

Maximizing the value of clinical trial data

A decade of data sharing, what have we learnt?

Mimmi Sundler, Data Office, Data Science & Artificial Intelligence, Biopharmaceuticals R&D, AstraZeneca, Cambridge, United Kingdom

Rebecca Sudlow, Rebecca Sudlow, PD Data Sciences - Data Privacy and Sharing, Roche UK



Table of Contents

- 1. Data Sharing from Past to Present What have we learnt?
- 2. What might the Data Sharing Future hold?
- 3. What opportunities are there for collaboration? What are the opportunities for statisticians?



Data Sharing from Past to
Present – What have we learnt?

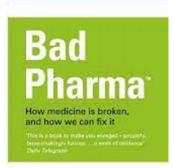


Pharma Industry under increased scrutiny; calls for greater clinical trial transparency and release of patient level data

TRANSPARENCY = TRUST

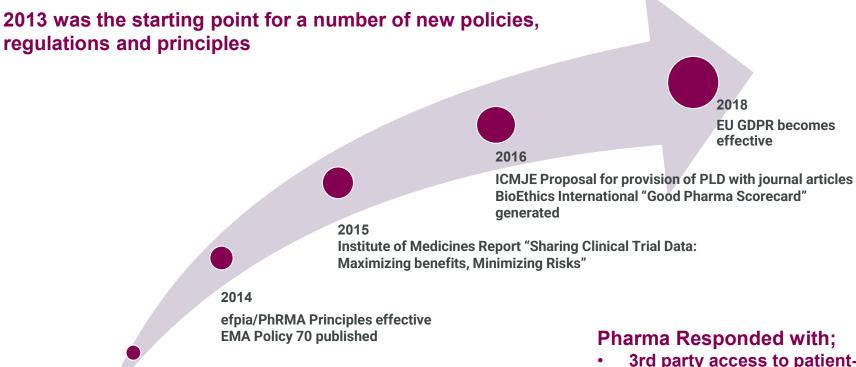








Where have we got to in the Data Sharing Journey?



- 3rd party access to patient-level analysable datasets
- **Redacted CSRs**
- Publication of studies in peer-reviewed journals
- Disclosure to clinicaltrials.gov



2013

AllTrials Campaign launched

efpia/PhRMA Principles published

Data Sharing Platforms: Insights Shared?

	Yoda	Vivli	CSDR
Active since	2013/14	July 2018	Jan 2014
No trials listed*	Not clear from website	6600	3046
No of data contributing organisations	4	46	12
No of publications to date	103	176	132



Companies are spending a lot of effort and resources to make data available and has value been generated?

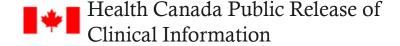




EMA Clinical Data Portal







Tangible

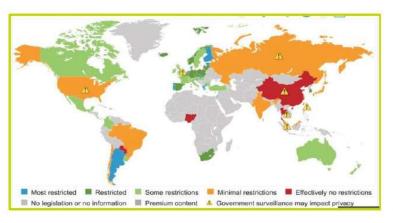
 Vivli Infor Data-reuse from data sharing platforms have led to publications, Tools, Design of Future Trials, Algorithms / code, Clinical Guidelines and Regulatory Submissions

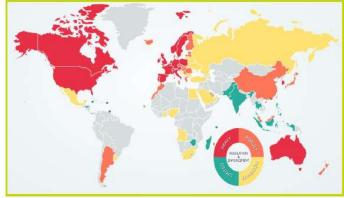
Intangible

Organisational learnings & cross-functional collaboration to accelerate up e.g. COVID pandemic



Today +100 countries have a privacy laws and the number keeps increasing





Two recent developments which represent further obstacle to being able to transfer personal data across borders

1

Schrems ii

The law came into affect 27th Sep 2021 A recent EU court case and subsequent binding guidance issued by EU Privacy Regulators will have a significant impact on organisations that transfer personal data from the EU to the rest of the world.

7

China CBDT

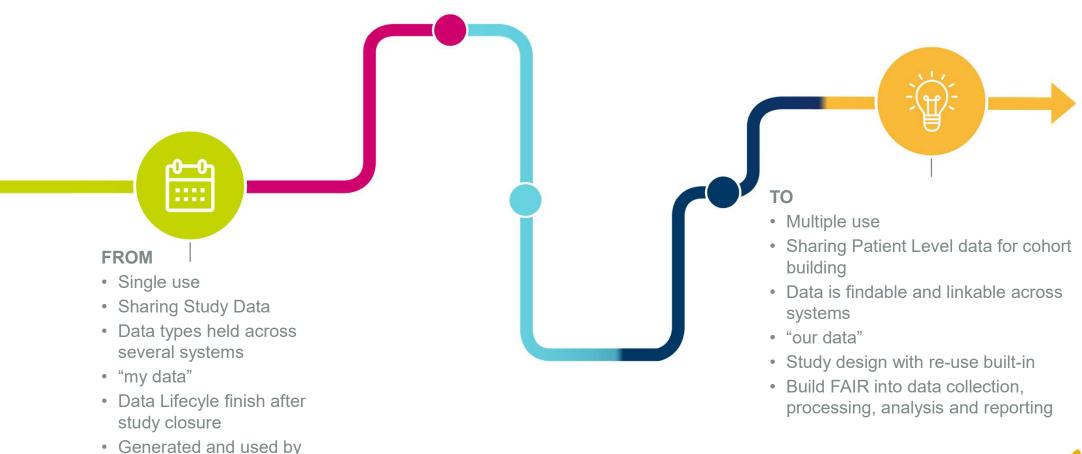
Provides the potential for substantial fines and other sanctions for non-compliance



What might the Data Sharing future hold?



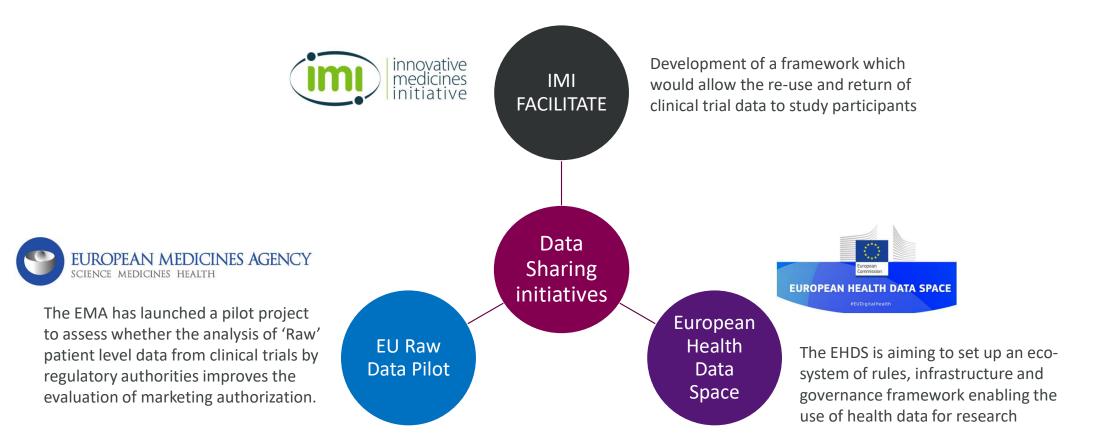
What can we learn from past data sharing's to inform the future?





same people

Large Data Sharing Initiatives on the horizon!







What opportunities are there for collaboration?



Where Next? What opportunities are there for collaboration?

- Value of working together the power of non-competitive problem solving!
- Opportunities for industry to solve data challenges such as;
 - 1. Better understand researchers wanting access to data and their priorities
 - 2. Increase interoperability of data and look at minimum requirements
 - 3. Build FAIR into data collection, processing, analysis and reporting
 - 4. Enable access to data beyond the "CSR" e.g. Images, Omics, Digital, device data
- Opportunities for broader independent research;
 - 1. Level playing field for all clinical trials, including Academic funded trial
 - 2. Avoid fragmentation with Data Sharing platforms
- Continued cross-stakeholder collaboration needed e.g. CRDSA, PhUSE, EFSPI/PSI, TransCelerate

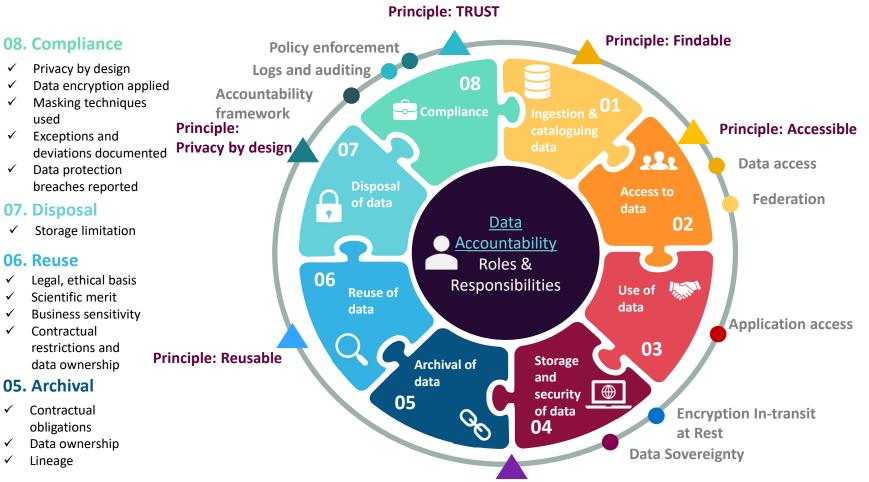


It's a balancing act! We need to promote safe and responsible information sharing and re-use

Enable rapid generation Ensure compliance with privacy/legal/ethical of scientific insights obligations associated with data and their re-use from re-use of internal data Increase the scientific knowledge **IP protection and Ethical Consideration Accelerate new discoveries Patients' Rights & Consent Avoid duplicative trials Data privacy and Data Protection Laws**



How do we apply Data Protection to Data Lifecycle Management?



Principle: Interoperable

01. Ingestion & Cataloguing

- Accurate registration of assets
- Minimum metadata model applied
- Standard model for ingestion used
- Integrity and quality of processes

02. Access

- Policy to provide business rules
- Dataset selection according to attributes
- Purpose, users and time specified

03. Use

- Data location known and maintained
- Audit trail

04. Storage and security

- Recovery solution in place
- Error handling
- Transfers into, within and outside the enterprise



used

What does this mean to statistics departments?

- All the data sharing work requires a new way of thinking when it comes to use of data and data –reuse
- There are aspects to consider on how much of the data sharing knowledge statisticians should have compared to support function?
- Are there opportunities for further Learning & Development?

Break-out sessions to follow to explore key themes



Have aspects changed in Trust & Transparency?



- Metrics on commonly used data sharing platforms e.g.Vivli and the Good Pharma Scorecard show increased transparency
- Collectively working together will ensure that the data and time that all our trial subjects have given will benefit patients, society and the industry

... The journey has started but there are still lots to be done!





