EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

La ricerca per un'Europa competitiva e in salute

MILANO LIFE SCIENCE FORUM
Il valore della ricerca clinica per la salute del Paese:
priorità e strategie per crescere e innovare
Milano, 26 Novembre 2024

Dr. Marco Cavaleri
Head of Public Health Threats, EMA
Chair of EMA Emergency Task Force

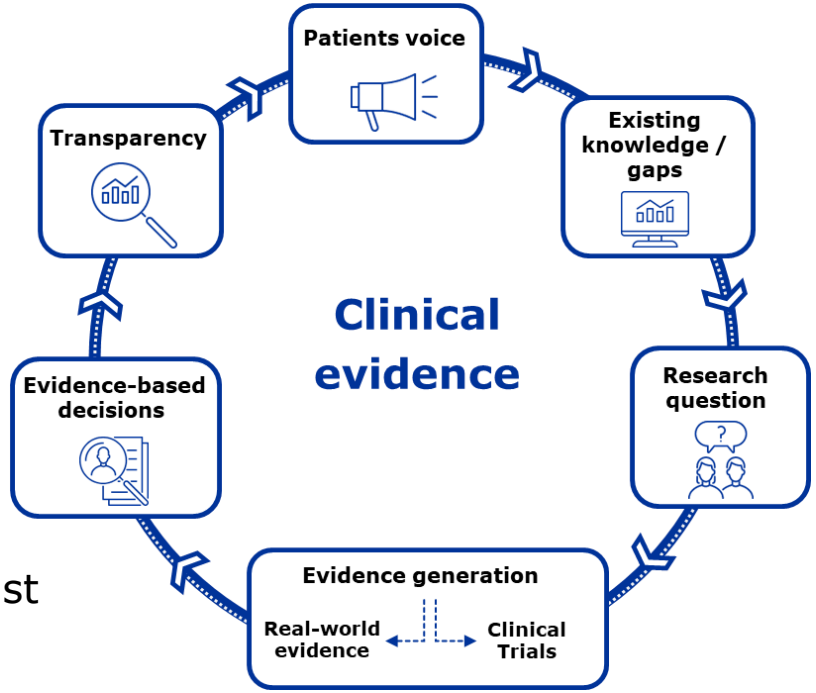
The future of European competitiveness: Report by Mario Draghi

Innovation in clinical evidence: drivers for change

- Slow speed and high cost of product development
- Burden of unmet medical need
- Changing policy environment: AI, EHDS, NPL, Draghi report
- Opportunity of greater healthcare data access
- Opportunity of better study methods
- Opportunity of advanced analytics
- Pandemic shows new ways of working

Better Clinical Evidence

1. Patient voice guides every step of the way
2. Evidence generation is planned and guided by purpose, data, knowledge and expertise
3. Research question drives evidence choice and embraces spectrum of data and methods
4. **Clinical trials remain core but are smarter, better and faster**
5. Real world evidence is enabled, and its value is established
6. High transparency level underpins societal trust

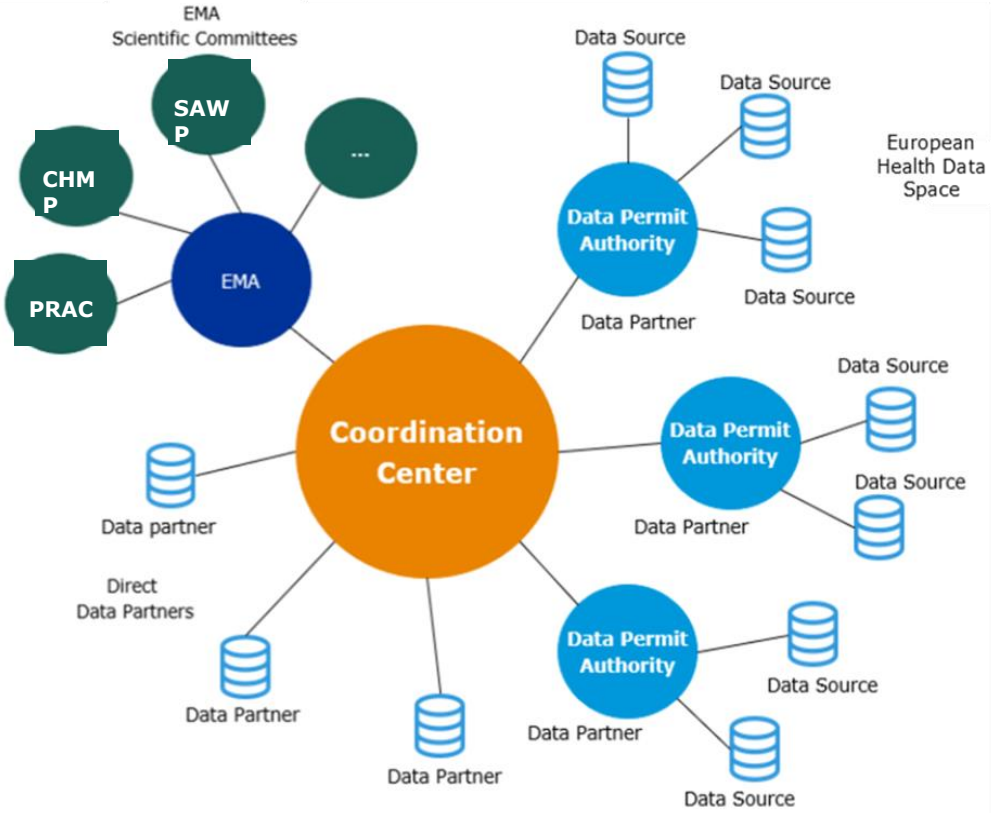


DARWIN EU® Data Analysis and Real-World Interrogation Network

Federated **network** of **data**, **expertise** and **services** that supports better decision-making throughout the product lifecycle by generating valid and reliable **evidence from real world healthcare data**

FEDERATED NETWORK PRINCIPLES

- Data stays **local**
- **Use of Common Data Model** (OMOP) to perform studies in a timely manner and increase consistency of results



TASKS FOR EMA TO SUPPORT ETF WORK BASED ON NEW REGULATION

Monitoring medicines after authorisation

Coordinate independent monitoring studies on use, effectiveness and safety of medicines.

For vaccines targeting an emergency: new vaccines monitoring platform (VMP) (EMA/ECDC), building on learnings from COVID-19 studies:

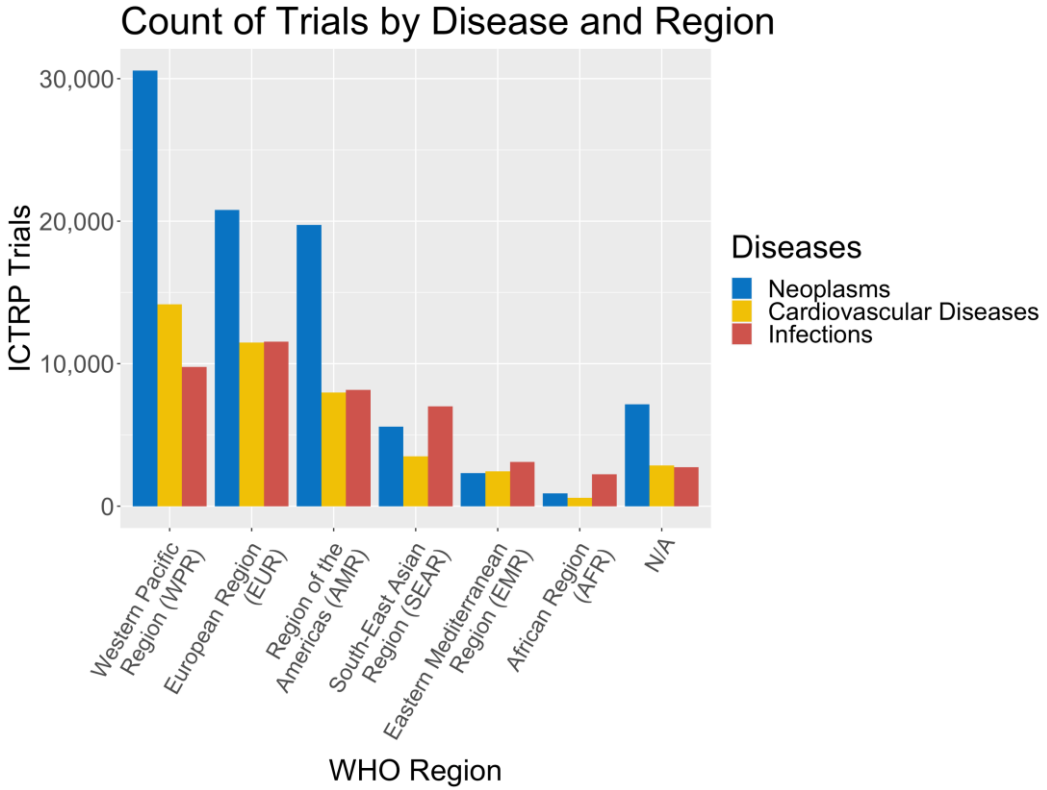
- Joint Advisory Board (NCAs/NITAGs) established to discuss study protocols and results on safety and effectiveness of COVID-19 vaccines
- High level blueprint for the VMP agreed with ECDC

Mapping of clinical trials by disease area and region (PRELIMINARY)

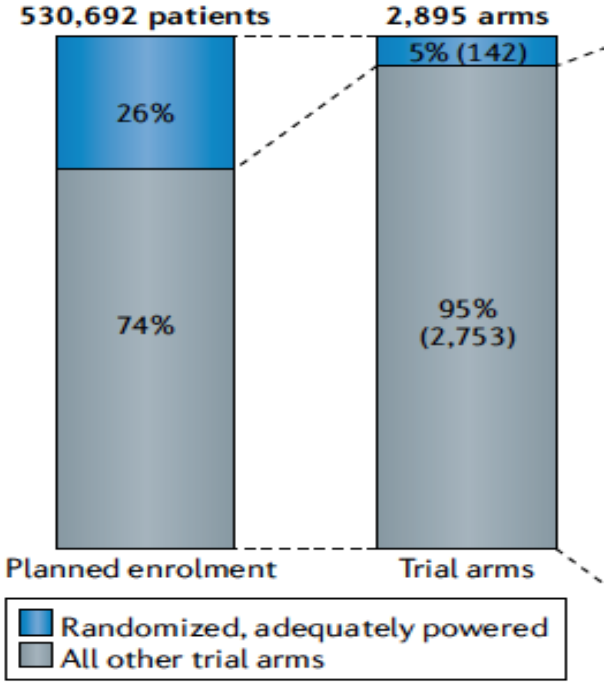
Clinical trials were mapped to WHO regions as well as the disease areas neoplasms, cardiovascular diseases, and infections

Disease areas were defined using Medical Subject Headings
https://www.ncbi.nlm.nih.gov/mesh/

2018-2022



In the pandemic,1000s of trials were low quality



Nat Rev Drug Discov . 2021 Apr;20(4):254-255. Bugin & Woodcock.

Lesson learned from COVID-19 – UK RECOVERY TRIAL

1) Streamlined design

Focus on elements that are ***essential*** to reliable estimation of central question:

- *Reality of participants*
- *Randomisation*
- *Follow-up completeness*
- *Safety of participants*
- *Analyses*

Eliminate procedures that are superfluous to central question.

One page Consent form
One page case record form


RANDOMISED EVALUATION OF COVID-19 THERAPY (RECOVERY)

Eight minutes to randomise

N	[Min, Max]	Mean (SD)	Median [IQR]
48595	[0, 89]	8.30 (5.39)	7 [5, 10]

Large: >49,000 patients, >93,000 randomisations

The case for pragmatic trials outside of emergencies

Many trials fail due to bad design

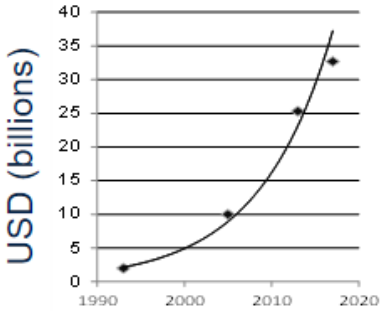
Just **5%** of trial arms in registered trials for COVID-19 were randomized and sufficiently large to achieve a meaningful result [a]

Failure to enrol participants

85% clinical trials fail to recruit to time and target (and those that do, fail to adequately reflect the diversity of the affected population)

Cost and complexity is growing exponentially

The Contract Research Organization industry is growing by 10% annually [b]



Just **15%** of international cardiovascular treatment guidelines are based on good evidence from Randomized Clinical Trials [c]

[a] *Bugin, Woodcock Nat Review Drug Discov 2021; PMID: 33633370*
[b] *Roberts et al Cancer 2016; PMID: 27018651*
[c] *Fanaroff, Califf et al JAMA 2019; PMID: 30874755*

Regulatory approval of CTs in the EU during Public Health Emergencies

A number of possible actions were discussed, for example:

Setting up an EU level cooperation mechanism between ethics committees, open to all MS.

Pre-submission assessment and consultations of specific (individual) clinical trials with Ethics committees with expertise in the subject matter together with proposed Reference Member State (RMS)

Continue with the ETF role as one stop shop forum to coordinate clinical trial protocol review with RMS, CTCG and Ethics Committees

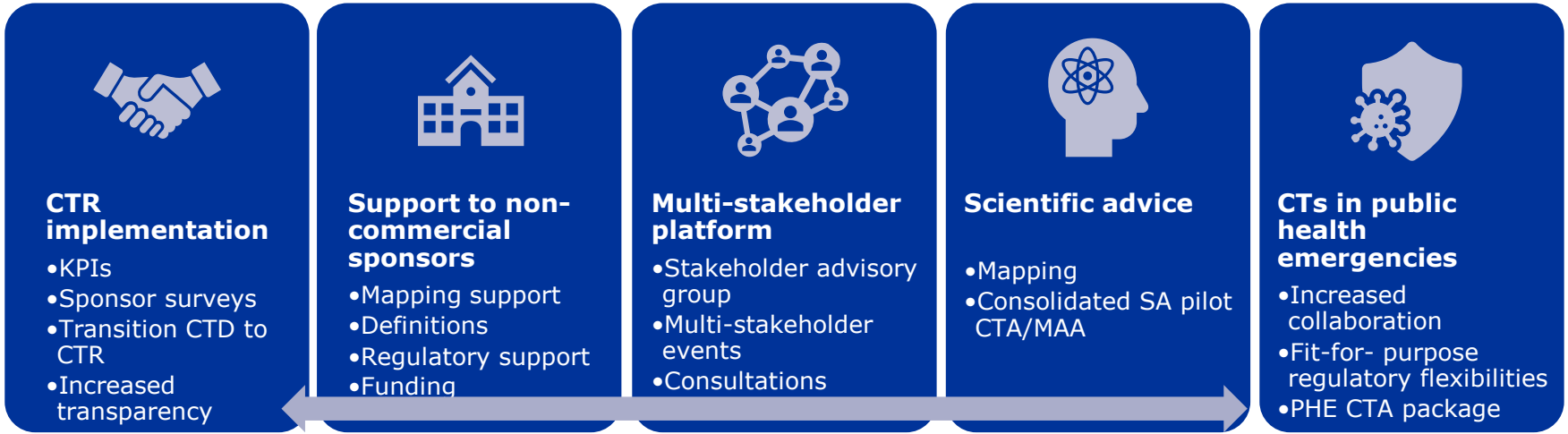
Continue to resolve issues and improve the features of CTIS to enable the necessary agility for public health emergency clinical trials.

Coordination mechanism through HERA to enable rapid funding of large multinational clinical trials

Accelerating Clinical Trials in the EU (ACT EU)

ACT EU is business change initiative led by the EMRN to **transform the EU clinical research environment** in support of medical innovation and better patient outcomes.

Priorities for 2023-2024



See ACT EU website for more information

Take home message

Bigger, better and faster clinical trials:

- Infrastructure for international clinical trials
- Cooperation among Ethics Committees and Regulatory Agencies in the EU and globally
- Enhance flexibility and reduce bureaucracy
- Rapid approvals during emergencies

Role of RWE to complement clinical trials

- DARWIN EU
- Vaccines Monitoring Platform

Latest updates on ETF on EMA's corporate website: Emergency Task Force (ETF) | European Medicines Agency (europa.eu)

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