

OBSERVATORY VENICE SUMMER SCHOOL 2009

Innovation and Health Technology Assessment:
Improving Health System Quality

Venice, Island of San Servolo 26 - 31 July 2009



How to design effective evaluation and decision-making processes and institutions on health system level

Lecture 9

San Servolo (Venice), 30 July 2009

Reinhard Busse and John-Arne Røttingen
Summer School Directors

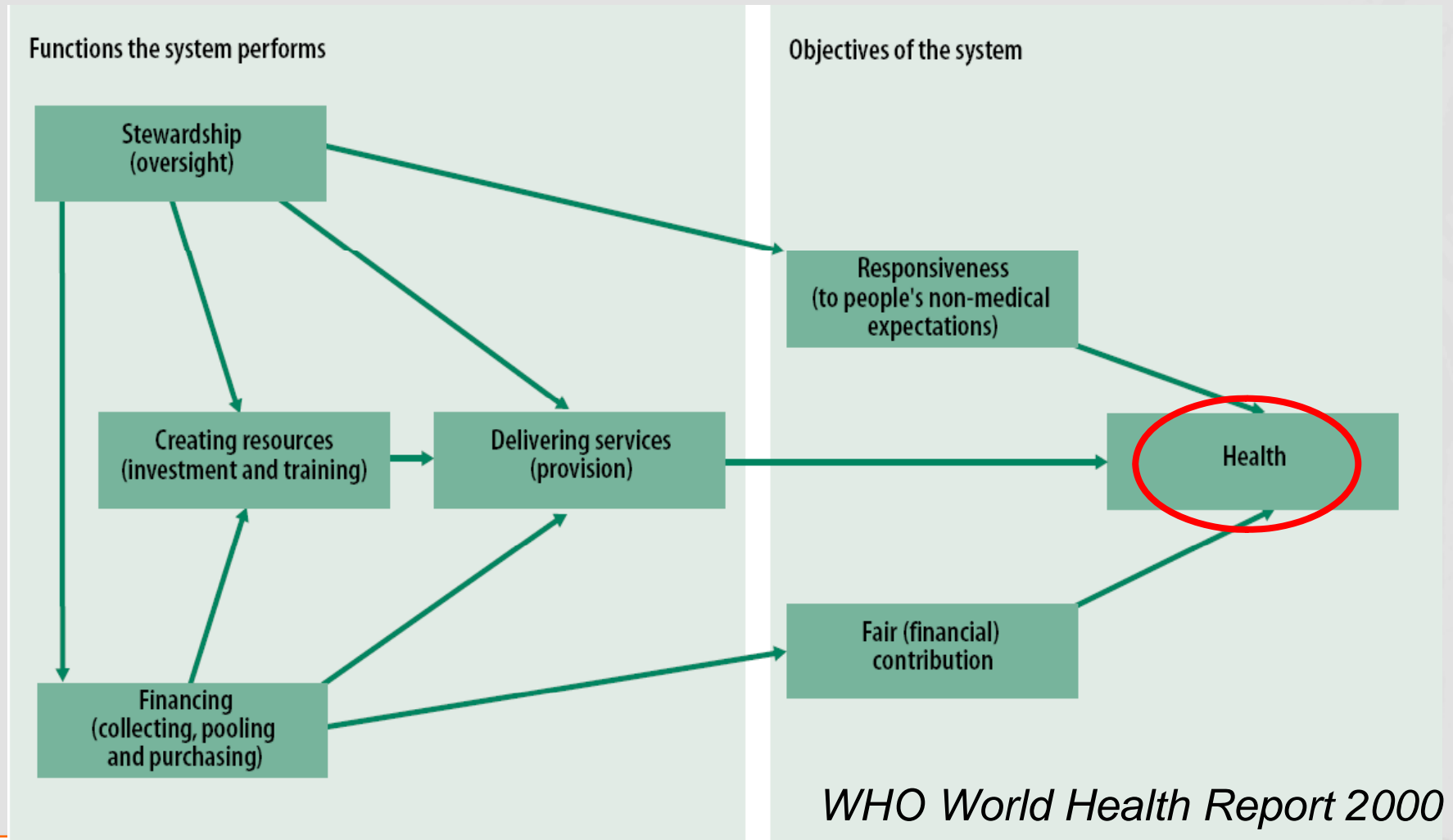


OBSERVATORY VENICE SUMMER SCHOOL 2009

Outline

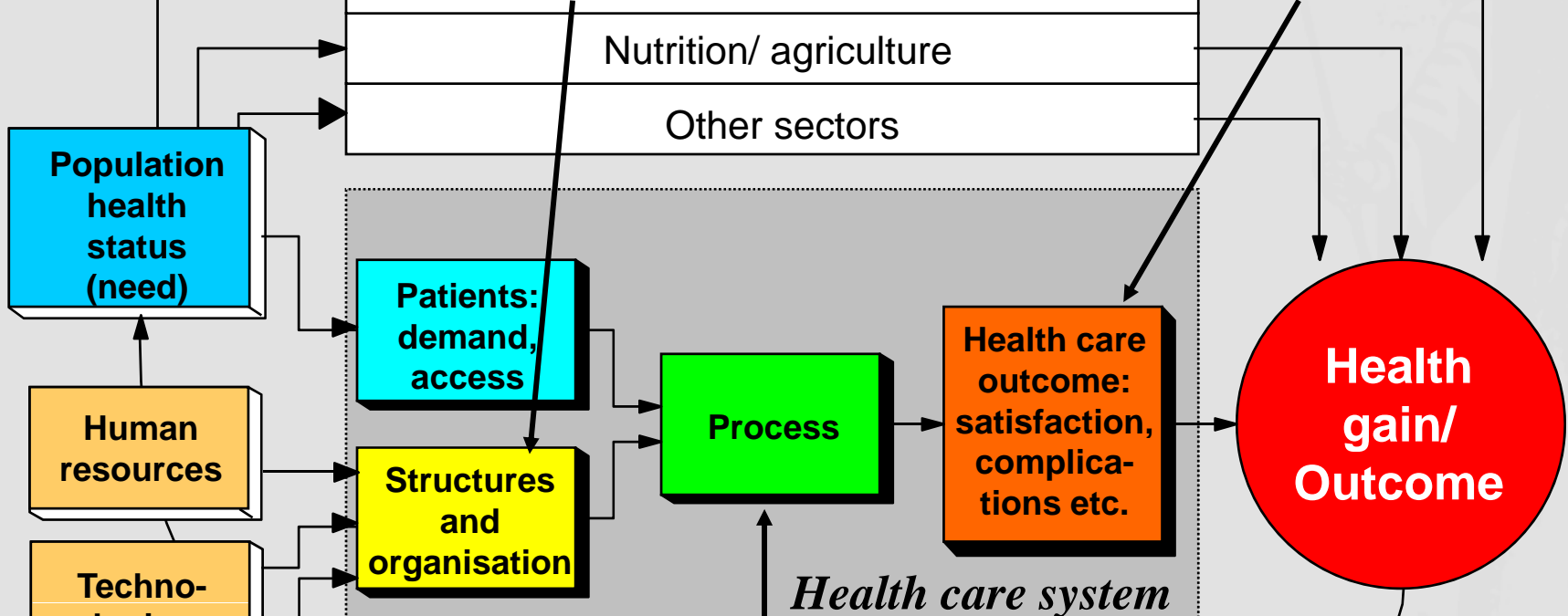
- Quality improvement
- Mandate of HTA
- Mandate of institutions doing HTA
- International collaboration
- Resources for complex reviews

Tasks of a Health System



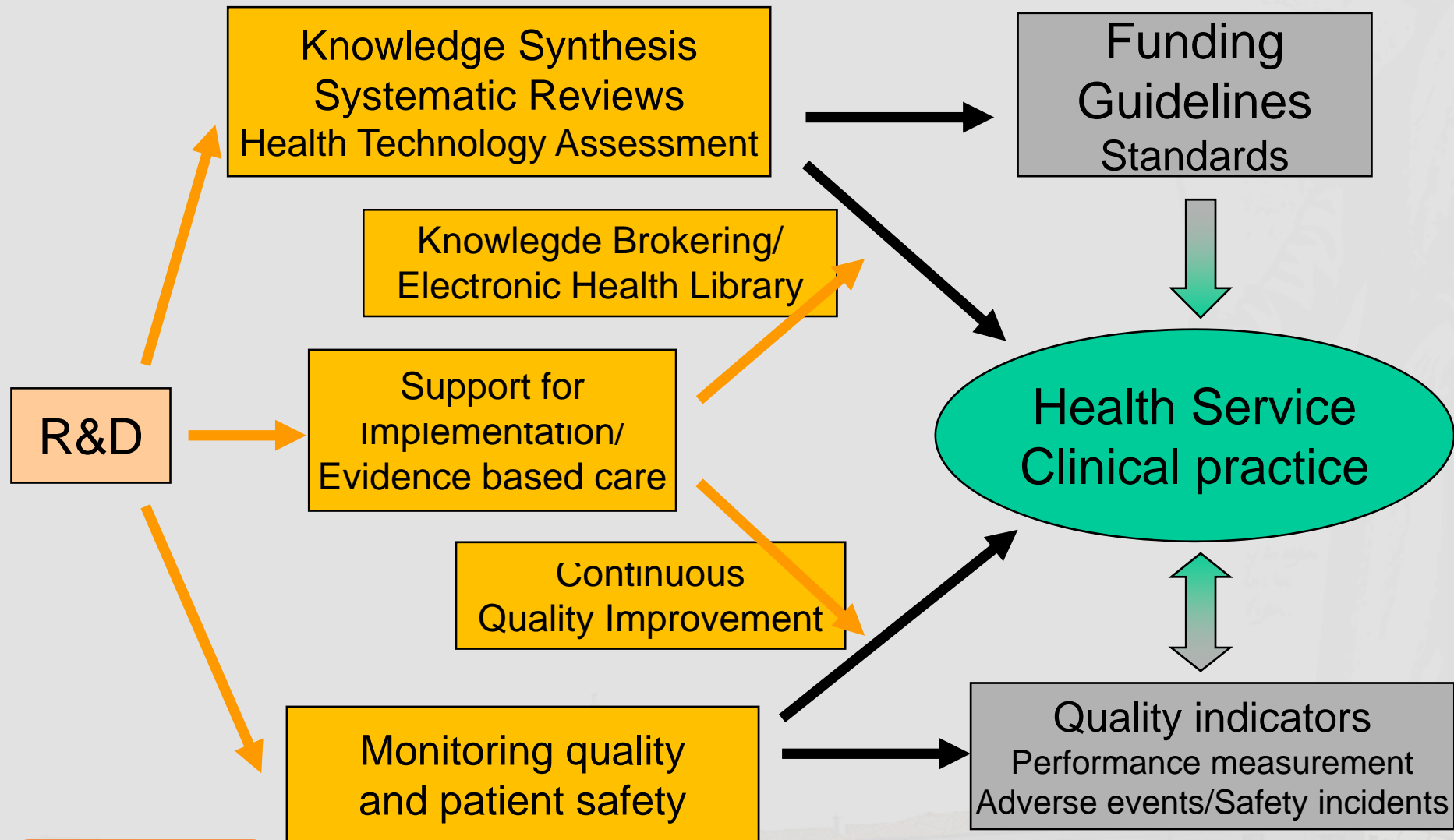
Professional/provider (re-)certification
 Provider (re-)accreditation
 Health Technology Assessment
 Volume and quality standards

Quality indicators;
 registers;
 Patient surveys
 Efficiency



“Do the right thing“: *ex ante* Guidelines/ disease management programmes; *ex post* Review/Medical audit
 “Do the thing right“: Quality indicators, Patient safety
 “Do the things better“: Quality improvement strategies

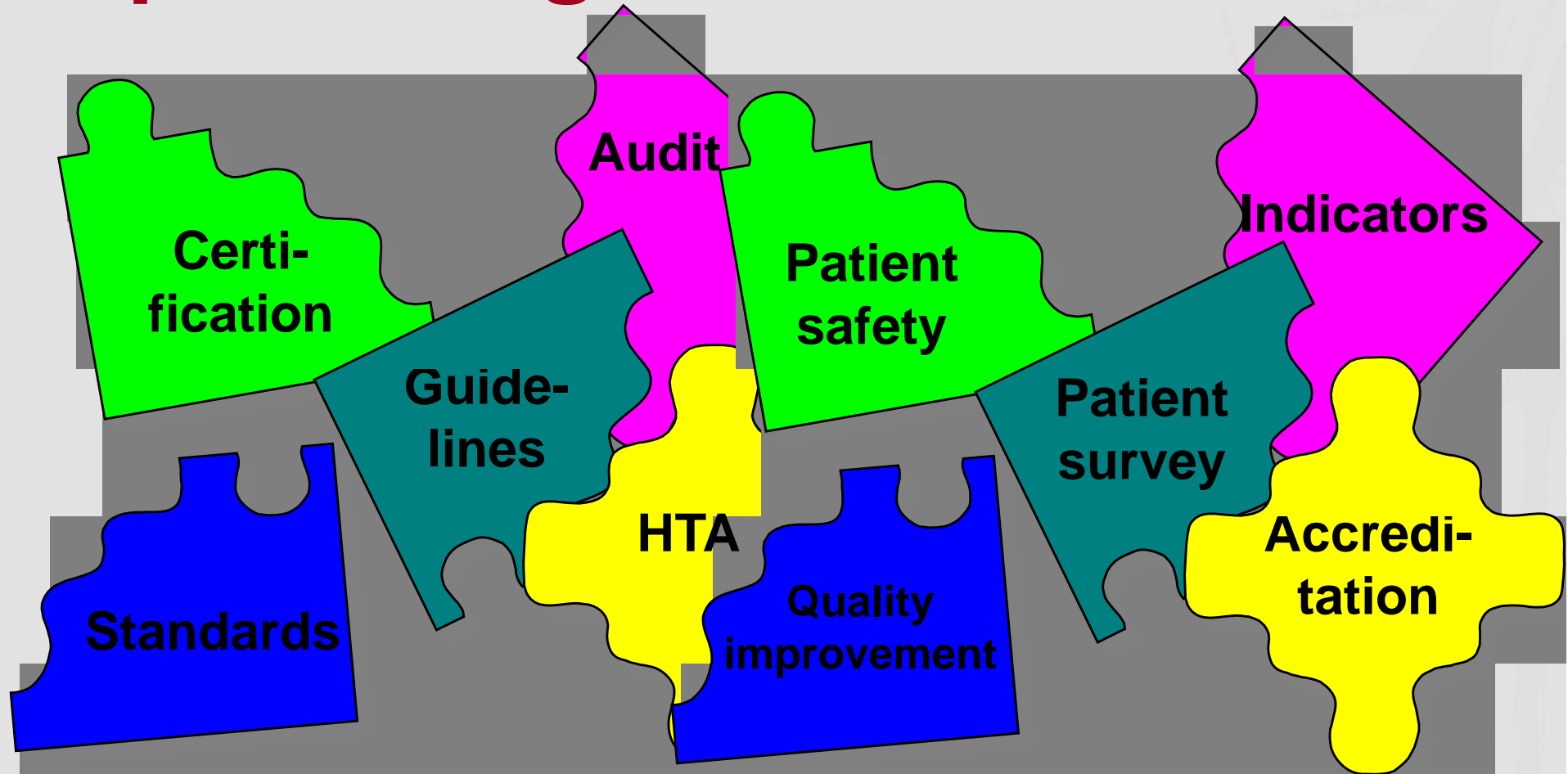
HTA is only one part of the system



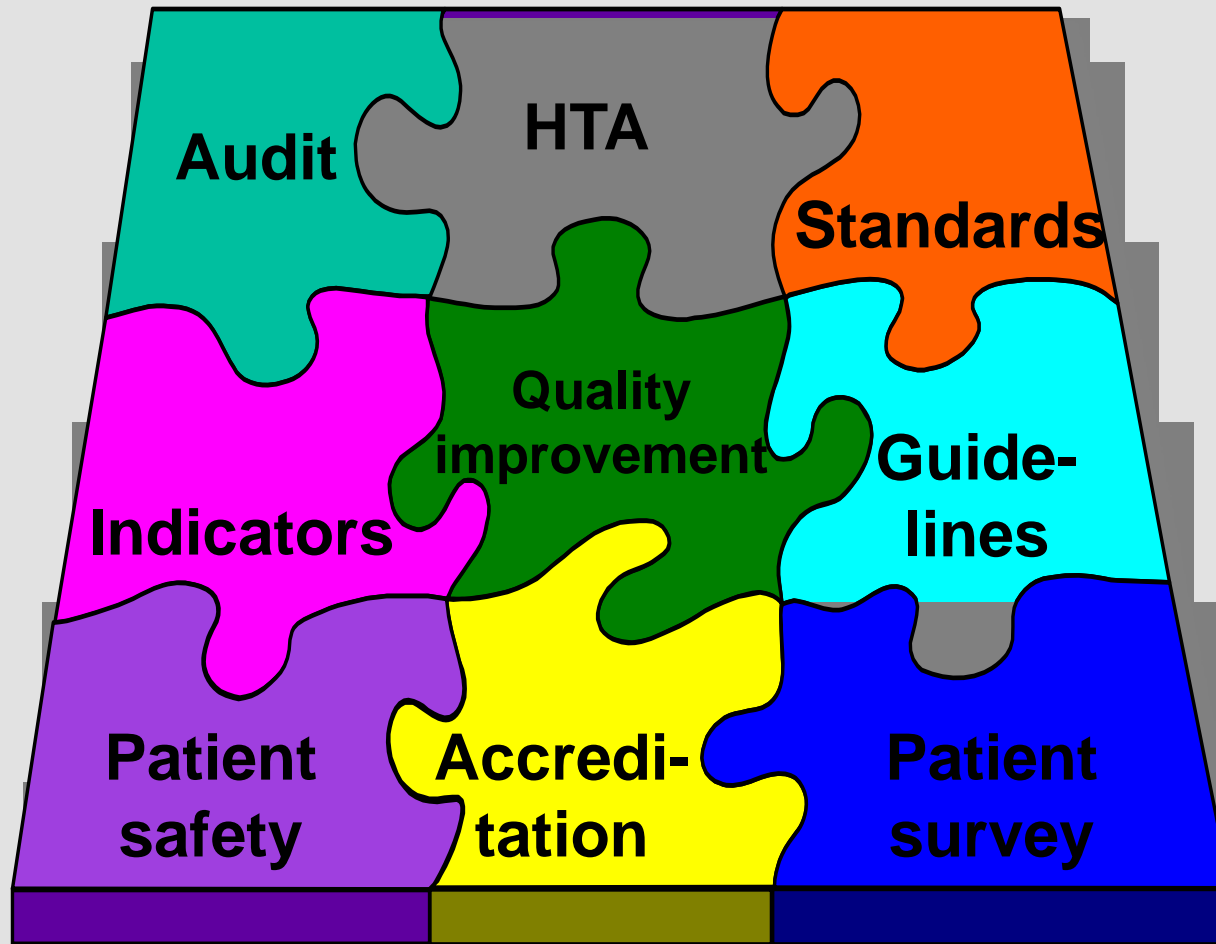
Need to combine ideas from different ideologies/movements

- Evidence Based Medicine/Practice movement
- HTA movement
- Outcomes movement
- Quality Improvement movement
- Practice development movement
- Patient Safety movement
- User/Consumer movement
- Open access movement

Need to get the quality puzzle together

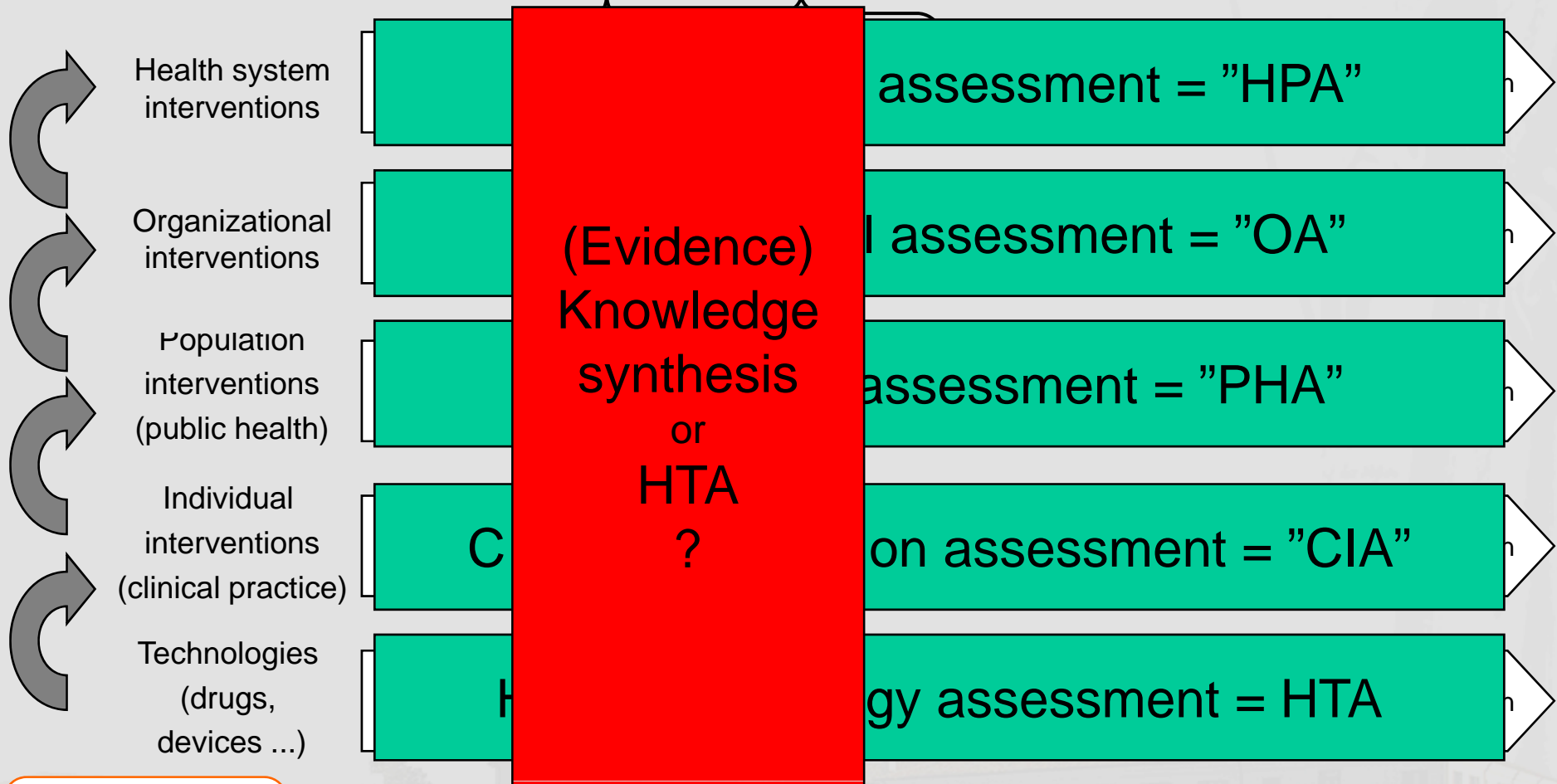


Need to get the quality puzzle together



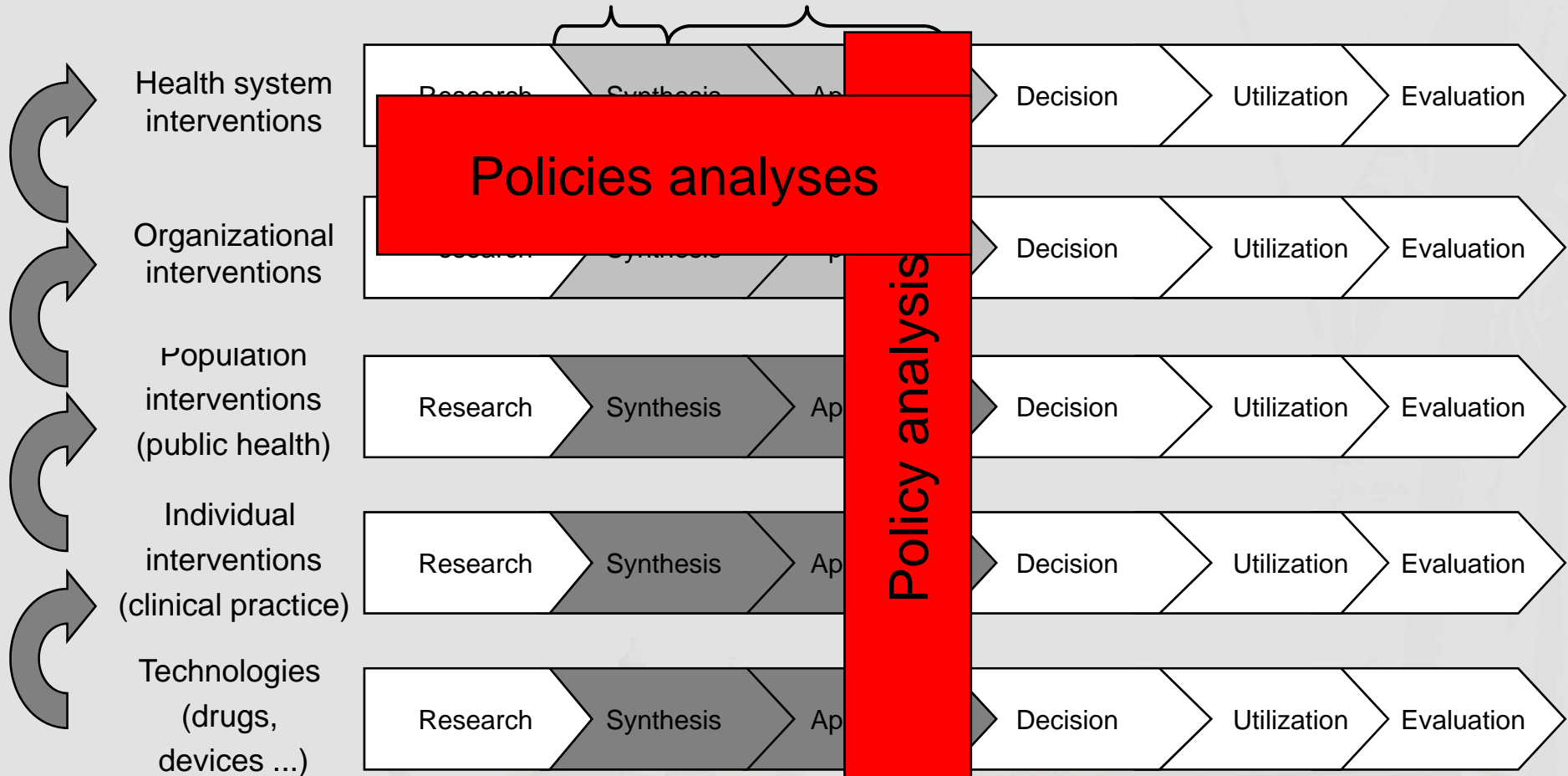
Do we need HTA expansion?

SRs and HTA in the Knowledge chains



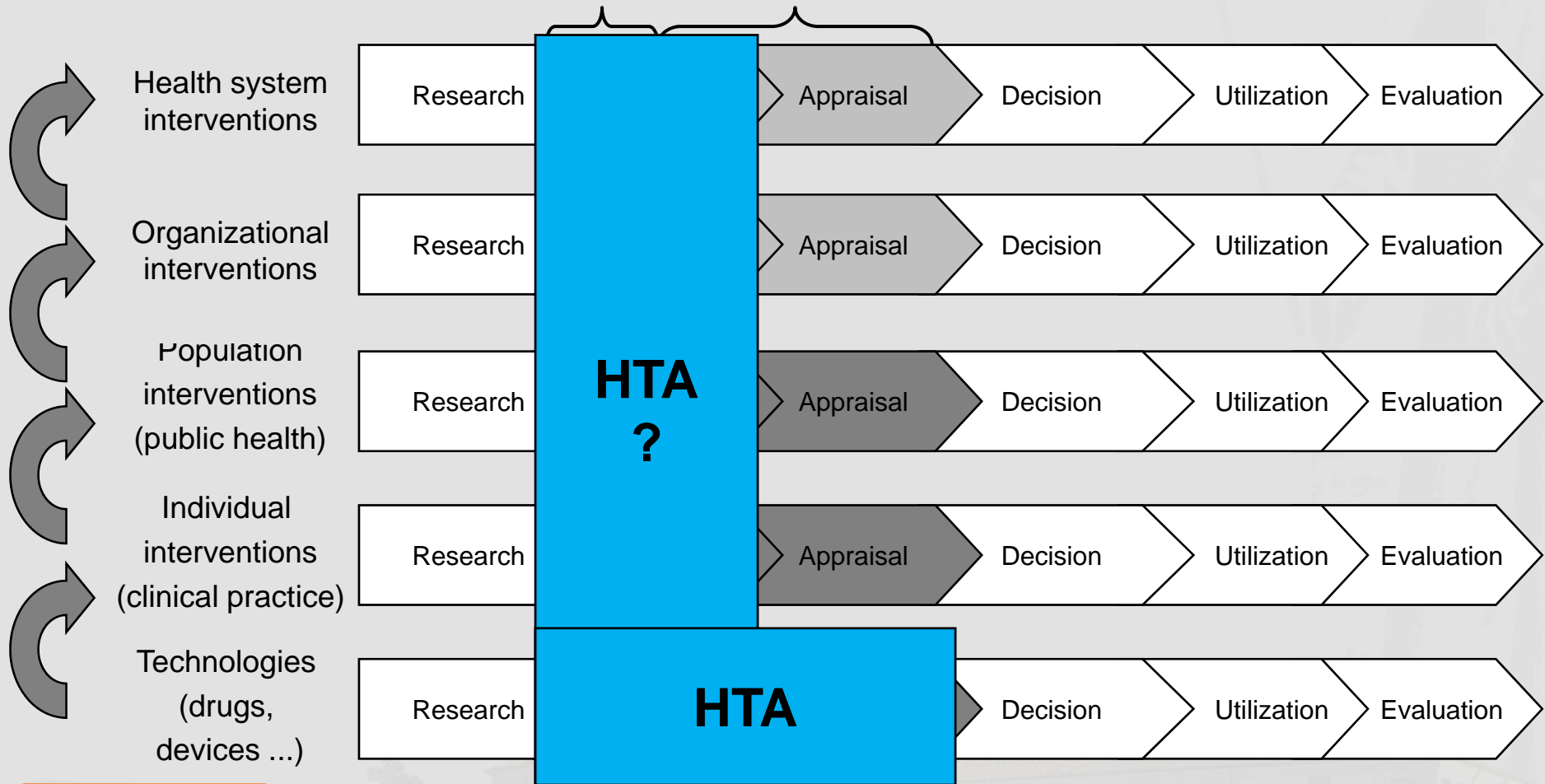
Need for horizontal and vertical expansion

SRs and HTA in the Knowledge chains



... but not necessarily by HTA agencies

SRs and HTA in the Knowledge chains



The added value of HTA

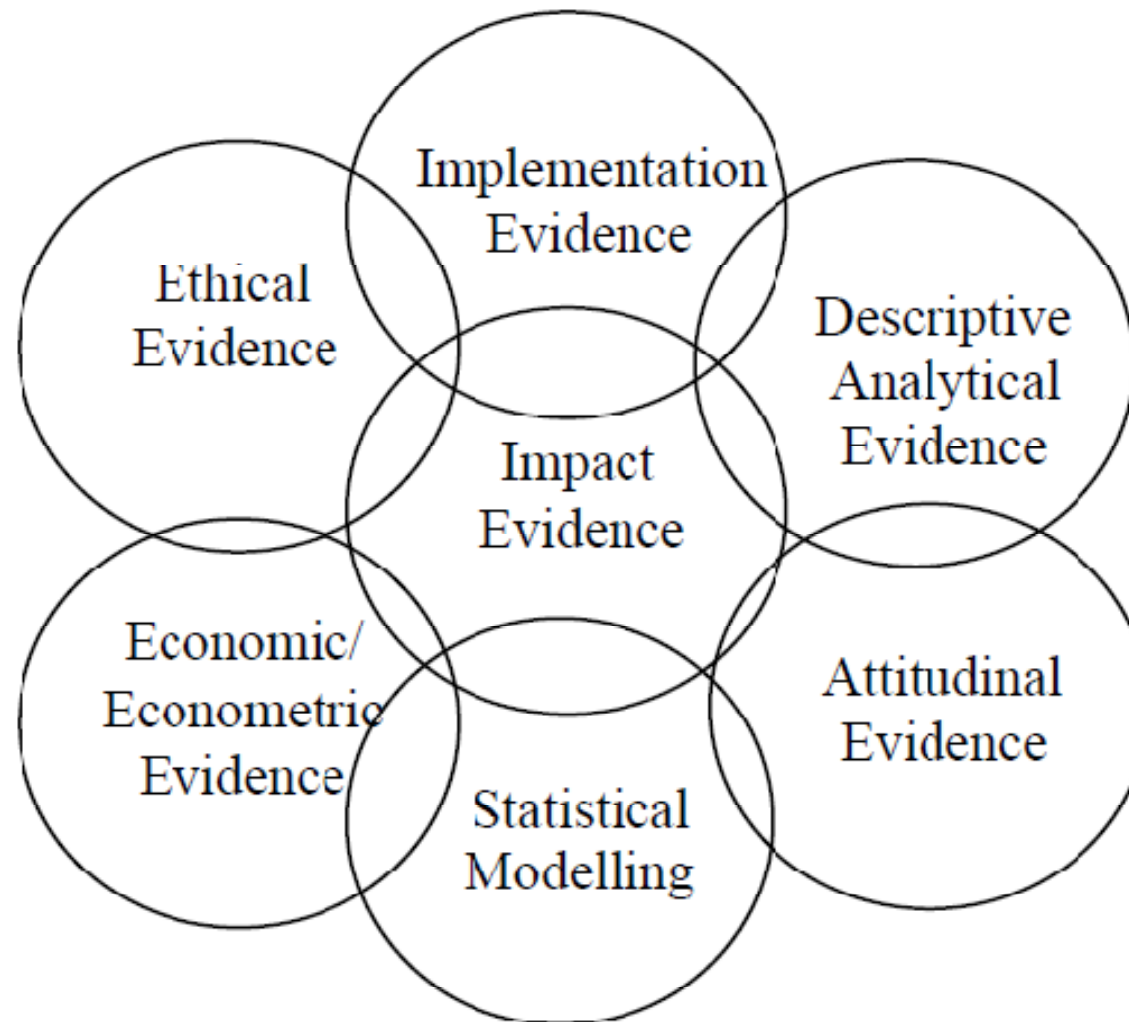
(compared to EBM, research utilization)

HTA

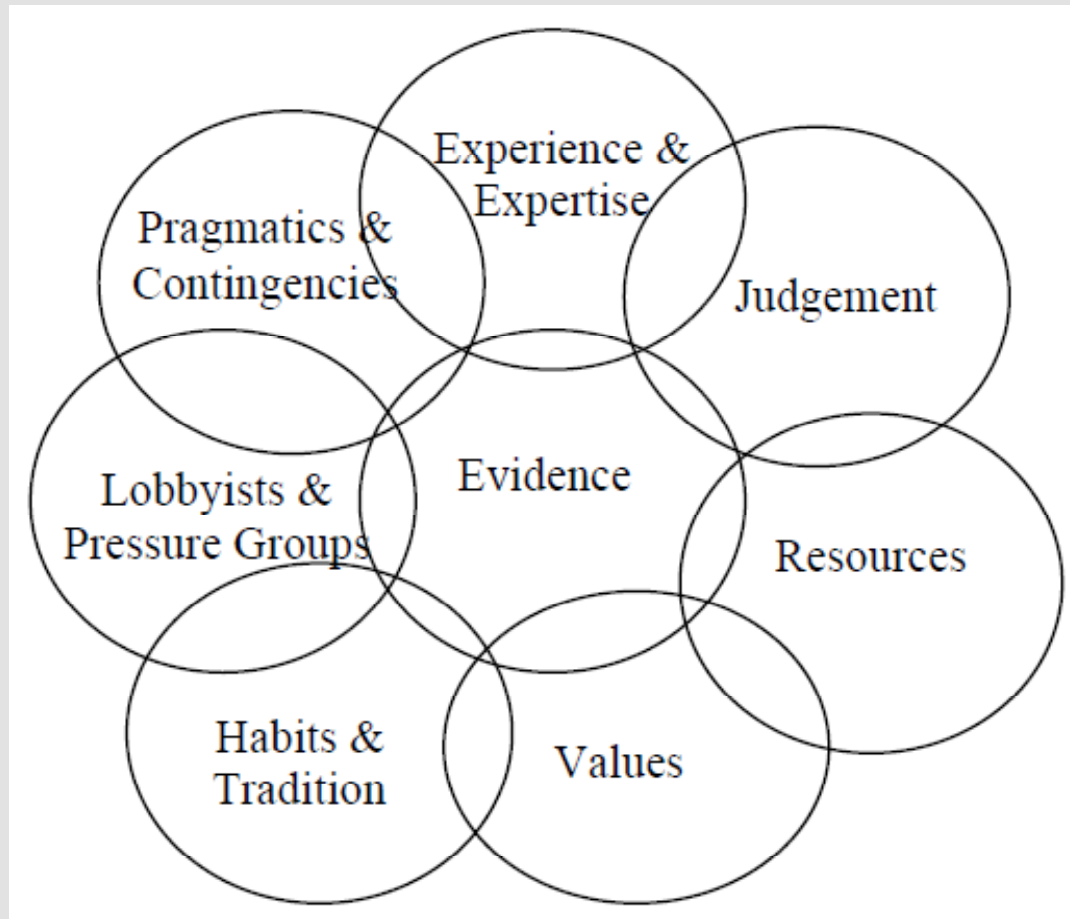
=

Clinical/economic evidence + Social science evidence + Colloquial evidence + Deliberative process

Types of scientific evidence



Factors influencing policy making (colloquial evidence)



The process of combining scientific evidence and contextual knowledge

HTA =

Clinical/economic evidence + Social science evidence + Colloquial evidence + Deliberative process

Assessment

Appraisal

Knowledge support

Decision support

Mixed evidence systematic review

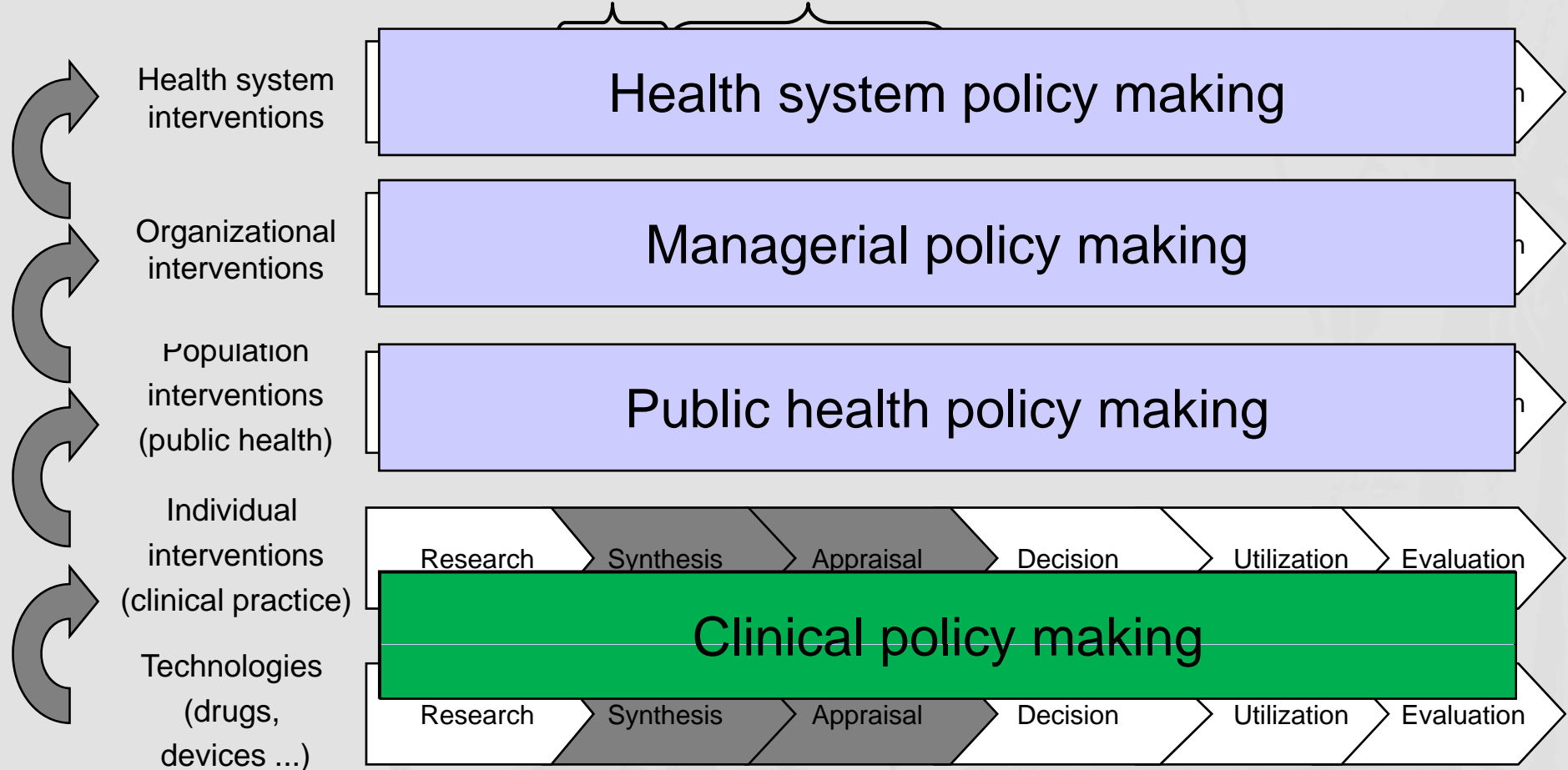
Systematic review

Narrative synthesis

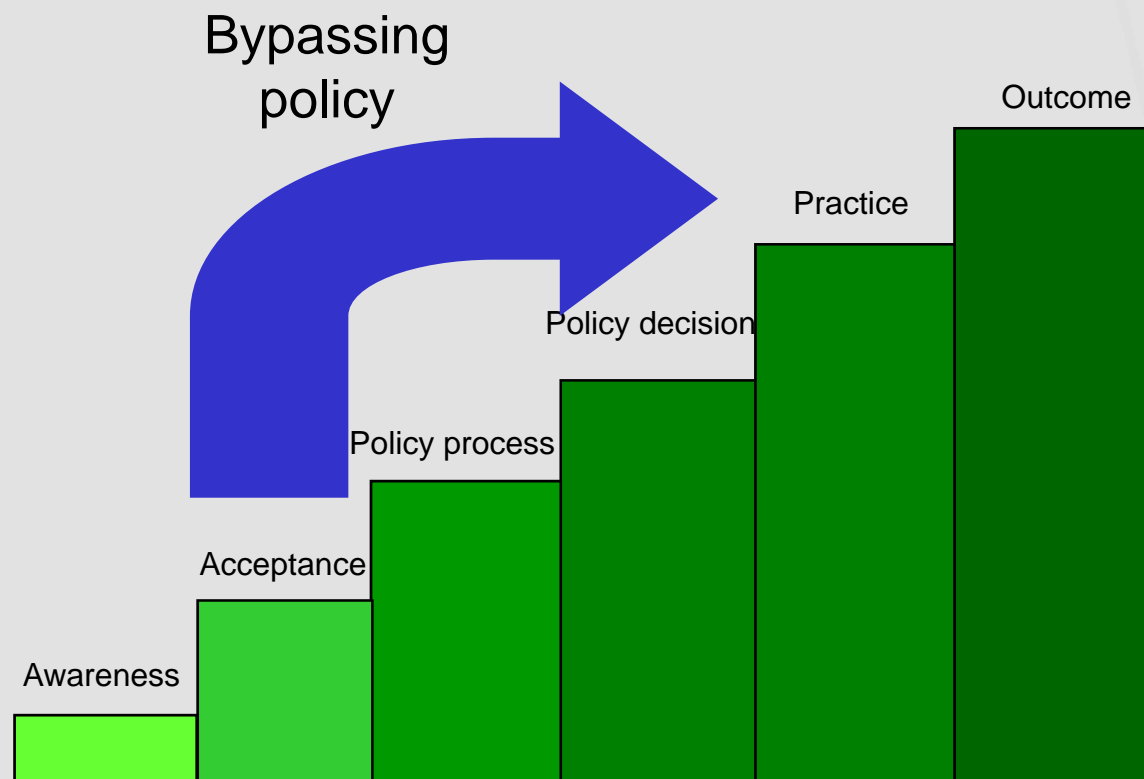
Clinical -

Levels of health policy making

SRS and HTA in the Knowledge chains

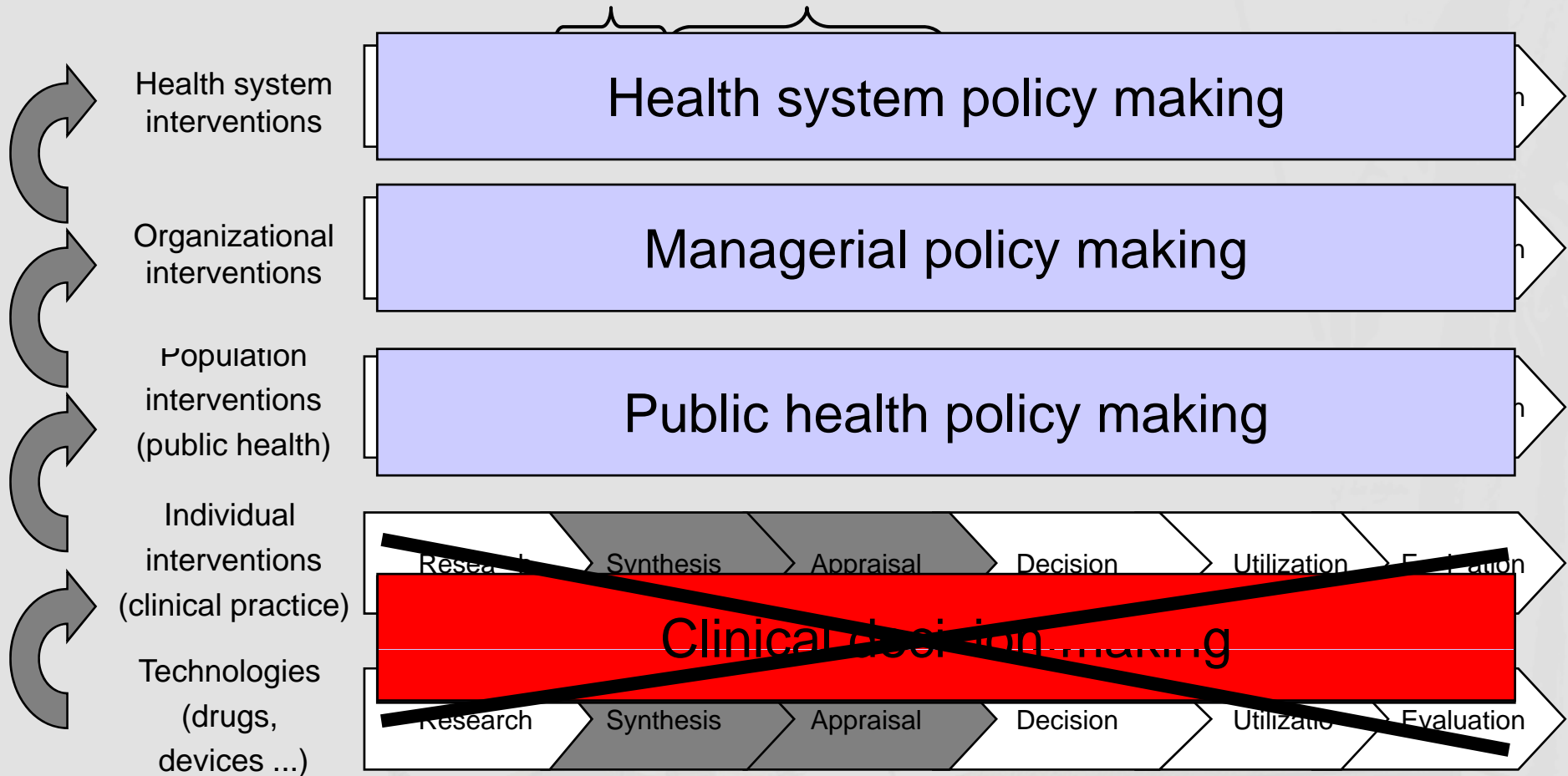


Are clinical policies needed?



Adapted from Ansgar Gerhardus

Is HTA a direct tool for clinical decisions?

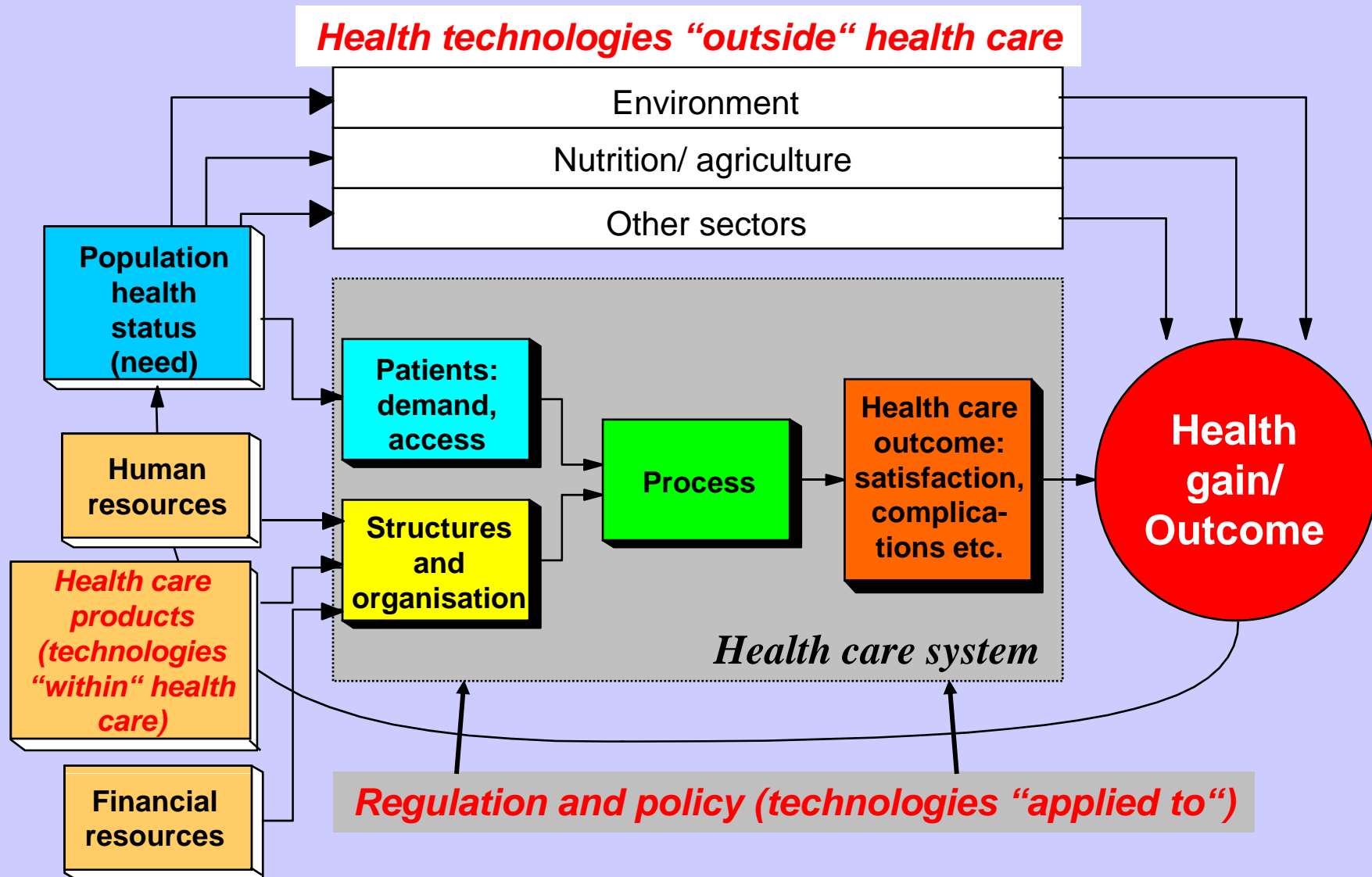


HTA Institutions

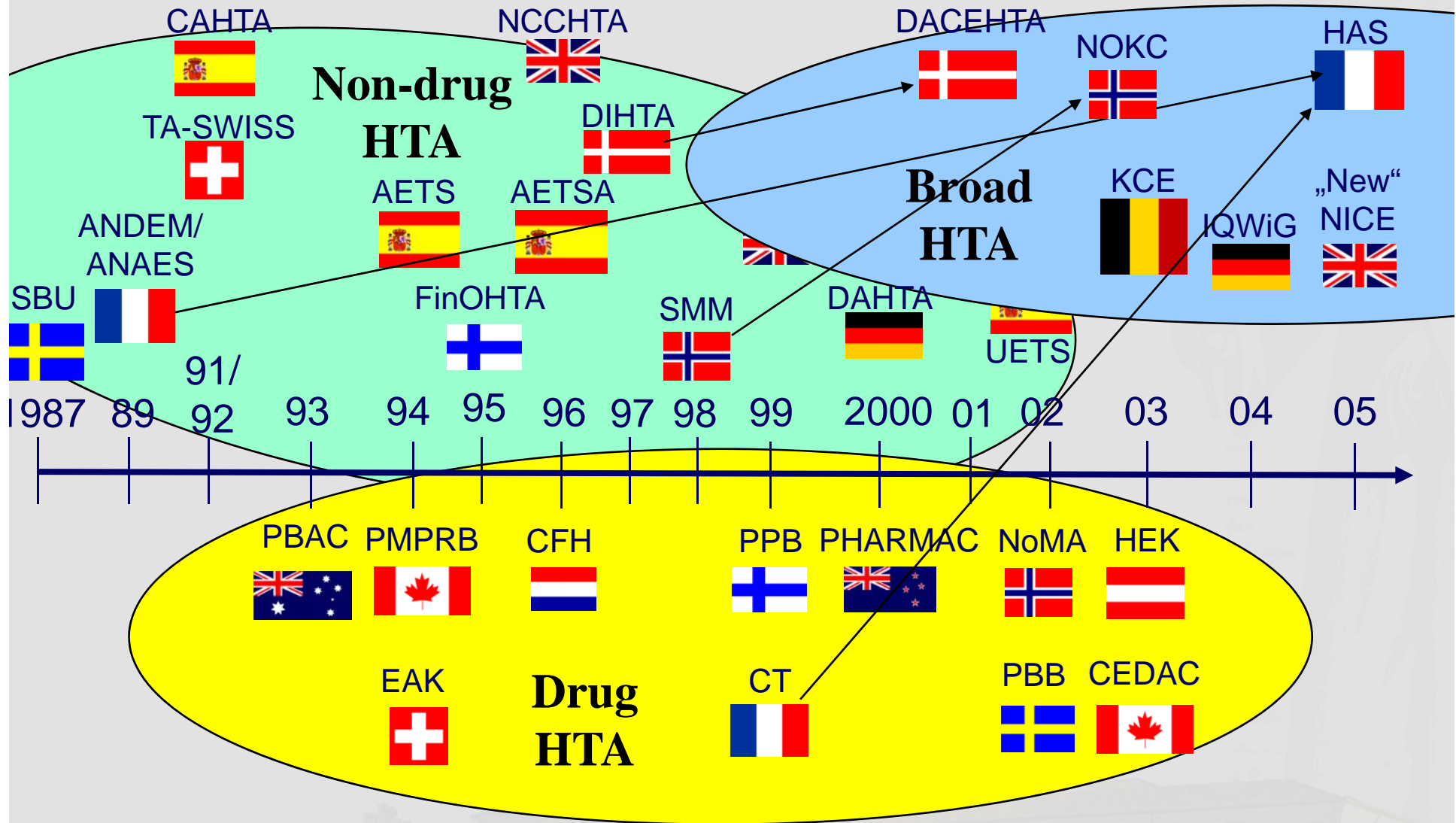
- | Kind of technologies assessed
- | Activities performed
- | Links to policy making
- | Outreach



Which technologies?



Institutions undertaking HTA



Institutions undertaking HTA

Dimension	Classical Non-Drug	Classical Drug Agencies	Broad Activity Agencies
Scope	Mainly procedures, devices, and organisational technologies Increasingly drugs	Exclusively drugs	Initially mainly procedures, devices, organisational technologies Increasingly drugs
Activities	HTA and its dissemination	HTA (effectiveness, cost-effectiveness)	HTA and its dissemination CPG-Development Health Services Research Accreditation
Linkage to policy-making	Very limited	Explicitly linked to coverage and/or pricing decisions	Linked to coverage decisions (variable degrees of explicitness) Linked to planning, investment
Outreach	National, federal	National, federal	National, federal Regional
Other	INAHTA member	non INAHTA member	INAHTA member

Broad NIA institutions



The roles and responsibilities of NICE since 1 April 2005

NICE produces guidance in three areas:

Public health – the promotion of good health and the prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector

Health technologies – the use of new and existing medicines, treatments and procedures within the NHS

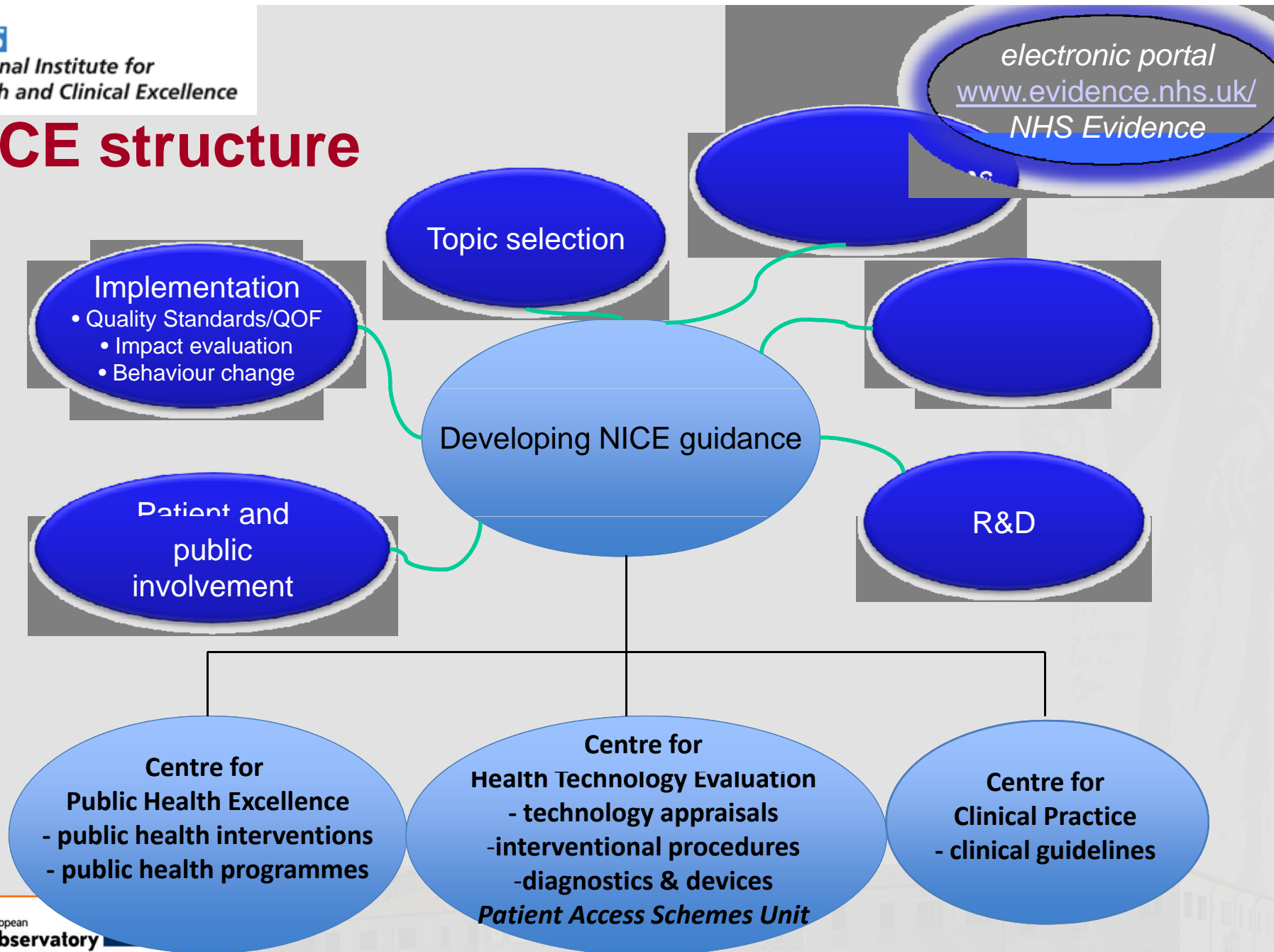
Clinical practice – the appropriate treatment and care of people with specific diseases and conditions within the NHS.



- l'analyse des pratiques cliniques et le développement de recommandations de bonne pratique (Good Clinical Practice)
- l'évaluation des technologies médicales (Health Technology Assessment)
- le financement et l'organisation des soins de santé (Health Services Research)
- l'équité et l'étude du comportement des patients (Equity and Patient Behaviour)



NICE structure



Integrated activity for the quality of health



HAUTE AUTORITÉ DE SANTÉ

- HTA
 - Drugs, devices and procedures: assessment of clinical benefit and collective interest (reimbursement and good use)
- Guidelines
 - good practice, patient safety, public health
- Quality improvement
 - Accreditation of HCOs (mandatory)
 - Certification of Continuous Professional Development (mandatory)
 - Certification of information (web site, prescription ...a...),
 - Chronic disease management

III. Organisation of the Haute Autorité de santé

HAS' structure consists of an executive Board (chaired by Professor Laurent Degos), specialist Committees, a director and departments.



1. THE BOARD ("COLLEGE")

Board members are appointed for a 6-year term, renewable once. Half the Board is renewed every 3 years.

2. THE SPECIALIST COMMITTEES AND THEIR MISSIONS

There are seven specialist committees (see Box 1). In addition to the Transparency Committee (article R. 163-15 of the Social Security Code) and the Committee for the Assessment of Devices and Health Technologies (CEPP) (article R. 165-18 of the Social Security Code), five other committees were created by the Board, which decided their composition and their common rules of operation. Each Committee is chaired by a member of the Board and has its own internal regulations⁵. Each Committee Chair is supported by a corresponding head of department, who reports directly to the director.

Box 1. 7 specialist Committees

- Transparency Committee (assessment of medicinal products)
- Committee for the Assessment of Devices and Health Technologies
- Committee for the Assessment of Diagnostic and Therapeutic Procedures
- Committee for Healthcare Cover for Chronic Conditions
- Committee for Practice Guidelines and Practice Improvement
- Committee for Medical Information Quality and Dissemination
- Committee for Accreditation ("*certification*" in French) of Healthcare Organisations.

NHS Quality Improvement Scotland Purpose

To lead the use of knowledge to promote improvement in the quality of healthcare for the people of Scotland



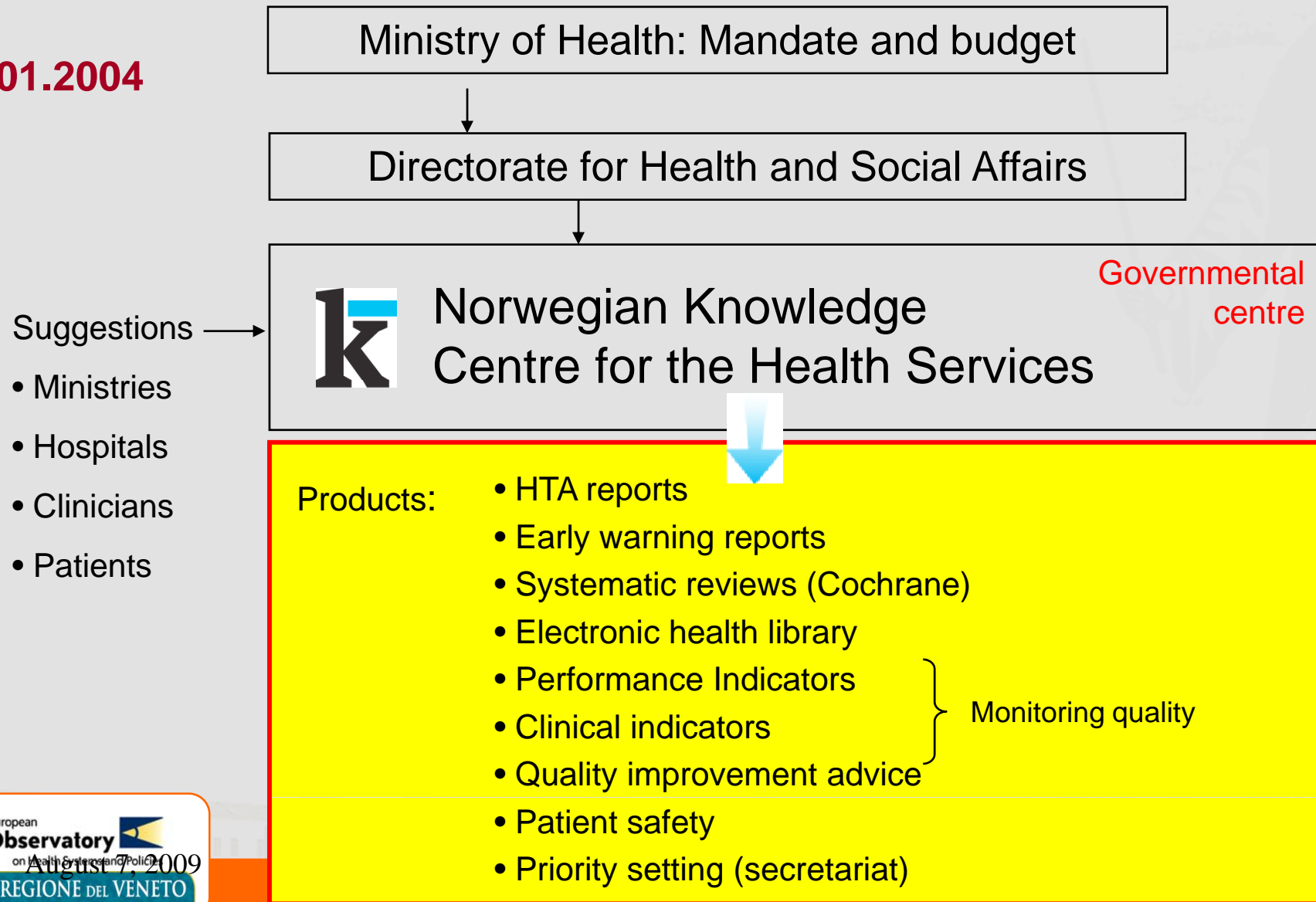
What we do

- set standards of care
- provide advice and guidance on effective clinical practice (clinical guidelines, HTA)
- scrutinise the performance of the NHS, publishing our findings (performance assessment, clinical audit, accreditation)
- drive implementation of improvements in quality (Scottish Patient Safety Programme, clinical outcome data)

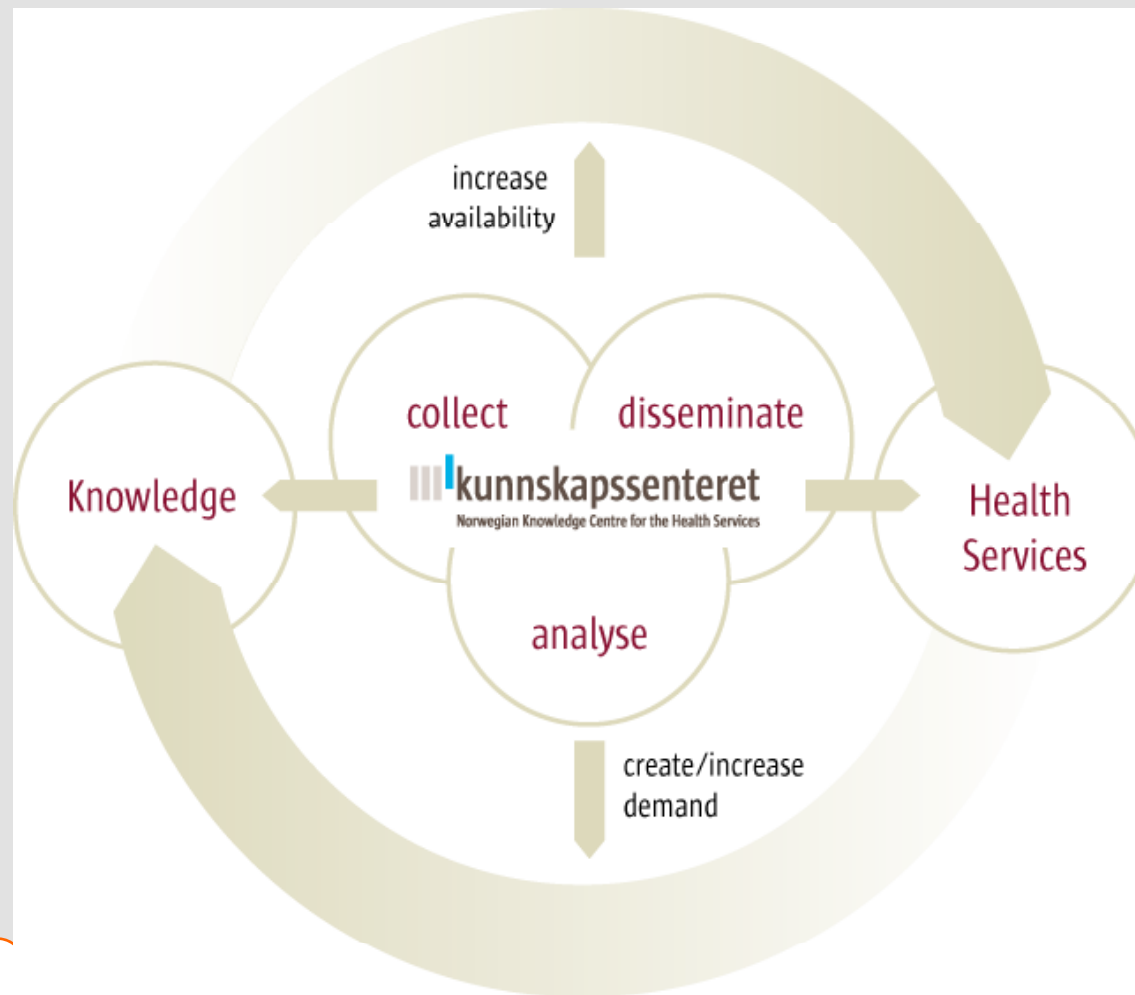
Within this remit we have central responsibility for patient safety and clinical governance across NHSScotland.

Norway: Merging HTA agency into a broader institution

01.01.2004



NOKC's role: A knowledge broker/translator



Universal coverage,
appropriate
entitlements,
limited cost-sharing

Professional (re-)certification
Provider (re-)accreditation
Health Technology Assessment
Concentration of services

Quality
indicators;
registers; pa-
tient surveys

Environment

Different aspects of quality: who is responsible for what?

logies

Financial
resources

Health care system

**“Do the right thing“: *ex ante* Guidelines/ disease
management programmes/ reminders; *ex post* Review**
“Do the thing right“: Quality indicators

Universal coverage,

England

limited cost-sharing

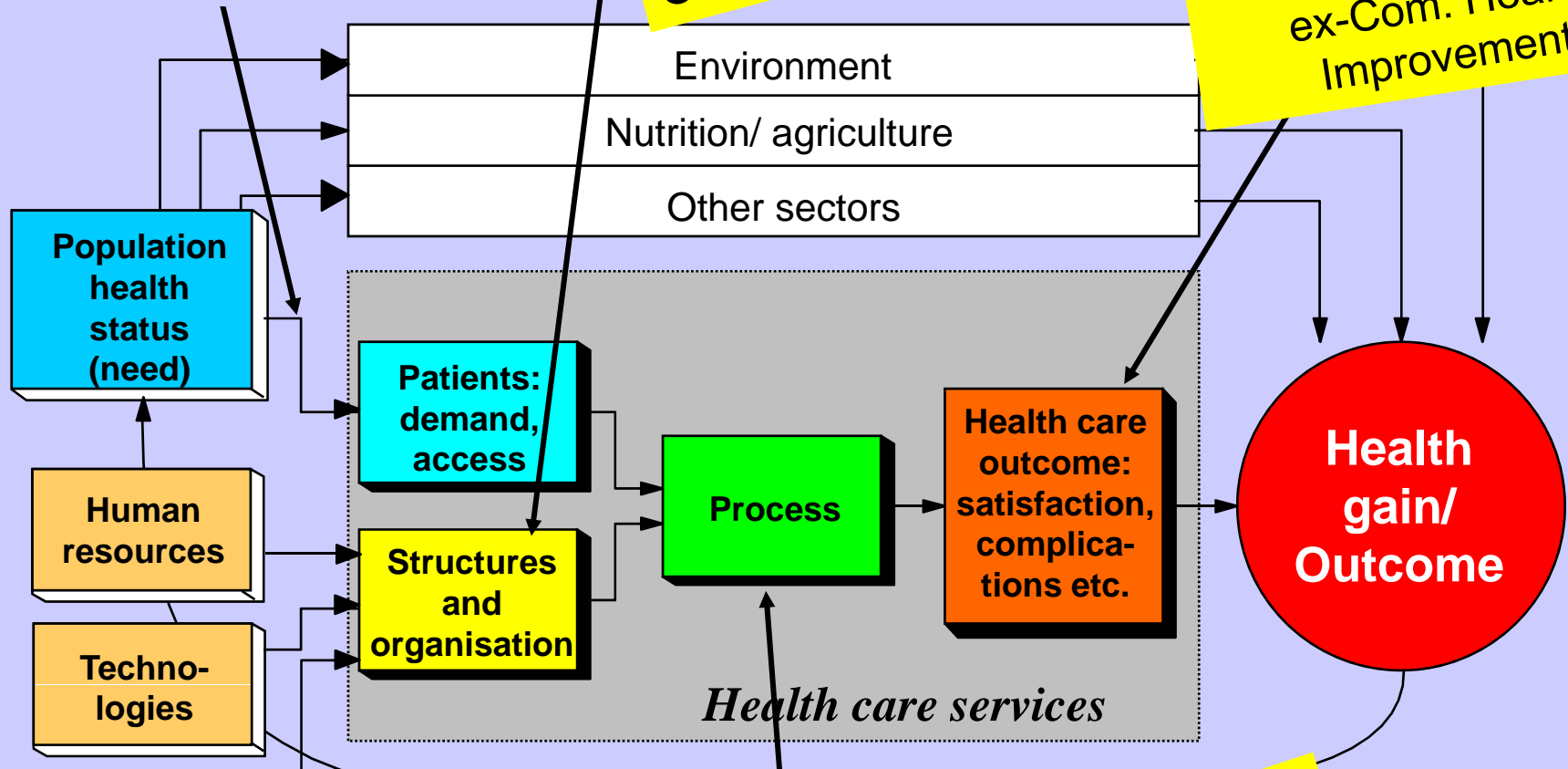
Professional (re-)accreditation
Health Technology Assessment
Commission of services

Postgraduate Med. Educ. and Training Board

NICE

CQC

Care Quality Commission (CQC), ex-Healthcare Com., ex-Com. Health Improvement

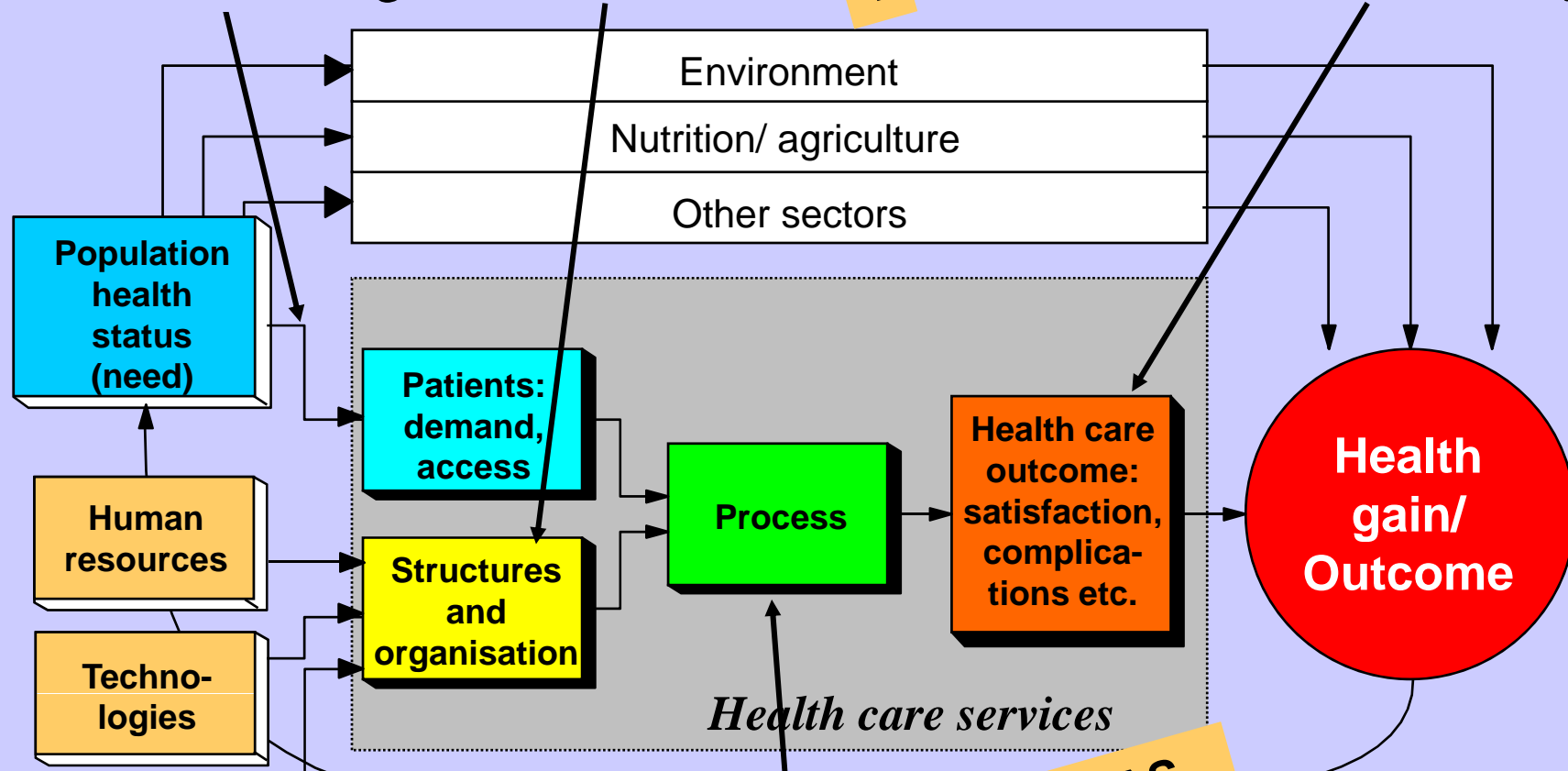


“Do the right things”
 DoH („National Service Frameworks“)
 NICE
 Quality indicators

Universal coverage,
France,
limited cost-sharing

Professional **HAS** certification
Provider (re-)accr **HAS**
Health **HAS** Technology Assessment
Concentration **?** of services

Quality **HAS**
(in future) ;
Registers; pa-
tient surveys



“Do the right thing“: *ex ante* **HAS** + others
management programmes/ reminders: Review
“Do the thing right“: Quality **HAS**
(in future)

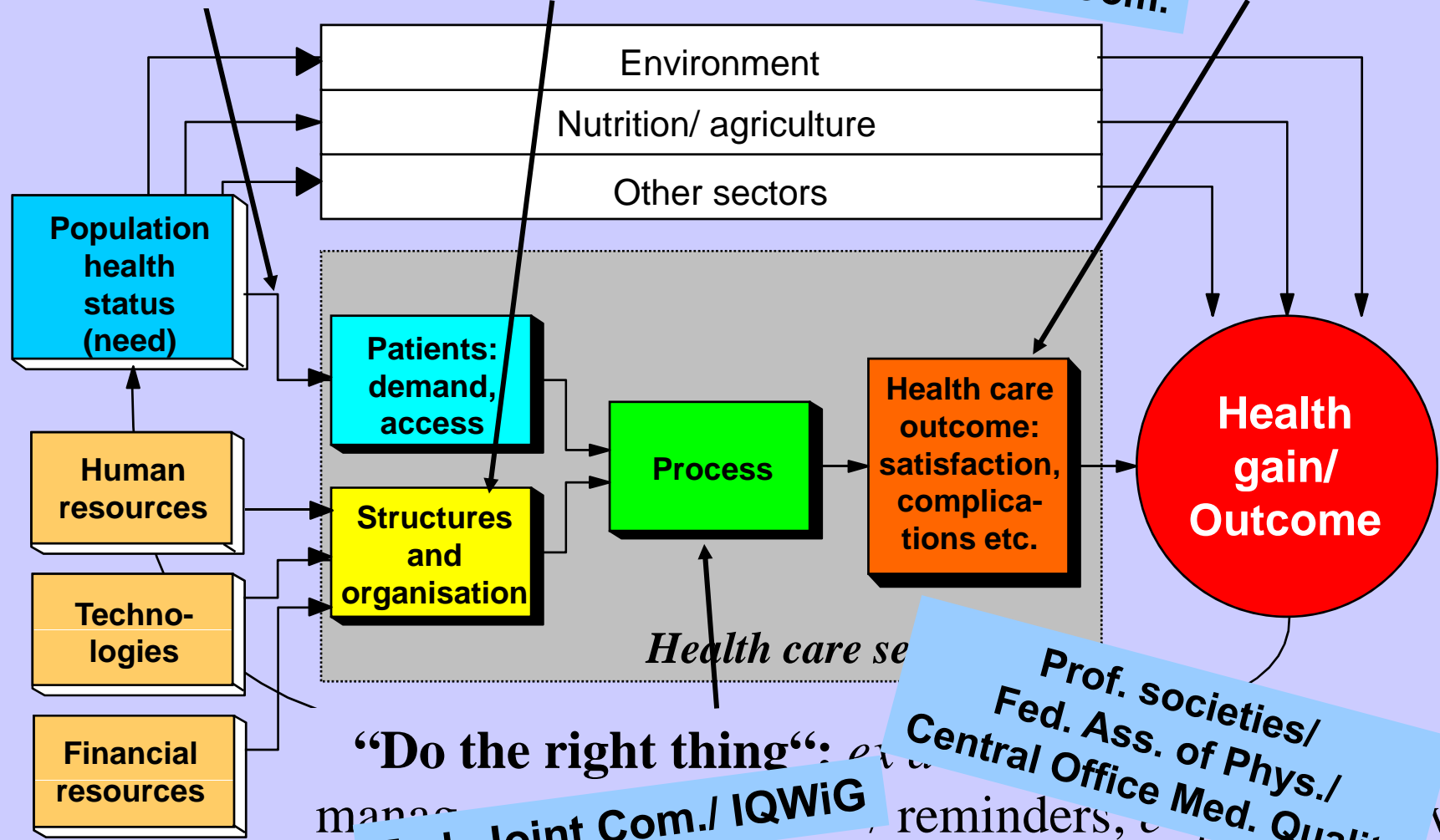
Universal coverage,

Germany

limited cost-sharing

Professionals
States/ Physician chambers on
Provider (re-)accreditation
Health
Fed. Joint Com./ IQWiG
Assessment
Concentration of
Fed. Joint Com.

Quality
Fed. Joint Com./
Quality Institute
patient surveys



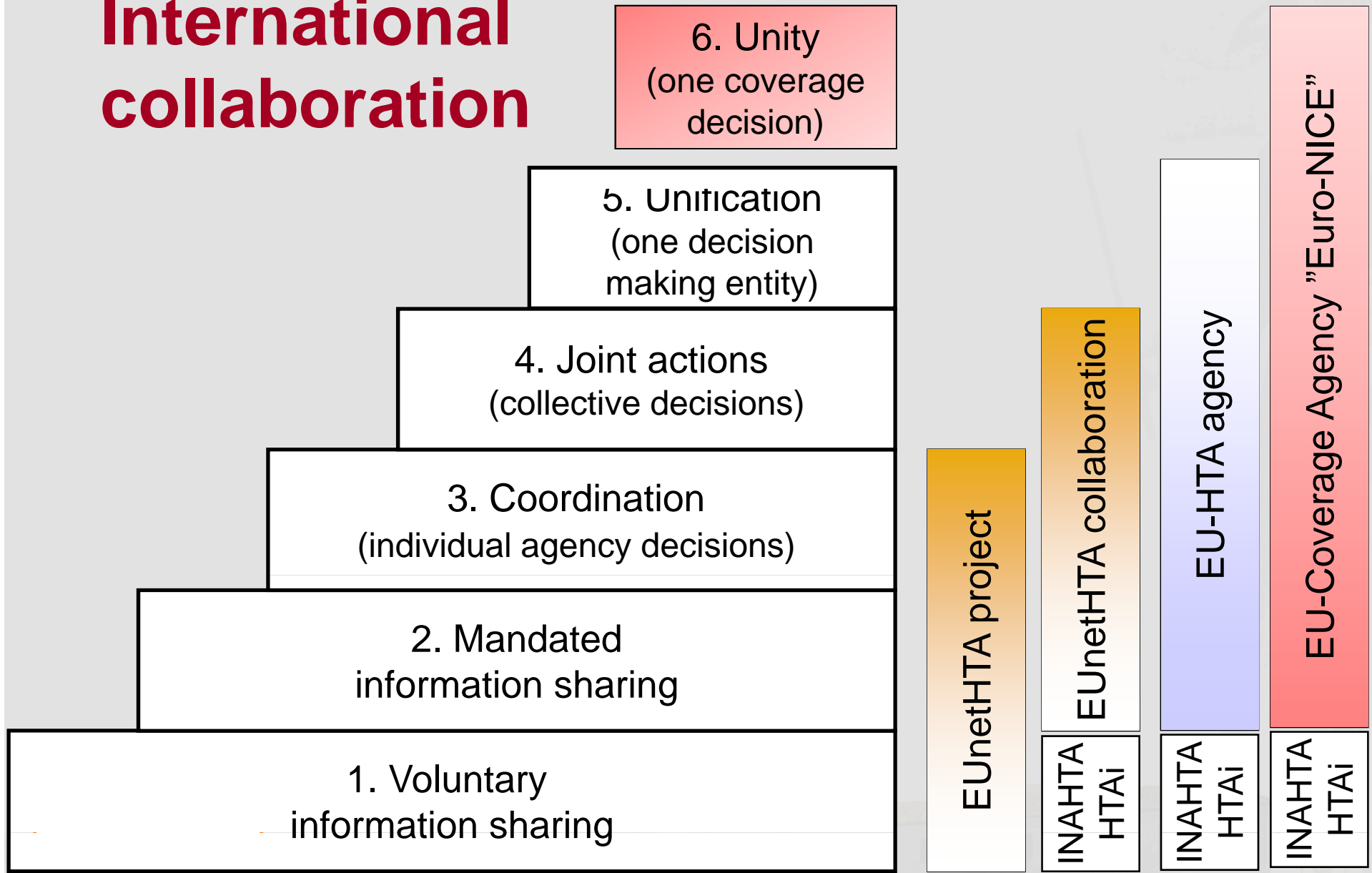
“Do the right thing“:
Fed. Joint Com./ IQWiG

Prof. societies/
Fed. Ass. of Phys./
Central Office Med. Quality
“Do the thing right“: Quality indicators

Collaboration to improve efficiency, and quality,

- Too much duplication, triplication, quadruplication.....
- Resources are wasted, should be used to broaden and increase the number of interventions being assessed

International collaboration



The HTA house



Building blocks used (core assessment elements)



Additional blocks

(contextual assessment elements)



New HTA house!



International vs. national/regional

HTA =

Clinical/economic evidence Social science evidence Colloquial evidence Deliberative process

Assessment

Appraisal

Knowledge support

Decision support

Global

Local (national/regional)

Core information

Non-core information

Information sharing across countries

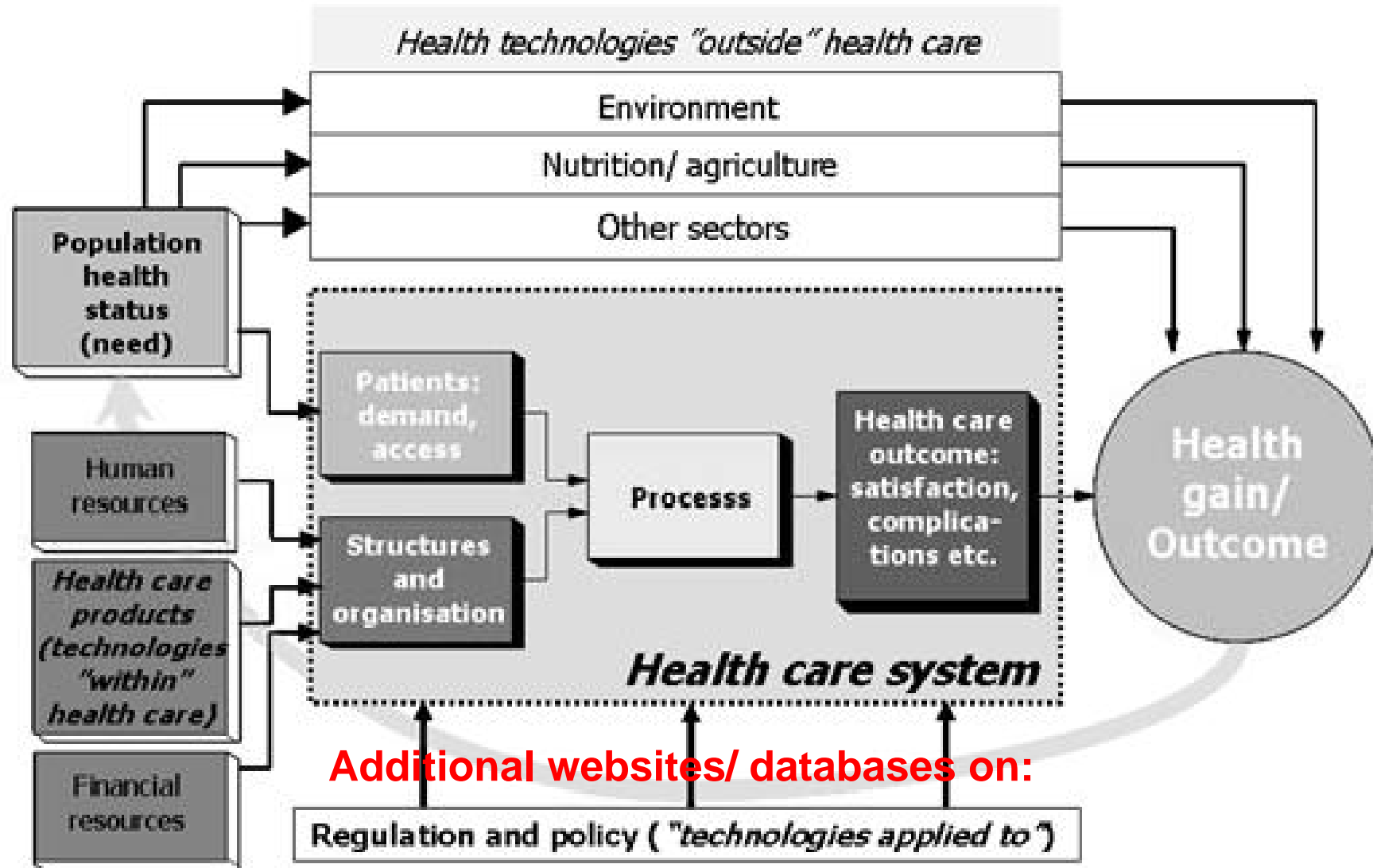
- Common database
 - suggested topics
 - selected topics
 - assessments started
 - preprints of reports (before publication, intranet)
 - final reports
 - decisions taken
 - monitoring uptake
 - monitoring effectiveness „ phase IV „ registries,

Priority setting/deciding topics international collaboration

- HTA priority setting
 - emerging technologies: common scanning
 - new technologies: common system
 - first evaluation
 - existing technologies: coordinated system
 - reevaluation
 - other assessments coordinated system
 - continuous evaluation
- Who and how to decide?
 - independence – **no, dependence needed!**

Existing international collaboration

	Technologies within Drugs/ devices	Technologies within Clinical interventions	Technologies outside Public health	Technologies to/on Health system
Data/ primary research	Supply driven, not demand driven	Supply driven, not demand driven	Too limited	Too limited
Assessments (ex ante)	EUnetHTA Cochrane	EUnetHTA Cochrane GIN	? Cochrane	? Observatory
Data/ monitoring	? Product registries	? Clinical registries	WHO EU OECD	OECD WHO
Evaluation (ex post)	?	?	?	? Observatory





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Home

Public health and health care policy-makers need a trustworthy source of evidence on which to build health policy. WHO/Europe addresses this need with HEN, which gives rapid access to independent and reliable health information and evidence.

HEN provides:

- answers to policy questions in the form of evidence-based synthesis reports and summaries;
- easy access to sources of evidence and information from a number of web sites, databases and documents; and
- in conjunction with the European Observatory on Health Systems and Polices, policy briefs focused on health systems and of relevance to the European Region's Member States.

HEN is conceived as network of technical members and financial partners, involving United Nations agencies with a mandate related to health, organizations working with evidence-based health policy and health technology assessment, other institutions and governments interested in funding advanced projects related to public health issues.



News

HEN technical members' recent releases - June update

26 June 2009

See the new releases that have been added

[More](#)

Two new HEN-OBS joint policy briefs published for Czech European Union Presidency Ministerial Conference on the Financial Sustainability of Health Systems

25 May 2009

Topics are about long-term care and economic cost of ageing.

[More](#) | [See also](#)

The April issue of HENews has been published

30 April 2009

sign-up here to join the mailing list

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Recent releases by HEN technical members

- ▶ [Effects of maternal diet during pregnancy on birth weight of the infant, June 2009](#) [external link]
National Institute for Public Health and the Environment (RIVM)
- ▶ [CRD Databases: Evidence Base for Influenza Intervention, May 2009](#) [external link]
Centre for Reviews and Dissemination (CRD)
- ▶ [The physical environment for people with dementia, May 2009](#) [external link]
Norwegian Knowledge Centre for the Health Services, Norway
- ▶ [Effects of psychotherapy for adults with depression, April 2009](#) [external link]
Norwegian Knowledge Centre for the Health Services, Norway
- ▶ [Is biomedical research a good social investment? The evaluation of the social impact of medical research, April 2009](#) [external link]
Catalan Agency for Health Technology Assessment and Research (CAHTA)
- ▶ [Scientific cooperation for a healthier Europe, April 2009](#) [external link]
Health Council of the Netherlands (Gezondheidsraad)
- ▶ [Smoking cessation in general practice – a Health Technology Assessment, April 2009](#) [external link]
Danish Centre for Evaluation and Health Technology Assessment (DACEHTA)
- ▶ [Accidental falls in elderly people, March 2009](#) [external link]
Swedish National Institute of Public Health (SNIPH)
- ▶ [General vaccination against hepatitis B revisited, March 2009](#) [external link]
Health Council of the Netherlands (Gezondheidsraad) (HCNET)
- ▶ [Healthy life years in the European Union: facts and figures 2005, March 2009](#) [external link]
European Commission Health and Consumer Protection Directorate-General (DG SANCO)
- ▶ [Indirect Evidence: Indirect Treatment Comparisons in Meta-Analysis, March 2009](#) [external link]

Evidence Base for Influenza Intervention



Centre for Reviews and Dissemination

THE UNIVERSITY of York

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CRD RESEARCH BRIEFING

Issued online: 1 May 2009

CRD DATABASES: EVIDENCE BASE FOR INFLUENZA INTERVENTION

The outbreaks of H1N1 swine influenza in Mexico and its spread to other countries have raised the World Health Organisation pandemic alert level to phase 5. A number of cases have now been confirmed across the UK.

In this statement, we collate the most up to date evidence on prevention and treatment from the internationally renowned CRD Databases. We focus on the effectiveness of two drugs used to prevent and treat influenza - oseltamivir (tamiflu) and zanamivir (relenza).

Prevention

The most up to date record included in DARE on prevention is from a *Health Technology Assessment* report of the prophylactic use of antiviral drugs published in February 2009.¹

The systematic review reported a 7% absolute reduction in the risk of contracting influenza with oseltamivir and zanamivir when compared to placebo, in people from mixed households that had been in contact with an influenza-like-illness, reducing the risk of contracting influenza from approximately 9% to 2%.¹

Evidence was limited for the prevention of complications, hospital admissions and in minimizing length of illness and time to return to normal activities. There were no data relating to mortality.¹

Treatment

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Full list of published briefs

Each joint policy brief covers and synthesizes available research evidence to deliver a message on potential policy options for good practice. Briefs consist of: key messages delivered in bullet points; an executive summary; and a core section providing the evidence and substance of the report itself.

Disclaimer

The joint policy briefs published on this web site are commissioned works and the contents are the responsibility of the authors. They do not necessarily reflect the official policies of WHO/Europe, HEN or the Observatory. All reports undergo rigorous external peer review, as well as internal review.

- ▶ [How can European states design efficient, equitable and sustainable funding systems for long-term care for older people?](#)
HEN-OBS joint policy brief No.11 (2009)
- ▶ [How can health systems respond to population ageing?](#)
HEN-OBS joint policy brief No.10 (2009)
- ▶ [Do lifelong learning and revalidation ensure that physicians are fit to practice?](#)
HEN-OBS joint policy brief No.9 (2008)
- ▶ [How can optimal skill mix be effectively implemented and why?](#)
HEN-OBS joint policy brief No.8 (2008)
- ▶ [How can the migration of health service professionals be managed so as to reduce any negative effects on supply?](#)
HEN-OBS joint policy brief No.7 (2008)
- ▶ [How can chronic disease management programmes operate across care settings and providers?](#)
HEN-OBS joint policy brief No.6 (2008)
- ▶ [When do vertical \(stand-alone\) programmes have a place in health systems?](#)
HEN-OBS joint policy brief No.5 (2008)
- ▶ [How can the settings used to provide care to older people be balanced?](#)
HEN-OBS joint policy brief No.4 (2008)

www.researchtopolicy.ca/search/reviews.aspx

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- What others have done
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Systematic reviews can save managers and policymakers a great deal of time by providing a synthesis of the research literature on a given topic that has been prepared in a systematic and transparent way. To help managers and policymakers find and use these reviews, we've identified as many management- and policy-relevant reviews as possible, categorized them in ways that will make it easy to retrieve citation details and summaries of them (whenever possible), and made the database available online. We call the database the PPD/CCNC database because it was produced by McMaster University's Program in Policy Decision-Making (PPD), in partnership with the **Canadian Cochrane Network and Centre (CCNC)**.

If this is your first time accessing the database, please review a brief description about **how to search the database** and **what your database search will retrieve**. For more details about the creation and updating of the database, as well as its sponsorship and funding, please review a brief description about **who and what is behind the database**.

The database was last updated on 30 June 2009.

Keyword

- Governance arrangements (57)
- Financial arrangements (70)
- Delivery arrangements (874)

Search

PPD/CCNC database contains >800 systematic reviews about health system arrangements, plus review-derived products



If this is your first time accessing the database, please review a brief description about how to search the database and what your database search will retrieve. For more details about the creation and updating of the database, as well as its sponsorship and funding, please review a brief description about who and what is behind the database.

The database was last updated on 30 June 2009.

Keyword

- Governance arrangements (57)
 - Policy authority (7)
 - Organizational authority (22)
 - Ownership (13)
 - Accreditation (5)
 - Networks/multi-institutional arrangements (5)
 - Strategic management (2)
 - Commercial authority (9)
 - Professional authority (11)
 - Consumer & stakeholder involvement (15)
- Financial arrangements (70)
- Delivery arrangements (874)
 - To whom care is provided & with what efforts to reach them (205)
 - By whom care is provided (432)
 - Where care is provided (280)
 - With what information & communication technology is care provided (154)
 - With what level of quality & safety is care provided (28)

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- [What we've done](#)
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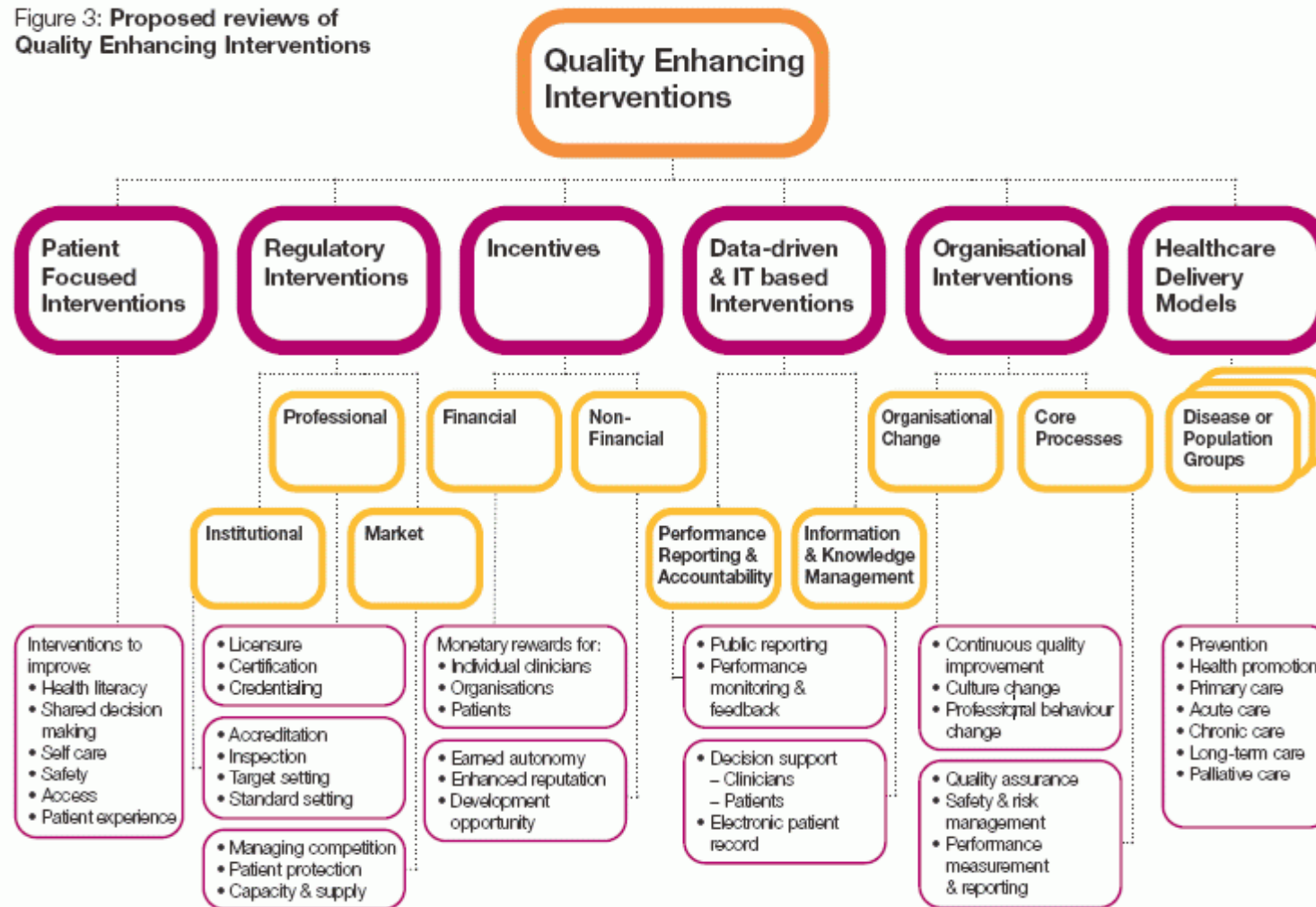
Title	Authors	More
Comparison of mortality between private for-profit and private not-for-profit hemodialysis centers: a systematic review and meta-analysis	Devereaux PJ;Schunemann HJ;Ravindran N;Bhandari M;Garg AX;Choi PT;Grant BJ;Haines T;Lacchetti C;Weaver B;Lavis JN;Cook DJ;Haslam DR;Sullivan T;Guyatt GH;	More
Payments for care at private for-profit and private not-for-profit hospitals: A systematic review and meta-analysis	Devereaux PJ;Heels-Ansdell D;Lacchetti C;Haines T;Burns KEA;Cook DJ;Ravindran N;Walter SD;McDonald H;Stone SB;Patel R;Bhandari M;Schunemann HJ;Choi PTL;Bayoumi AM;Lavis JN;Sullivan T;Stoddart G;Guyatt GH;	More
What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts?	McIntyre D;Thiede M;Dahlgren G;Whitehead M;	More
Can working with the private for-profit sector improve utilization of quality health services by the poor? A systematic review of the literature	Patouillard E;Goodman CA;Hanson KG;Mills AJ;	More
A comparison of the performance of for-profit and nonprofit U.S. psychiatric inpatient care providers since 1980	Rosenau PV;Linder SH;	More
Performance Evaluations of For-Profit and Nonprofit U.S. Hospitals since 1980	Rosenau PV;	More
Foreign direct investment and trade in health services: A review of the literature	Smith RD;	More
A systematic review and meta-analysis of studies comparing mortality rates of private for-profit and private not-for-profit hospitals	Devereaux PJ;Choi PT;Lacchetti C;Weaver B;Schunemann HJ;Haines T;Lavis JN;Grant BJ;Haslam DR;Bhandari M;Sullivan T;Cook DJ;Walter SD;Meade M;Khan H;Bhatnagar N;Guyatt GH;	More
Nursing home profit status and quality of care:	Hillmer MP;Wodchis WP;Gill	More

Reviews of quality improvement interventions

- **QQUIP**
 - Quest for Quality and Improved Performance
 - The Health Foundation, UK
 - www.health.org.uk/qquip
- **EPOC**
 - Effective Practice and Organisation of Care Group
 - Collaborative Review Group of the Cochrane Collaboration
 - www.epoc.cochrane.org

QQUIP

Figure 3: Proposed reviews of Quality Enhancing Interventions



EPOC

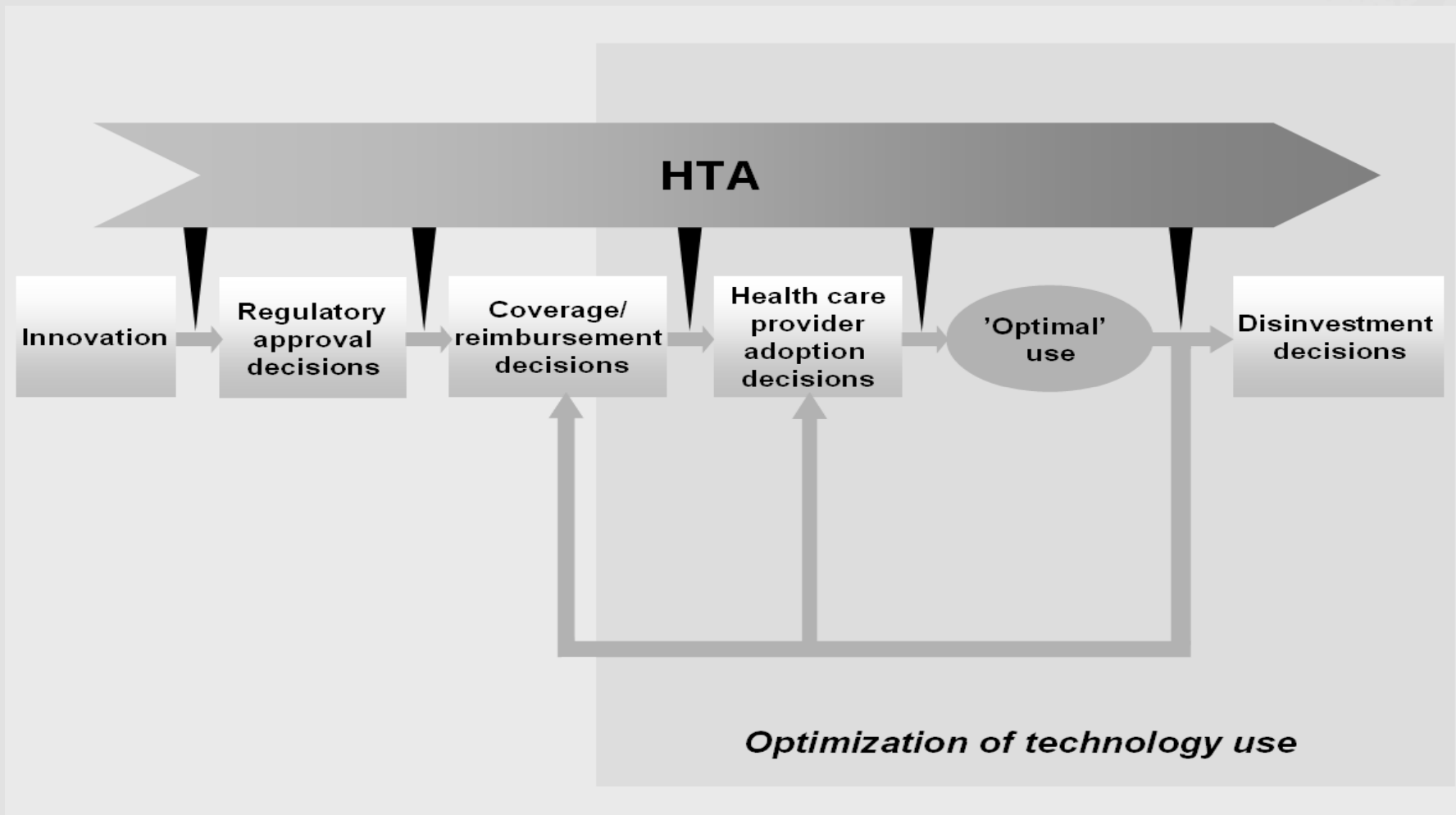
(Rx for change builds on this)

- Interventions orientated toward health professionals
- Financial interventions
 - Provider interventions
 - Patient interventions
- Organisational interventions
 - Structural interventions
 - Staff-oriented interventions
 - Patient-oriented interventions
- Regulator interventions

Resources for knowledge synthesis

- **Cochrane Effective Practice and Organisation of Care Group (EPOC):**
 - <http://www.epoc.cochrane.org/en/index.html>
- **Campbell Collaboration (more on other welfare areas than health):**
 - <http://www.campbellcollaboration.org/>
- **McMaster University's Program in Policy Decision-Making (PPD):**
 - <http://www.researchtopolicy.ca/search/reviews.aspx>
- **European Observatory on Health Systems and Policies. Policy briefs:**
 - http://www.euro.who.int/observatory/Publications/20020527_16
- **The Alliance for Health Policy and Systems Research, WHO:**
 - <http://www.who.int/alliance-hpsr/en/>
- **EVIPnet initiative**
 - <http://www.who.int/alliance-hpsr/evidenceinformed/en/>
- **The SUPPORT collaboration**
 - <http://www.support-collaboration.org/>
- **'On-call' Facility for International Healthcare Comparisons at LSHTM:**
 - <http://www.lshtm.ac.uk/ihc>
- **Bertelsmann Stiftung. Health Policy Monitor:**
 - <http://www.hpm.org/index.jsp>
- **Robert Wood Johnson Foundation. Synthesis Project:**
 - <http://www.rwjf.org/pr/synthesisabout.jsp>

HTA to Optimize Health Technology Utilization – Using Implementation Initiatives and Monitoring Processes



HTA paradoxes

- Nick Mays' paradox
- Bernhard – Finn paradox

Nick Mays' paradox

1. HTA is constructed to rationalize a fuzzy and interests based decision process
2. Success of HTA depends on degree of stakeholder involvement and taking the reality into account

Bernhard – Finn paradox

1. HTA should be coordinated and harmonized to have the necessary capacity and give value for money
2. Success of HTA depends on degree of local applicability, contextualization and stakeholder involvement