Why measure health care performance?

Introduction to EuroHOPE

Unto Häkkinen

CHESS National Institute for Health and Welfare On behalf of the EuroHOPE group

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The main reasons

- The aims of almost all the recent health care system reforms is to improve efficiency

- The efficiency of health care has been placed high on the international and European agenda
  - *Recent evidence on effective strategies to improve the performance of health systems, given the increasing pressure on them to ensure sustainability and solidarity is an important issue for research and policy in the years ahead (*Health ministers from the 53 Member States in the WHO European Region, 2008)

- Lack of good quality international performance comparisons

Approaches to international efficiency comparisons

System level analysis

– WHO 2000, Afonso and St. Aubyn 2005

– Challenges in output measurement: How to measure the impact of health services on health?

- Disease level analysis

  – McKinsey healthcare productivity study, OECD aging-related disease (ARD) project, Technological Change in Healthcare (TECH) Global Research Network (AMI)

  – Possible to relate inputs to outputs but requires nationally representative patient level data

- Sub-sector level analysis

  – Nordic hospital comparison study group (NHCSG)

  – Requires that units (DMUs) are comparable and inputs and outputs can be measured in a similar way

EuroHOPE

- Applies both the disease level and the sub-sector level approaches

- Develops methods to measure outcomes and costs of care of specific diseases for evaluation of care given in the whole treatment chain

- The methods can be used for
  - routine performance evaluation and monitoring
  - establishing recommendations for lists of indicators to be routinely collected and published by the EU (as a part of European Community Health Indicators)

Aims of EuroHOPE (I)

- To develop methods for international comparative health service research using register data

- To contemplate the relationship between outcomes/quality and use of resources (e.g. costs) and compare them between European countries, regions and providers

- To explore and reveal reasons behind differences in outcomes and costs
    - In particular, the interest will be on policy driven factors: treatment practices, use of medicines and modern technology, waiting times, financing, organisation of delivery, and reforms

Aims of EuroHOPE (II)

- To explore quality and cost of acute hospital care in the Nordic countries

- To give proposals concerning the data content of national level registers and outcome measurements in order to improve the continuous monitoring of performance on both national and international level

- To implement European-wide benchmarking on outcomes, quality and costs

- To enable decision-makers as well as health professionals at different levels to learn from the best practices

Partners

- Centre for Health and Social Economics (CHESS),National Institute for Health and Welfare, Finland

- Centre for Research on Health and Social Care Management, Universita Commerciale Luigi Bocconi, Milano, Italy

- Health Services Management Training Centre, Semmelweis University, Budapest, Hungary

- National Institute of Public Health and the Environment, the Netherlands

- University of Oslo, Department of Health Management and Health Economics, Norway

- Ragnar Frisch Centre for Economic Research, Oslo, Norway

- University of Edinburgh, Scotland

- Medical Management Centre (MMC), Karolinska Institutet, Stockholm, Sweden

Population-based cost-effectiveness approach

- Microeconomic disease-based strategy

- Based on modelling the natural progress of a disease, with specific interest in the role of health services as a determinant in the progress

- Uses data from registers on individual patients
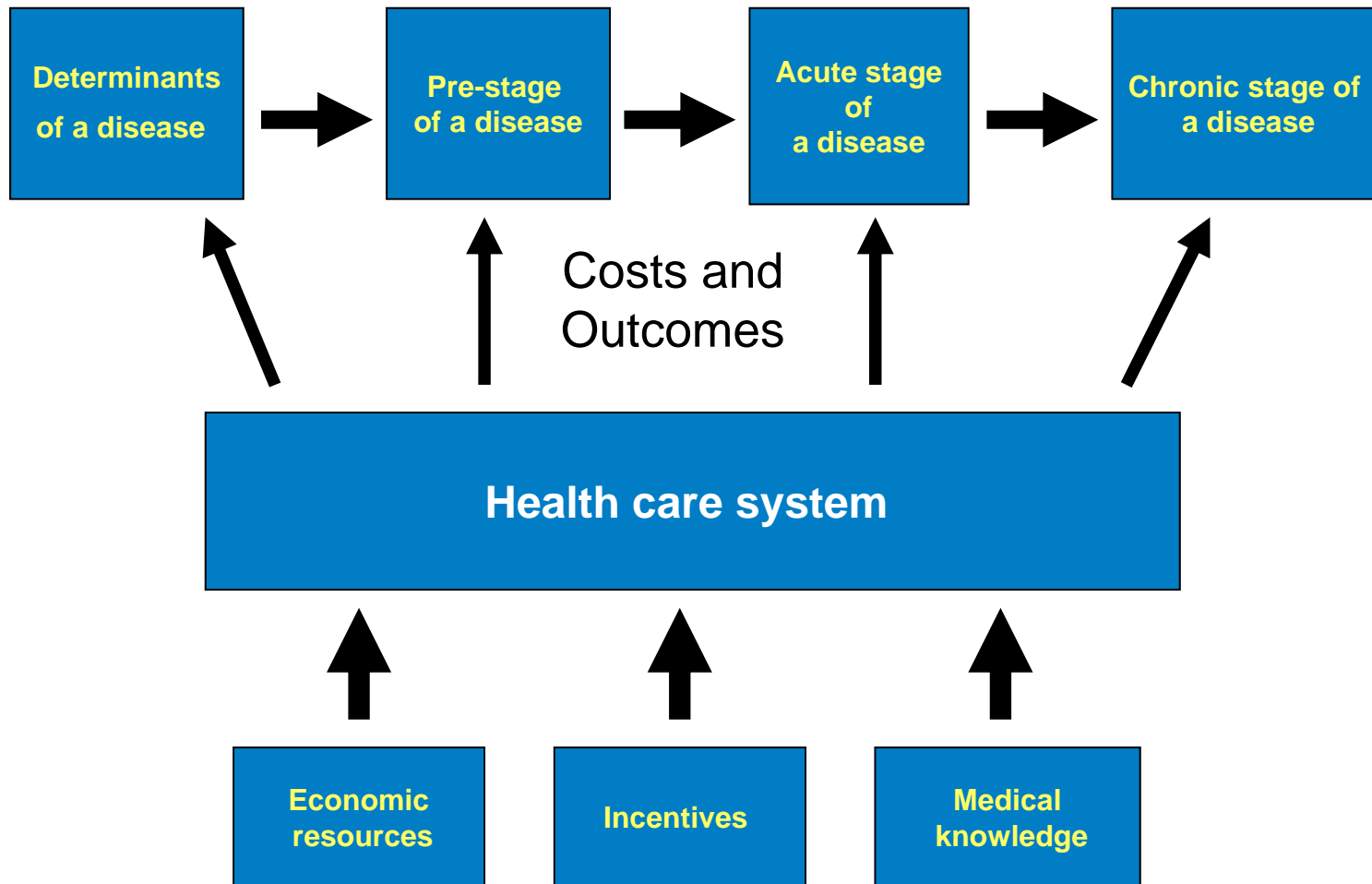
Methodology development

- Statistics group
  - Risk adjustment

- Costing group
  - Measurement of cost
  - Methods for cost analysis

- Survey group
  - Develop a protocol for health-related quality of life (HRQoL) and patient satisfaction measurement

Disease specific work (I)

- Five diseases
  - acute myocardial infarction (AMI)
  - stroke
  - hip fracture
  - breast cancer
  - very low birth weight infants

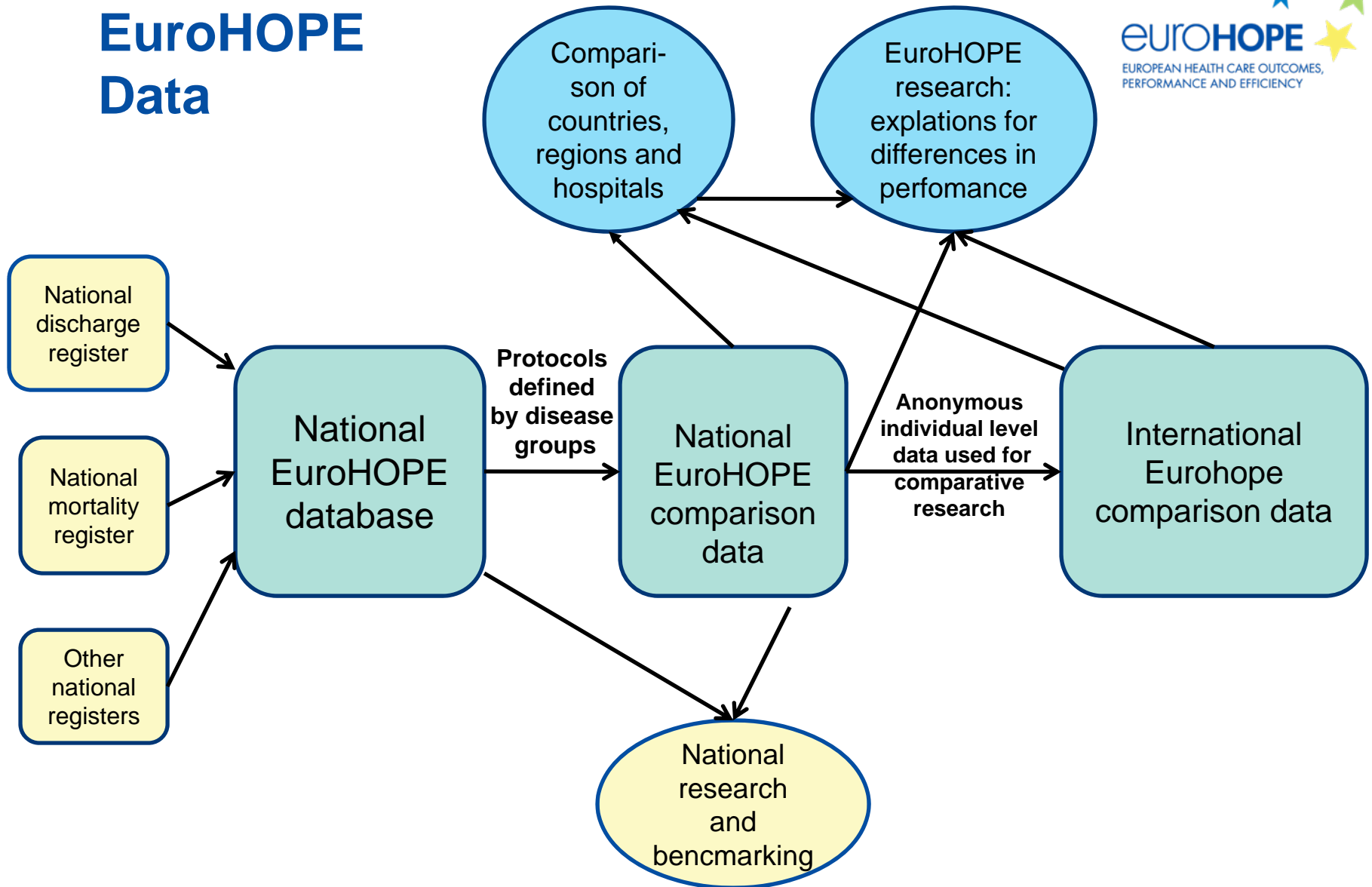- Clinical experts from each of the participating countries

- Definition of the protocols
  - inclusion /exclusion criteria
  - definition of cycle of care (when it starts, follow-up etc.)
  - comorbidities (used in risk adjustment)
  - specification of outcome measures

Disease specific work (II)

- Development of national, regional and hospital level indicators for
    - access and utilisation of services
    - treatment practices
    - costs and outcomes

- A pilot study on HRQoL and patient satisfaction measurement in selected hospitals in participated countries for
    - stroke
    - breast cancer

EuroHOPE Data

National discharge register

National mortality register

Other national registers

National EuroHOPE database

Protocols defined by disease groups

National EuroHOPE comparison data

Anonymous individual level data used for comparative research

International Eurohope comparison data

Comparison of countries, regions and hospitals

EuroHOPE research: explations for differences in perfomance

National research and bencmarking

# Key questions in disease based analysis

- Definition of an episode: When it starts and when it finishes (follow up time)?

- Balancing: what can be done on routine basis with scientific/methodological aspects

- Comparability: Case-mix adjustment and/or eliminating selection bias (problems encountered in the analysis of causal effects with non-experimental data)

Solutions in EuroHOPE

- Definitions of patient groups to maximize comparability

- Extensive risk adjustment

- Standardisation by modelling and computing confidence intervals'

- Defintions of episodes

Definitinos of episodes
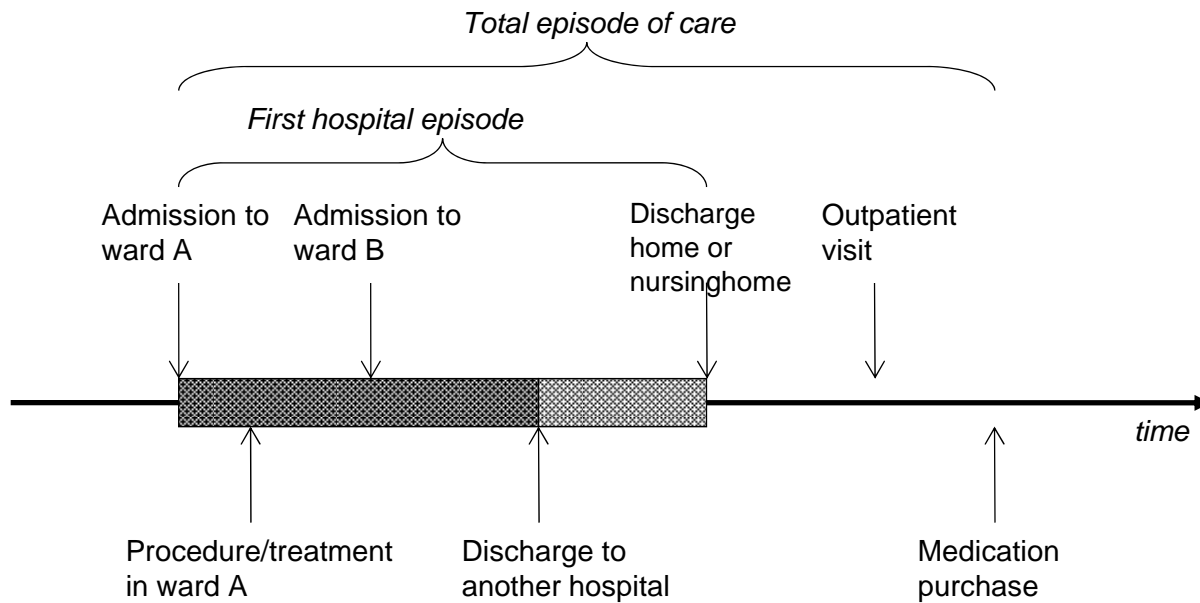
Aim of this seminar

- To announce the first results on
    - country and regional level indicators on outcome
    - use of resources
    - treatments

- To give a starting point for international benchmarking activities by identifying better performing countries and regions in order to learn from hospitals that demonstrate better practice

- To encourage participating countries for routine data collection for the indicators developed in the project and use these in evaluation and monitoring of the performance of their health care system

Description of regions

Country	Description	Number of regions	Average population size
Finland	Hospital districts and hospital regions responsible for providing special health care	26	200000
Hungary	19 Counties and Budabest.Counties provides self-governmental administrative duties (not health care)	20	500000
Netherlands	Provinces responsible for matters of subnational or regional importance (not health care)	12	1400000
Norway	Hospital trusts responsible for providing specialist health care in their geographical areas	20	250000
Sweden	Counties responsible for providing health care	21	450000

Next steps

- National and regional indicators to be published at http://www.eurohope.info
- Development methods for measuring costs
- Scientific articles (clinical, methodological, health policy orientated)
- Health economic issues such as
  - analyses of reasons behind differences in outcomes and use of resources
  - relationship between outcomes and cost

  → Final seminar in December 2013

- Suggestion towards continuation of the performance evaluation and to extend the activity to other countries