

# Health services research in the Netherlands and beyond



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# Subjects

1. Setting the stage for health services research
2. Major issues and priorities
3. Methodology and research infra structures
4. Impact generation
5. European dimension (era-net)



# **SETTING THE STAGE FOR HEALTH SERVICES RESEARCH**

Major issues and priorities

Methodology and research infrastructures

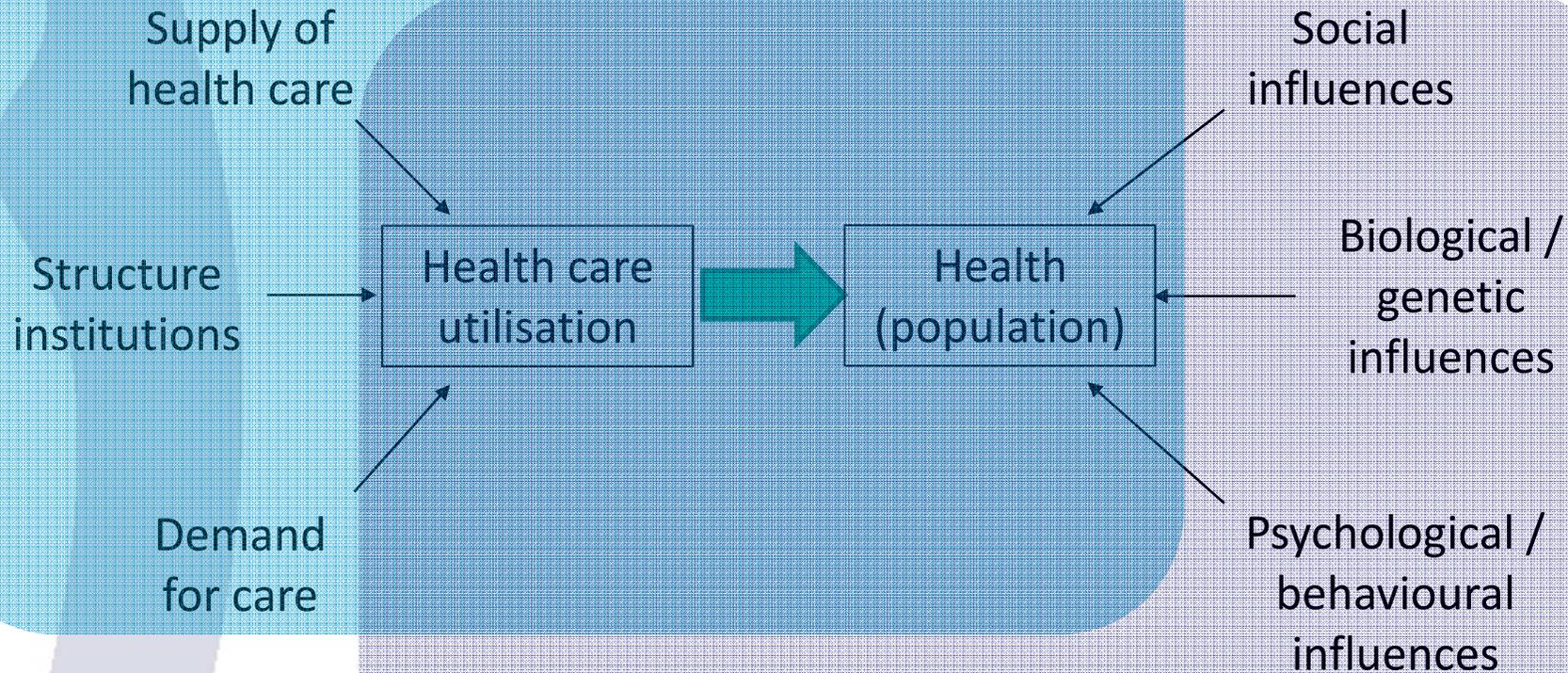
Impact generation

European dimension

# Scope of health services research

- HSR is policy oriented and multidisciplinary research into health services (Mackenbach, 1994)
- HSR is evaluation of advantages and disadvantages of health care interventions (Black, 1998)
- HSR is the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies and personal behaviors affect access to health care, the quality and cost of health care and ultimately our health and well-being (Lohr and Steinwachs, 2002)

## Health services research



## Public health research

# Key elements of health services research

- Applied and applicable
- Practice and policy orientation
- Multidisciplinary
- Funders with an interest

**Double mission:**  
**Societal *and* scientific**

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 **Routledge**  
Taylor & Francis Group

**The Relationship Between Health, Education, and  
Health Literacy: Results From the Dutch Adult  
Literacy and Life Skills Survey**



# Interaction between health care sector and research

## Health care sector

Practical problem



Intermediary groups / stakeholders



Policy implications & Practical solutions

## Research

Research questions

Hypotheses

Research design  
Data(collection)  
Analysis

Conclusions

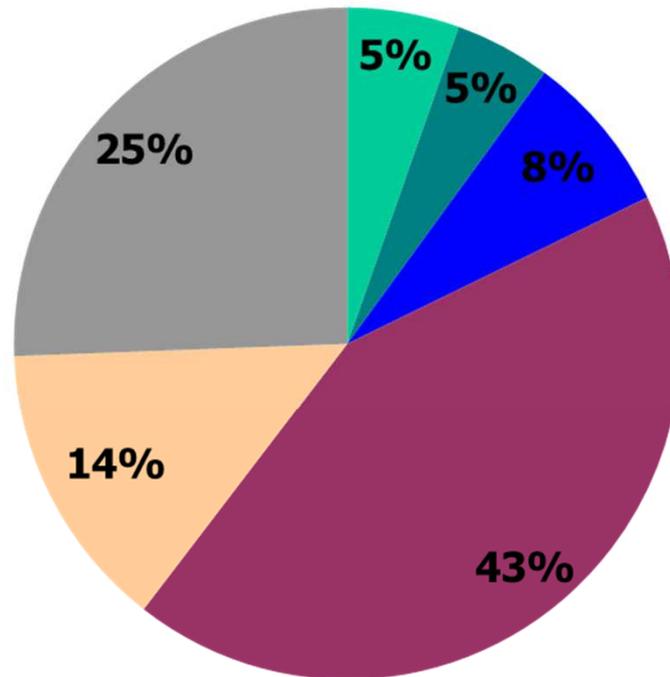
Transformation

suitability  
&  
feasibility

Transformation

# Multidisciplinarity

## Background scientific staff NIVEL



- 54% hold a PhD
- 32% have had training in more than 1 discipline

Setting the stage for health services research

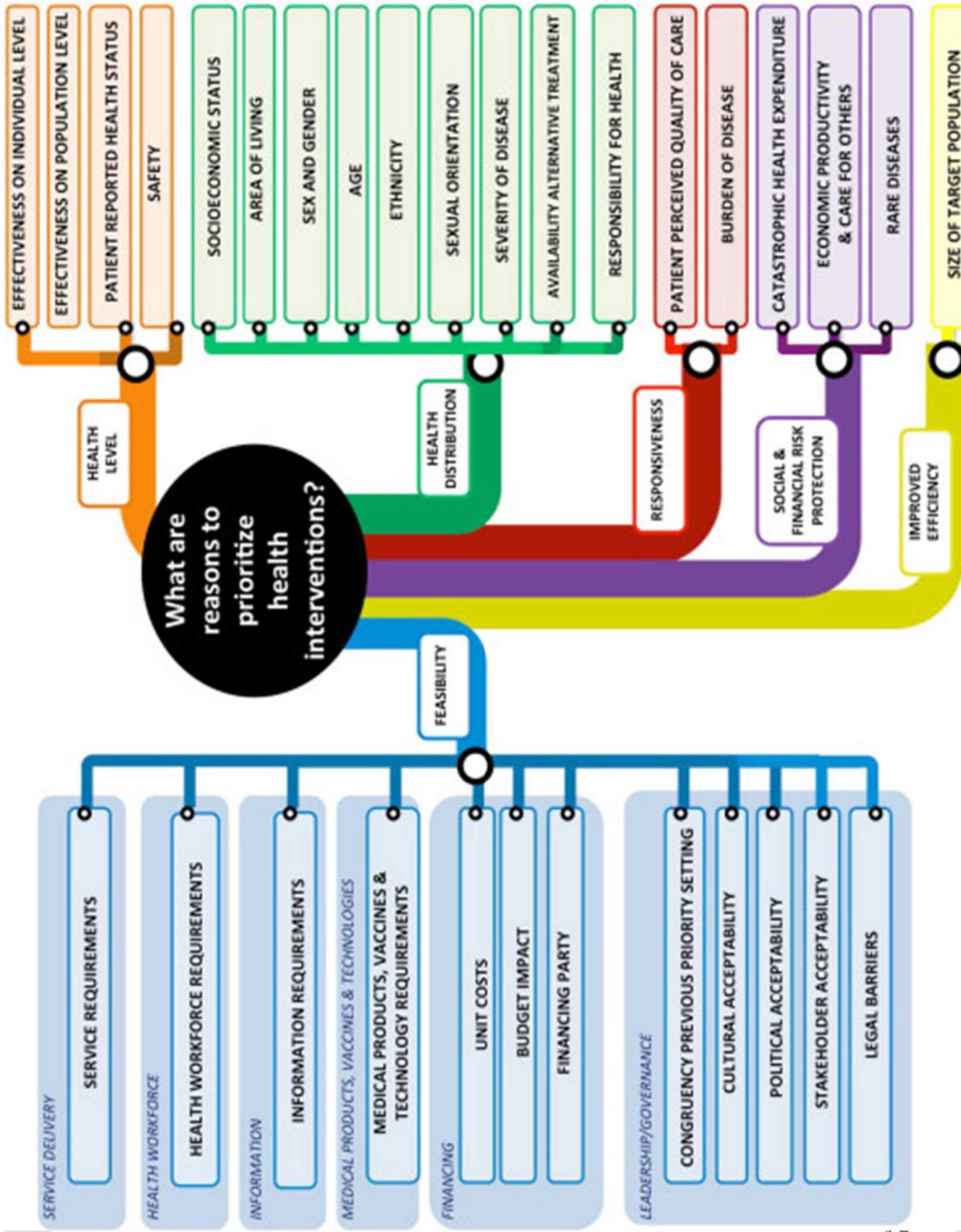
# MAJOR ISSUES AND PRIORITIES

Methodology and research infrastructures

Impact generation

European dimension

# What are reasons to prioritize health interventions?



# Priorities in HSR: finding a balance

## Policymakers

- Short term focus
- Priorities of stakeholders
- Complex policy problems **and** daily hassles
- Speed and timing
- Governing change: manipulation

*Research as product*

## Researchers

- Long term focus
- Priorities of researchers
- Researchable questions and methodological requirements
- Time to think
- Explanation

*Research as capital*

# Contribution of HSR to Dutch national science agenda

	Coherence, cooperation and responsiveness	Inequalities in access and health	Quality of care	Affordability, sustainability
<b>Macro</b>	System design Governance	Gate keeping and access to care	Decisions on health care basket	International health expenditure differences
<b>Meso</b>	Cooperation between providers and sectors	Regional differences in access	Quality indicators, selective purchasing	Effects of funding systems
<b>Micro</b>	Care tuned to need	Role of socio-economic resources, health literacy	Shared decision making,	Cost sharing

# The three laws of Buxton

- Policy makers ask for research when it is too late.
- By the time the research results are available there is a new policy problem.
- If the results of research don't match with policy, the methods will be disputed.

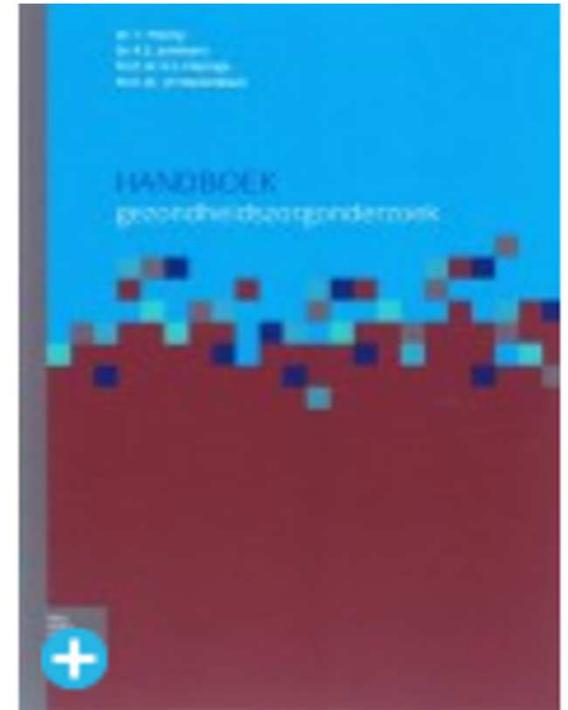
Setting the stage for health services research  
Major issues and priorities

# **METHODOLOGY AND RESEARCH INFRASTRUCTURES**

Impact generation  
European dimension

# Handbook Health Services Research

- Part 1: The scientific approach to HSR
  - Domain of HSR
  - HSR and practice and policy
- Part 2: Methods of HSR
  - Use of existing registries
  - Economic evaluation
- Part 3: Applications
  - Health care systems: international comparisons
  - Research into quality of care



# Methodology: some developments

- PREMs and PROMs
- Qualitative methods
- Integrated quantitative and qualitative studies
- Automated analysis of free tekst
- Multilevel analysis, league tables

# Building efficient data infrastructures

- ‘Collect once, use often’
- Data linkage and pooling
  - Individual level (e.g. long
  - Service level (e.g. practic
  - Environmental level (e.g
- Pseudonimization, truste

## Original research

### Overlap of hospital use and social care in older people in England

Martin Bardsley, Theo Georgioulou, Ludovic Chassin<sup>1</sup>, Geraint Lewis, Adam Steventon, Jennifer Dixon

The Nuffield Trust, London, UK; <sup>1</sup>University of Greenwich, London, UK

**Objectives:** To link pseudonymous health and social care use data in order to determine what proportion of older people access hospital and social care services.

**Methods:** Retrospective analysis of linked, pseudonymous, routine service use data of people aged 75 and over ( $n = 133,055$ ) drawn from the operational systems of four primary care trusts and their corresponding local authorities in England.

**Results:** Fourteen percent of older people received local authority-funded social care in one year, 59% accessed NHS hospital care and 10% accessed both types of service. Most people using social care also used a hospital service (71%). This was a higher proportion than for people who did not use social care services (57%,  $P < 0.001$ ). However, the use of hospitals varied by type of social care such that the residents of care homes had fewer admissions to hospital, fewer Accident and Emergency attendances and fewer outpatient visits than people receiving high intensity home care.

**Conclusions:** Using routine data from large populations, we have demonstrated interactions in the use of hospital care and social care for older people. Residents of care homes tend to use hospitals less frequently than people receiving home care. More detailed work is required to explain this phenomenon.

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#### Background

Care provision for older people is a priority for health service policy-makers in many countries, as is the care for younger people with long-term health conditions.<sup>1,2</sup> People with complex needs often require both health care and social care. However, in England these two types of care service are typically funded, commissioned and provided by different sets of organizations. This separation of services can make it difficult to coordinate health and social care, and may result in the fragmentation and duplication of care.<sup>3,4</sup>

How social care is funded has been a subject of debate for many years. In England, calls for funding reform have been given added impetus by perceived injustices in the social care system and by a lack of transparency and consistency in how social care funding rules are

applied.<sup>5</sup> The White Paper, *Equity and Excellence: Liberating the NHS*, called for an urgent review of the funding arrangements for long-term care.<sup>6</sup> The Dilnot Commission subsequently made a number of recommendations including the introduction of national eligibility criteria for social care, portable assessments and a lifetime cap on financial contributions.<sup>7</sup>

The scope for substitution between health and social care services is well-recognised and in some areas of England, organizations have deliberately sought to integrate health and social care functions ('horizontal integration').<sup>8,9</sup> For example, in areas such as Northumberland and Torbay, care trusts have been established that have responsibility for securing both health and social care for the local population. However, despite the current interest of policymakers in care integration, relatively little is known about patterns of hospital and social care use for large populations. Many previous studies have been limited in scale and timeframes, describing either the experiences of individual cases or of relatively small cohorts.<sup>1</sup>

Local health and social care organizations typically maintain detailed databases that record which services are provided to individual members of the local

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# Data infrastructures for health services research

## Typical data sources

- Care registrations – electronic patient records
- Hospital data
- Health interviews, health examination surveys, cohorts
- Claims data from health insurance

## Restrictions

- National and European regulation increasingly strict
- Validity of data: collected for other purposes, comparability



# A national research infrastructure: NIVEL Primary Care Database

- Electronic medical record data extracted
- GP first point of contact with health care system for most problems;
- Dense network of services, covering all morbidity:
  - not only serious cases (cf hospital data or causes of death);
  - and not only reportable diseases (as in infectious disease).
- Routinely available and doctor assessed
- Epidemiological denominator available with list system (UK, Italy, DK, NL), otherwise estimates
- Longitudinal
- Linkage to other data sources in care and beyond.

# Linkage of geocoded data and individual health data: an example

Association between green space in the living environment and GP assessed health problems

- NIVEL Primary Care Database: morbidity in general practice
- Personal characteristics: survey data of practice populations
- Land use data in 1 and 3 km radius around centroid of 6 digit postal code

Maas et al. Morbidity is related to a green living environment. J Epidemiol Community Health, 2009

# Linkage at individual level: an example

Health problems of adolescents and their educational career

- NIVEL Primary Care Database: GP consultations, health problems
- Municipal Basic Administration: income parents, household type, ethnicity
- Educational registration: secondary school diploma, level
- Statistics Netherlands as trusted third party

Uiters et al., The association between adolescents' health and disparities in school career, manuscript in preparation

Setting the stage for health services research

Major issues and priorities

Methodology and reasearch infrastructures

# IMPACT GENERATION

European dimension

# Improving impact of HSR

## Increase awareness among evaluators, researchers and other stakeholders

- Health services and systems research should be judged on its own merits
- Define what these merits are by collecting examples of research impact
- Generating impact starts with research proposals (ex ante) and is evaluated ex post



## MEASURING AND IMPROVING THE SOCIETAL IMPACT OF HEALTH CARE RESEARCH

By: Johan Hansen, Natasha Azzopardi Muscat, Ilmo Keskitalo, Arne Karin Lindahl, Holger Pfaff, Matthias Wismer, Kieran Walsh and Peter Groenewegen

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Note: This article has been written as the first product of an international working group on improving the societal impact of health care research. Final results of the working group will be available at the end of 2013 and disseminated through the channels of its members.

**Summary:** Health care research is increasingly being evaluated in terms of its contribution to new market products and services, among other factors, in the European Union's new Framework Programme for Research and Innovation, *Horizon 2020*. However, discoveries in health care research often are not marketable products but innovations intended for the public domain. Therefore, funders and the research community need to review the applicability of impact frameworks for evaluating these types of research. Of key importance is the development of societal impact indicators for *ex-ante* evaluations of research programmes and projects. Such assessments should also take the specificities of European versus national level research into account.

**Keywords:** Societal Impact, Health Care Research, Europe, Evaluation, Horizon 2020

### The need for societal impact

In light of the many health care challenges that countries face, there is growing recognition that high quality health care research can help decision-makers by providing scientific evidence to inform policies and practices. With governments and health care systems becoming more and more focused on effectiveness and efficiency, it is a logical development that the same also applies to research production. Health care research needs to be accountable and show that investments produce value for money.

How to determine this value and for whom, is a topic of debate. There is growing awareness that the impact of research should not only be determined in

scientific terms. Especially when funded through public sources it is also important that research findings are actually used by end users, such as policy makers, managers, patient organisations or the public at large. A major concern is that national and European health research funding bodies increasingly interpret this societal impact in terms of economic impact, e.g. in terms of cost reductions in the delivery of health services or the employment benefits resulting from healthier workforces. This shifting focus is well exemplified by the ambition of the European Commission's new programme for research and innovation, *Horizon 2020*, which should contribute to boosting competitiveness, creating jobs and supporting growth.

# Avoiding a narrow interpretation of societal impact

Not only a focus on

But also on

“wider”

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(e.g. betw

Not only

products

But also

Part of a wider debate on positioning health research compared to biomedical research in terms of balance of funding

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The Lancet, Early Online Publication, 18 March 2013  
doi:10.1016/S0140-6736(12)62195-3 [Cite or Link Using DOI](#)

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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 to



# A framework for determining research impact

	Conditions for impact	Dissemination	Uptake	Effect
<b>Policy</b>	Connect to policy agenda stakeholder involvement	recom- mendations for policy	use in policy documents intended policy change	implemented policy
<b>Practice</b>	initiative in the field of health care	feedback reports	issuing new guideline	quality improvement
<b>Society at large</b>	addresses a societal problem	press releases	agenda setting by stakeholders	improved health literacy or trust in health care

# Partnership programmes / co-creation

- Can be effective, especially when:
  - research users are involved from start
  - Both sides respect professional expertise

**Example of Academic Collaborating Centres:**

- Structural collaborations, usually between a Public Health Service (PHS), municipality or health insurer and a university and/or research institute, conducting joint research, often part-time PhD projects

high expectations, consensus)

competing agendas

ferences within the partnership

potential challenge of independence



- Co-creation between policy & other stakeholders difficult

Sources: Walter, Davies & Nutley, JHSR&P, 2003; Wehrens, 2013



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Impact generation

# EUROPEAN DIMENSION

# European research networks

## Differences with consortia in basic research

- Europe is the research laboratory
- Data collection, interpretation, implementation in all countries
- Not a combination of a few complementary centres of excellence

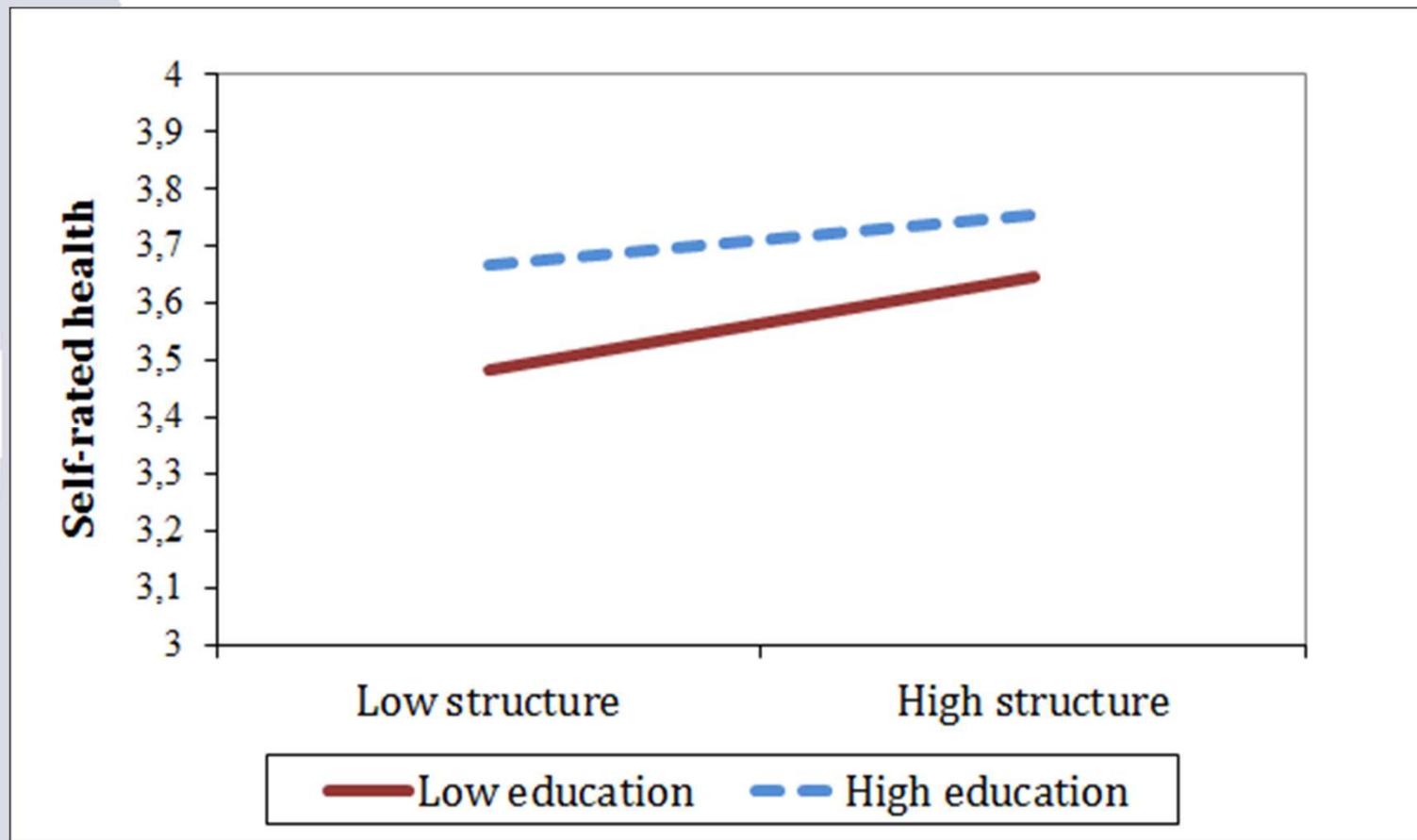
## Examples of research networks

- EUPHA – European Public Health Association
- HSR Europe – Health Services Research Europe
- EGPRN – European General Practice Research Network
- European Observatory for health Systems and Policies
- EHMA – European Health Management Association

# International comparison in health services research = health systems research

- From comparative case studies to Europe-wide studies
- Eurobarometer surveys, comparable health interview surveys
- Health care system characteristics
- Ecological studies
- Multilevel studies

# Interaction between structure of primary care and education on self-rated health



Hansen et al, Strength of primary care and health equity: a European comparison. Manuscript in preparation



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