



Big Data

For Healthcare and Health Policy

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What does Big Data look like?

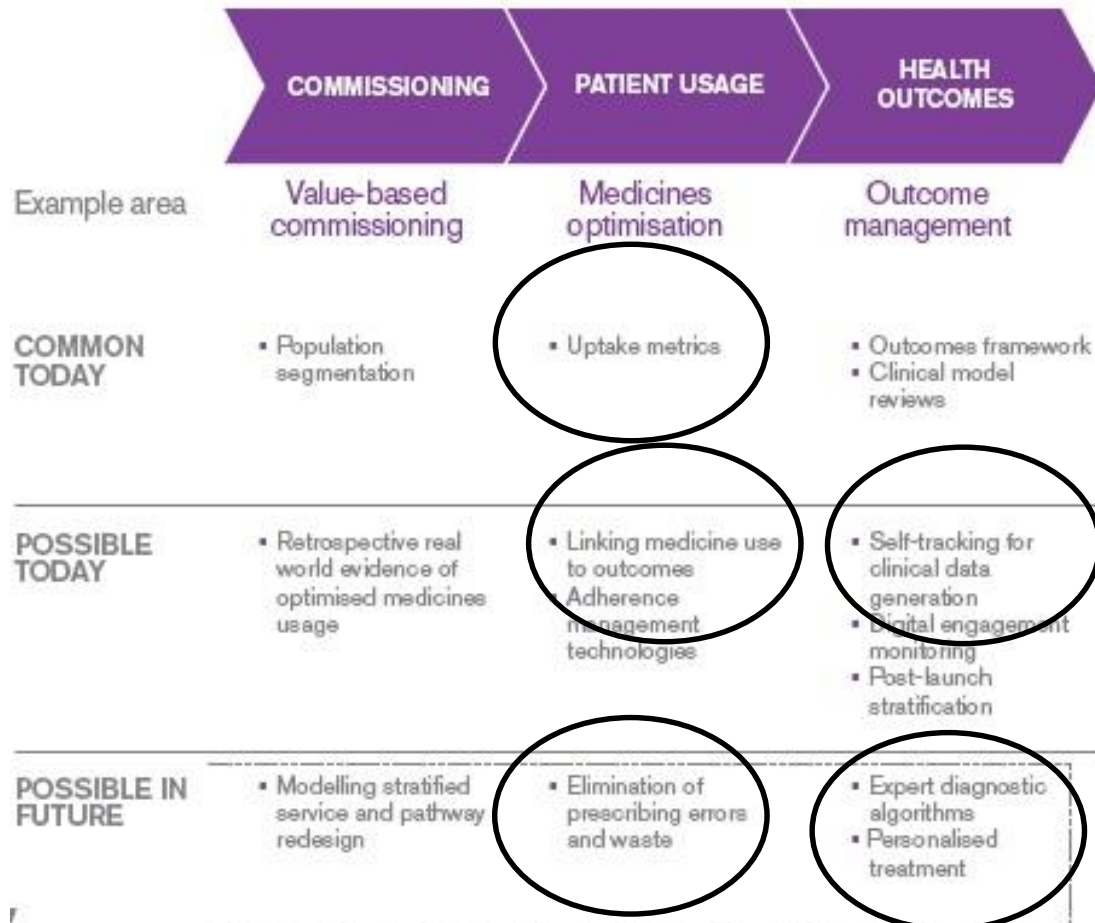
- Healthcare data – structured and unstructured data from anonymised EHR and biometric data sources
- Genetic and Genomic data – e.g. whole genome sequencing, tumour mutation patterns
- Automated sensors and smart devices – phone apps for health monitoring
- Self-generated and digital engagement – e.g. patient forums, mobile data for tracking epidemics, social media
- Public data releases – e.g. aggregated population health data, summary clinical trials results



European
Commission

What could Big Data in healthcare be?

Healthcare



Start up questions for healthcare

Are Electronic Health Records systems ready for serving a source for Big Data based treatment?

- **Standards**
- **Interoperability between healthcare facilities**
- **Legislative framework [between countries]**

Can patient registry data be a source of health analysis?

Do we have enough skilled and knowledgeable people in healthcare?

Big Data challenges

- Data ownership
- Informed consent
- Anonymity
- Cross-border applications of rules
- Access
- Ethics
- Surveillance
- Effective transparency

A Call for Action

"EU action should provide the right framework conditions for a single market for Big Data".

(Council conclusions, Oct 2013)

Communication on "Data Driven EU Economy "

(July 2014)

- Community building is needed
- Coordinated action plan involving Member States

What I would like to know about Big Data in EU?

- Are Member States using Big Data in healthcare?
- Are public and private sector differing in their use of BD?
- What are the trends in use in the public and private sectors?
- Can Big Data improve the treatment of a patient?
- What would be the impact of Big Data on healthcare?
- Who are the players and which skills are needed for BD?
- Do we have enough computing power?
- What policies are needed at national and EU level?

Thank you for your attention!