PhRMA

Considerations on Health Technology Assessment in Japan

PhRMA

David Grainger

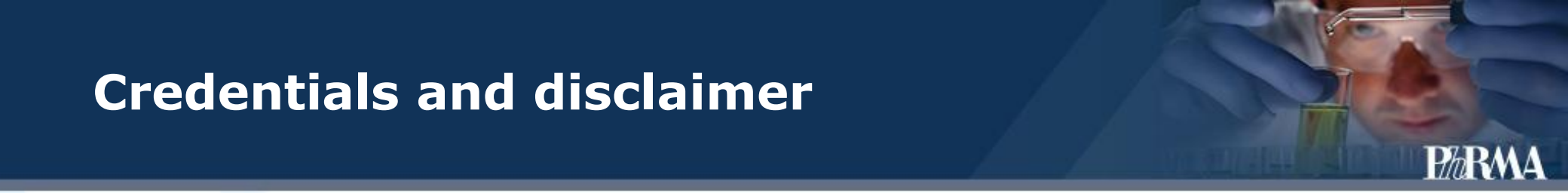
Chairman, HTA Task Force

July 2012

Content

1. Credentials and disclaimer
2. Key messages
3. HTA global presence
4. Rationale of early HTA adopters
5. Impact following HTA introduction
6. International HTA benchmarking
7. Natural history of HTA
8. HTA characterization and building blocks
9. Technical and stakeholder considerations
10. HTA evolution: UK lessons
11. On-going global discussions on HTA
12. HTA elements already present in Japan
13. Key HTA principles/good practice
14. Guiding principles for HTA in Japan
15. Conclusions (=Key messages)

Credentials and disclaimer



David Grainger

- 35 years experience in pharmaceutical industry in New Zealand, Australia and the US
- Chair of PhRMA International HTA Task Force
- Member of Board of Directors, *HTA international* (HTAi) 2012-2013
- Member of the *Access to Medicines Working Group*, a high level industry and government medicines policy group appointed by the Australian Minister of Health
- During past two years have undertaken short term assignments in Brussels and London, working with industry groups in both locations on evolving HTA processes

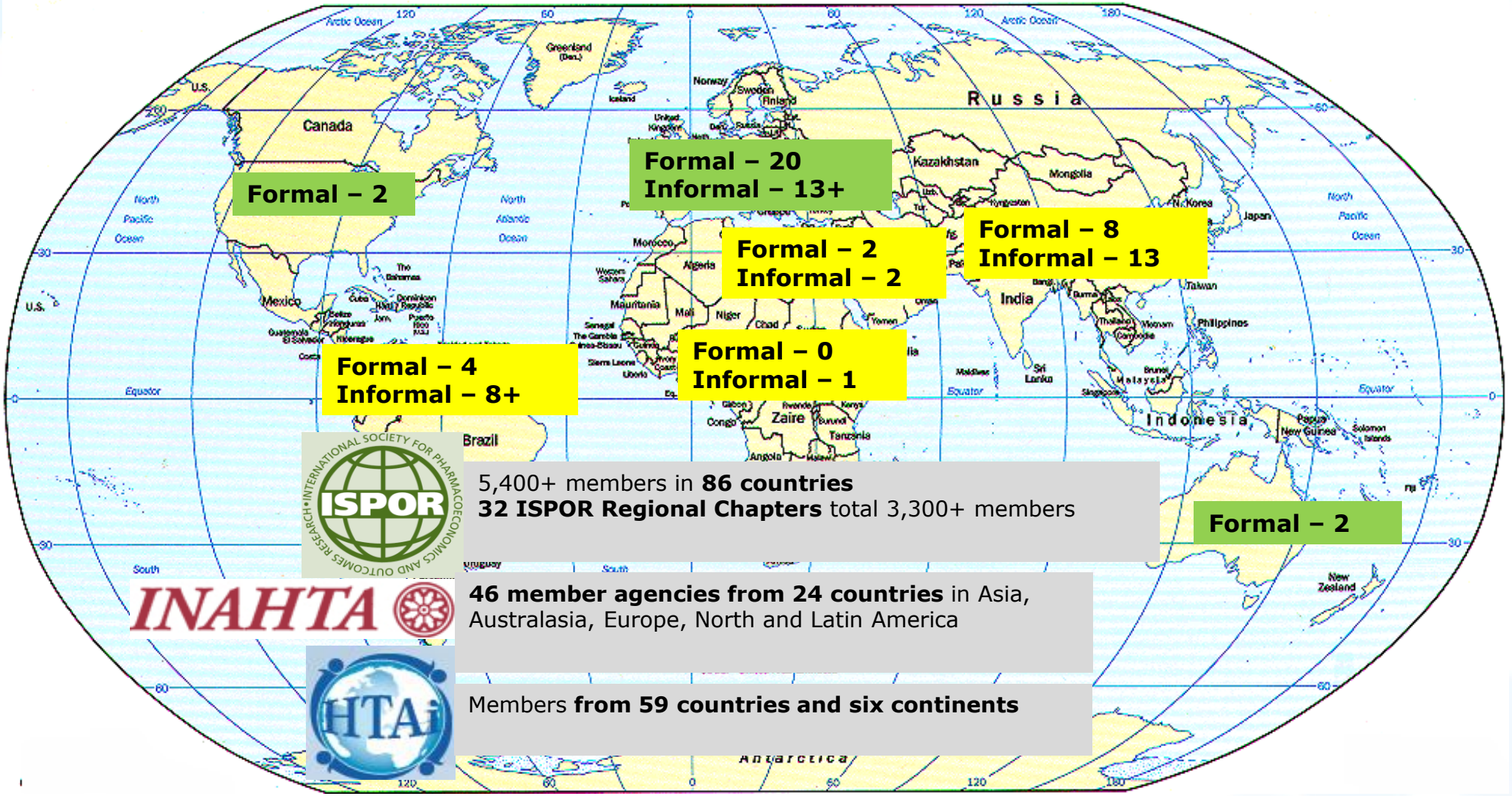
Disclaimer

Views expressed do not necessarily represent those of Eli Lilly and Company nor the entire pharmaceutical industry

Key messages

1. HTAs have proliferated and evolved globally
2. Building and maintaining an HTA system is a highly resource-intensive enterprise for society
3. HTA inevitably delays patient access to new drugs
4. HTA needs to shift focus from micro- to macro-level
5. Good HTA systems need to adhere to the key HTA principles/good practices to mitigate potential negative effects on patient access and outcomes, and on the innovative industry
6. Collaboration and dialog with key stakeholders is necessary to develop the most appropriate system and approach for Japan, especially in the context of historic drug/medical device delays

HTA global presence



Source: Based on Banta (2009), Sivalal (2009a-b), Banta et al. (2009), Sorenson et al. (2009) and ISPOR country-specific pharmacoeconomic guidelines.

Rationale of early HTA adopters

When HTA uses economic evaluation, it is for three primary purposes:[1]

- as a basis for pricing and reimbursement decision,
- as a form of cost containment,[2] and
- as a means of securing value-for-money.

Impact

- delayed and restricted market access
- increased resource intensity
  - 2nd round of evidence-based evaluation of drugs after the regulatory evaluation
  - effect on clinical trials for developers
  - investment in necessary infrastructure and capacity-building

Source: (1) Drummond (1994) The emerging government requirement for economic evaluation of pharmaceuticals. *Pharmacoeconomics* 6:4 (Supplement 1), pp. 42-50. (2) Hailey (1997) Australian economic evaluation and government decisions on pharmaceuticals compared to assessment of other health technologies *Soc. Sci. Med.* Vol. 45, No. 4, pp. 563-581.

Following HTA introduction…

UK – 1999

NICE blight

In 2002, average gap between a drug's MA and NICE producing its draft guidance was over 4 years. Only by 2010-11, the gap is reduced to 4 months.[1]

For 59 onco-drugs approved between 2004 and 2008, the median time between EMA approval and NICE decision was 26 months (783 days); 8 months (231 days) for SMC.[2]

Most recently denied access to:
• GSK's Benlysta – 1st lupus drug in 50 years, despite targeted group
• BMS' Yervoy – melanoma drug

CANADA – 2003

In 2004-2005, on average the **delay between regulatory approval and positive recommendation by CDR** was 257 days for pharmaceuticals and 186 days for biologic drugs.[3]

As of January 2012, on average only 23% of the new drugs approved between 2004 and 2010 were covered under provincial public reimbursement.[4]

GERMANY – 2011

Withdrawals of innovative products from the market as a result of the new early benefit assessment:

• Novartis's Rasilamlo (lack of requested data)
• Boehringer Ingelheim's Trajenta (disagreement on the appropriate comparator(s))
• Pfizer's Xiapex (disagreement on the appropriate comparator(s))
• GSK's Trobalt (disagreement on the appropriate comparator(s))

Source: (1) PharmaTimes.com (Mar 1, 2012) [Accessed in May 2012]. (2) Mason et al. (2010) Comparison of anticancer drug coverage decisions in the US and the UK: Does the evidence support the rhetoric?, *Journal of Clinical Oncology*, July 2010. (3) Skinner et al. (2007) Access Delayed, Access Denied 2007: Waiting for New Medicines in Canada. (4) Rovere and Skinner (2012) Access Delayed, Access Denied 2012: Waiting for New Medicines in Canada.

A case study of drawback of HTA — Erbitux

Back ground

- Erbitux is an advanced drug for bowel cancer, which has a five-month impact on survival compared to 2-3 months for chemotherapy alone.
- Approved in 86 countries with sales of $1.16 billion in 2010.
- In Australia, the Pharmaceutical Benefit Advisory Committee（PBAC）ruled Erbitux was cost effective for the treatment of bowel cancer patient with a certain genetic characteristics and it should be listed on the PBS. However, the government has held off listing Erbitux due to the tight budget. It would cost the government about $30 million a year.
- This drug would benefit about 2,200 eligible patients, who fit the genetic profile and for whom existing chemotherapy has failed. The medicine cost about $ 2,000 a week on private script, while it would cost $33.30 or less if listed.

The Voice of Patients and Experts

- "The point that struck me at the time is that we could afford it. But what about the families who could not?"（Patient's family）
- "Cabinet is 'being a doctor' in secretly determining which recommended drugs should be subsidized." (Executive director of Cancer Voices Australia)
- "You give an extra six to 12 months' survival to a 40-year-old with young children – the impact of that survival to those children… how do you measure that?" (Oncologist)

…HTA resource intensity

	Australia	Canada	Germany	Sweden	UK
HTA agency	MSAC/PBAC	CADTH	IQWiG	LFN	NICE
Funding	$22.83m	$17.9m	$19.3m	$7.31m	$48.6m
Permanent staff	15/17	Over 100	92	30	270

Source: Perez Pugatsch (2009) and OFT (2007).

	Australia	Canada	Germany	UK	UK	France	Spain
HTA agency	PBAC	CADTH	IQWiG	NICE	SMC	HAS/CEPS	Regional bodies
Applications	60-70 per year	20-24 per year	29 per year	44 per year	n/a	n/a	n/a
Length of Review Process	16-17 months	6-12 months	2-28 months	9-18 months	5 months	6-30 months	6-24 months

Source: Perez Pugatsch (2009), Taylor and Taylor (2009), Cargill (2009).

…downsides around patient access to innovative treatment options

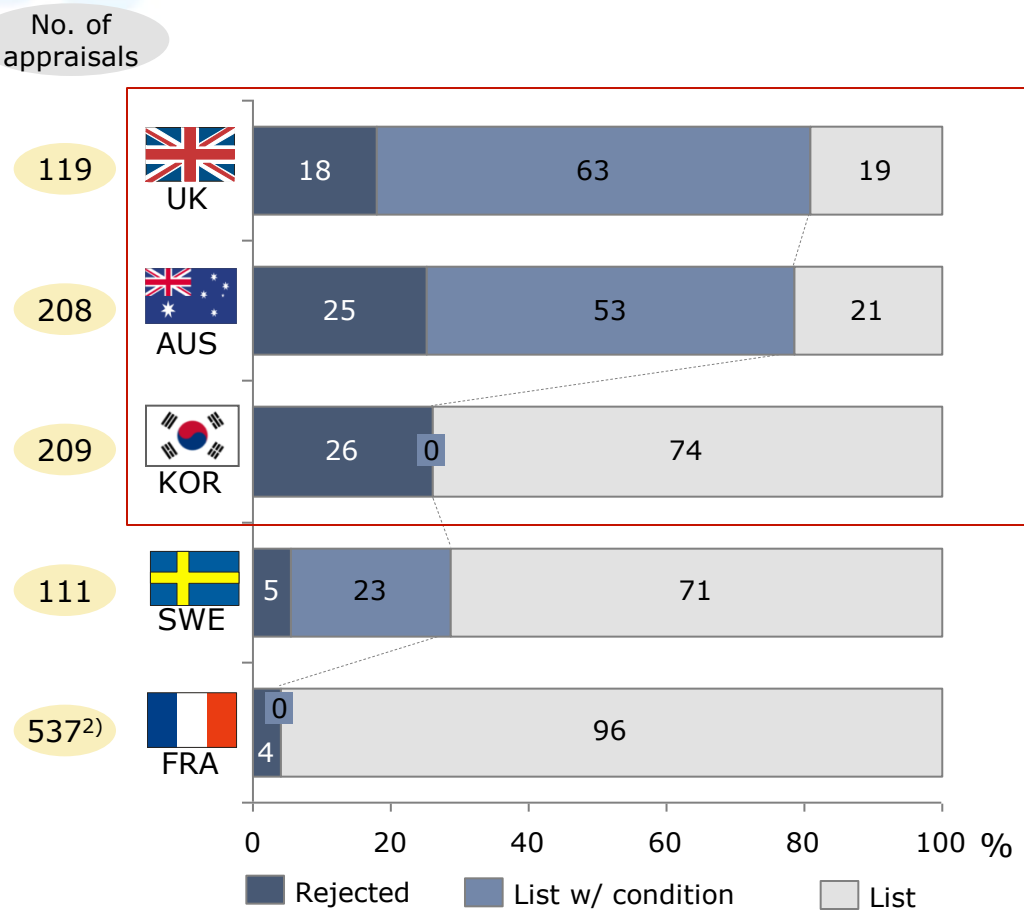
	Major downside associated with HTA	Countries with some experience of downside
Outcomes	Absolute/timely access to innovative new technologies for patients limited/delayed	
Underlying reasons	a. Assessment is not based on broad criteria to capture innovativeness	
	b. Assessment is not based on sufficient and solid evidence	
	c. HTA process taking long time	

HTA is still evolving in each country to address issues

Note: Example of each "side effect" is in the appendix

...restricted access to treatment options

Outcomes of the technology assessed[1]



Key factors for the outcomes

Stringent HEE w/ explicit cost/QALY threshold*

Strict budget impact assessment and stringent HEE

Stringent HEE and budget impact assessment
Assessment based on insufficient evidence

Flexible consideration of broader benefits

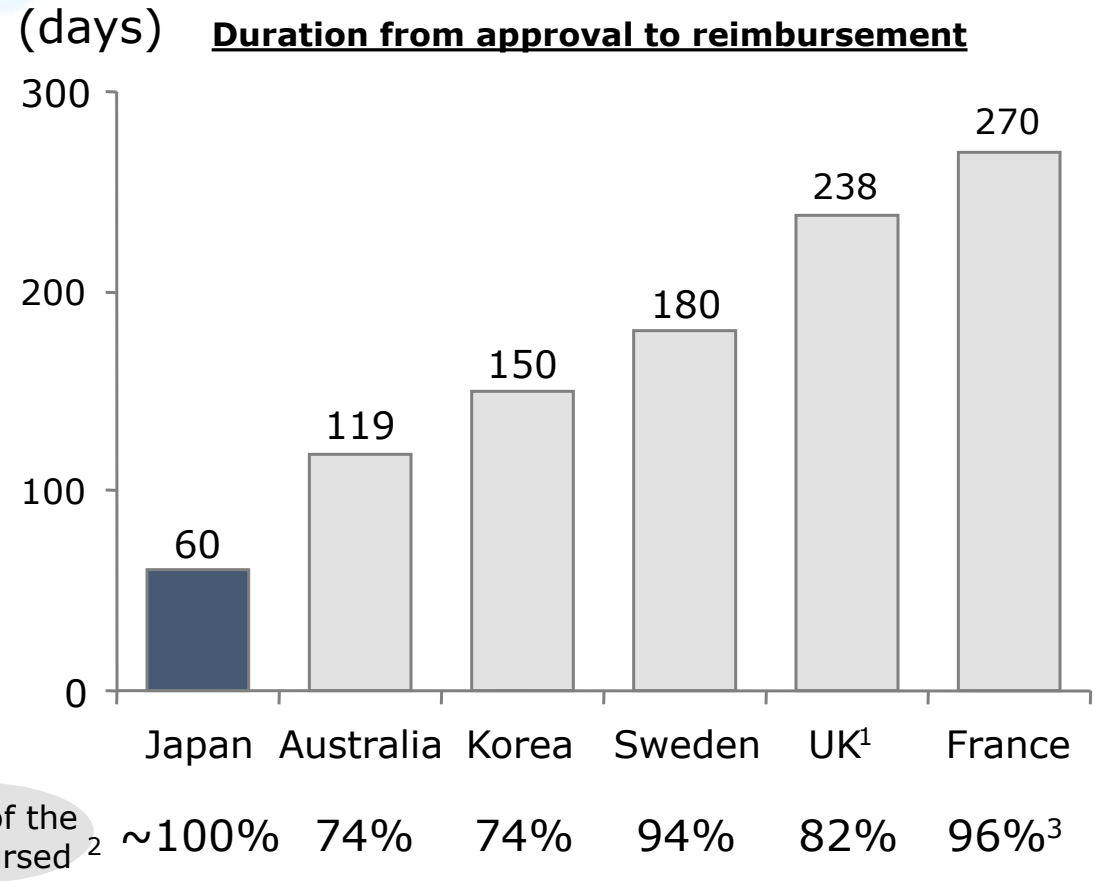
HTA results reflected in reimbursement rate and government price

1. All the technologies assessed in 2007-09 are included. Data not available for Germany; 2. For France, the figure is from 2007-08;
* HEE – health economics evaluation; QALY – quality-adjusted life year
Source: Kanavos et al (2010); Eui Kyung Lee (2011); HAS annual activity report.

...delayed patient access to treatment options after approval

- Duration between approval and reimbursement of drugs

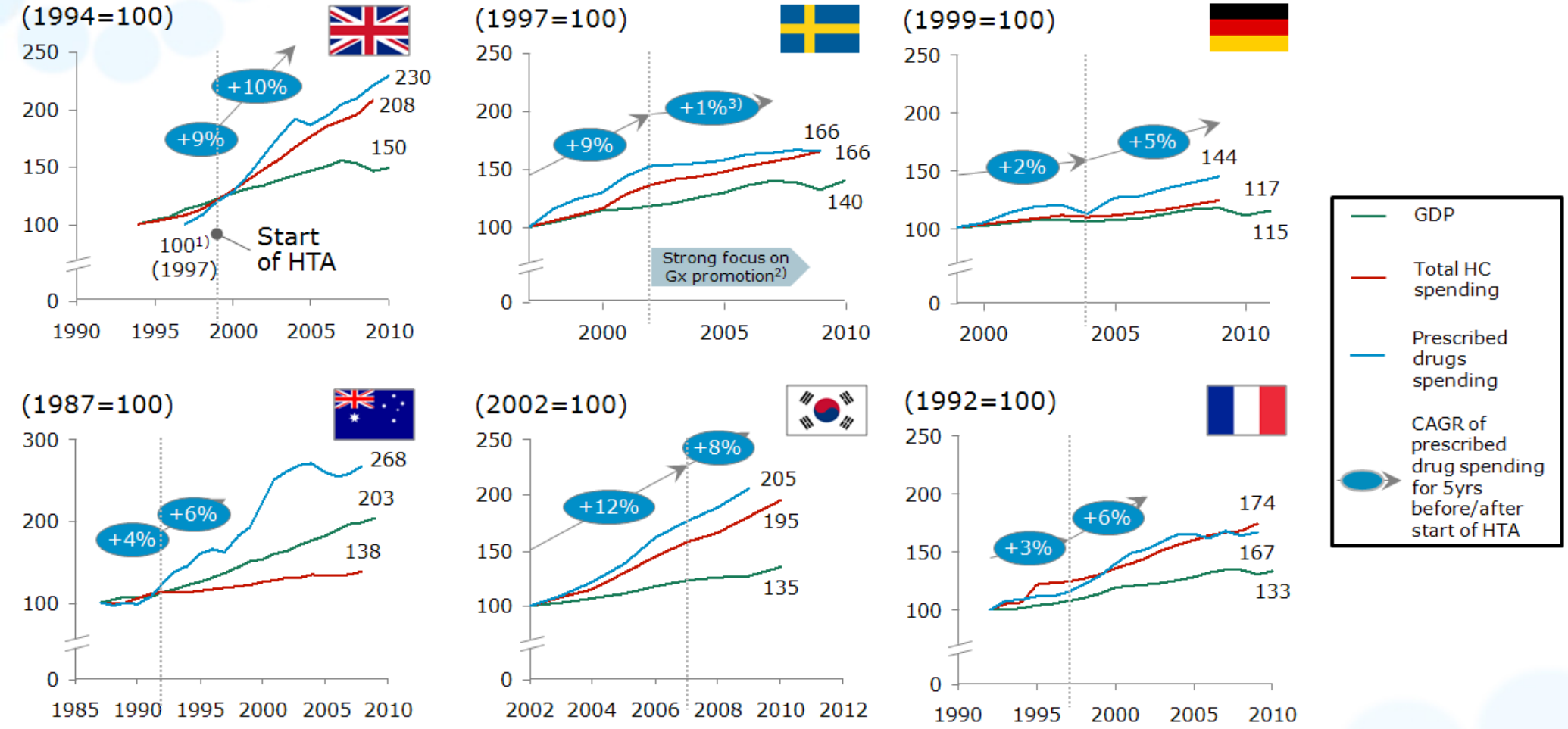
Japan is faster than most countries to reimburse drugs[1]



Long drug lag still exists before regulatory approval

1.Duration for STA (single technology assessment) conducted at launch; 2. Ratio of treatment options reimbursed with/without conditions. Based on the data for drugs assessed in 2007-09; 3. Treatment options assessed as SMR I-III in 2008-09.
Note: Duration of countries other than Japan can be longer. Japan=from approval to pricing, Others=from application for HTA to decision / final report by HTA agency; Germany is excluded from the comparison due to lack of data about the period.
Source: Fukuda et. al (2011); CRA (2011); Kanavos et. al (2010).

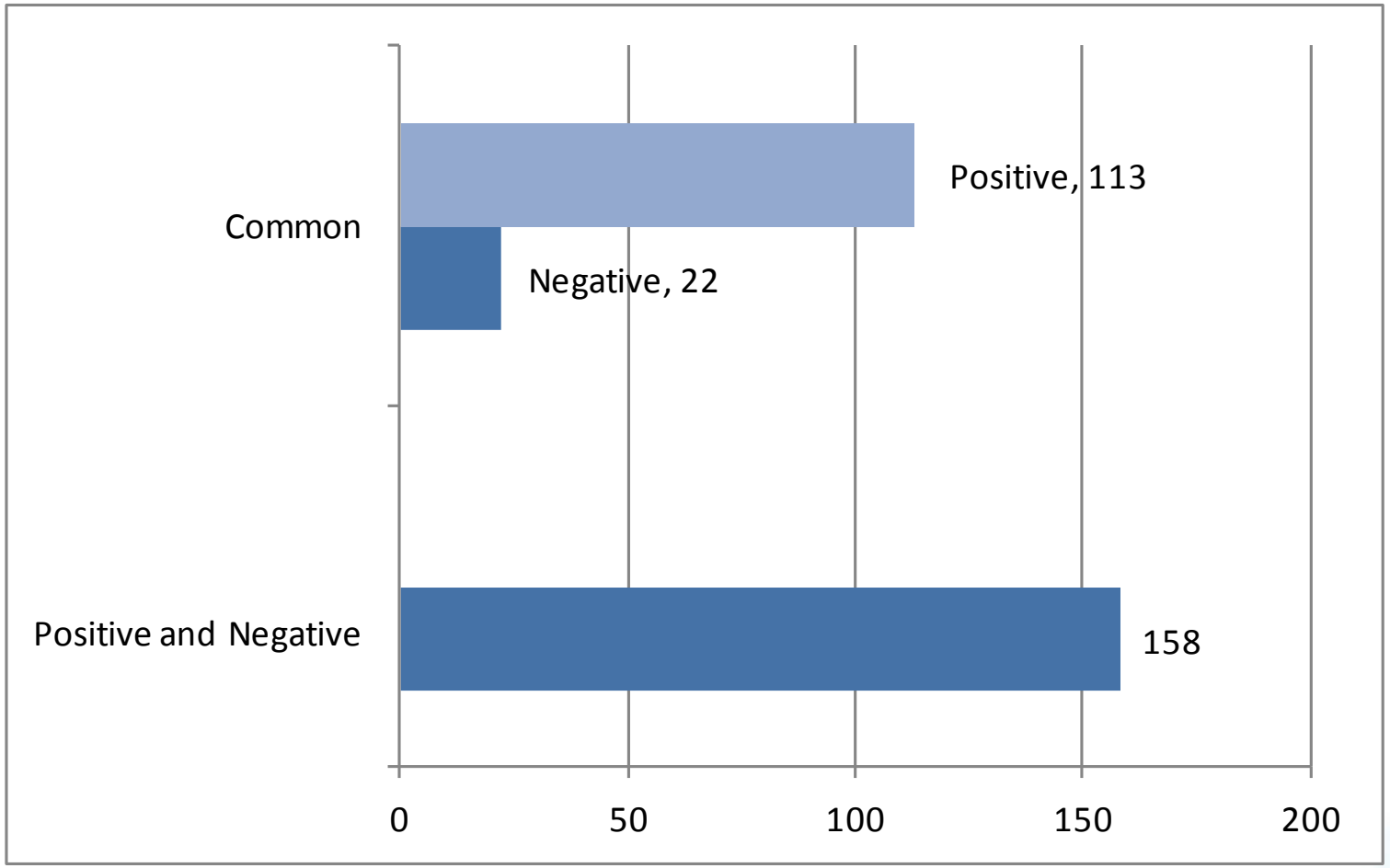
...impact on overall HC/drug spending is mixed



Note: "Start of HTA" is defined as the year as the year of establishment of HTA agency
1. Market size of prescribed drugs are taken from IMS and set 1997 as 100 due to data availability; 2. In Sweden, a generic substitution scheme was introduced at the same time as the introduction of HTA, and pharmacies were obliged to choose the cheapest available medicines with the same substance and efficacy; 3. The figure for Sweden is sum of prescribed drugs, OTC and other non-durables as an alternative indicator due to data availability.
Source: OECD; IMS.

…HTAs derive different conclusions on the same drugs

Number of appraisals and outcomes in 2007-2009 by six HTA agencies*



Note: Six HTA agencies are Australian PBAC, Canadian CDR, English NICE, French HAS, Scottish SMC and Swedish TLV.
Source: Kanavos et al. (2010) The impact of health technology assessments: an international comparison. *Euro Observer*, Winter 2010, Vol. 12, No. 4, pp. 1-6.

International HTA benchmarking

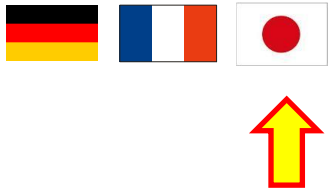
Cost per QALY/ICER*

Countries within this segment utilize HTA with a cost effectiveness threshold based on an ICER or QALY

Budget impact

Countries within this segment negotiate price, reimbursement and access based on the expected budget impact of the product

Innovation rating



Countries within this segment use comparative effectiveness or an Innovation rating to determine product pricing

Benefit Optimization

The United States is the only country that uses a benefit optimization model

Source: IMS Health (2011).
Note: QALY – quality-adjusted life year; ICER – incremental cost-effectiveness ratio.

International HTA benchmarking
US CER

Comparative Effectiveness Research (CER) in the USA

- CER defined as "*the conduct and synthesis of research comparing the benefits and harms of different interventions and strategies to prevent, diagnose, treat and monitor health conditions in "real world" settings".*

  Report to the President and Congress, June 30, 2009

- American Recovery and Reinvestment Act 2009 allocated **$1.1 bn** over 10 years in public funds **to develop federal CER priorities and enhance nation's research infrastructure** to conduct CER in "real world" settings.

- Patient Protection and Affordable Care Act 2010 positioned **CER to develop comparative evidence** that will better inform health care decision-making
  - set up an **independent, non-profit** Patient-Centered Outcomes Research Institute **(PCORI) with a multi-stakeholder Board** of Governors and sustained public-private funding for CER that will reach nearly $650 million by 2014
  - PCORI "**shall not develop or employ a dollars-per-quality adjusted life year** (or similar measure that discounts the value of a life because of an individual's disability**) as a threshold** to establish what type of health care is cost effective or recommended. The Secretary shall not utilize such an adjusted life year (or such a similar measure) as a threshold **to determine coverage, reimbursement, or incentive programs**…"

Source: National Pharmaceutical Council, PPACA, pp. 678-679.

International HTA benchmarking
US CER

PCORI's national priorities for research and funding

1. Assessment of Prevention, Diagnosis, and Treatment Options (40%) – Comparing the effectiveness and safety of alternative prevention, diagnosis, and treatment options to see which ones work best for different people with a particular health problem.

2. Improving Healthcare Systems (20%) – Comparing health system - level approaches to improving access, supporting patient self - care, innovative use of health information technology, coordinating care for complex conditions, and deploying workforce effectively.

3. Communication and Dissemination Research (10%) – Comparing approaches to providing comparative effectiveness research information, empowering people to ask for and use the information, and supporting shared decision - making between patients and their providers.

4. Addressing Disparities (10%) – Identifying potential differences in prevention, diagnosis or treatment effectiveness, or preferred clinical outcomes across patient populations and the healthcare required to achieve best outcomes in each population.

5. Accelerating Patient - Centered Outcomes Research and Methodological Research (20%) – Improving the nation's capacity to conduct patient - centered outcomes research, by building data infrastructure, improving analytic methods, and training researchers, patients and other stakeholders to participate in this research.

Source: PCORI (2012). National Priorities for Research and Research Agenda. May 21, 2012

Japan's innovation rating-based pricing

Value Levels	Definition
Innovativeness Premium	new drugs that meet the following criteria a) clinically useful novel action mechanism; b) objectively demonstrated higher efficacy or safety compared with the comparable drug; c) objectively demonstrated improvement in treatment for the disease or injury for which the new drug is indicated.
Usefulness Premium (I)	a drug that satisfies two of the three requirements for the Innovativeness Premium
Usefulness Premium (II)	a drug that satisfies any one of the three requirements for the Innovativeness Premium or is produced using an innovative manufacturing technique that resulted in objectively demonstrated higher clinical usefulness compared with the comparable drug

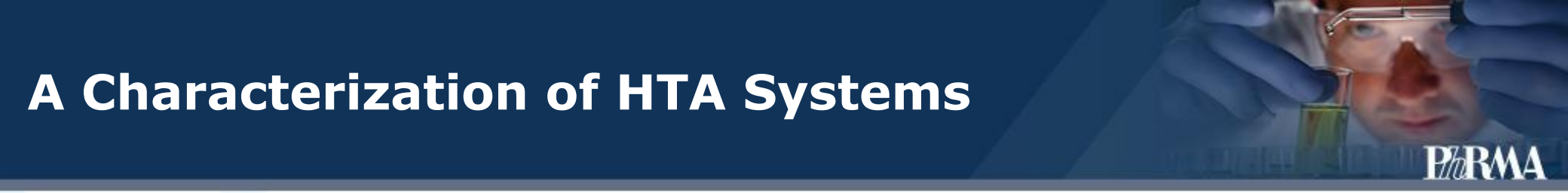
Value assessment agency: Ministry of Health, Labor and Welfare.

Natural history of HTA

	Emergence (Early Investment)	Consolidation (Operational)	Expansion (Mandatory)
Why? **(Rationale)**	• Convergence of needs, demands, and supply • Key individuals are "champions" of HTA • Receptive policy/ political environment	• Early successes attract interest of more decision makers • Expansion of demand for HTA products • Formalized priority setting process	• HTA as part of official political discourse • Increased demand for diversified products
What? **(Scope and breadth)**	• Narrow interpretation of health technology • Focus on high intensity technology (imaging) • **Exclusion of pharmaceuticals**	• Broadening of scope of HTA • **Possible addition of pharmaceuticals** • Shift from specific technologies to care processes for health conditions management	• Further broadening of scope of HTA (**pharmaceuticals**, public health, delivery models, social services) • Existing practices and new interventions
How? **(Methods and organizational models)**	• Modest resources, at times project or deliverable specific • Minimal scientific capacity	• Expansion of scientific team • Model addition of resources • Research partnerships sought	• Significant increase in resources • Expansion of scientific team and partnerships • Diversification of products • Clinical practice guidelines
Then What? **(Knowledge Transfer (KT) strategies)**	• KT minimal • Efforts directed to policy makers, often by means of personal communication	• Progression of KT efforts • Broadening of target audiences	• Consolidation of multiple target audiences • Specialization of KT instruments • Increased proportion of resources to KT

Source: Adapted from Battista and Hodge (2009).

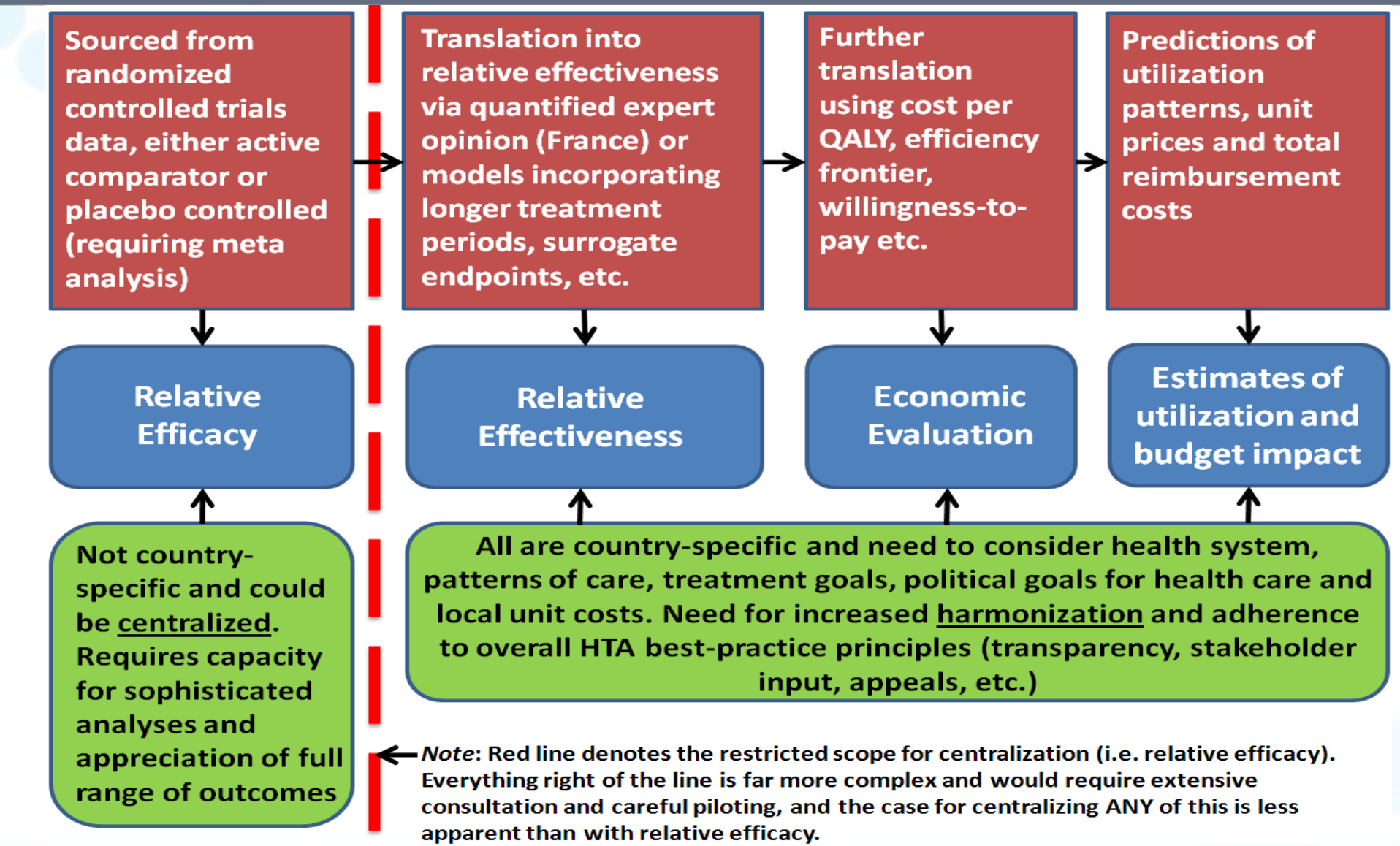
A Characterization of HTA Systems



HTA governance and organization	▪ Institutions/committees ▪ Entities responsible for reviewing HTA evidence for priority setting and decision-making ▪ HTA agenda-setting body ▪ Reimbursement requirements and limitations ▪ Stakeholder involvement ▪ International collaboration
HTA topic selection and analytical design	▪ Governance of topic selection ▪ Criteria for topic selection ▪ Criteria for assessment ▪ Criteria outlined or publicly available ▪ Analysis perspective ▪ Duration required to conduct assessments
Evidence requirements and assessment methods	▪ Documents required from manufacturer ▪ Systematic literature review and synthesis ▪ Unpublished data/grey literature ▪ Preferred clinical study type/evidence ▪ Type of economic assessment preferred or required ▪ Availability of guidelines outlining methodological requirements ▪ Methodological requirements covering issues such as choice of comparator, specification of (preferred) outcome variable, subgroup analyses, type of costs (direct or indirect), incremental analysis required, time horizon, equity issues, discounting, modelling, sensitivity analyses, CE or WTP threshold, sensitivity analyses, missing or complete data and support for methodological development*
HTA dissemination and implementation	▪ Channels for HTA dissemination ▪ Use of HTA results ▪ Evidence considered in decision-making ▪ Any reported obstacles to effective implementation such as legal proceedings etc. ▪ Formal processes to measure impact ▪ Process for re-evaluation or appeals ▪ Accountability for stakeholder input ▪ Transparent/public decision-making process

Source: Towse et al. (2011). Note: * CE – cost-effectiveness; WTP – willingness to pay.

HTA building blocks



Technical and evidence-related considerations

- Broad issues related to the generation of evidence
  - international collaborations
- Validity
- Applicability
- Transformation issues
- Importance of “appraisal”
- Appropriate comparator(s)
- Transferability of evidence, HTA appraisals

Range of options

- patient representatives on appraisal committees,
  e.g., NICE, PBAC, SMC
- patients as "experts to give testimony" to appraisal committees,
  e.g., NICE
- options for submission of patient views on specific technologies under assessment (e.g. templates, on-line, etc.)
  e.g., SMC, PBAC, CADTH
- "consumer impact statements" sought when committee unfamiliar with the lived experience of a disease or condition,
  e.g., PBAC

HTA evolution: lessons from the UK

2009: Sir David Cooksey review:

- "currently, the perceived problem for UK industry is that NICE appraisals do not operate in a way that is supportive of innovation, or uptake and access to medicines and therefore dissuade companies from investing in the UK".

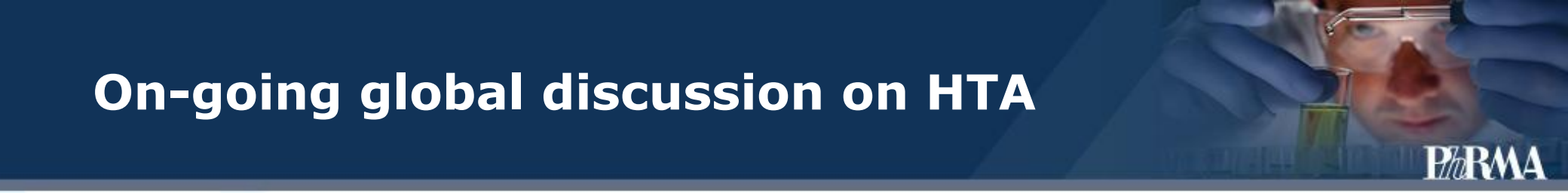
2009-10: Sir Ian Kennedy review:

- "where innovation becomes important… is when Pharma states that a product meets three initial criteria, in that the product:
  - Is new
  - Constitutes an improvement on existing products
  - Offers something more: a step-change in terms of outcomes for patients"
- recommended NICE recognized and reward innovation, needs to be "proven, not claimed" but "potential" innovative benefit could be rewarded via "coverage with evidence development" and "managed entry" agreements

2010-2012: UK Value-based Pricing under development – government desire to incentivize "innovative" products by broadening the range of dimensions being valued:

- burden of illness/unmet need, therapeutic impact and innovation, societal impacts

On-going global discussion on HTA

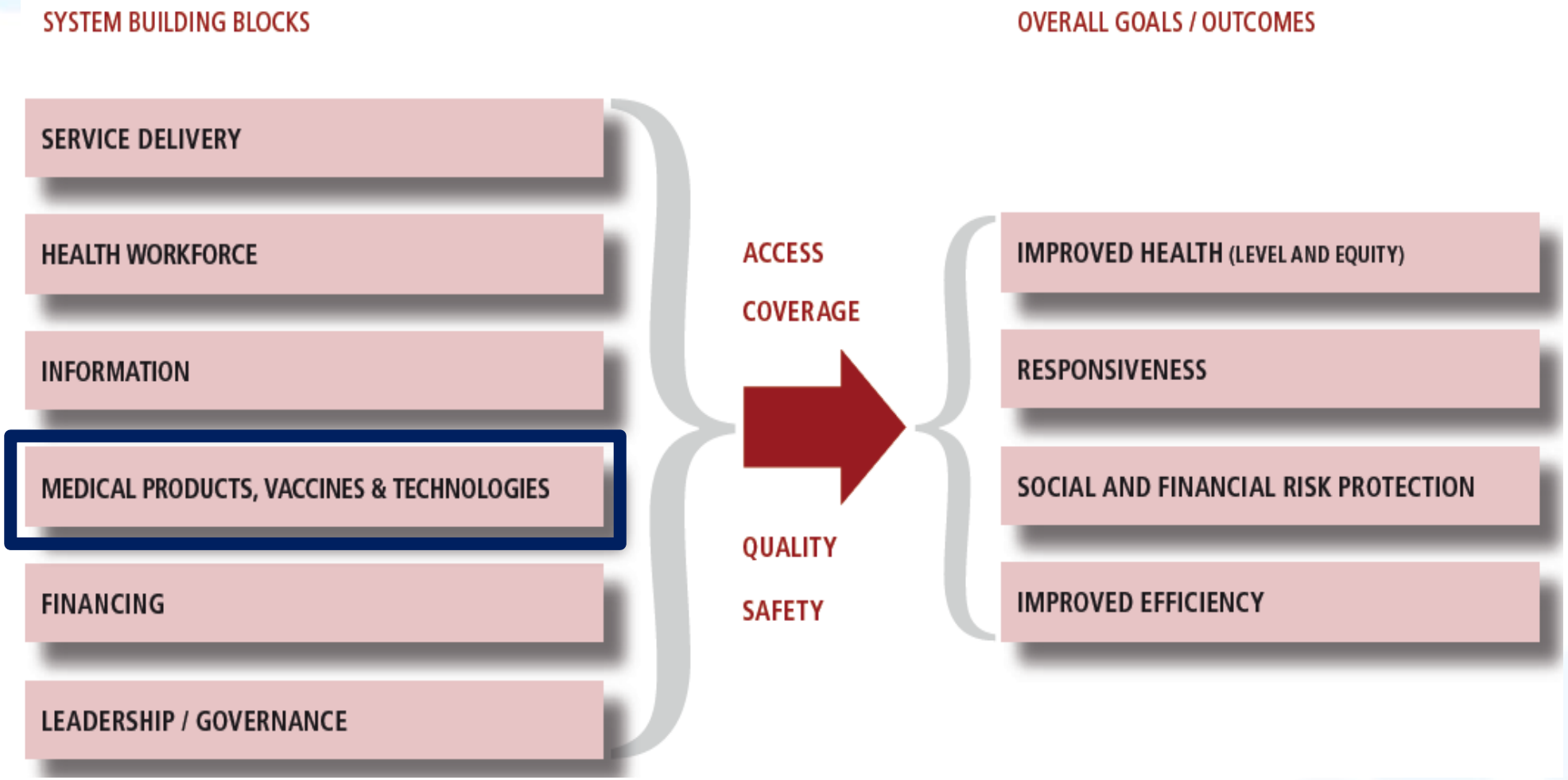


Useful to consider the larger health system

- accepted need to increase efficiency and effectiveness, for reasons of optimising patient outcomes and keeping the health system sustainable
- should include "macro" HTA concepts and consideration of:
  - the range of technologies and interventions across the system
  - optimising treatment practices in chronic diseases
  - creating headroom for innovation
- Example: OHE research project on health system inefficiencies

HTA within a health system

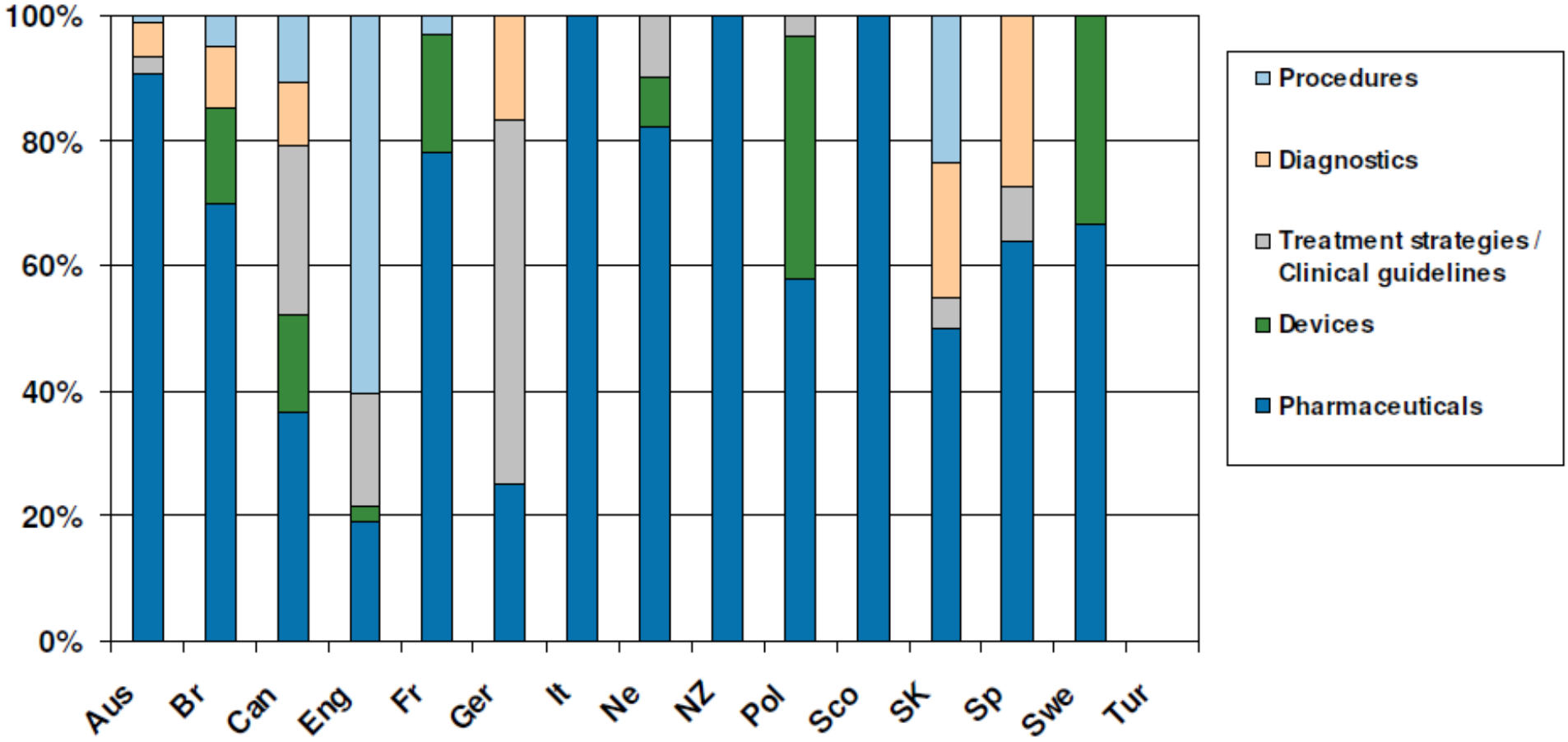
THE WHO HEALTH SYSTEM FRAMEWORK



Source: WHO (2007).

HTA within a health system

Figure 21: Distribution of reviews by type of technology, 2009



Source: Wilsdon and Serota (2011). A comparative analysis of the role and impact of Health Technology Assessment. May 2011.

HTA within a health system

- **"Macro-level"** – focus on architecture and efficiency of the health care system (e.g. incentive systems, pathways of care, optimizing facilities).

- **"Medium-level"** – aimed at developing clinical practice guidelines. Likely if high variability in treatment patterns and/or health outcomes.

- **"Micro-level"** – aimed at appraisal of individual technologies, or groups of related technologies. Understanding of value may be sought, either in the sense of relative or comparative effectiveness, or of incremental cost-effectiveness.

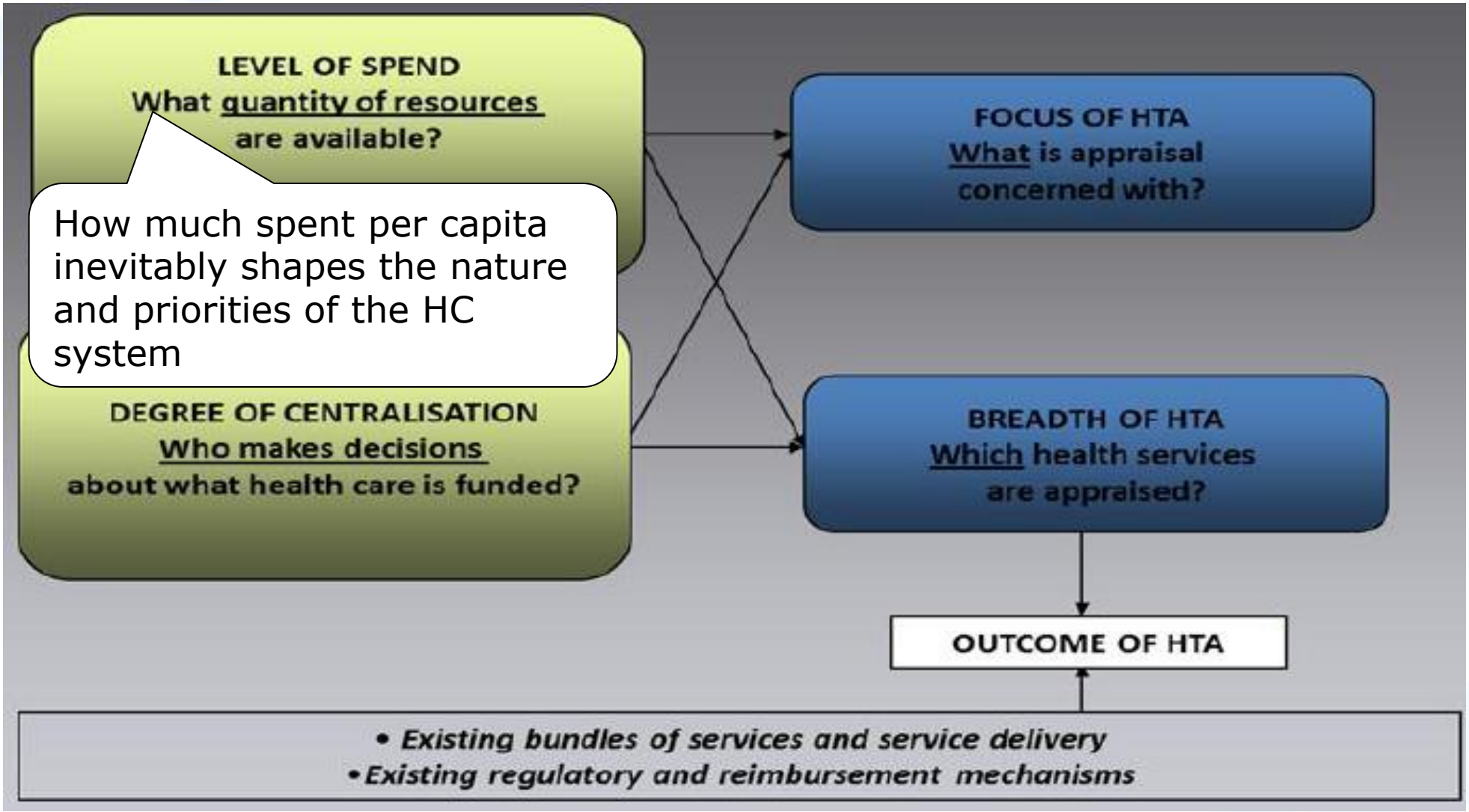
Source: Towse et al. (2011).

Types of Efficiency and Cost Reduction

Technical Efficiency	Productive Efficiency	Allocative Efficiency	Lower Input Prices	Cost Shifting
Reduce transaction costs	HTA spread beyond medicines	Demand management	Regulation of medicine prices	Patient co-pays
Improved care coordination	Clinical guidelines	Disinvestment from low/no benefit services	Staff pay controls	Stimulus to private insurance
Pay-for-performance	Generic substitution	'Gatekeeper'	Centralised procurement	Self care
Sell spare land/buildings	Prevention			
	Patient adherence			
	Dilute staff mix			

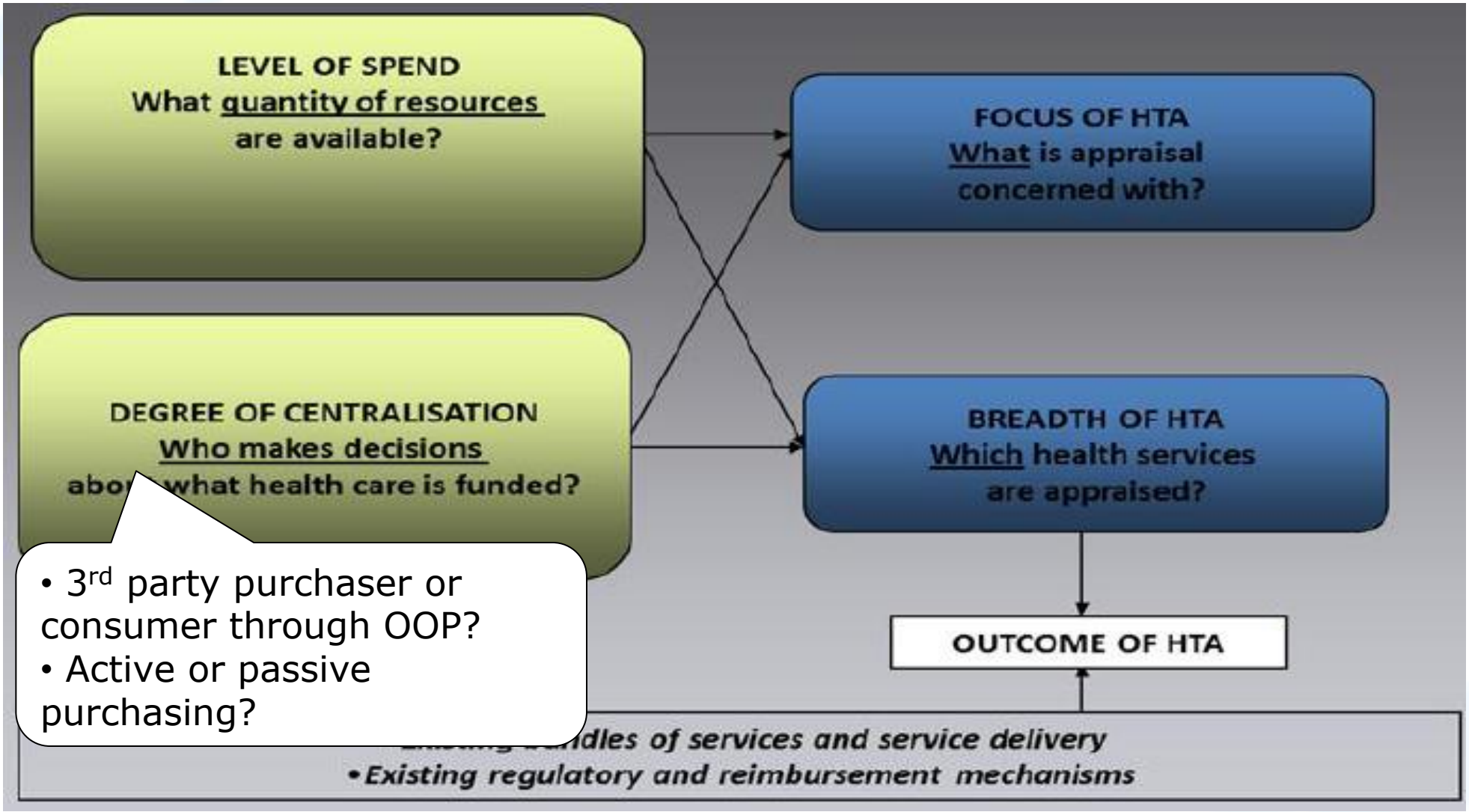
Source: Sussex and Mestre-Ferrandiz (2012-upcoming). Health System Efficiency and Sustainability.
Note: Poster presentation (id 544) of this research was presented at HTAi 2012 in Bilbao, Spain.

On-going global discussion of health systems and HTA



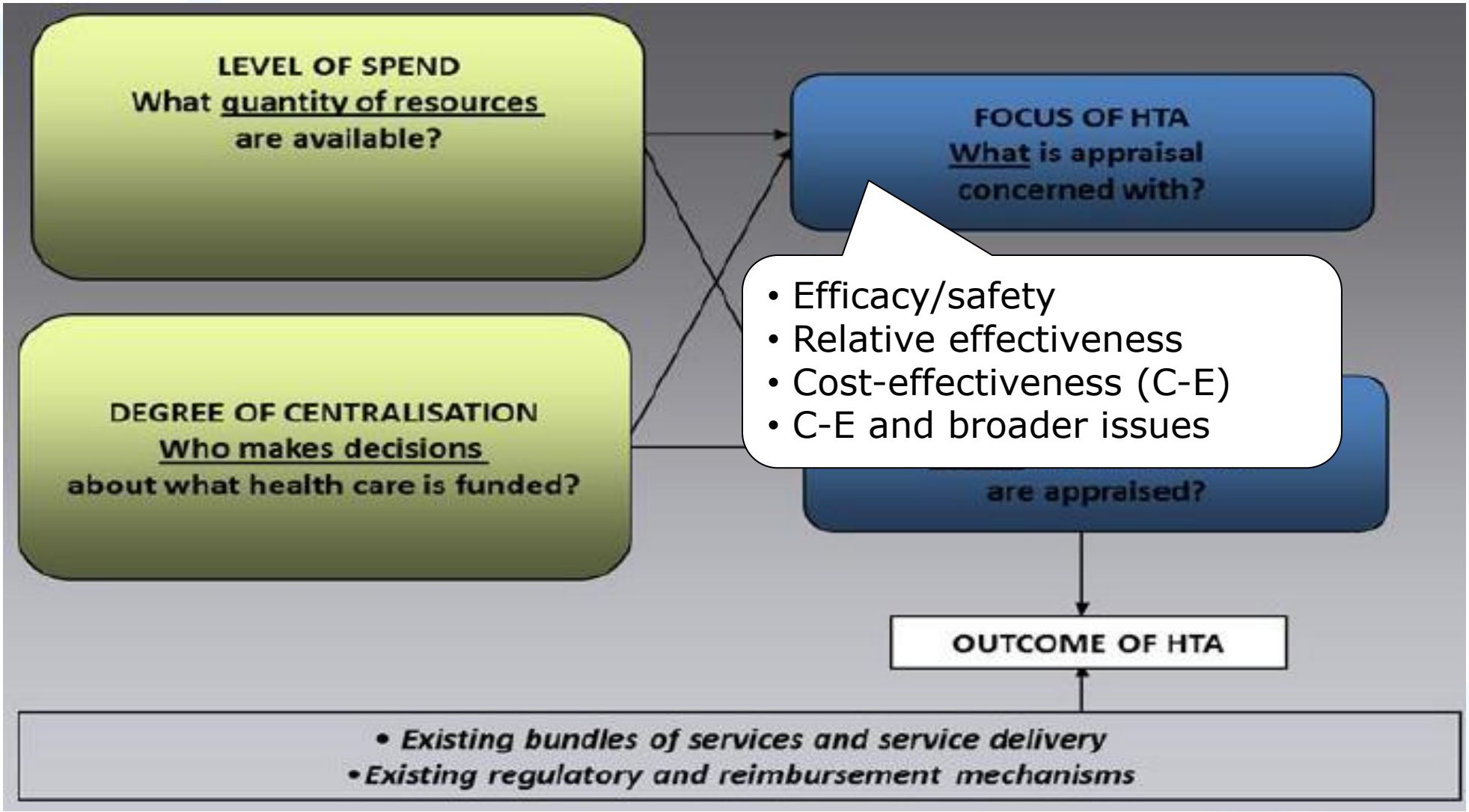
Source: Towse et al. (2011).

On-going global discussion of health systems and HTA



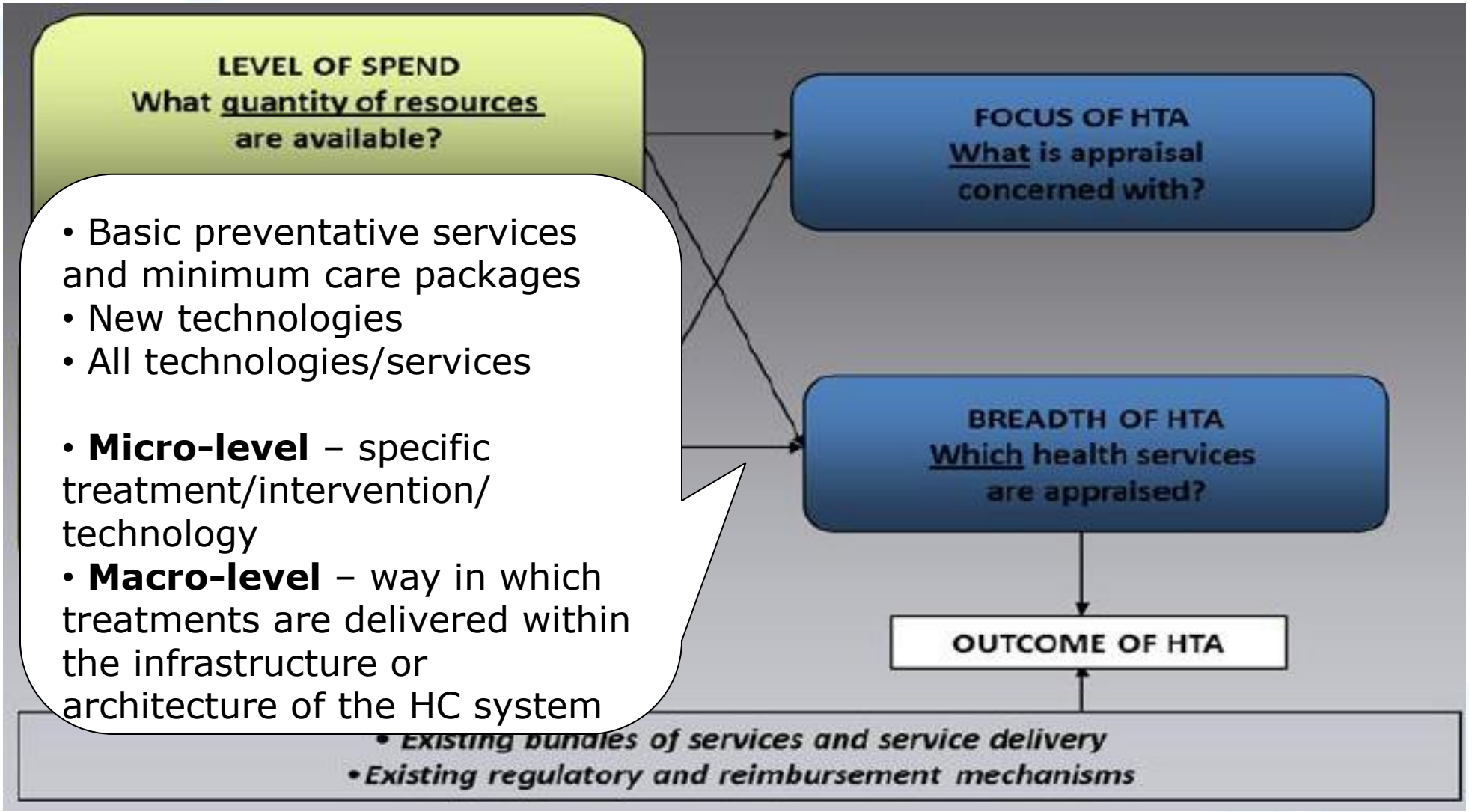
Source: Towse et al. (2011).

On-going global discussion of health systems and HTA



Source: Towse et al. (2011).

On-going global discussion of health systems and HTA



- Basic preventative services and minimum care packages
- New technologies
- All technologies/services

- **Micro-level** – specific treatment/intervention/ technology
- **Macro-level** – way in which treatments are delivered within the infrastructure or architecture of the HC system

Source: Towse et al. (2011).

HTA elements already present in Japan

- In Japan, HTA has already been incorporated over many years under the current reimbursement and pricing systems without negative impacts on patients' access.
- Specifically, the system is designed to assess the value of treatment options based on efficacy and safety, as well as a broad set of criteria including societal and ethical aspects.
- While the system already exists, there is still an opportunity for further enhancement in order to appropriately assess system effectiveness, treatment options and reward innovation.

Key HTA principles

1. HTAs should have explicit and relevant goals and scope
2. HTAs should be unbiased, rigorous and transparent
3. HTAs should include all relevant technologies
4. HTAs should have a clear system for setting priorities
5. HTAs should incorporate appropriate methods for assessing costs and benefits
6. HTAs should consider a wide range of evidence and outcomes
7. HTA should consider a full societal perspective
8. HTAs should explicitly characterize uncertainty surrounding estimates
9. HTAs should consider and address issues of generalizability and transferability
10. HTAs should actively engage all key stakeholder groups
11. Those undertaking HTAs should actively seek all available data
12. The implementation of HTA findings needs to be monitored
13. HTA should be timely but separate from other regulatory review
14. HTA findings need to be communicated appropriately to different decision makers
15. The link between HTA findings and decision making processes needs to be transparent and clearly defined

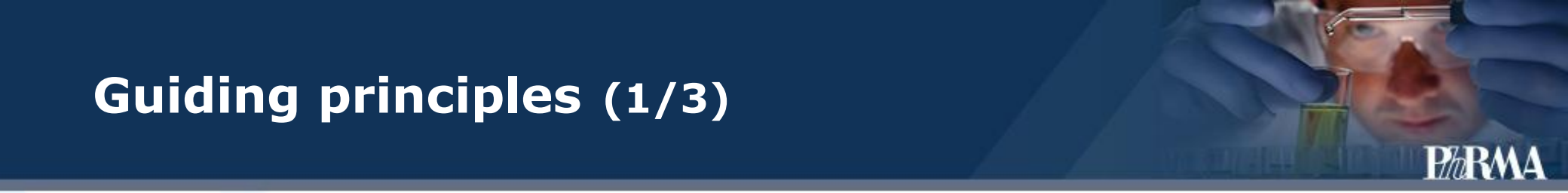
Source: Neumann et al. (2010). Are key principles for improved health technology assessment supported and used by health technology assessment organizations? *IJTAHC*, 26:1 (2010), 71–78.

Four basic policies establish a framework to enhance current HTA in Japan

1. **Patients' access** to various treatment options should be maintained at the current level
2. **Appropriate assessment** of holistic value of treatment options should be conducted
3. **Burden** associated with enhancing HTA should be minimized
4. **Innovation** should be rewarded sufficiently by adequate assessment

Source: PhRMA.

Guiding principles (1/3)



Basic policies	Guiding principles
1 **Patients' access** to various treatment options should be maintained at the current level	**1a** **Maintain full reimbursement upon regulatory approval** • Currently, all the treatment options are essentially reimbursed upon regulatory approval • Enhancement of HTA should not limit absolute access to treatment options, which narrows the freedom of choice by patients and physicians **1b** **Maintain prompt reimbursement after regulatory approval** • All the treatment options are currently reimbursed promptly after regulatory approval • Enhancement of HTA should not delay patients' access by requiring excessive additional data or taking long time for assessment process

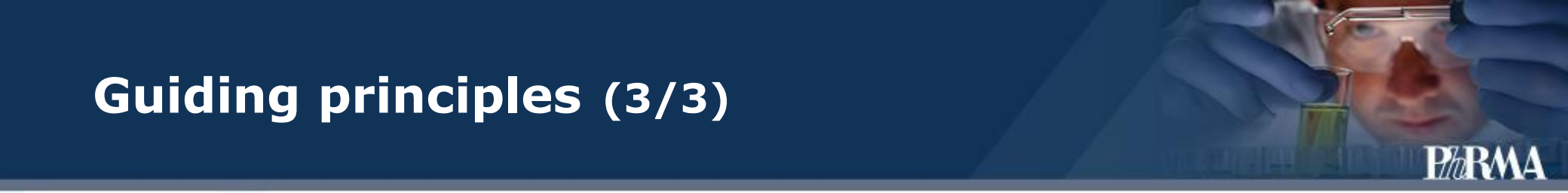
Note: The Guiding Principles have been developed based on key findings of HTA in and outside of Japan shown in chapter 1, appendix and separate fact pack. Also international research works on HTA have been referred to in the process, including *"Key principles for the improved conduct of health technology assessments for resource allocation decisions"* by Drummond et al (2008).

Guiding principles (2/3)

Basic policies	Guiding principles
2 **Appropriate assessment** of holistic value of treatment options should be conducted	**2a Consider the broad effects of treatment options more explicitly** • HTA should include both direct and indirect benefits, when appropriate, that are important to patients and society; patients should provide input • HEE is only part of the assessment and should not be over-emphasized
	2b Use the most appropriate methodology and criteria for evaluation • Appropriate methodology and criteria vary by treatment option • Mechanically applying single criteria such as cost/QALY, with possible rigid threshold, should be avoided since it may not capture full value for patients
	2c Establish relevant databases and expertise for adequate assessment • For enhancing HTA, it is essential to make sufficient long-term investment to establish reliable epidemiology/medical cost databases and build necessary expertise to adequately analyze the data
	2d Ensure transparency in the methodologies, processes and results • Methodology and criteria of value assessment should be developed in a transparent manner with stakeholder participation • Decision making process as well as assessments results should be disclosed with room for claiming appeals secured

Note: The Guiding Principles have been developed based on key findings of HTA in and outside of Japan shown in chapter 1, appendix and separate fact pack. Also international research works on HTA have been referred to in the process, including *"Key principles for the improved conduct of health technology assessments for resource allocation decisions"* by Drummond et al (2008).

Guiding principles (3/3)



Basic policies	Guiding principles
3 **Burden** associated with value assessment should be minimized	**3a** **Minimize incremental burden for data collection** • Treatment options for enhanced HTA should be carefully selected • Readily available data from real world use at post-launch stage should be further utilized • Early consultation between the authority and manufacturers should be allowed to make consensus on required data set
	3b **Minimize the administrative cost and bureaucracy of the assessment** • HTA itself should not generate unnecessary administrative cost • The current administrative organization should be fully leveraged
4 **Innovation** should be rewarded sufficiently by adequate assessment	**4a** **Reward innovation appropriately based on the assessment** • Premium pricing schemes in Japan are not necessarily well functioning with limited level of reward accorded • Under "Re-pricing for market expansion" scheme, price-cut is applied regardless of the innovativeness of the drugs. Therefore, enhanced HTA should be considered for those drugs that are subject to Re-pricing for market expansion to appropriately assess their value for patients • Innovation should be appropriately rewarded through enhanced HTA so that innovative treatment options will be continuously developed

Note: The Guiding Principles have been developed based on key findings of HTA in and outside of Japan shown in chapter 1, appendix and separate fact pack. Also international research works on HTA have been referred to in the process, including *"Key principles for the improved conduct of health technology assessments for resource allocation decisions"* by Drummond et al (2008).

Conclusions

1. HTAs have proliferated and evolved globally
2. Building and maintaining an HTA system is a highly resource-intensive enterprise for society
3. HTA inevitably delays patient access to new drugs
4. HTA needs to shift focus from micro- to macro-level
5. Good HTA systems need to adhere to the key HTA principles/good practices to mitigate potential negative effects on patient access and outcomes, and on the innovative industry
6. Collaboration and dialog with key stakeholders is necessary to develop the most appropriate system and approach for Japan, especially in the context of historic drug/medical device delays