

Quality indicators in policymaking: how can we evaluate the benefits and the adverse events?



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Outline

- Pharmaceutical policymaking
- Influencing prescribers
- Quality indicators in policymaking
- Benefits and adverse events
- Evaluation methods

"The pharmaceutical market is unique with regard to the extent and depth of its failure to meet the criteria for a perfect market"



physician prescribes



pharmacist dispenses



patient consumes



third part pays

Strategies to make people change their behaviour

Education

Engineering

Economics

Enforcement

Rice Atkins. Public communication campaigns

Soft regulations

- Standardization
- Monitoring
- Agenda setting

Even more monitoring

Quality indicators are...

linked to economical incentives

- Prescribing incentive schemes in the UK
- Quality and Outcomes framework
- Experiences from Stockholm County, Sweden

made publicly available

Secondary Prevention in Coronary Heart Disease

All minimum thresholds are 25%

Indicator	Points	Maximum threshold
Medical records		
CHD 1. The practice can produce a register of patients with coronary heart disease	6	
Diagnosis and initial management		
CHD 2. The percentage of patients with newly diagnosed angina (diagnosed after 01/04/03) who are referred for exercise testing and/or specialist assessment	7	90%
Ongoing Management		
CHD 4. The percentage of patients with coronary heart disease who smoke, whose notes contain a record that smoking cessation advice has been offered within the last 15 months	4	90%
CHD 6. The percentage of patients with coronary heart disease, in whom the last blood pressure reading (measured in the last 15 months) is 150/90 or less	19	70%
CHD 9. The percentage of patients with coronary heart disease with a record in the last 15 months that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken (unless a contraindication or side effects are recorded)	7	90%

What are the possible benefits?

- May be more effective than other intervention methods in changing behaviour
- Higher quality of prescribing
- Economical savings

...and the adverse events?



Goodharts law

When policy performance is being evaluated, individuals and institutions will dedicate a disproportionate amount of time and effort to meet the targets, thus neglecting any other aspects that are not under investigation.

(Mrazek and Mossialos 2002)

Other potential negative consequences

- Decoupling
- Conformity
- Regression to the mean
- Growth of auditing associations
- Development of an "Audit society"

Audit society

The accounting systems are creating the activities that are under observation

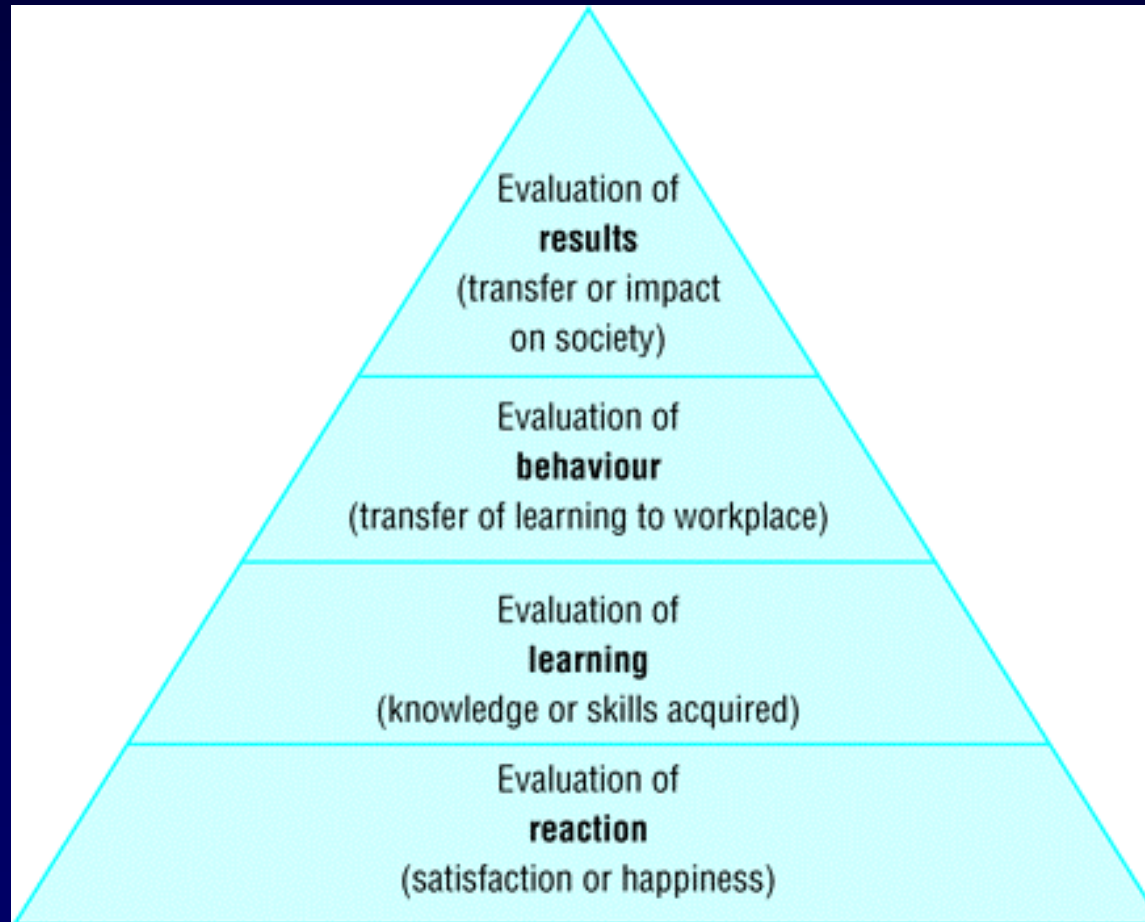
Changing focus from

- what we do \longrightarrow how we do
- activities \longrightarrow targets
- improvement \longrightarrow documentation

Hesitations from a drug utilization researcher

- Are any quality indicators completely context free?
- What about the external and internal validity of the indicators?
- Who is doing what? - risk for ambiguity in responsibilities

Levels of evaluation



Hutchinson, BMJ 1999

Research methods

Qualitative

Aim to understand

Possible results are not known before the study is performed

Quantitative

Aim to explain or prove

Possible results are outlined from the beginning

Examples of quantitative methods

Surveys to prescribers and patients

Descriptive (observational) studies

Quasi-experimental studies

uncontrolled before- and after studies

controlled before- and after studie(CBA)

time series analysis

Experimental studies (RCT)

Effect evaluation

First order effects

- substitution between drugs
- substitution between therapies

Second order effects

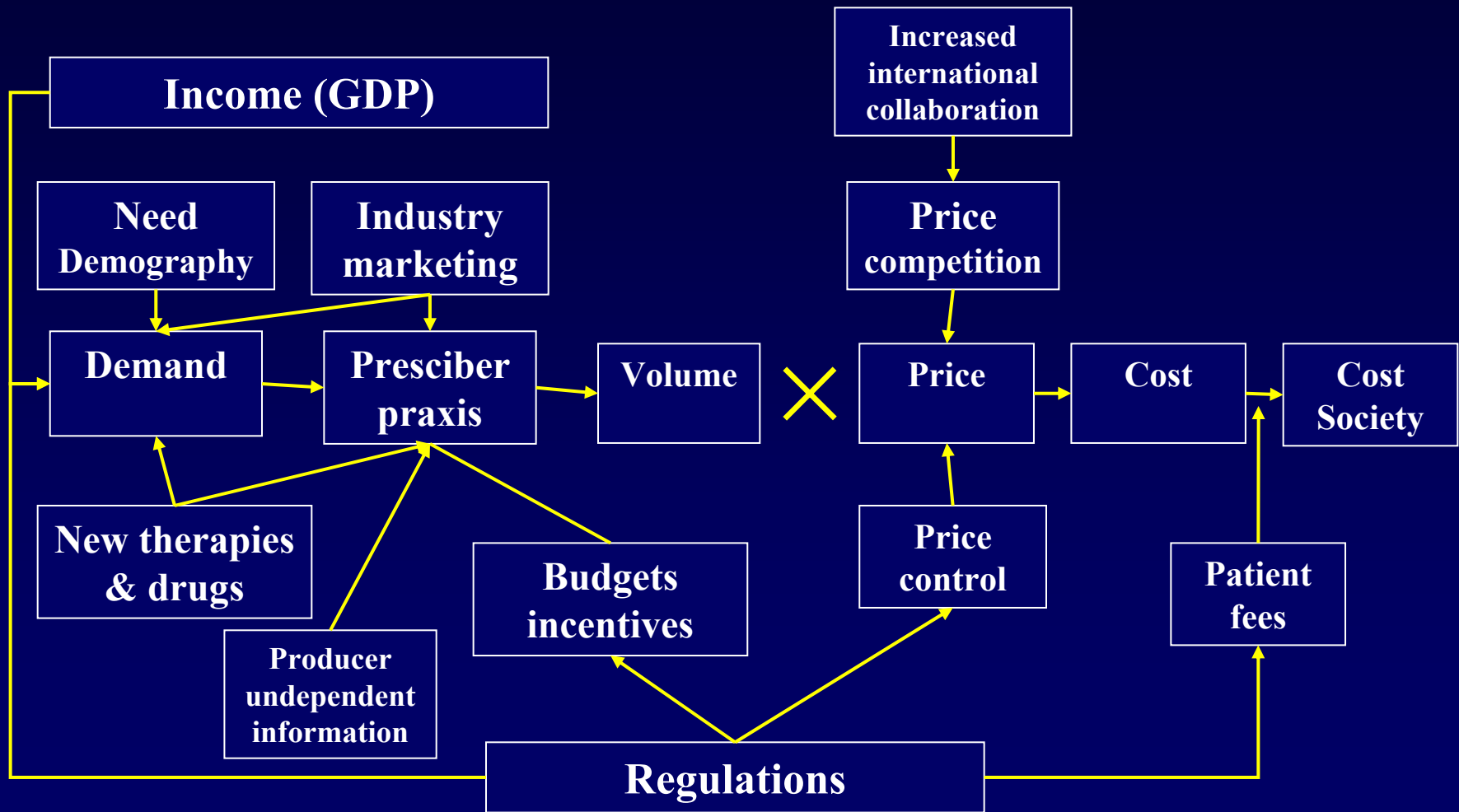
- substitution of other health services (e.g. emergency admissions, physician time)

Why is it difficult to analyse the effects of QI in policymaking?

1. Difficult to get valid data
2. Many factors influence prescribing
3. Combination of interventions
4. Correct unit of analysis is not used
5. Methodological problems to detect whether changes in prescribing affect patient outcome

Factors influencing drug cost

From Carlsson P, The Swedish Council on Technology Assessment in Health Care 1999



Difficulties in demonstrating effect on patient outcome

- Not appropriate sensitivity to measure the correct clinical outcomes
- Not long enough to detect changes in patient outcome
- Unknown (low) patient adherence and patient drop outs

So what should we do?



Use our knowledge to perform well-designed drug utilization studies

Quality criteria for CBA

Category	Criteria for high quality
a) Baseline measurement	Performance or patient outcomes measured before the intervention, and no substantial differences present across study groups
b) Characteristics of study and control	Characteristics of study and control providers are reported and similar
c) Blinded assessment of primary outcome(s) (protection against detection bias)	Stated explicitly that primary outcome variables were assessed blindly OR outcome variables are objective
d) Protection against contamination	Allocation by community, institution or practice and unlikely that control group received the intervention
e) Reliable primary outcome measure(s)	Outcome assessment is objective
f) Follow-up of professionals (protection against exclusion bias)	Outcome measure for $\geq 80\%$ of professionals randomized
g) Follow-up of patients	Outcome measures for $\geq 80\%$ of patients randomized or patients who entered the trial

Possible tasks for the EuroDurg collaboration

- What are the benefits and adverse events of using quality indicators in policymaking?
- Which indicators should be used and which should be avoided?
- Which evaluation methods are feasible?
- How can we assess the validity issues?

Thank you for your
attention!

