological supply

Doctors' views: greatest innovations of the second healthcare revolution

- MRI and CT scanning
- ACE inhibitors
- Balloon angioplasty
- Statins
- Mammography
- Coronary artery bypass graft surgery
- Proton pump inhibitors and H2 blockers
- SSRIs and recent non-SSRI antidepressants
- Cataract extraction and lens implants
- Hip and knee replacement
- Ultrasonography
- Gastrointestinal endoscopy
- Inhaled steroids for asthma
- Laparoscopic surgery
- Non steroidal anti-inflammatory drugs
- Cardiac enzymes





Nanomachines swim through veins and arteries cleaning out cholesterol and plaque deposits.

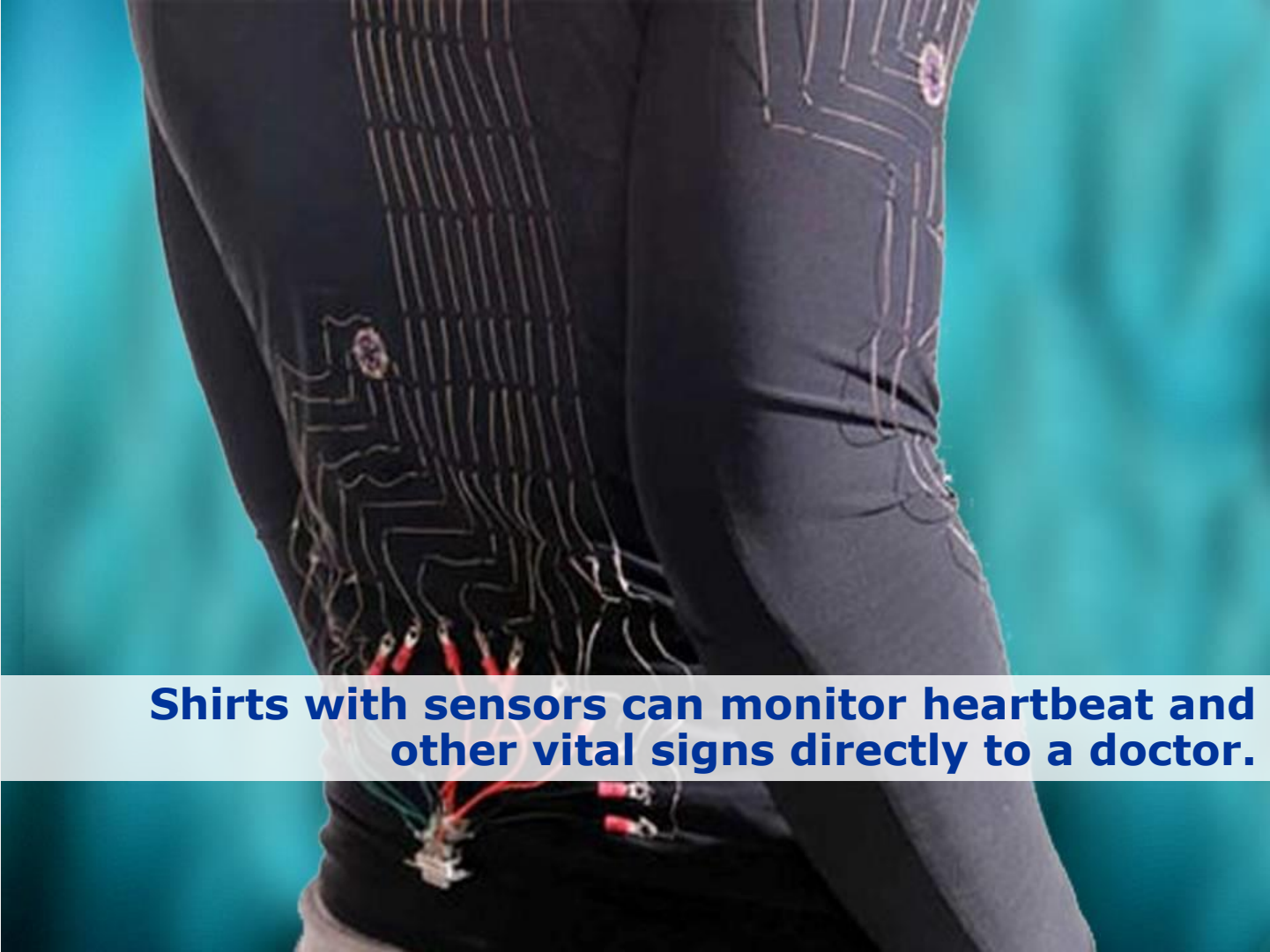


Nanotechnology can explore the process of thoughts and perception at the molecular level.





Neural implants can counteract Parkinson's disease and tremors from multiple sclerosis.



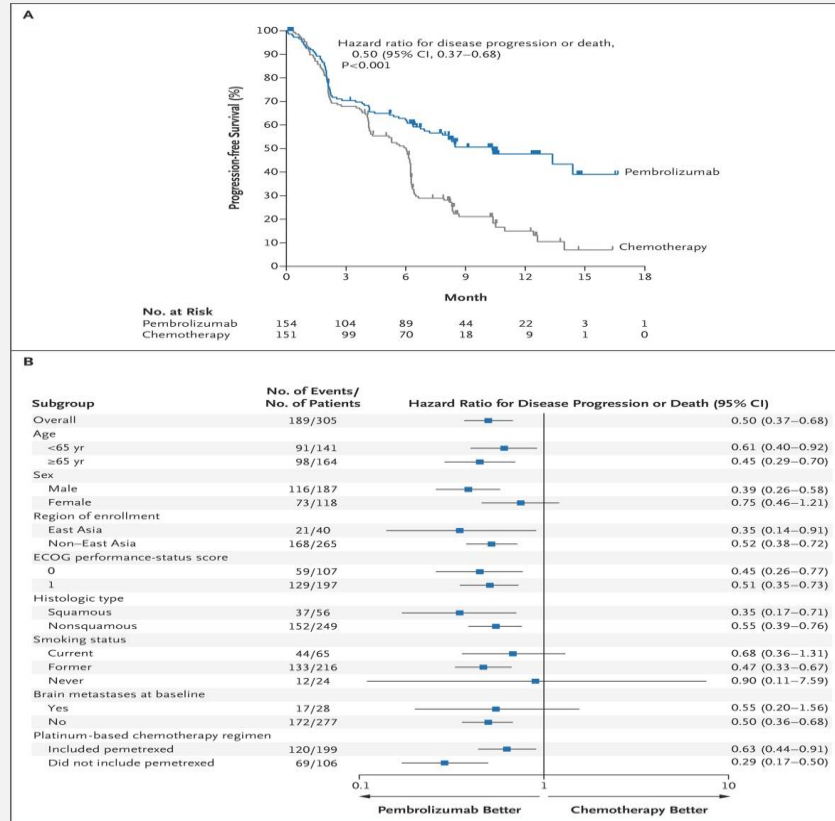
Shirts with sensors can monitor heartbeat and other vital signs directly to a doctor.



Generation of new approaches in psychology, in the design of new drugs and in the treatment of pain.



Pembrolizumab: Progression-free Survival in the Intention-to-Treat Population.



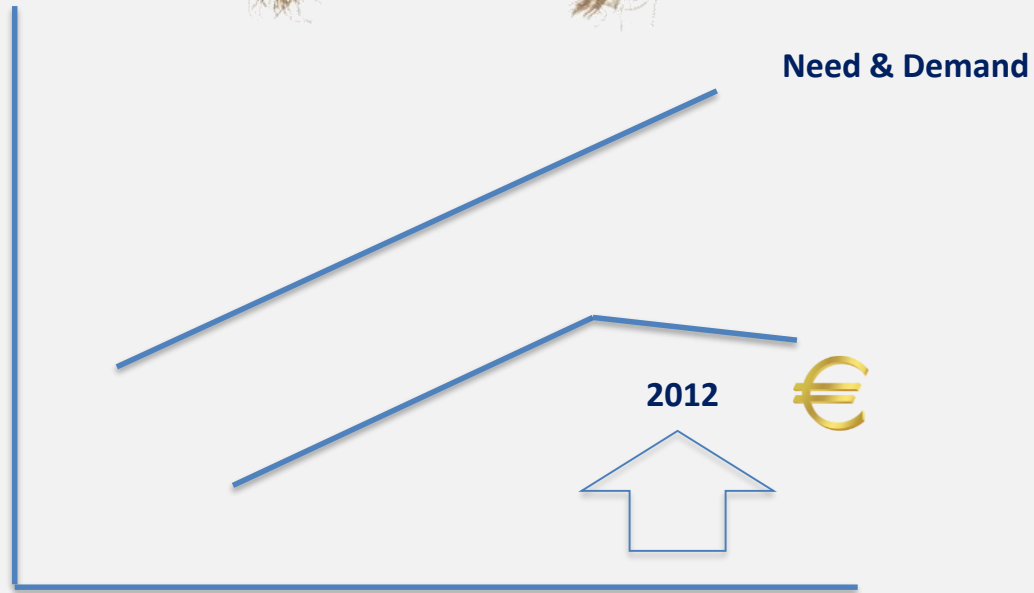
Reck M et al. N Engl J Med 2016;375:1823-1833

Regimen Cost (80 kg patient)

Regimen	Cost of Nivolumab	Cost of Ipilimumab	Cost of Regimen
Nivo+ Ipi for 11.5 m	\$144,408	\$151,158	\$295,566
Nivo for 6.9 m	\$103,220	\$0	\$103,220
Ipilimumab for 2.9 m	\$0	\$158,252	\$158,252

Who is going to pay?

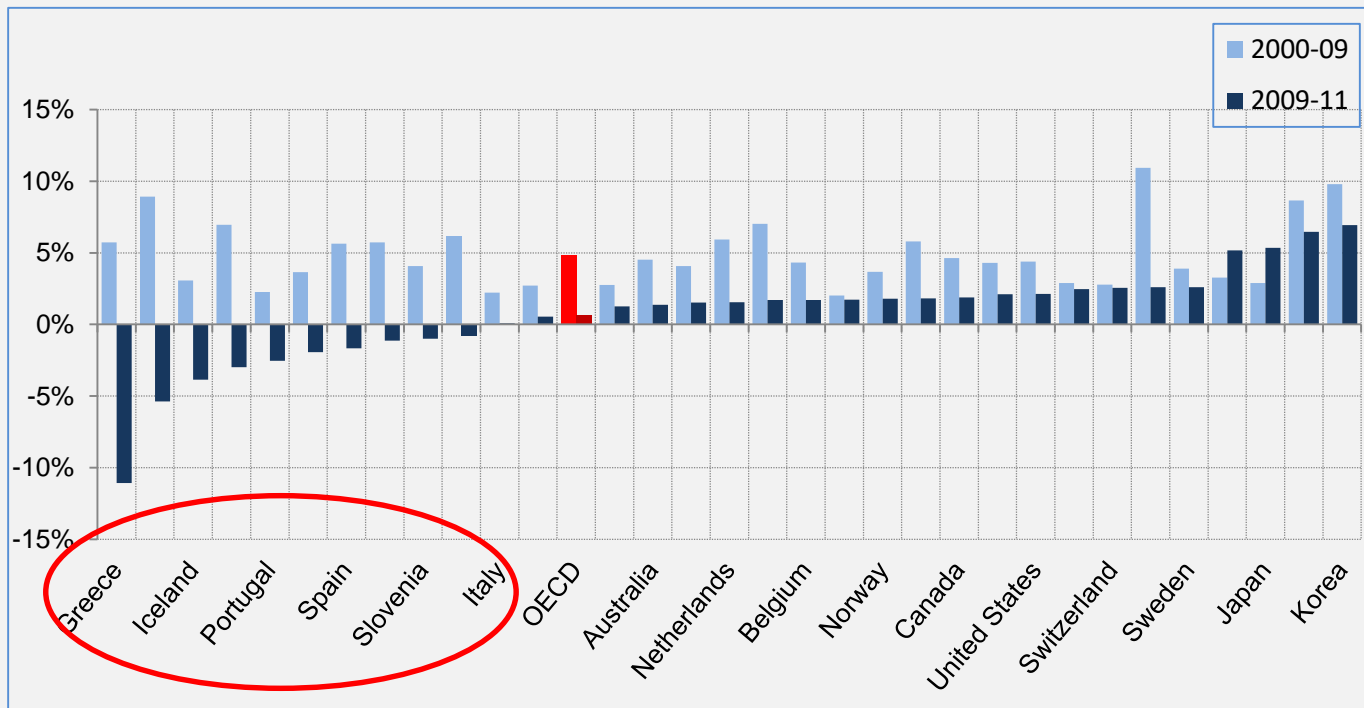
Financial constraints





Health spending

Average annual growth in health spending in real terms



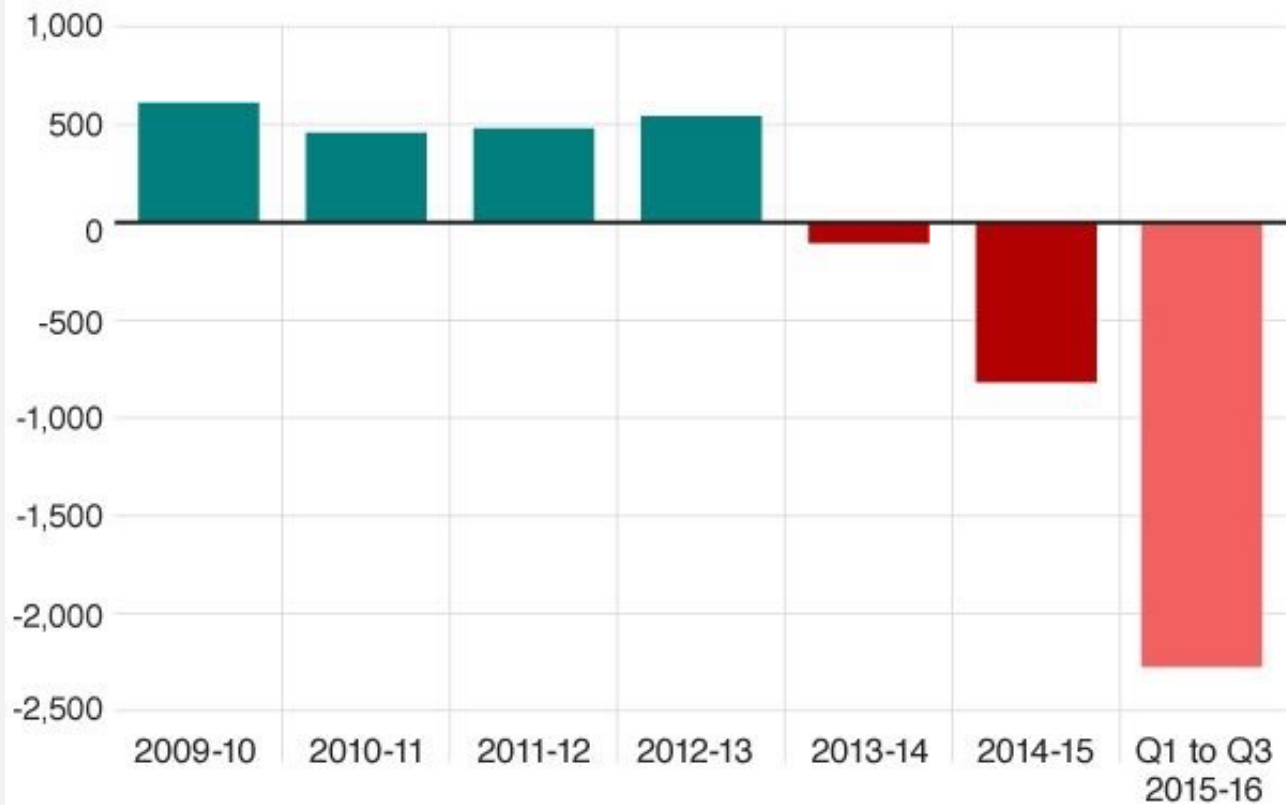
Conclusion

I

- Substantial fiscal challenge from rising **health care costs** over the longer term.
- Significant **population ageing** expected
- **Non-demographic** pressures likely to continue raising health spending
- Sensitivity analysis vital given the scale of **uncertainty**
- Long-term outlook **unsustainable** without policy change.

NHS trusts end-of-year financial results

£ millions



Source: Department of Health



Who shall live?



**KEEP
CALM
AND
Join The
Revolution**

Health Sustainability

*“There are two kinds of problems in life.
Big ones and small ones.
The small ones money can solve.
The big ones money cannot solve”*

Will Roberts

The times they are a changing

- **Changes in *information technologies*** (electronic medical record, e-health capacities, tablet-based patient management, centralized Big Data)
- **Changes in *citizen expectations*** (choice of provider, equal and rapid access, privacy)
- **Changes in *patient expectations*** (participation in decision-making, second opinions, international quality standards, patient rights)
- **Changes in *payment systems*** (public and private): case-based payment, penalties for poor outcomes (re-admission, re-treatment), volume based contracting
- **Changes in *provider configuration*** (consolidating hospitals and services, integrating health and social care)

20 th CENTURY HEALTHCARE	21 st CENTURY HEALTHCARE
<p>Doctor centred</p> <p>Patient as passive complier</p> <p>Hospital</p> <p>Bureaucracy</p> <p>Driven by finance</p> <p>High carbon</p> <p>Focussed on effectiveness</p> <p>Challenges met by growth</p>	<p>Patient centred</p> <p>Patient as co-producer</p> <p>System</p> <p>Network</p> <p>Driven by knowledge</p> <p>Low carbon</p> <p>Focussed on value and waste</p> <p>Challenges met by transformation</p>

European White Paper on Healthcare Sustainability

Healthcare systems need to be reorganized, and sustainability framework represents a prominent option to guide new policies, plans and programs



**Prevention
and
Early Intervention**

**Empowered and
responsible citizens**

**Reorganisation of
care**

Only Evidence-based decision making can fix it

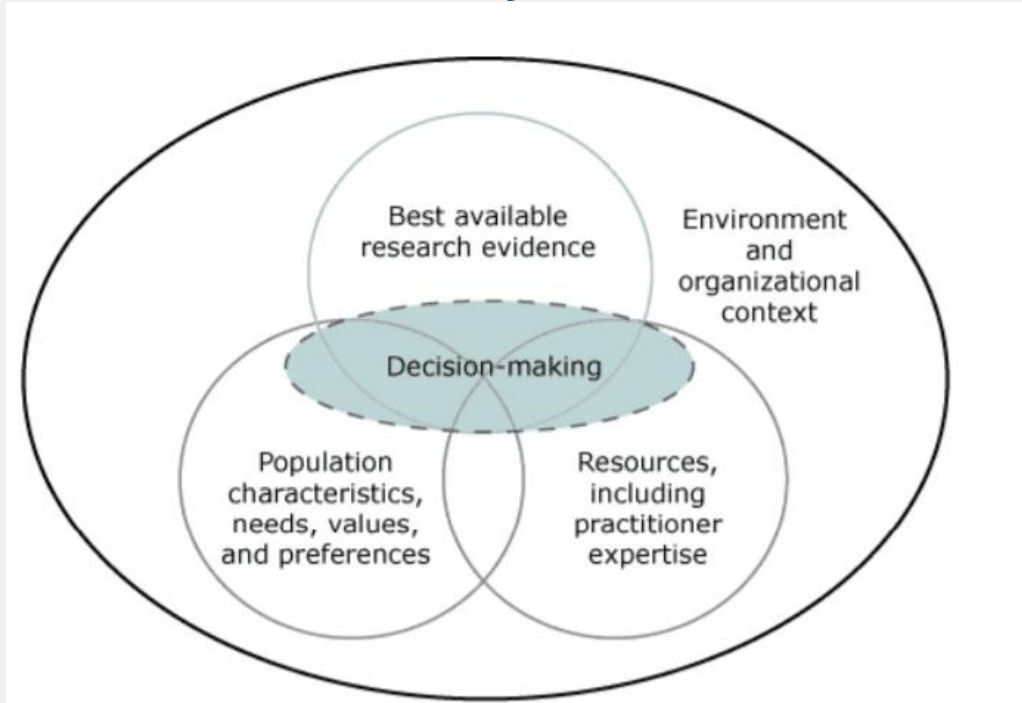


Figure. Domains that influence evidence-based decision making. Source: Satterfield JM et al (2).



2017 IANPHI Annual Meeting

Public Health Institutes of the World

IANPHI



Proposal for IANPHI (from TO REACH)

a coordination and support action aimed at producing research evidence supporting health care services and systems to become more resilient, effective, equitable, accessible, sustainable and comprehensive

OBJECTIVES

- *To produce a Strategic Research Agenda*
- *To broaden the coalition of committed institutions*
- *To design an efficient “structure”*

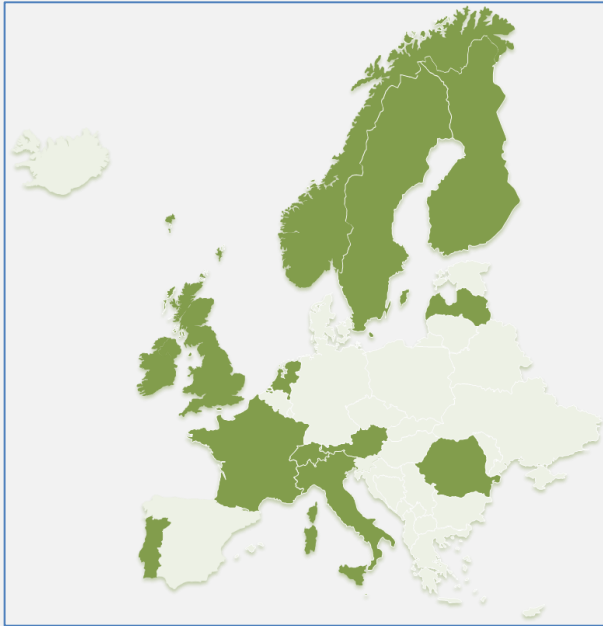
identifying metaquestions, themes and policy areas

- **Effects of health care reforms on major health outcomes, such as changing the funding of health insurance or privatisation of care.**
- **Understanding the optimal relationship between hospital care and primary care and community care**
- **Ensuring service provision that is safer, of higher quality, and more patient-centred**
- **New approaches to health technology assessment and to the economic and organisational consequences of introducing health technologies.**
- **Effectiveness and efficiency of performance indicators and their linkage to other governance policies.**
- **Exploring the reasons (and suggest the solutions) for the existing disparities and inequalities in health care provision.**
- **Implementing biomedical innovation in health services and systems**

The consortium^{10th}



Europe



28 partners
20 countries

US and Canada



Israel



The TO-REACH consortium

Chaired by Prof Walter Ricciardi, President of the Istituto Superiore di Sanità, the EU-funded TO-REACH project consists of 27 partners, clustered around three main types:

- At the core are **Ministerial and funding bodies from 15 EU Member States and 5 non-EU countries**, all seeking to fund research that has the potential to change how care is being provided in the near or distant future.
 - a. the Istituto Superiore di Sanità (the Italian National Institute of Health), coordinator,
 - b. Ministero della Salute, Italy
 - c. Agenas, national Agency for regional health services, Italy;
 - d. ZonMw (Netherlands Organisation for Health Research & Development), the Netherlands;
 - e. Austrian Public Health Institute (GÖG), Austria
 - f. Academy of Finland, Finland;
 - g. IReSP/ITMO santé publique, France;
 - h. Health Research Board, Ireland;
 - i. Latvian Council of Science, Latvia;
 - j. Research Council of Norway, Norway;
 - k. Foundation for Science and Technology (FCT) Portugal;
 - l. National Institute of Public Health, Slovenia;
 - m. Forte, Swedish Research Council for Health, Working Life and Welfare, Sweden;
 - n. Federal Office of Public Health (FOPH), Switzerland;
 - o. Health and Care Research Wales, UK;
 - p. Regional Agency for Public Health and Social Well-being (PHA) HSCNI, Northern Ireland UK;
 - q. CIHR Institute of HSPR, Canada;
 - r. Israeli Ministry of Health, Israel;
 - s. Agency for Healthcare Research and Quality (AHRQ), United States.

- **National research organisations**, able to identify methodological guidance for a future research programme and mapping shared priority areas between countries and stakeholders in those countries.
 - a. NIVEL, Netherlands organisation for health services research, the Netherlands;
 - b. National Institute for Health and Welfare (THL), Finland;
 - c. University of Riga (RSU), Latvia;
 - d. University of Malta (UoM), Malta;
 - e. Babeş-Bolyai University (UBBCU), Romania;
 - f. Catholic University of Sacred Heart (UCSC), Italy.

- **European level bodies**, able to contribute to part of the scientific preparations as well as well-positioned to identify fellow bodies and initiatives which require alignment.
 - a. European Observatory on Health Systems and Policies;
 - b. European Health Management Association (EHMA);
 - c. European Public Health Association (EUPHA).



...the beginning

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The Lancet, Early Online Publication, 18 March 2013
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Health systems and policy research in Europe: Horizon 2020

[Kieran Walshe](#) , [Martin McKee](#) , [Mark McCarthy](#) , [Peter Groenewegen](#) , [Johan Hansen](#) , [Josep Figueras](#) , [Walter Ricciardi](#) 

Europe is a natural laboratory for learning about health policies and health systems. With diverse systems to finance, provide, and govern health care across the 27 member states of the European Union and the wider European region there are many opportunities for international comparative analyses and natural experiments. Health-care costs, quality, and outcomes vary widely, which strongly suggests that there is enormous potential for European research into health systems to enable countries



Born to identify the European Health Care common challenges and organizational needs, and to propose possible solutions to improve health system performance and to identify the most effective ways to organize, manage, finance, and deliver high quality, sustainable, and equitable care to our citizens.

John Gray, Ph.D.

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MEN Are

From MARS.

WOMEN

Are From

VENUS

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Understanding the Opposite Sex



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time ever in
paperback!



Botticelli, Florence

**Loved
Voted
Elected
Power**

We all know what to do,
what we don't know is how to win the
elections afterwards.



Jean-Claude **Juncker**



Evidence
Science
Transparency
Accountability

Villa Adriana, Rome



Padovanino, Venice

Mars:
I don't
like you,
and I
ignore
you



Mars:
I don't like you
but I need you

Veronese, Venice



Mars:
I am depressed, she doesn't like
my wonderful muscles...
publications!)

Velázquez, Madrid



Botticelli, Florence

Venus: he is sleeping!
He must be a public health researcher!

Conclusion

- Countries are all experiencing challenges in delivering sustainable health care.
- Health system research has been demonstrated to provide valuable insight for Countries, which has facilitated discernable service improvements and improved efficiency.
- However, to date there has been only limited levels of scientifically grounded comparative health system research and analysis.
- Interpretation and adoption based upon comparative assessment is not as simple as 'copy and paste', hence the value of establishing a framework for undertaking such research
- You need good and brave health services and systems researchers

The future is not a destination like Rome or Taormina waiting for our arrival



**it is something like a beautiful bridge that
we have to imagine, plan and build**



and together science and politics can do it better



Mars and Venus in love and harmony, Pompeii





You may
research

Yeah, but
how did
you
know?

Because you gave
me a very
accurate but
totally irrelevant
answer

Because you don't
know where you
are, you don't
know where you
are going and you
are blaming me for
all this mess..



Thanks for your attention