

VENICE SUMMER SCHOOL

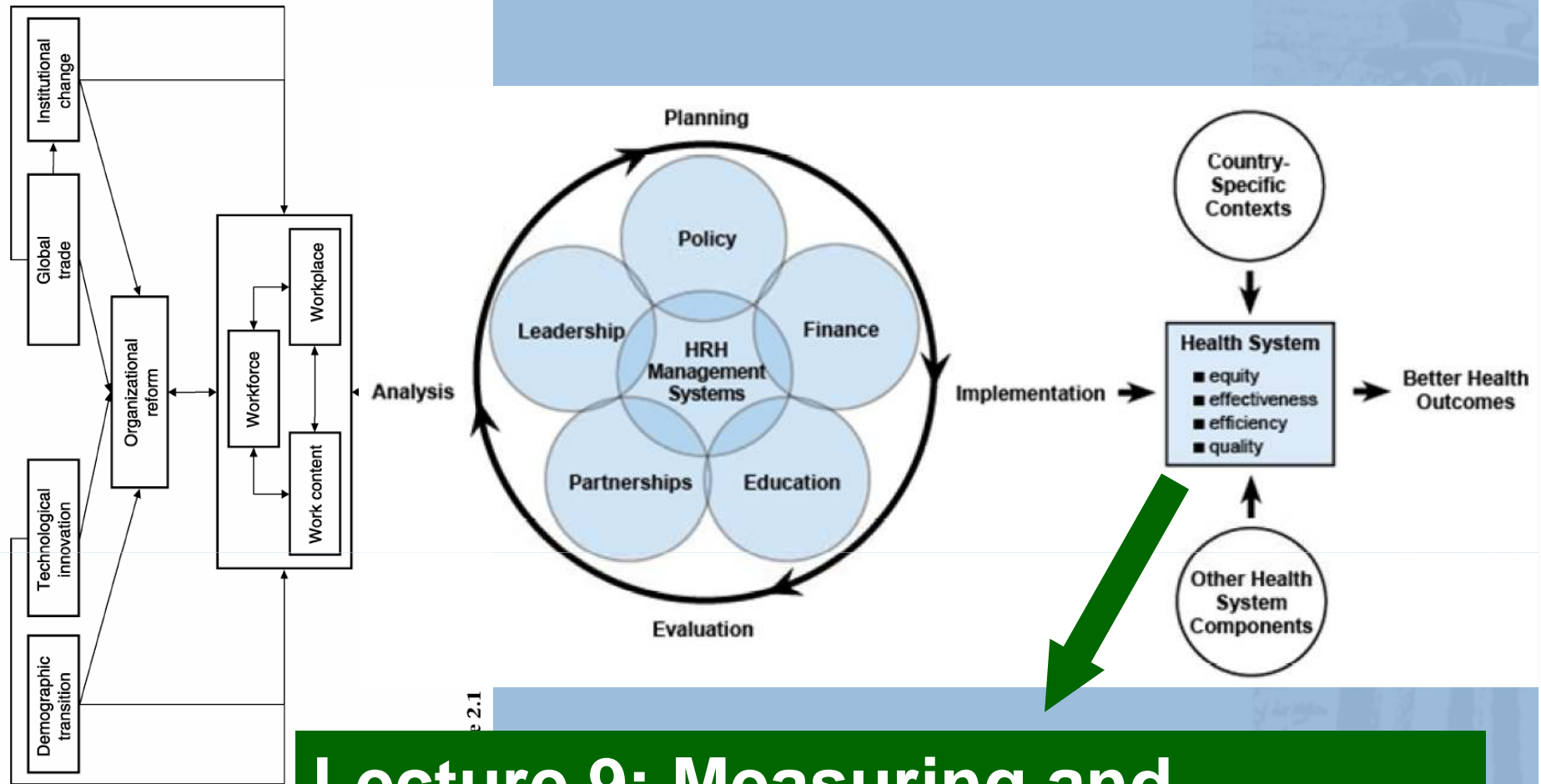
on Human Resources
for Health



Measuring and awarding quality and performance of health professionals

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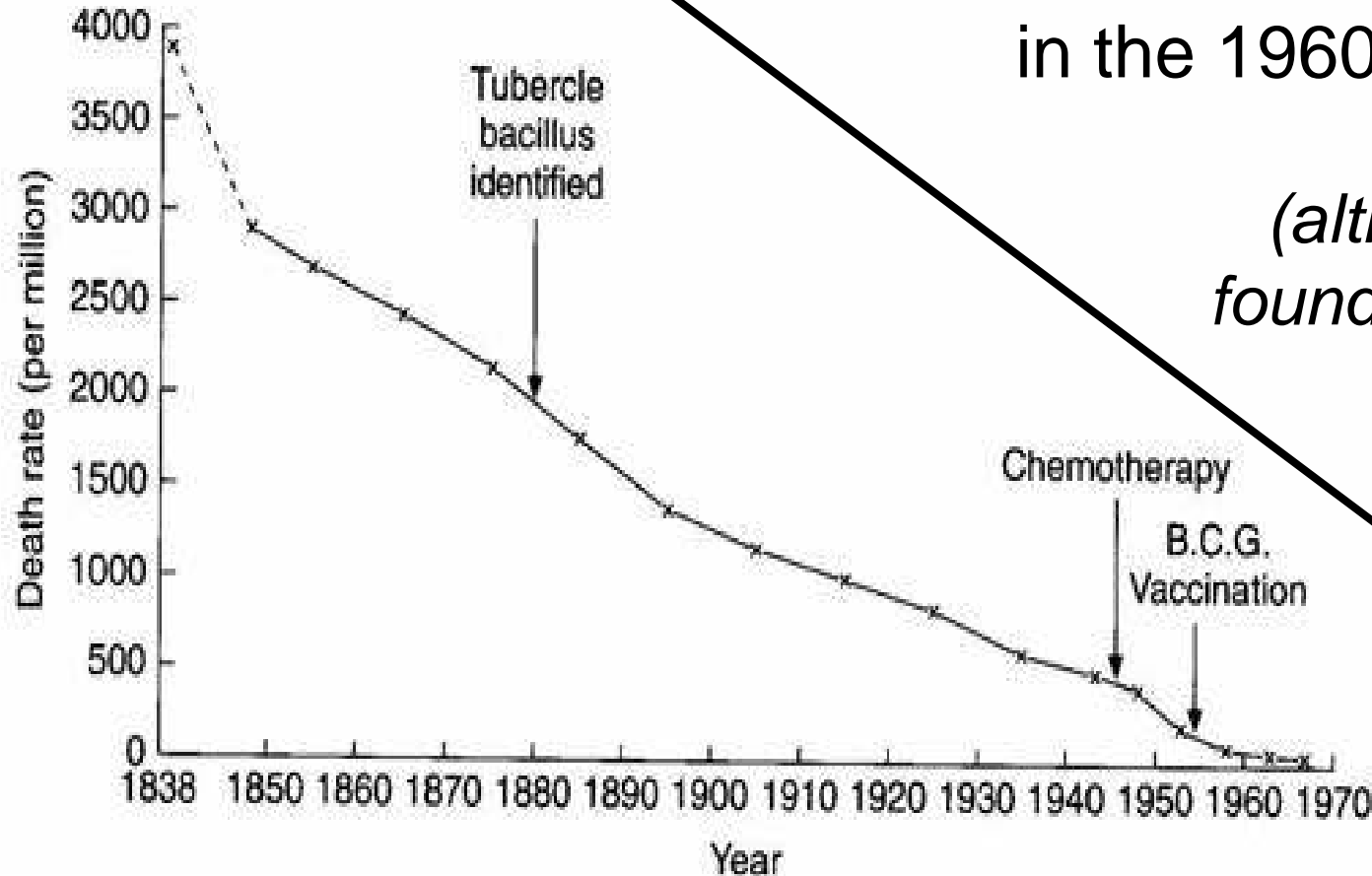
Lecture 9: Measuring and awarding quality and performance

**At the same time ...
health care has become much more effective:**

**Thomas
McKeown
(1976) *The Role
of Medicine: Dream,
Mirage, or Nemesis?***

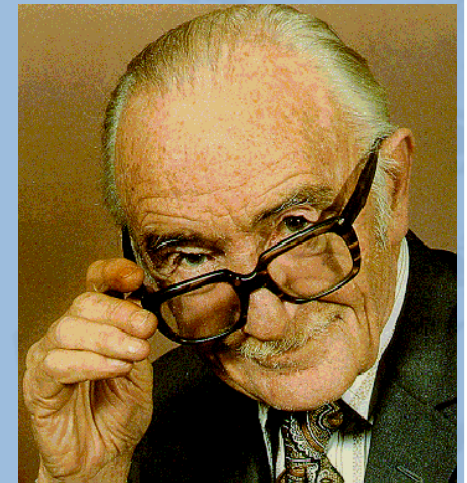
Reduction of “Medically amenable mortality” explained 40%-70% of overall mortality decline in the 1960s and 1970s.

(although we only found that out later)



Also in the 1970s: Cochrane's “effectiveness and efficiency”

- "It is surely a great criticism of our profession that we have not organised a critical summary, by specialty or subspecialty, adapted periodically, of all relevant randomized controlled trials." – initially ignored
- But 20 years later: Evidence-based medicine accepted, really impacting on clinical practice



Archie Cochrane



But policy-makers
(rightly) remain sceptical ...

INSTITUTE OF MEDICINE

Shaping the Future for Health

TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM

Health care in the United States is not as safe as it should be--and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented, according to estimates from two major studies. Even using the lower estimate, preventable medical errors in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer, and AIDS.



How do we get started? (1)

To understand that

- Terminology is confusing: efficacy, effectiveness, efficiency, quality, outcomes, performance, accreditation, certification, HTA, guidelines, ...
- Evidence which „quality technologies“ really work under which circumstances ...
- ... and on critical success factors for implementation is not conclusive or not existing

How do we get started? (2)

To understand that

- Quality/ performance is the result of health professionals working in health institutions applying health technologies for certain patients
- Measuring quality is methodologically difficult, let alone
- disentangling the specific contribution of professionals, institutions and technologies

Definitions of „Efficacy“ and „Effectiveness“

| Efficacy | Effectiveness | Reference |
|--|---|--------------------|
| the ability of a particular medical action in altering the natural history of a particular disease for the better, under ideal conditions | the ability of a particular medical action in altering the natural history of a particular disease for the better, under actual conditions of practice and use | Cochrane 1971 |
| the probability of benefit to individuals in a defined population from a medical technology applied for a given medical problem under ideal circumstances of use. | the benefit of a technology under average conditions of use | U.S. Congress 1978 |
| maximum achievable benefit | achieved benefit | Williamson 1978 |
| Can it work? Does the maneuver, procedure, or service do more good than harm to people who fully comply with the associated recommendations or treatment? | Does it work? Does the maneuver, procedure, or service do more good than harm to those people to whom it is offered? | Sackett 1980 |
| what works under carefully controlled conditions , such as randomized clinical trials | what works in day-to-day clinical practice | Rettig 1997 |

„... quality of care is that component of the difference between efficacy and effectiveness that can be attributed to care providers, taking account of the environment in which they work.“

(Brook RH & Lohr KN. Efficacy, effectiveness, variations, and quality. Medical Care 1985; 25: 710-722)

Community effectiveness =

**efficacy x diagnostic accuracy x
health professional compliance
x patient compliance x coverage**

Tugwell P et al. A framework for the evaluation of technology: the technology assessment iterative loop. In: Feeny D et al. (eds.) Health Care Technology: Effectiveness, Efficiency and Public Policy. The Canadian Medical Association and The Institute for Research on Public Policy, 1984, p. 41-56

Health Technology Assessment

[...] systematically examines short- and long-term **consequences** –in terms of health and resource use– of the application of a health technology (Henshall et al. 1997)

Health Technology Assessment – de-facto based on “Efficacy” but “Effectiveness” necessary:

Efficacy

- explanatory trials
- highly selected populations
- comparator: placebo
- outcomes: clinical, morbidity, mortality, adverse effects
- ‘what it says on the packet’

Effectiveness

- pragmatic trials
- few exclusions
- comparator: ‘current (best) practice’
- outcomes: patient-focused, down-stream resources
- ‘the real life effect’

Quality of medical care (Donabedian 1966)

Structure: physical features of health care, e.g. equipment, and the human resources

Process: what happens to patients, e.g. clinical examinations, prescriptions

Outcomes: the change in health status that can be attributed to the preceding health care

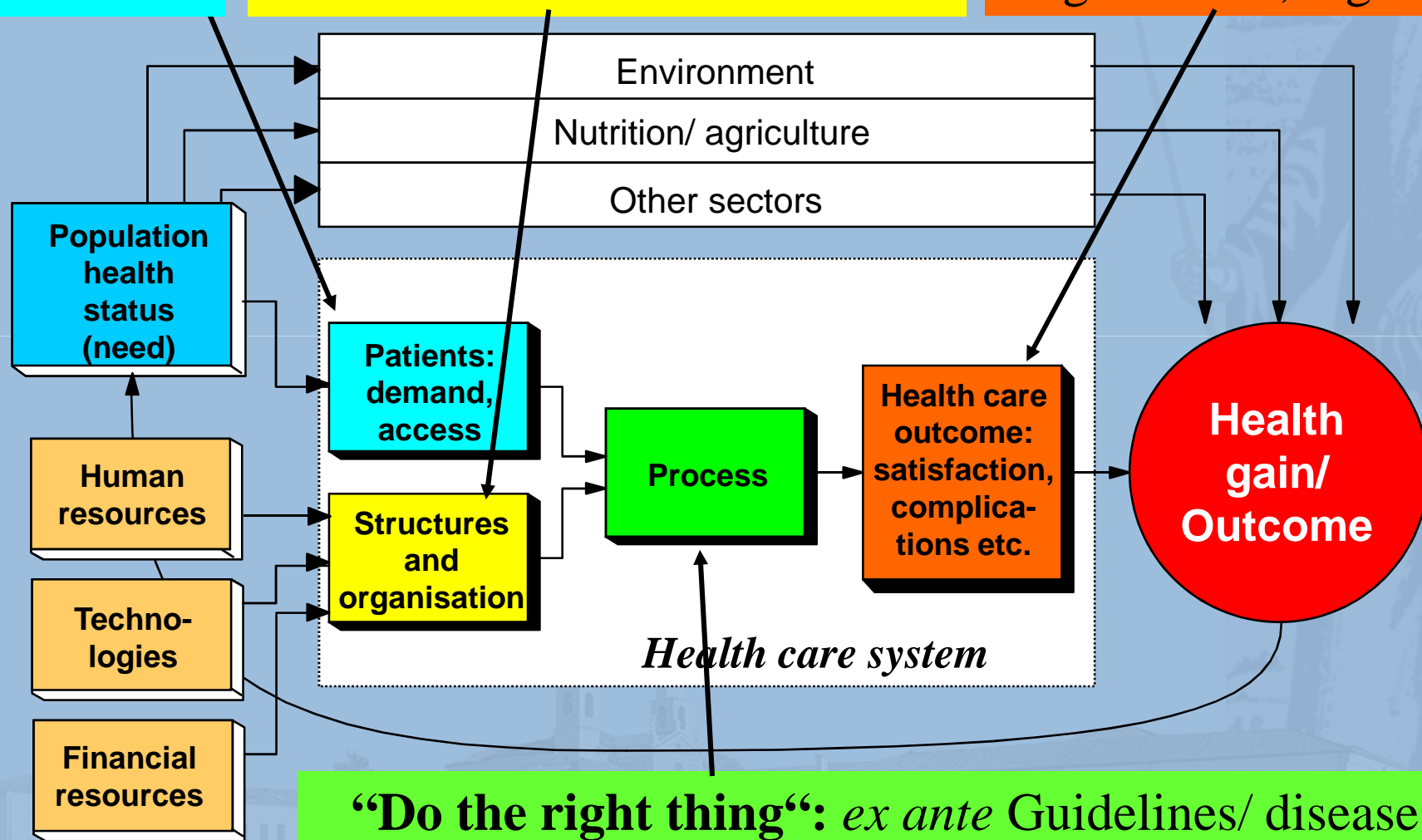
What is „quality“ / „performance“?

- *„Doing the thing right“* – quality assurance in the narrow sense, often measured as negative consequences (death, complication etc.), benchmarking/ ranking developing (risk adjustment necessary!)
- *„Doing the right thing“* – approach of health technology assessment (HTA), evidence-based medicine / guidelines and „appropriateness research“
- *„Doing the right thing“* x *„Doing the thing right“*
- Cost-effectiveness: *„Doing the right thing“* x *„Doing the thing right“* / € (WHO: performance)

Universal coverage; cost-sharing limits

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

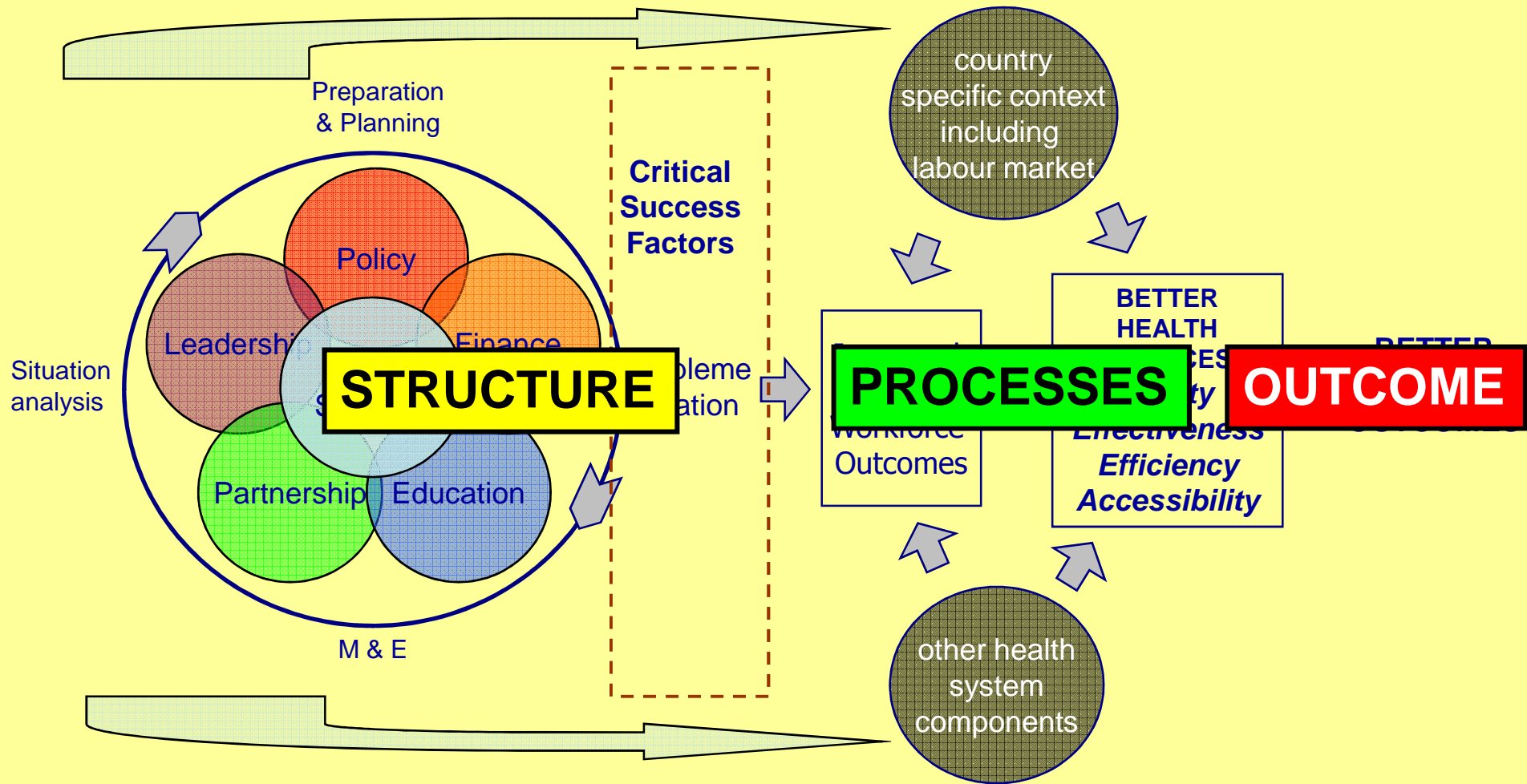
“Do the thing right“:
Benchmarking/
league tables; registers



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

| | Licensing | Certification | Accreditation |
|--------------------------------------|---|---|---|
| Applied to | Health care facilities, Health care personnel | Health care personnel | Health care facilities |
| Required for | Entry into practice | Professional status and possibly reimbursement | Status and possibly reimbursement |
| Purpose | Restricts entry into marketplace to providers | Limits entry into and duration within marketplace to providers for special purposes | Public assurance of desired level of quality of care |
| Duration | Permanent | Limited | Limited |
| Renewal | Mostly not necessary | Needed, re- certification | Needed, re- inspection |
| Standards | Minimum quality regarding “structure” | Minimum quality regarding “structure” and “process” | Optimal achievable quality regarding “structure”, “process” and often “outcome” |
| Performance based | No | Sometimes | Yes |
| Indicator of high quality | No | Limited | Yes |

A reminder: the HRH Action Framework



May sound convincing, but it's a long road from reform to clinical practice

Reform introduces quality assurance/
improvement mandate and/or institution

- ▶ Actual processes have to be developed (e.g. re HTA, guidelines, accreditation)
- ▶ HTA reports, guidelines etc. have to be written, disseminated and implemented
- ▶ Practice of individual physician (hopefully) changes

If quality assurance was an ordinary medical technology, we would do a systematic Cochrane review or a HTA report before introduction

1. Accreditation and other external quality assessment systems for health care. Review of experience and lessons learned (DFID)
2. Cochrane Reviews:
 - Guidelines in professions allied to medicine
 - Audit and feedback: effects on professional practice and health care outcomes
 - Information provision for stroke patients and their caregivers

**Service improvement tools
for the prevention, diagnosis
and management of chronic
diseases**

Final report

If quality assurance was an ordinary medical technology, we would do a systematic Cochrane review or a HTA report before introduction

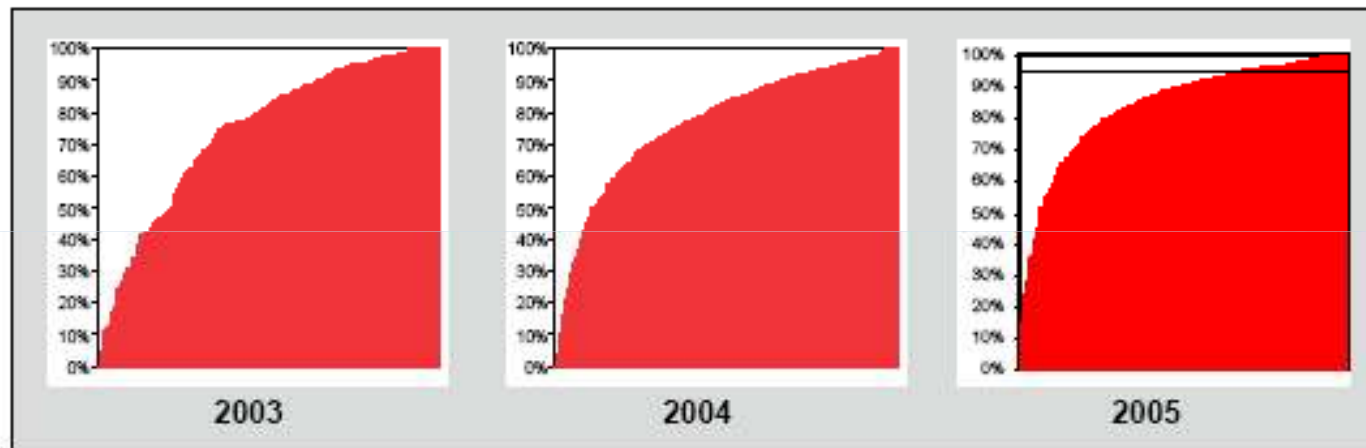
1. Accreditation and other external quality

Service improvement tools

Results: limited effects on processes for certain measures (educational tools, reminders), often only for certain indications (e.g. guidelines, disease management programmes) – **but no or no conclusive data on outcomes;** on other measures (accreditation, total quality management, league tables) **no conclusive evidence at all**

Quality register in Germany: mandatory for all 1800 hospitals, 170 indicators, with feedback and “structured dialogue“

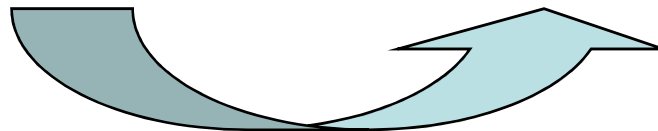
Documentation of operation distance to cancer



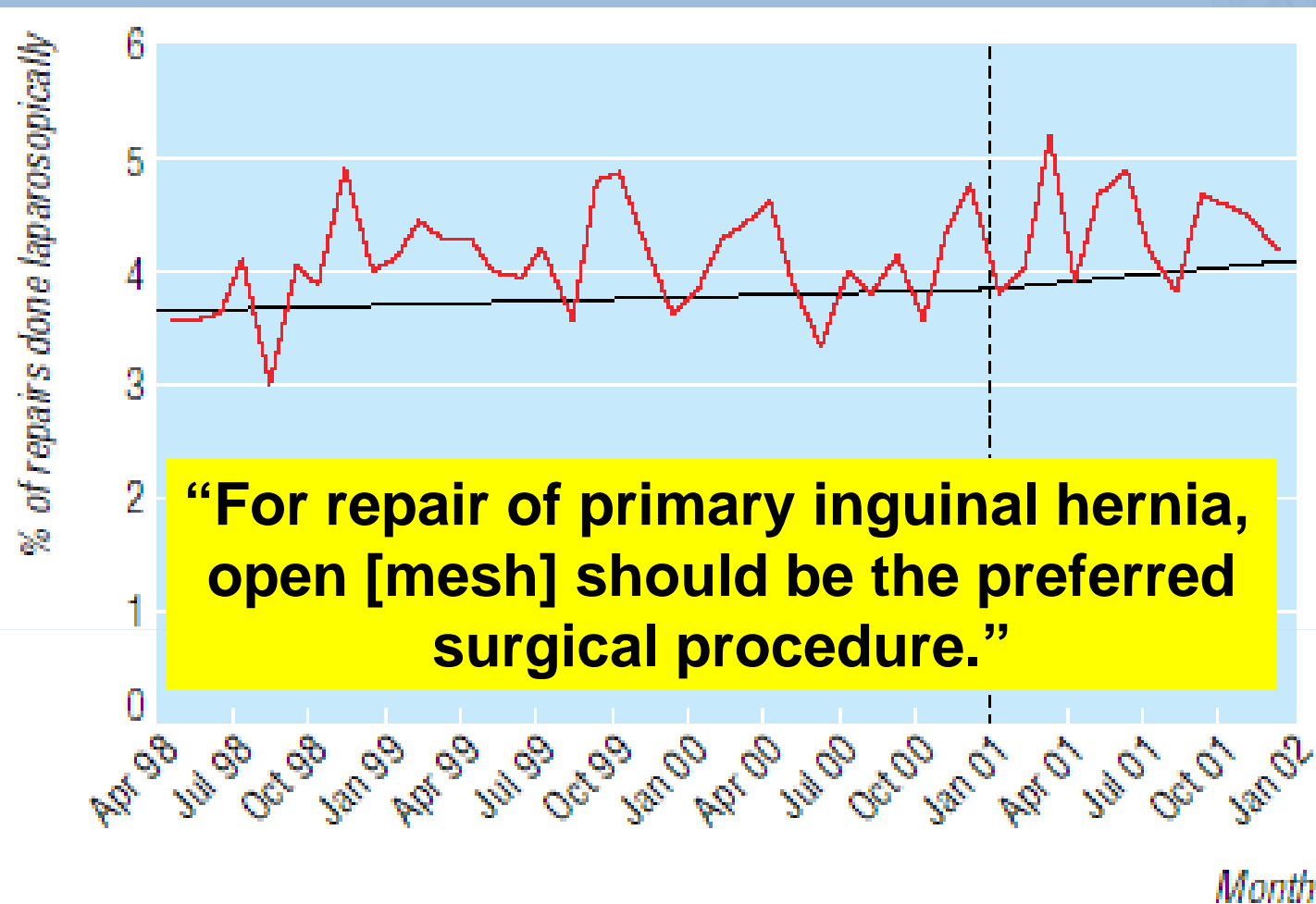
72,52%

75,67%

83,19%



Mammachirurgie 2005: Angabe Sicherheitsabstand bei BET (KeZ 68098)



Primary surgery for inguinal hernia repairs done laparoscopically as a percentage of all repairs done from April 1998 to November 2001, before and after the publication of NICE guidance in January 2001

Using financial incentives:
Can we improve quality by paying
more for better quality?

US: Pay-for-performance (P4P)
UK: Quality and Outcomes
Framework (in GP contract)

CAVE Terminology:
„performance“ ≠ „performance“

Issues in P4P design

- Individuals vs. groups (institutions, all physicians in one department)
- Paying the right amount (US: 9% of income)
- Selecting the right performance measures
- Paying for improvement vs. reaching threshold (US: 70% threshold)
- Priority for quality improvement of underserved populations?

Table. Key Elements of Pay-for-Performance Programs

| Dimension | Major Issues | What Programs Typically Look Like | Selected Evidence or Theory |
|--|---|---|---|
| Individual vs group incentives | <p>Advantages of targeting individual providers: clearly identifies accountability, natural unit of contracting/payment for many providers and health plans</p> <p>Advantages of targeting groups: bigger sample sizes, groups can share risk, invest in systems, tailor quality improvement to fit local needs</p> | 14% of physician pay-for-performance programs focus on individual physicians alone; 25% target both individual physicians and groups; 61% target groups alone ¹ | <p>Economic theory suggests that medical groups may serve an important risk-sharing function, but group incentives to perform are weaker for individuals¹⁰</p> <p>Sample sizes make performance measurement more difficult for individual physicians than for groups¹¹</p> <p>A failure of systems rather than individual motivation is widely seen to be crux of quality problems¹²</p> |
| Paying the right amount | Considerations: cost of improvement, shared savings, market share of sponsor | Maximum performance bonuses averaged 9% for physicians in 2005 ¹³ | Economic theory suggests that the recipient of an incentive must be compensated for the incremental net costs of undertaking the desired action ¹⁴ |
| Selecting high-impact performance measures | <p>Considerations: coordination across payers</p> <p>Focus: clinical quality: structure (particularly information technology), process or outcomes and underuse, misuse, or overuse; patient satisfaction/experience; national vs locally developed measures</p> | 91% of programs target clinical quality measures; 50% target cost efficiency; 42% target information technology; 37% include patient satisfaction measures ¹⁹ (data on national vs locally developed measures unavailable) | Regardless of which measures are chosen, coordination of measure selection within a market can greatly improve the effectiveness of pay-for-performance in a setting with many payers ¹⁵ |
| Making payment reward all high-quality care | Options: single or multiple thresholds, reward significant improvement, reward for each patient that receives recommended care | 70% of pay-for-performance programs use thresholds; 25% pay for improvement ¹ | <p>Economic theory suggests that physicians will respond to the incremental payment associated with undertaking each task</p> <p>An all-or-nothing bonus means that there is zero incremental payment for improvements that fall short of the threshold and for improvements beyond the threshold¹⁴</p> |
| Prioritizing quality improvement for underserved populations | Options: Directly or indirectly address higher cost for performance improvements for traditionally underserved populations; pay patients to improve their motivation to follow treatment recommendations; invest in system improvements, cultural competence | <p>No statistics available to date, but emerging area of interest</p> <p>Example: Blue Cross/Blue Shield of Massachusetts has integrated cultural competency training into its physician pay-for-performance programs</p> | If it is truly more difficult to improve the care for some populations, this implies higher costs that must be factored into the magnitude of reward |

Paying for quality in the UK: bonus of € 190 per quality point up to 1050 points

Examples of indicators, targets and point values in the GP contract

| Type | Indicator | Points | Target Range |
|------------|---|--------|--------------|
| Structural | Patients are able to access a receptionist via telephone and face to face in the practice, for at least 45 hours over 5 days, Monday to Friday. | 1.5 | yes/no |
| Structural | The practice establish a register for patients with stroke or TIA | 4 | yes/no |
| Process | The percentage of patients with history of myocardial infarction who are currently treated with an ACE inhibitor. | 7 | 25%-70% |
| Process | Patient Survey: The practice will have undertaken an approved patient survey each year | 40 | yes/no |
| Outcome | The percentage of patients with diabetes in whom the last blood pressure is 145/85 or less. | 17 | 25%-55% |
| Outcome | The percentage of patients age 16 and over on drug treatment for epilepsy who have been convulsion-free for last 12 months recorded in last 15 months | 6 | 25%-70% |

Paying for quality in the UK: bonus of € 190 per quality point up to 1050 points

- Practices reached 91% of all points in first year, 96% in the second year
- for an average bonus of € 190,000/ year (or € 1.5 billion for the NHS)!
- i.e. documented “quality“ went up, e.g. 100,000 persons were newly diagnosed with diabetes: prevalence from 3.3 to 3.6%
- Younger, middle-class patients more popular with GPs (higher compliance)