Introduction to the Breakout sessions

Conclusions or recommendations from previous workshops

- Data standardisation strategy – stakeholder workshop, 18 May 2021
- Artificial intelligence in Medicines Regulation workshop, 19-20 April 2021
- Technical workshop on real-world metadata for regulatory purposes, 12 April 2021

Organisation of the breakout sessions

Data standardisation strategy – stakeholder workshop

Aim: To gain a further understanding of potential synergies from existing standards and projects as well as stakeholders' perspectives and use cases.

Stakeholder's perspectives and use cases

- Challenges identified for use of electronic health care data: incomplete and inaccurate medical data collection, heterogeneous coding landscape, secondary use of EHR combined with data from other sources, and multiple disconnected data capture systems,
- A mandatory minimum standard framework is needed for sharing of RWD and for data quality, data privacy and security by design.
- Interconnectivity between different networks and data sources is needed
- Statistical Analysis Plan with complete, accurate, and clear diagnosis / medication codes should be available as early as possible, taking into account that data collection and language of coding can vary by country.
- Data quality is critical for Findable, Accessible, Interoperable, and Re-useable (FAIR) data

Data standardisation strategy – stakeholder workshop

Discussion

- There is a lack of standards in the area of data assessment and access
- Enforcing consistency of terminology can be influenced by regulators
- Importance of education. Standardisation will only work when the users are properly trained and supported.
- Metadata are needed to describe the conditions for reproducibility,
- Accessibility of data (data governance, usage, scope, legal conditions) should be machine readable and currently there are no standards in this area.

Aims

i) To inform on state-of-the-art of AI applications in Medicines and Medicine Regulation

ii) To engage stakeholders

iii) To collect views of stakeholders on the prioritisation of AI specific recommendations.

Stakeholders indicated where they feel the European Regulatory network should place their priorities, namely on:

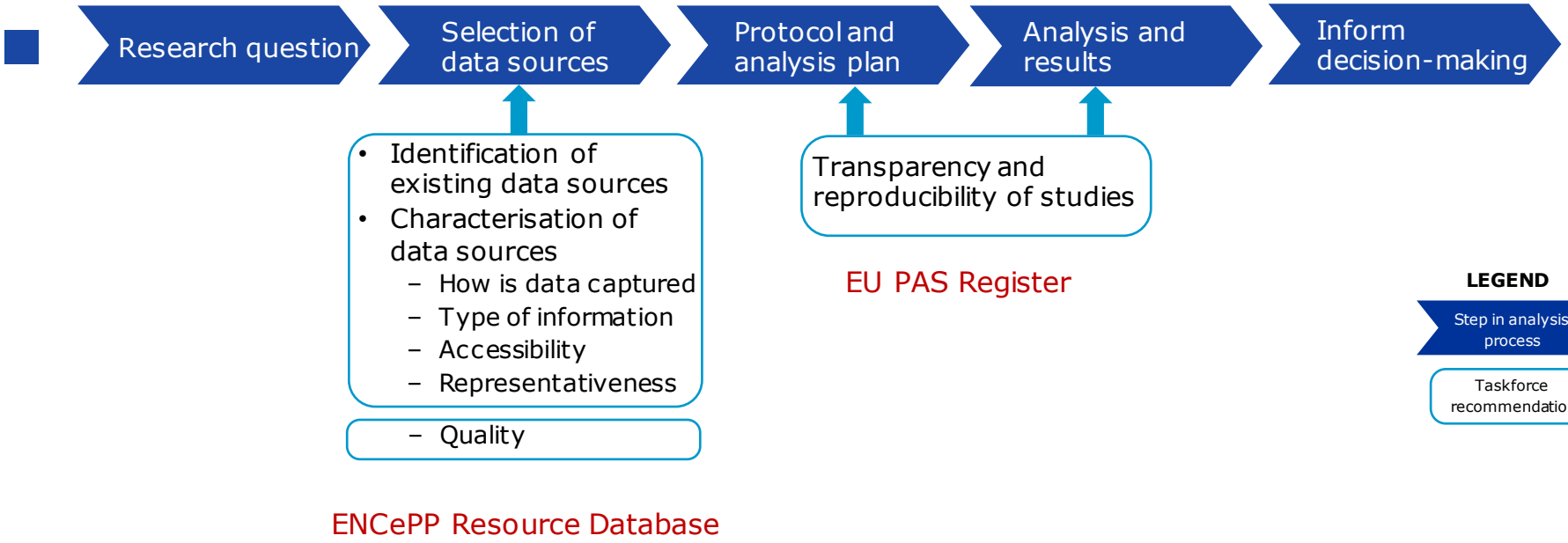
- developing a framework to access and validate AI and a framework that supports the development of guidelines
- building partnerships, with academia and research centres and across international institutions
- upskilling of staff across the regulatory network

Specific recommendations

- Address Ethical Aspects of AI
- Build a framework that supports the development of guidelines
- Build partnerships with Academia and Research centres
- Create and maintain a multi-stakeholder forum
- Develop a framework to assess and validate AI
- Develop capacity
- EMA Expert Group
- Engage with Experts
- Establish framework for early engagement with potential end-users of AI
- Experimentation with AI/Sandbox
- Influence research priorities for funders
- International collaborations
- Make regulatory data open
- Promote transparent and auditable AI
- Upskill EMA and EU Regulatory network

Organised in the context of the MINERVA project

Problem statement



Current status: ENCePP Resource Database

Data fields

Current data fields are insufficient to identify key characteristics (meta-data) to inform on the relevance of the registered data sources

Data maintenance

From the 143 data sources registered as of May 2020, more than 70% (104) have not been updated in the last 2 years, including decommissioned sources

Functionalities

Currently, the possibility to search and export is minimal, limited only to a few structured fields, which reduces the discoverability of registered data sources.

[7] Metadata = "data about data"

Current status: EU PAS Register

Data fields

The current data fields should be updated and tailored to the scope of the studies. Some information may not facilitate the identification of relevant study characteristics. Some fields of study categories are outdated.

Data maintainance

30% of the registered studies marked as "ongoing" or "planned" have not been updated according to the "planned finalisation dates" as entered in the database ranging from 2012 to 2019.

Functionalities

The possibility to search and export is minimal and limited to a few structured fields only, which restricts the discoverability and comparability of information related to registered studies.

1st Step: MINERVA project

- One year study initiated in November 2020
- Contracted to RTI Health Solutions
- Main outcomes:
  - Definition of the set of metadata for identification of data sources and description of their characteristics in order to:
    - Select suitable data sources to address specific regulatory use cases
    - Assess data sources proposed in studies
    - Contribute to the assessment of the evidentiary value of study results
  - Pilot the process of collecting the data sources and their metadata including the creation of a tool to collect, search and visualise the metadata

2+1+1 study: Data Quality Framework (to be started)

The data quality framework should address:

- Data quality principles (e.g. drafting of best practice guides, procedures to follow, understanding data needs);
- Data quality dimensions (e.g. completeness, uniqueness, timeliness, validity etc.);
- High-level principles and definitions applying to all data types;
- Data quality standards related to metadata;
- Communication guidelines on clarity and transparency principles for data quality issues;
- A series of applied use-cases and examples for regulatory purposes.

3rd Step: Rebuilding of linked catalogues

- **Catalogue of data sources**
- **Catalogue of studies**

Breakout sessions

Objective: to discuss views and proposals on how to strengthen optimal use of RWE for regulatory purpose

- Five breakout sessions, 90’
- Attendance assigned
- Short introductory presentation(s)
- Chair and Rapporteur
- Focus on proposals on how to improve rather than on what is not going well
- Open discussion (not recorded, no broadcast) with 3-4 questions to be answered by the audience of each breakout session
- Active participation of participants expected, “tour de table” if needed
- Report by Rapporteur (one slide per question)

Breakout session 1: Fitness of real-world data for regulatory purpose

Chair: Marjon Pasmooij, CBG-MEB, The Netherlands

Breakout session 2: Platform for stakeholders' consultation

Chair: Juan Garcia Burgos, Head of Public and Stakeholders Engagement Department, EMA

Breakout session 3: Process optimisation

Chair: Inka Heikkinen, EuropaBio

Breakout session 4. Training and expertise

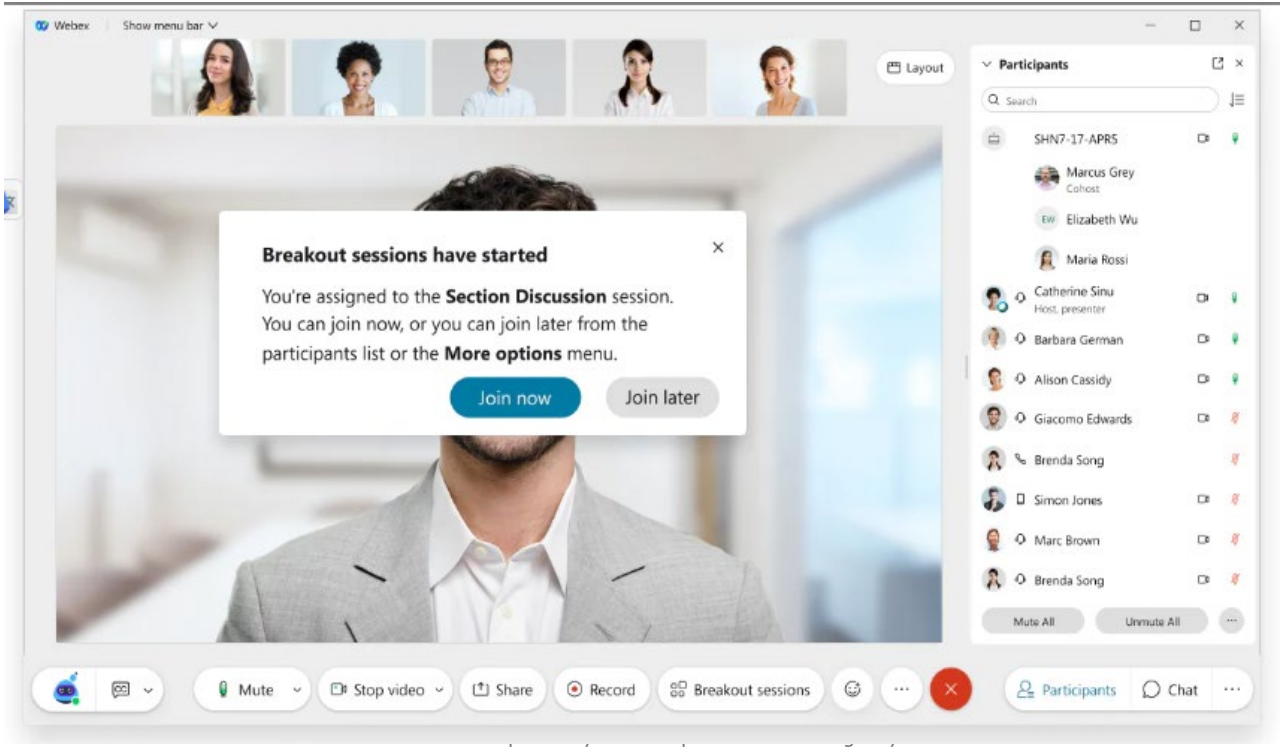
Chair: European Heart Network (EHN)

Breakout sessions 5. Heterogeneity of results between data sources

Chair: Daniel Prieto-Alhambra, CSM-NDORMS, University of Oxford, United Kingdom; Erasmus University Medical Centre, Rotterdam, The Netherland

Instructions how to join breakout sessions

The breakout sessions will be automatically activated. To join the breakout session when it starts, click **Join now** in the message that appears



To join the breakout session after it's in progress, go to the Participants panel and **click Join**.

When the breakout sessions end, you'll see a message like this message. You'll automatically return to the main meeting

Back-up slides

Breakout session 1: Fitness of real-world data for regulatory purpose

1. What information about real-world data should be included in regulatory applications to support decision-making?
2. The CHMP Guideline on registry-based studies recommends to perform a feasibility analysis as an early stage of considering a registry as data source for regulatory purpose. Is such feasibility analysis applicable to other RWD (e.g. electronic health care records)? Which should be additional aspects to be included?
3. Should minimum quality requirements be established in submissions of RWD for regulatory purposes? A distinction can be made between:
   - technical data elements
   - information needed for regulatory decision-making
4. Are there any other important aspects of RWD to be addressed in submissions for regulatory purposes?

Breakout session 2: Platform for stakeholders' consultation

1. What is your experience with existing platforms, are there any gaps?
2. For which aspects of use of RWE is it critical to consult stakeholders? (For example: drafting of general guidance, establishment of criteria to define quality of RWE, templates for study protocols,….)
3. Is there a need for additional multistakeholder platform(s)? Are different mechanisms needed for different stakeholder groups to facilitate their consultation? What could be the format of these platforms?

Breakout session 3: Process optimisation

1. At what stage should use of RWD be discussed with regulators, and with whom? Should there be different discussions for technical and regulatory questions?
2. The CHMP Guideline on registry-based studies recommends early discussions of proposals for use of registries in regulatory submissions. Should such recommendation be applied to other RWD sources? Should differences be made between data sources?
3. How could other stakeholders than pharmaceutical companies contribute to process optimisation and what could be the vehicles through which such input could be provided?
4. What else do you expect from process optimisation, especially in the field of use of RWE?

Breakout session 4. Training and expertise

1. Which learning and skills gaps should be addressed in priority to develop the capability of different stakeholder groups to use real-world evidence for regulatory purpose, e.g. the EU regulatory network, pharmaceutical companies, patients, health care professionals, academic institutions, other stakeholders
2. Do stakeholders need training from regulators following publication of guidelines published by EMA and the regulatory network for better understanding? Which guidelines would require additional training? What type of training material, for example educational material, training sessions, communications,…
3. Are you producing training material for your own audience? How could collaborations between stakeholders' groups and academic institutions be best established to fulfil training needs? How could knowledge transfer be organised? How could such interactions be supported by the EU regulatory network?
4. Could the training curricula on Data sciences, Pharmacoepidemiology and Biostatistics being developed for the EU regulatory network also address the needs of other stakeholders, and through which mechanisms?

Breakout sessions 5. Heterogeneity of results between data sources

1. Is heterogeneity between results of database studies a common feature in pharmacoepidemiology? What are possible explanations for such heterogeneity? Can heterogeneity be a source of knowledge?
2. Can heterogeneity between data sources be anticipated when considering use of a range of databases, e.g. through set of standard indicators (metadata) or other means?
3. What are possible remedies to attenuate heterogeneity at the stage of study design, for example through restriction of study population, exposure and outcomes to the minimum required?
4. How can heterogeneity between databases be analysed and interpreted in the context of regulatory evaluations? Is there a place for (meta-)analytical techniques? Under which conditions?