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
What could Big Data in healthcare be?
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!