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# Patient safety in eHealth Research and Development: European view

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European Commission

# Overview

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- Rationale
- Vision
- Research activities in FP6



# Dimension of the problem

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- (1) more than one million patients suffer injuries each year as a result of broken health care processes and system failures (IOM, 2000; Starfield, 2000);
- (2) little more than half of U.S. patients receive known “best practice” treatments for their illnesses and less than half of physician practices use recommended processes for care (Casalino et al., 2003; McGlynn et al., 2003); and
- (3) an estimated thirty to forty cents of every dollar spent on health care in US, or more than a half-trillion dollars per year, is spent on costs associated with “overuse, underuse, misuse, duplication, system failures, unnecessary repetition, poor communication, and inefficiency”



# In Europe

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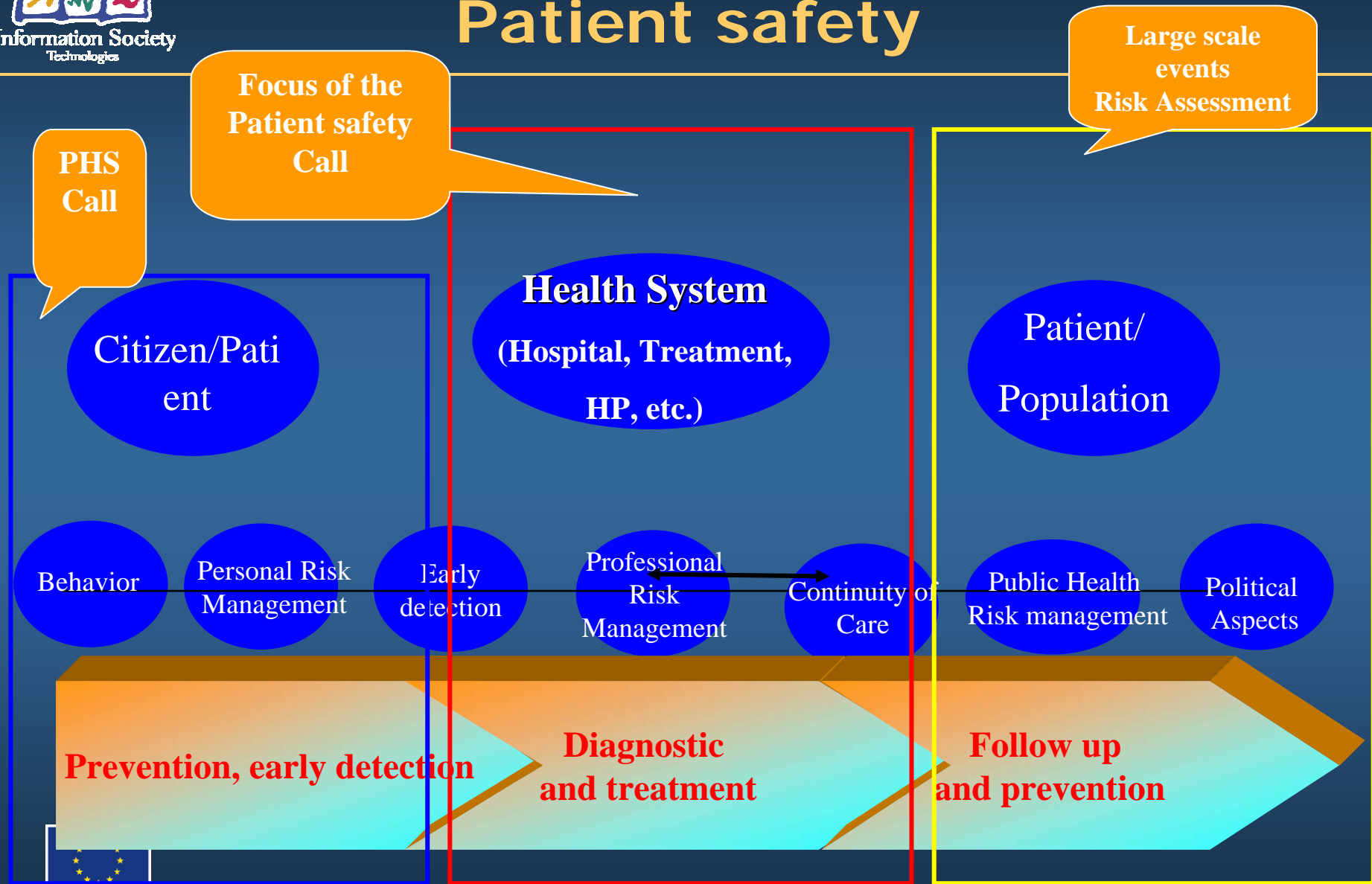
- Department of Health in UK estimates that *one in ten patients admitted to NHS hospitals will be unintentionally harmed*
- Patient safety incidents cost the NHS in UK an estimated £2 billion a year in extra bed days, in addition hospital acquired infections add a further £1 billion to these costs.
- In the Netherlands, approx. 800,000 Dutch people over the age of 18 have been the victim of errors due to the inadequate transfer of medical information.



# Advanced Risk assessment and Patient safety



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# Research proposed in FP7

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- *Advanced computerised adverse event systems:*
  - *Identification of common patterns in safety-relevant events beyond reporting nosocomial infections and/or Adverse Drug Events (ADE).*
  - *New tools for prediction, detection and monitoring of adverse events and other relevant information.*
  - *Based on innovative data mining and integration techniques of existing databases and specific applications like electronic health record systems, decision support systems, intelligent medication delivery (e.g. RFID-based), and adverse event reporting systems.*
  - *Emerging technologies like semantic mining should be explored through multimedia databases.*



*Include validation leading to quantitative benefits.*