RAND CENTER FOR DOMESTIC AND INTERNATIONAL Health Security

Visioning the 21st Century Health System

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National Health Information Infrastructure 2003: Developing a National Action Agenda for NHII

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A seamless, paperless information system that protects individual privacy while integrating all aspects of medical care and public health.

The Objective is to Use IT to Increase the Quality of Healthcare and Reduce Costs

Improving Quality:

- Real-time access to all relevant patient data, results and reminders
- Better coordination of care
- Decision support, consultation and knowledge banks, including "evidence based" best practice information
- Quality monitoring and feedback

Reducing Costs:

- Reduced errors, duplication of tests, poor documentation, and costs associated with poor quality care
- Process improvements that reduce resource costs

Improving Practice Efficiency:

- Eliminate paper records, organize workflow, improve communication, and improve billing and recovery

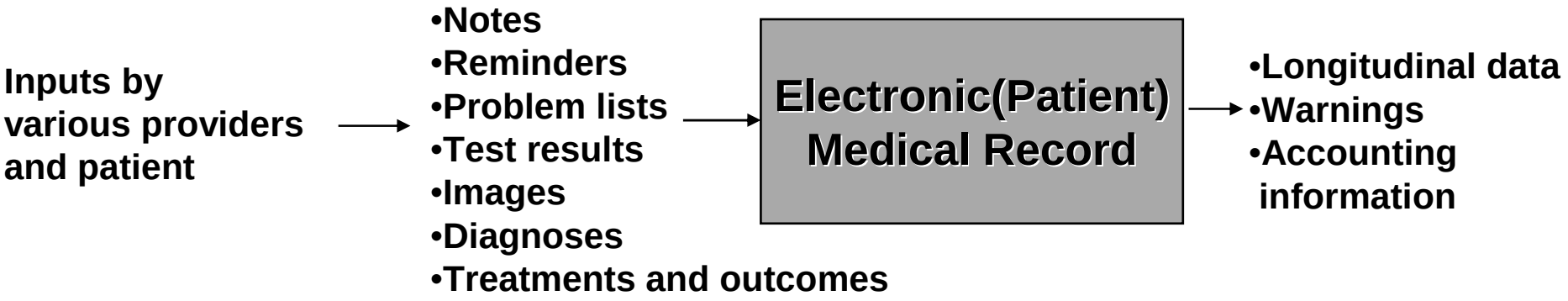
The Promise of Information Technology in Health Care

Much written about the promise

But, the case for IT in healthcare is stronger in theory than in experience to date

- **IT adoption in healthcare is well behind other industries, and very few applications integrate decision support into clinical practice**
- **Evidence of some practice efficiency gains and reduced errors**
- **Health system executives and government policy makers have little evidence on which to base long-term policy and investment decisions**

Elements of IT in Healthcare Delivery: (1) Electronic Medical Records

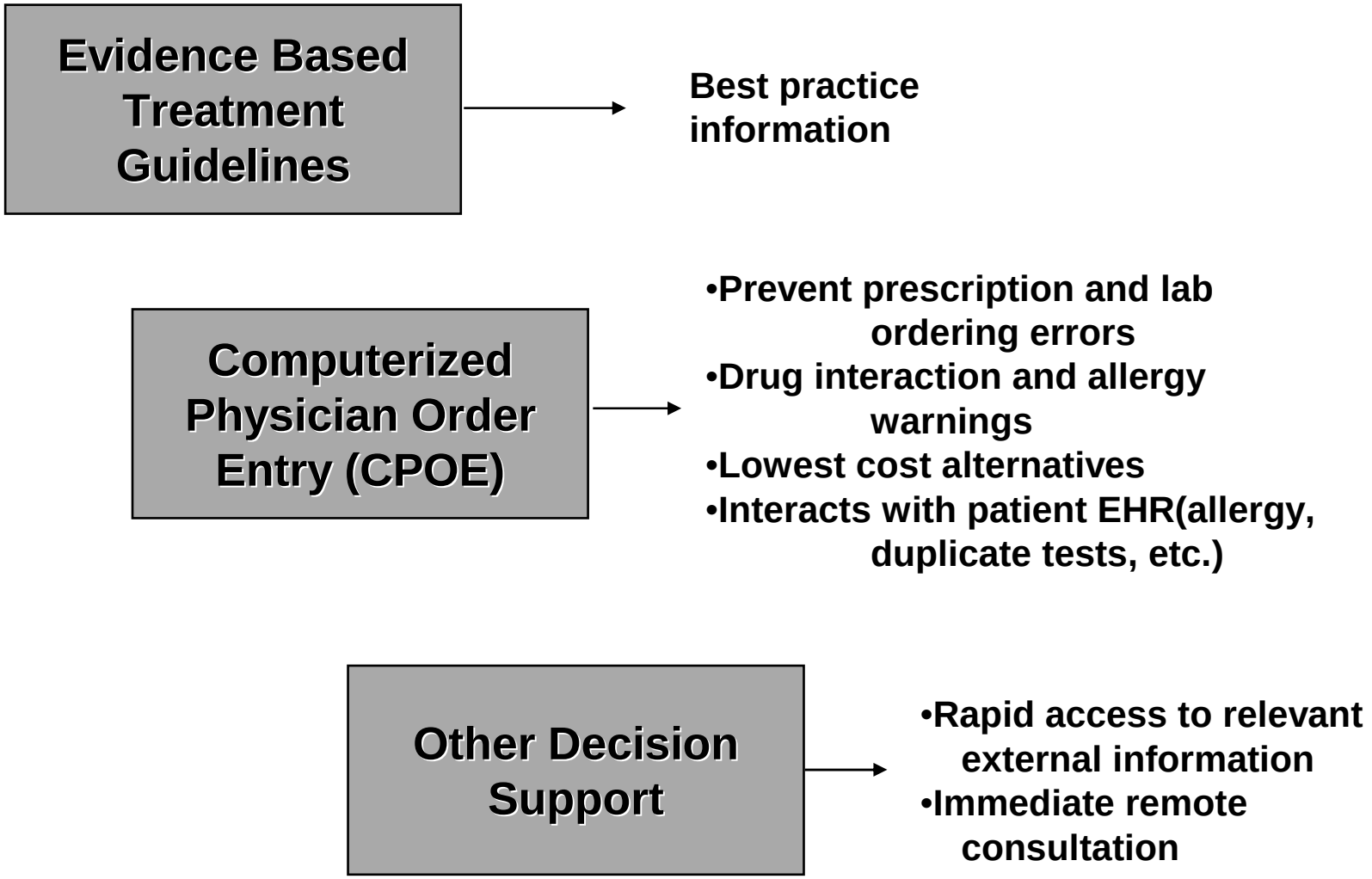


- Integration with clinical workflow for data entry and views
- Standard encoding of elements allows for sharing of data among systems
- Smart data entry and standardization of information
- Immediate multi-way access (with permission)
- Customized interfaces
- Ability to interact with communication and decision support systems
- Interfaces with evidence based databases and quality monitoring

Electronic Medical Record

- **Real time ----**
- **Common language**
- **Connectivity**
- **Performance standards**
- **Immediate access by all authorized health providers**
- **Immediate access by patients and/or their authorized surrogates**

Elements of IT in Healthcare Delivery: (2) Decision Support Systems at Point of Care



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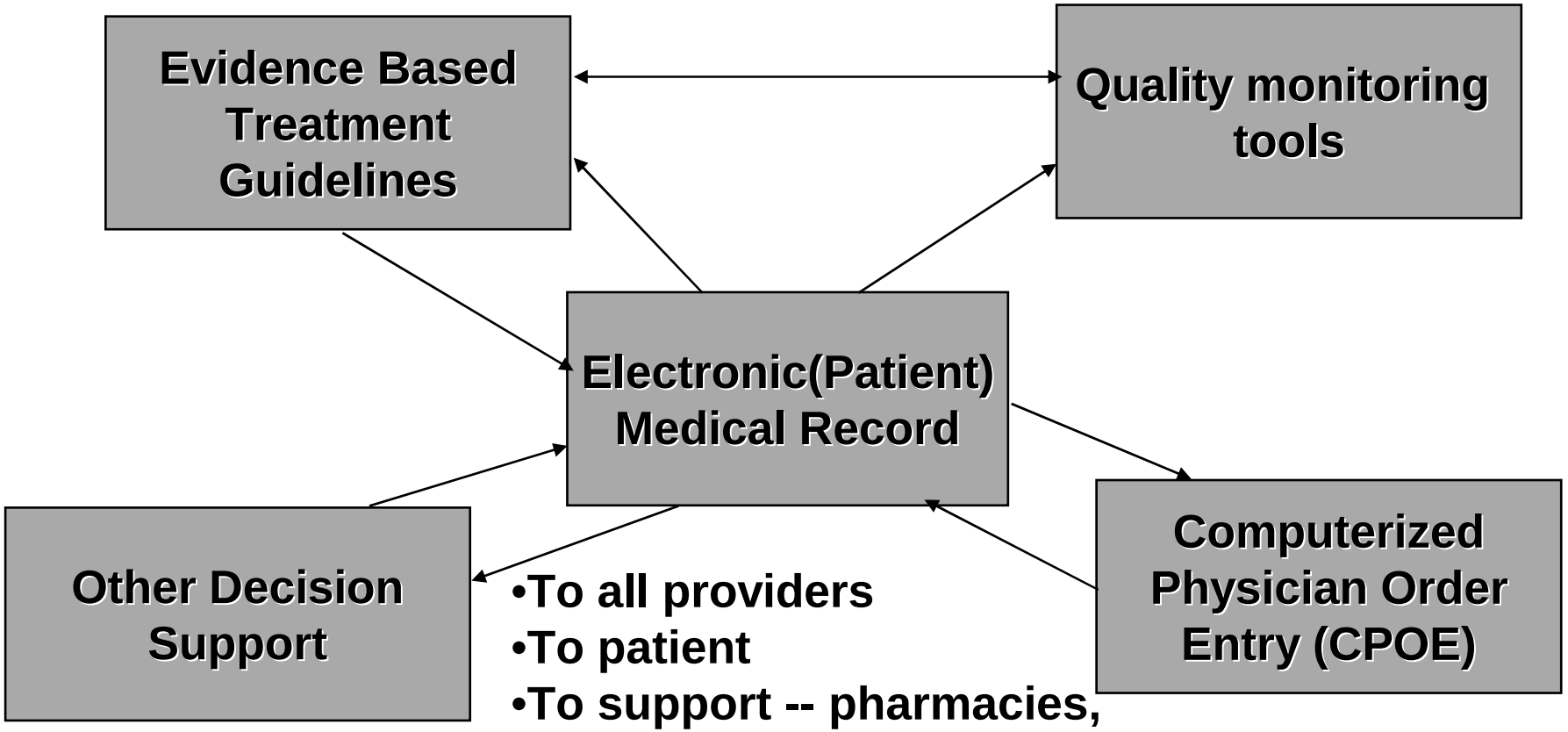
Elements of IT in Healthcare Delivery: (3) Continuous Quality Monitoring

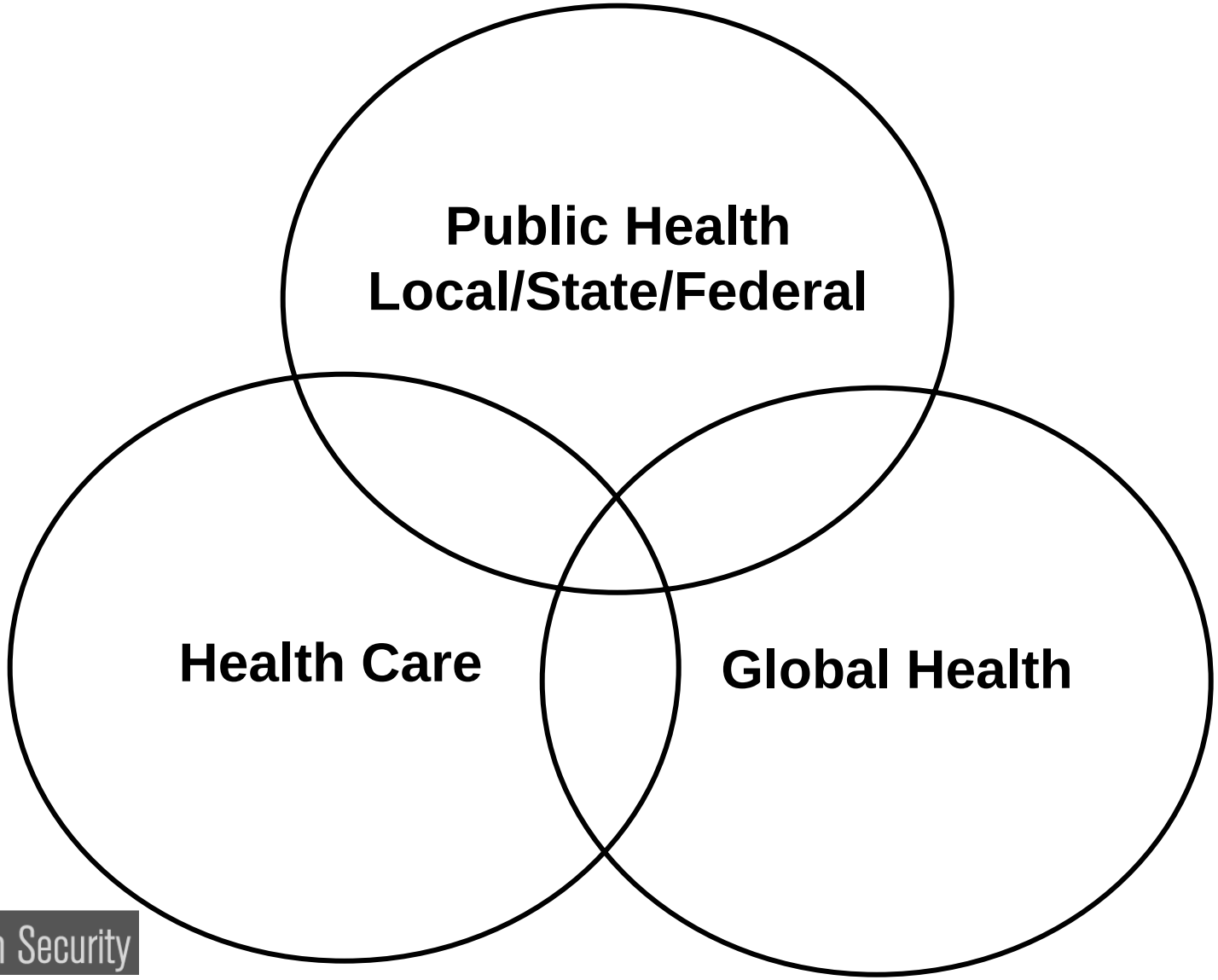
Elements of IT in Healthcare Delivery: (4) Connectivity



- To all providers
- To patient
- To support -- pharmacies, labs, home care, case management teams, etc.
- To administrative systems
- To practice registries for chronic disease maintenance and preventive services

Electric Medical Record System

- **Capacity to identify trends in morbidity and mortality**
- **Capacity to identify outcomes of care and preventative measures**
- **Capacity to provide administrative/billing data/appointments**
- **Capacity to aggregate dates by appropriate classifications**



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