

Patient safety and eHealth: a necessary link

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Goals

- To reflect on the benefits that eHealth may bring to health care
- To identify some issues that may compromise the attainment of such benefits
- To describe the direction of WHO in the area of eHealth and patient safety



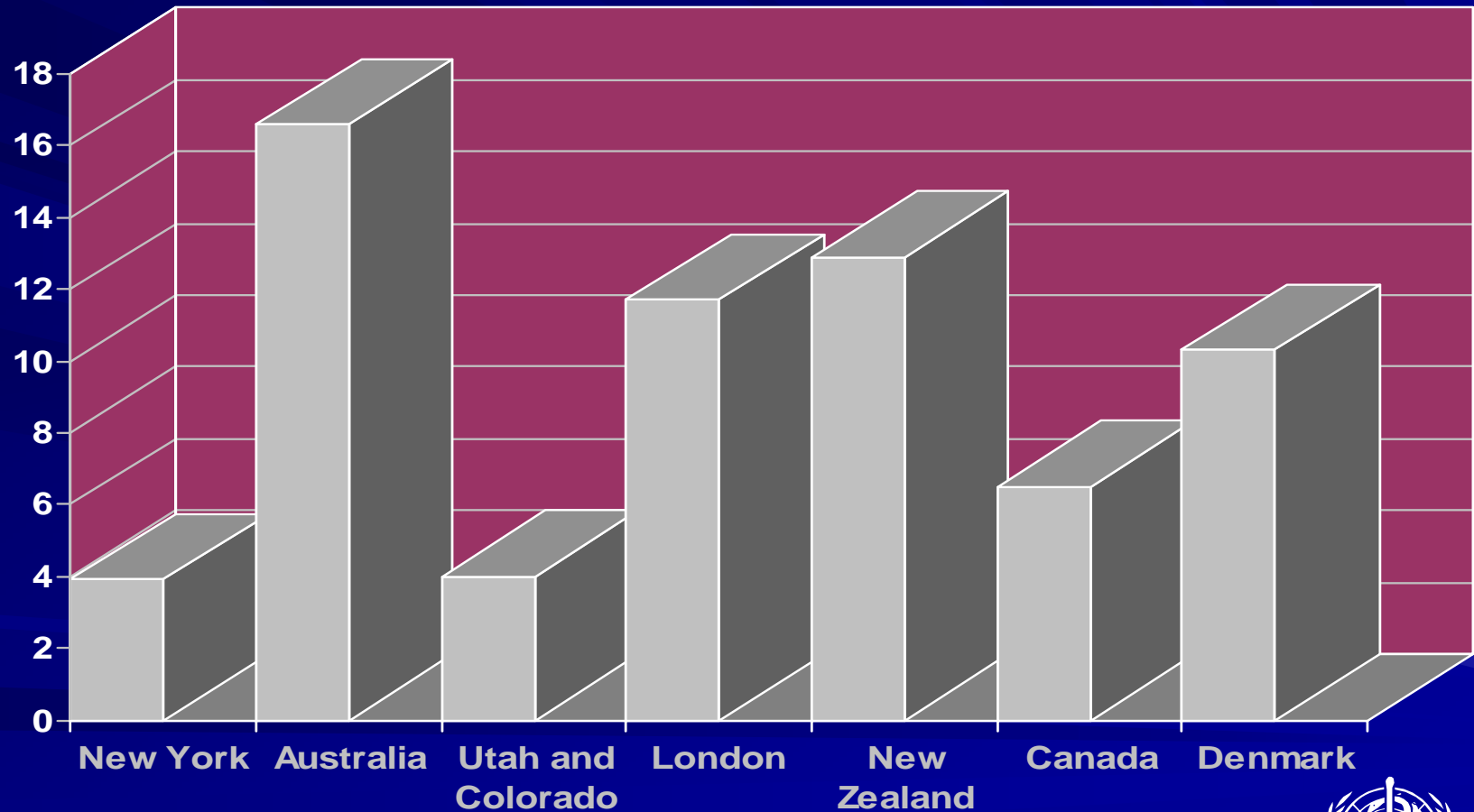
The unsafety of health care

- Health care interventions are intended to benefit patients, but they can also cause harm.
- The complex combination of processes, technologies and human interactions that constitutes the modern health care delivery system can bring significant benefits.
- But it also involves an inevitable risk of adverse events that can - and too often do happen



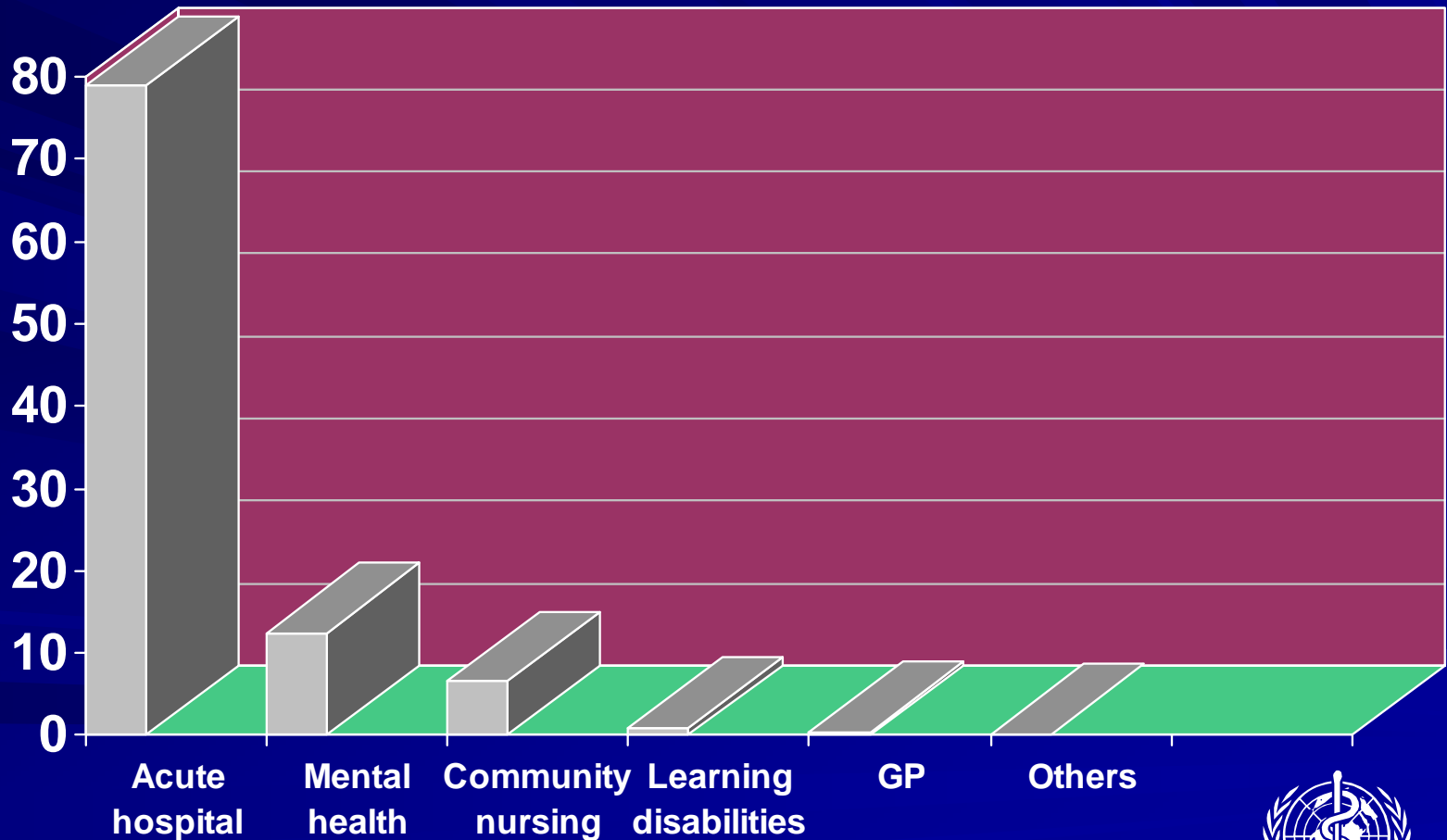
Adverse events in acute hospitals

Incident rate (per cent)

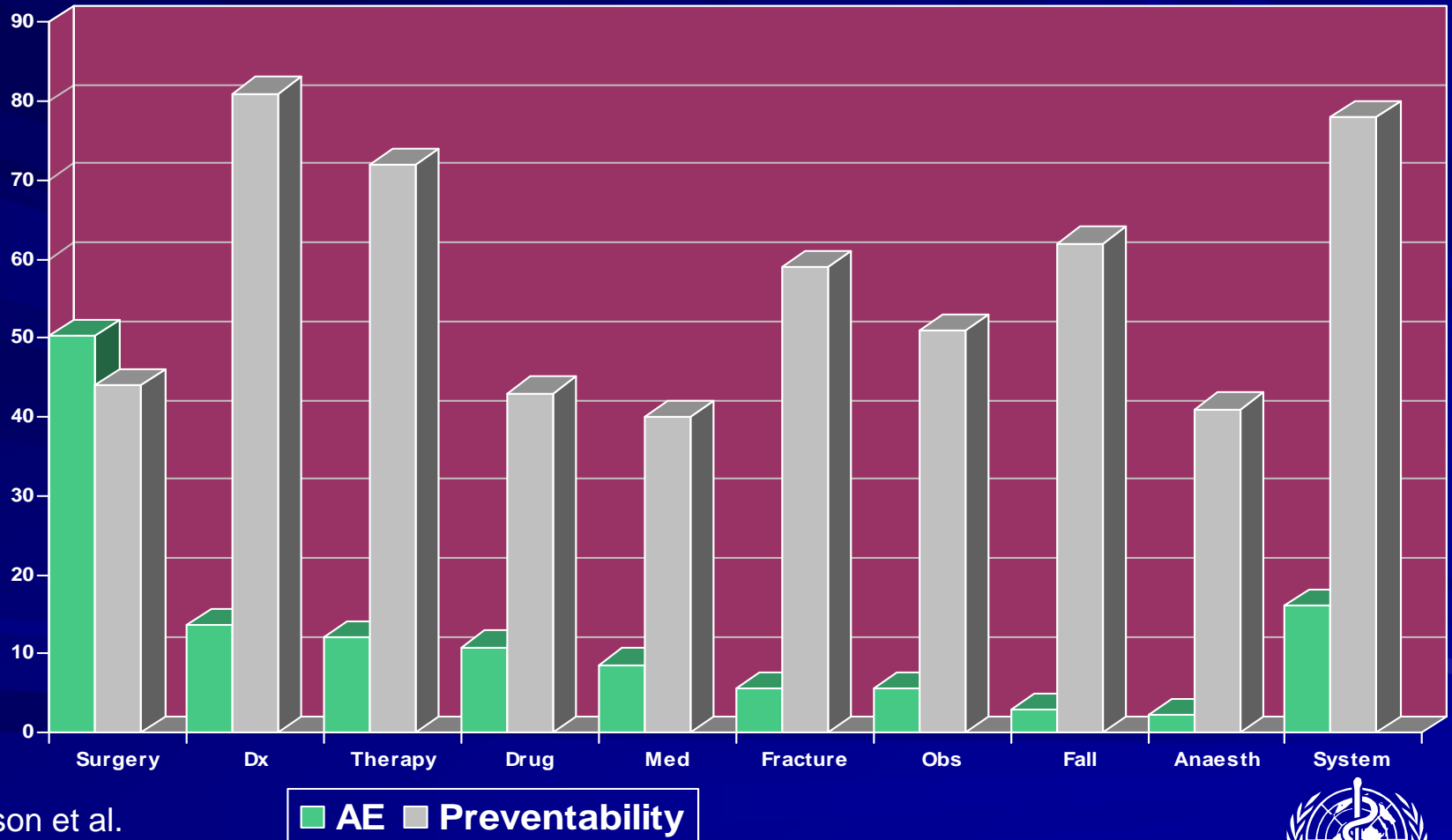


Where do adverse events occur?

Setting of incidents reported to NPSA (2005)



What are they?



Wilson et al.
QAHC Study

■ AE ■ Preventability



Why do they occur?

- For all clinical categories:
 - 27% rule based errors
 - 26% skill based errors
 - 25% technical errors
 - 16% knowledge based errors
 - 7% violations
- Reasons for drug related injury:
 - 18% error in the method of use of dose
 - 14% drug use inappropriately
 - 12% inadequate monitoring of drug levels



Why do they occur?

■ Systems errors:

- 25% involved failure to take precautions to prevent accidental injury
- 10% failure to employ indicated tests
- 9% avoidable delay in treatment
- 6% failure to act upon tests results
- 6% failure to take adequate history or examination
- 4% practice outside the area of expertise



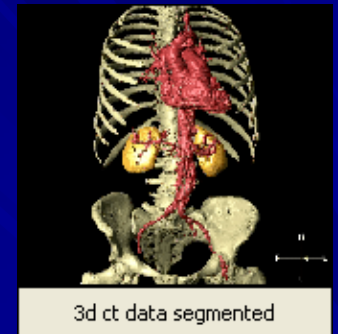
System's property

- Current conceptual thinking on patient safety places the prime responsibility for adverse events in deficiencies in system design, organization and operation rather than on individual providers



How can eHealth contribute?

- Improving the effectiveness of care
- Reducing harm due to omissions of care
- Reducing occurrence of adverse events
- Preventing harm from happening when incidents occur
- Learning from adverse events
- Simulating best practices
- Simulating accidents
- Simulating solutions



Potential Impact of eHealth

■ Tele-medicine, tele-diagnosis, tele-monitoring, tele-homecare:

- → Increasing access: reducing omission of care
- → Increasing continuity: increasing effectiveness
- → Prompt attention to emergencies
- → Improving patient satisfaction
- → Improving effectiveness



Potential Impact of eHealth



■ E-billing, e-citations, e-referral, e-administration, smart-cards:

- Reminders: reducing omissions in processes; cross-checking for accuracy of tests; controlling for due medications, cross-checking for contraindications
- Reducing waiting-times,
- Improving patient satisfaction
- Reducing costs



Potential Impact of eHealth

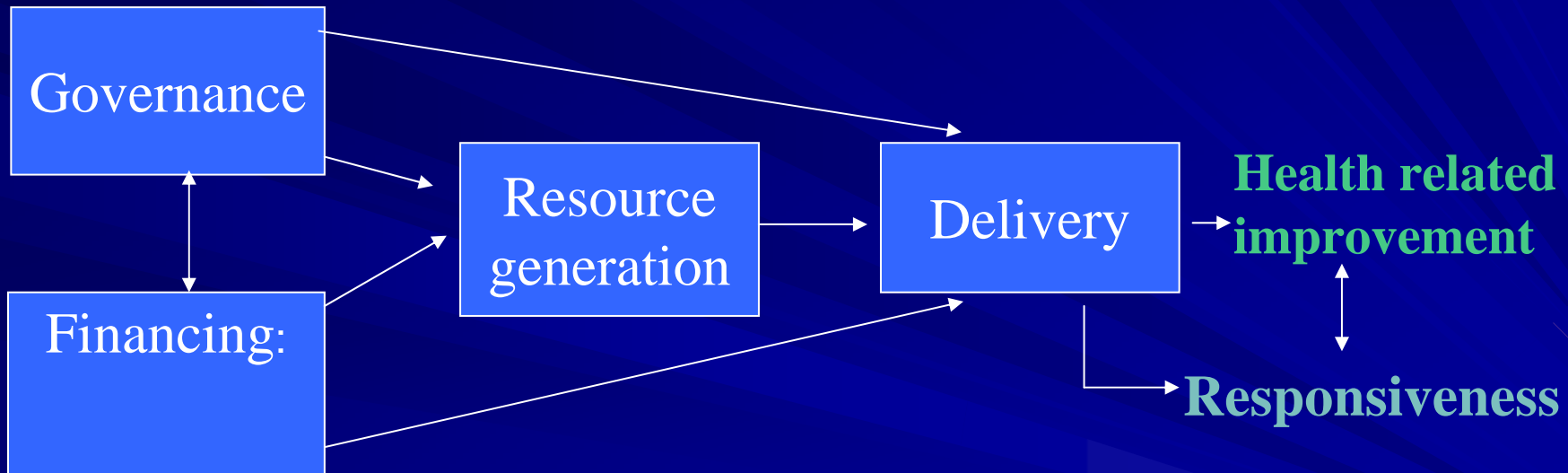


- E-medical records, decision-aids, computerized prescribing, e-pharmacy

- ➔ Reducing communication errors
- ➔ Reducing medical errors
- ➔ Cross checking medical history
- ➔ Cross checking therapies
- ➔ Bringing-in medical protocols
- ➔ Bringing-in therapeutic options
- ➔ Reducing drug-interaction errors
- ➔ Improving effectiveness
- ➔ Improving patient satisfaction



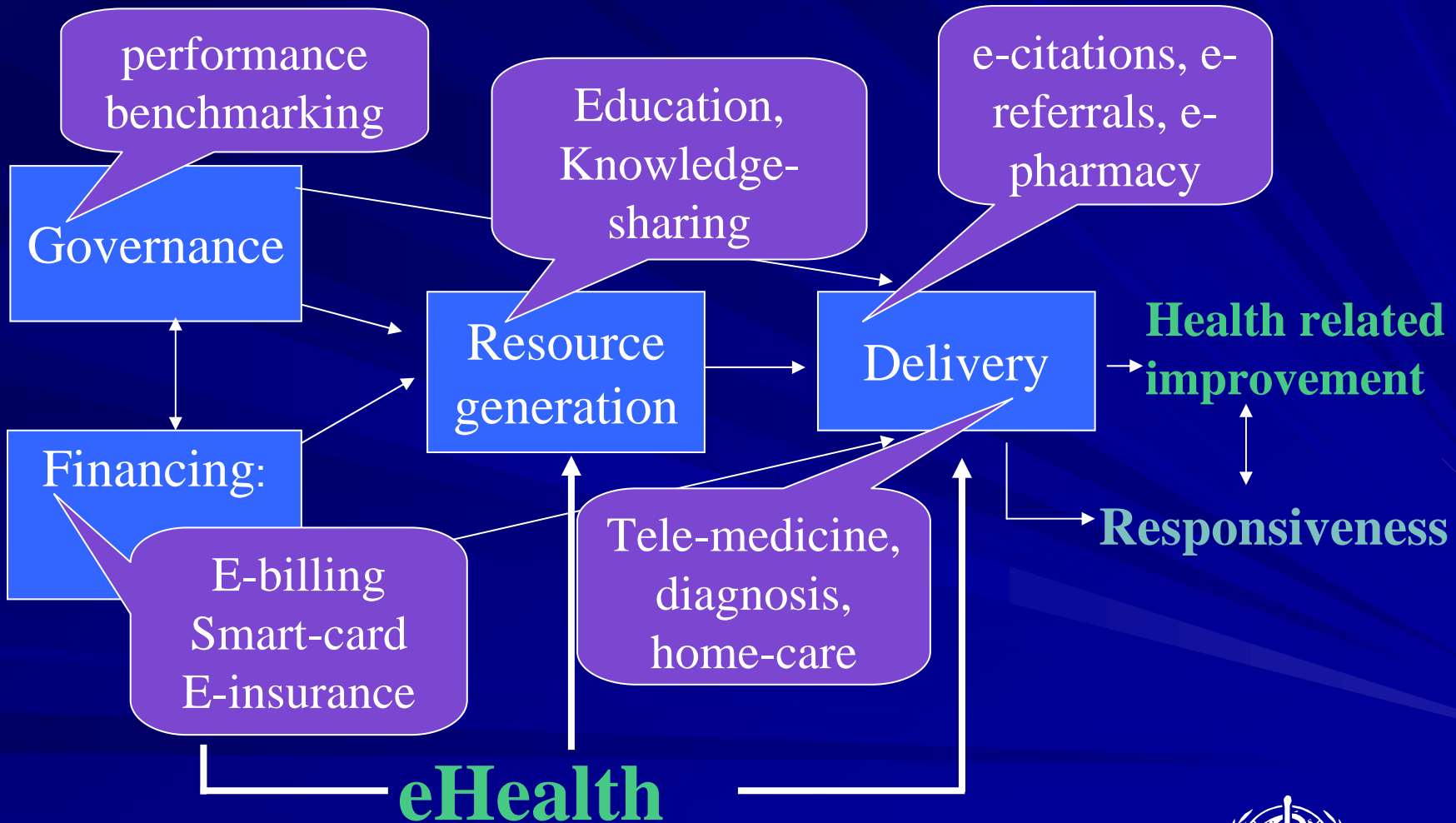
Impact of eHealth



ehealth can intervene at any single function and level of the health system



Impact of eHealth

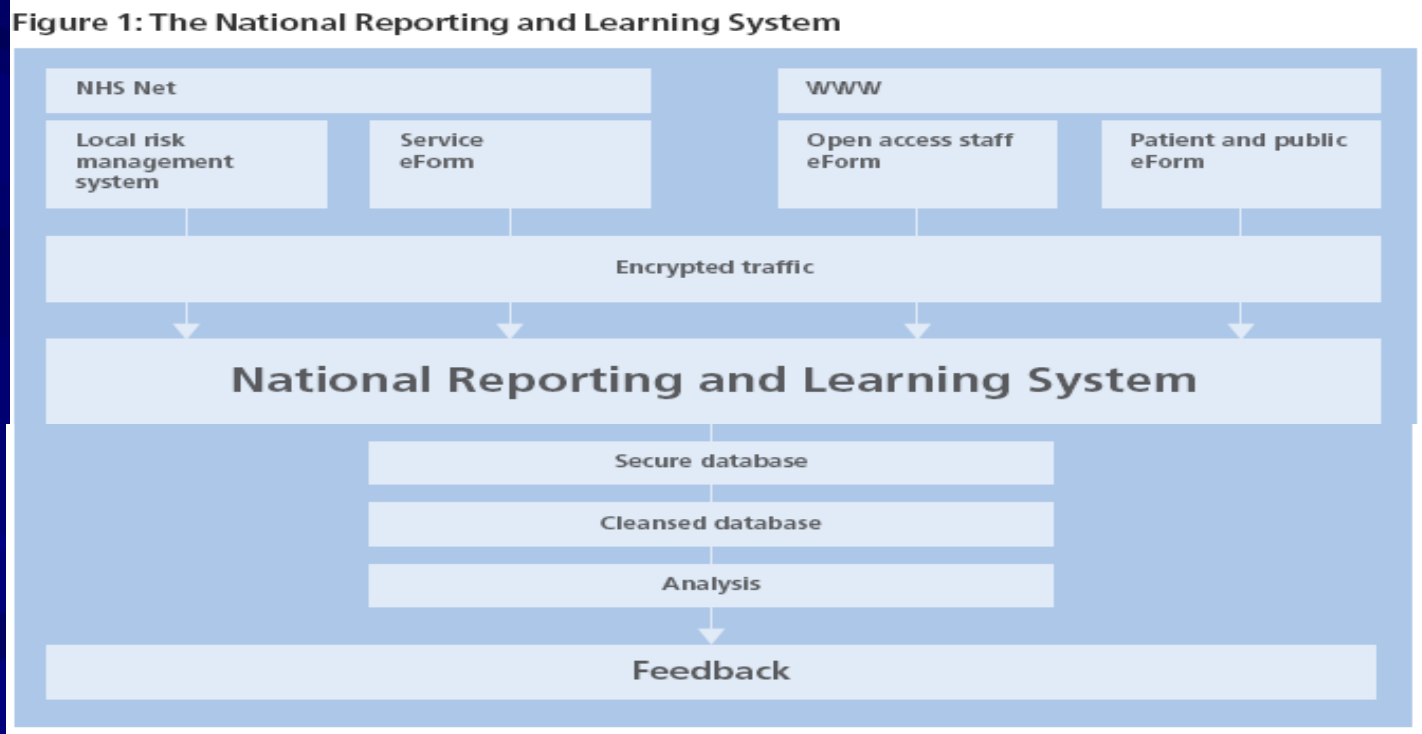


ehealth can intervene at any single function and level of the health system



Another example

Electronic reporting of adverse incidents, and patient harm: building knowledge to improve patient safety



Which are the issues ?

- Provider ICT interface ?
- Appropriate use of ICT ?
- Excessive reliance on ICT?
- Lack of accessibility?
- Is the human workforce technically capable ?
- Keeping-up the pace of technological development ? The "old-technology-trap"
- How lessons can be quickly shared ?



Accent on research

- Need to systematize knowledge on the impact of eHealth on patient safety, quality, patient's perceptions and the cost of health care
- Agreement on an assessment framework: agreement on goals; agreements on casual paths and relations across intervening elements and eHealth applications
- IoM five main assessment criteria: quality of care and health outcomes; access to care; health care costs and cost-effectiveness; patient perceptions; clinician perceptions



WHO GOe

- National and global trends in the use of ICT in health services and systems have yet to be systematically documented and analysed for the benefit of Member States
- *WHO has created a Global Observatory for eHealth, dedicated to understanding the eHealth domain: its growth, evolution, and impact on health systems in countries.*



WHO GOe

- Mission: To improve health by providing Member States with strategic information and guidance on best practice, policies and standards in eHealth through a networked Global Observatory.



What will GOe do?

– Research

- Develop a methodology and framework for describing eHealth systems
- Identify indicators to analyse eHealth status in countries
- Monitor the eHealth status and developments in countries

– Policy

- Analyse the impact of policy and legislation on eHealth

– Publish

- Produce the GOe Annual Report

– Services

- Provide eHealth tools and services
- Advise countries



1st World wide Survey

- Scope:
 - Policies and strategies
 - Infrastructure
 - Content
 - Cultural and linguistic diversity
 - Knowledge and skills
 - Contacts and who is doing what
 - eHealth systems and tools
- Deadline for countries, 15 October 2005
- Second GOe Survey in selected countries
 - In-depth & quantitative
 - Build on the findings of the first Global Survey
 - Focus on district level data collection



Conclusions

- Potential of eHealth is substantial
- eHealth by itself is not a response to patient's needs
- The right eHealth improves quality, effectiveness, safety, cost and empowers users.
- To identify best practices in the use of eHealth
- To quickly learn and facilitate exchanges
- To build the capacity for the effective use of eHealth



Further contact

- World Alliance for Patient Safety
 - www.who.int/patientsafety/en
- Global Observatory on eHealth:
 - Yunkap Kwankam kwankamy@who.int

