

Session 1:

RWE in HTA: Regulatory Perspectives and Practical Insights



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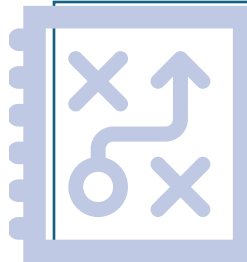
Moderator

Shirley Wang, PhD

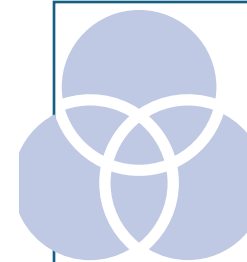
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Real-world evidence – essence and application

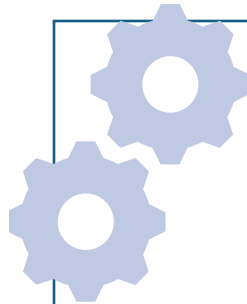
“data used for decision-making that are not collected in conventional RCTs”
ISPOR, 2007



RWE derive from RWD

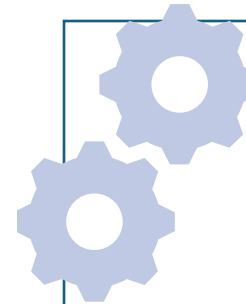


Variety of definitions



Importance and benefits

- 1) Complimentary evidence by filling knowledge gaps;
- 2) Improved decision-making;
- 3) Provides information about epidemiology, current therapies, outcomes in real practice.



Application

- 1) Product development;
- 2) Clinical and diagnostic decision making;
- 3) Reimbursement, regulatory decisions;
- 4) In pharmacovigilance.

1. Sunkara SK. Number of oocytes and IVF outcomes: Real-world evidence. *Best Pract Res Clin Obstet Gynaecol*. 2023 Jul;89:102341. doi: 10.1016/j.bpobgyn.2023.102341. Epub 2023 Apr 17. PMID: 37336119.
2. Real-World Data and Real-World Evidence Supporting Clinical Decision Making, ISPOR. https://www.ispor.org/docs/default-source/strategic-initiatives/pfizer-bms-ispor-infographic_final.pdf?sfvrsn=a7413b04_0
3. Berger ML, Sox H, Willke RJ, Brixner DL, Eichler HG, Goettsch W, Madigan D, Makady A, Schneeweiss S, Tarricone R, Wang SV, Watkins J, Daniel Mullins C. Good practices for real-world data studies of treatment and/or comparative effectiveness: Recommendations from the joint ISPOR-ISPE Special Task Force on real-world evidence in health care decision making. *Pharmacoepidemiol Drug Saf*. 2017 Sep;26(9):1033-1039. doi: 10.1002/pds.4297. PMID: 28913966; PMCID: PMC5639372.
4. Passamonti F, Corrao G, Castellani G, Mora B, Maggioni G, Gale RP, Della Porta MG. The future of research in hematology: Integration of conventional studies with real-world data and artificial intelligence. *Blood Rev*. 2022 Jul;54:100914. doi: 10.1016/j.blre.2021.100914. Epub 2021 Dec 18. PMID: 34996639.
5. Gregg EW, Patomo E, Karter AJ, Mehta R, Huang ES, White M, Patel CJ, McElvaine AT, Cefalu WT, Selby J, Riddle MC, Khunti K. Use of Real-World Data in Population Science to Improve the Prevention and Care of Diabetes-Related Outcomes. *Diabetes Care*. 2023 Jul 1;46(7):1316-1326. doi: 10.2337/dc22-1438. PMID: 37339346; PMCID: PMC10300521.
6. Cheung WY, Cameron C, Mitha A, Willis A. Building infrastructure for outcomes-based agreements in Canada: can administrative health data be used to support an outcomes-based agreement in oncology? *Support Care Cancer*. 2022 Dec 13;31(1):5. doi: 10.1007/s00520-022-07486-5. PMID: 36512133; PMCID: PMC9747826.
7. O'Connell P, Ridolfi A, Fretault N. Case study using RWD in the context of a pivotal trial for regulatory approval in a rare disease. *J Biopharm Stat*. 2023 Jan 29:1-8. doi: 10.1080/10543406.2023.2170406. Epub ahead of print. PMID: 36710386.
8. Real-world evidence provided by EMA. Available from: https://www.ema.europa.eu/en/documents/other/guide-real-world-evidence-provided-ema-support-regulatory-decision-making_en.pdf

What “happens” with RWD/RWE in the EU?



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH



15 April 2024
EMA/CHMP/150527/2024
Committee for Human Medicine Products (CHMP)

Reflection paper on use of real-world data in non-interventional studies to generate real-world evidence

Real-world evidence framework to support EU regulatory decision-making

2nd report on the experience gained with regulator-led studies from February 2023 to February 2024



10 April 2024
EMA/152628/2024
European Medicines Agency

Real-world evidence provided by EMA
Support for regulatory decision-making

The use of Real-World Data¹ (RWD) is increasingly embedded in the scientific evaluation of human medicines. At the European Medicines Agency, the Real-World Evidence Team (TDA-RWE) of the Data Analytics and Methods Task Force has direct and indirect access to RWD in the form of patient

DARWIN-EU:

- ✓ Coordination center to provide evidence from real world healthcare databases;
- ✓ Better exchange and access to healthcare data;
- ✓ Collecting, accessing, standardizing, analyzing data, interpreting results and supporting HCDM;
- ✓ 2 RWD studies → **HTA and payer organizations** (1 completed for MM and 1 ongoing for LC)

REAL-WORLD EVIDENCE STUDIES:

- ✓ Why? – collect data for prevalence, incidence, treatment patterns, adverse events, effectiveness data etc.
- ✓ Demand? – National competent authorities, EMA staff, assessors;
- ✓ Supply? – in-house; DARWIN EU, framework contract.

1. Data Analysis and Real World Interrogation Network (DARWIN EU). Available from: <https://www.ema.europa.eu/en/about-us/how-we-work/big-data/real-world-evidence/data-analysis-real-world-interrogation-network-darwin-eu>
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3. RWE. Available from: <https://www.ema.europa.eu/en/about-us/how-we-work/big-data/real-world-evidence#use-of-real-world-evidence-68332>
4. Reflection Paper. Available from: <https://www.ema.europa.eu/en/reflection-paper-use-real-world-data-non-interventional-studies-generate-real-world-evidence-scientific-guideline>

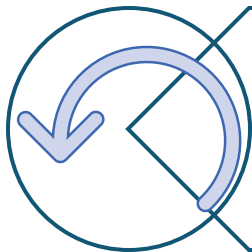
Health technology assessment – recent regulatory amendments



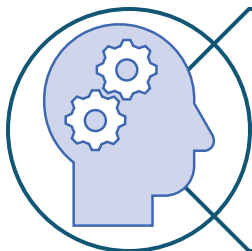
What is HTA?



Components of HTA:
Assessment (scientific part) + Appraisal (regulation)



Legislative framework: *Regulation* 2021/2282 on HTA



- (1) To include observational studies **based on RWD**;
- (2) Voluntary cooperation on HTA **to provide RWE**;
- (3) Link between the IT platforms **related to RWD**.

22.12.2021

EN

Official Journal of the European Union

L 458/1

I
(Legislative acts)

REGULATIONS

REGULATION (EU) 2021/2282 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 15 December 2021
on health technology assessment and amending Directive 2011/24/EU
(Text with EEA relevance)

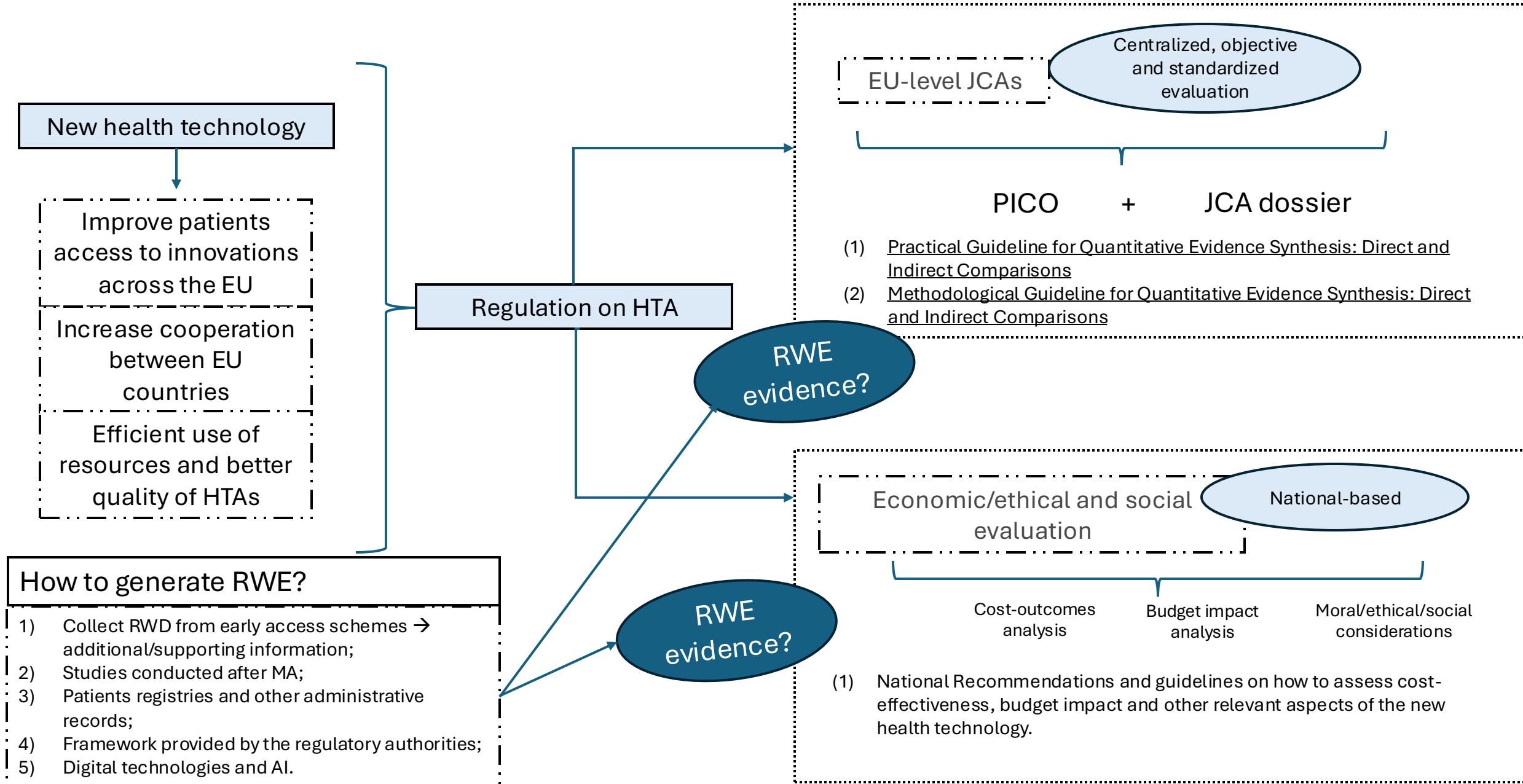
THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Articles 114 and 168 thereof,

Having regard to the proposal from the European Commission,

- Effective cooperation between EU Member States;
- Common tools, methodologies and procedures for HTA throughout the EU;
- Joint clinical evaluations, scientific consultations, identification of new HT, voluntary cooperation.

Where, how and why to use RWE for the purposes of HTA?



Can we and do we use RWD/RWE in HTA?

	Can we?	Do we?
Digitalization → more registries and AI-technologies	Yes	Different levels in different countries
Improvement in the regulatory framework	Yes	Efforts within the EU and at the local level
Collaboration between countries through various initiatives and scientific programs	Yes	Yes at some extent
Education and round tables for HTA agencies	Yes	Yes at some extent
Policy network initiatives dedicated to RWE in HTA	Yes	Yes
Guidelines for RWE in HTA	Yes	Different in different countries

Nowadays, we have the expert knowledge and technological capacity to integrate RWD/RWE into HTA.

What we need now is the will and the dedication to make it happen!

Experience from the HTx project

Review

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Using real-world evidence in healthcare from Western to Central and Eastern Europe: a review of existing barriers

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As part of the HTx (Next Generation Health Technology Assessment) project, this study was aimed at identifying the main barriers for application of real-world evidence (RWE) for the purposes of health technology assessment in the Central and Eastern European countries. A mixed methods approach was employed to identify the main barriers: a scoping review of the literature and a series of discussions with stakeholders. Based on the applied approaches, we attempted to summarize the main barriers and challenges related to transferability of RWE in five main groups: technical, regulatory, clinical, scientific and perceptual barriers. Further research should pursue the development of detailed, consensus-based guidelines to improve the harmonization and standardization of RWE.

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Keywords: barriers • real-world data • real-world evidence • real-world evidence transferability

Real-world data (RWD) and real-world evidence (RWE) have an increasing role in healthcare decision-making. From RWD, analysts can develop RWE, which is already being used for health technology assessment (HTA) purposes to some extent [1,2]. With the increased availability of RWD, there is potential for more widespread use. number of challenges about ensuring the reliability of RWE for HTA [3] can be identified in the literature. ad to disparities among stakeholders when discussing RWD and RWE use in decision-making [4,5]. ry bodies and HTA organizations for descriptive analyses (e.g., of treatment patterns) and burden of ll as epidemiology data and monitoring the safety of marketed therapies, especially in the more advanced systems in Western Europe, often use RWD. Decision-makers can benefit from RWD collected to assess (ative) effectiveness of health technologies in nontrial settings and populations [6]. Use of RWE, however, the Central and Eastern European (CEE) countries [7] because in most cases the decision-makers prefer additional sources of evidence, such as randomized controlled trials (RCTs) or expert opinion.



Journal of **Comparative Effectiveness Research**

Research Article

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Guidance on using real-world evidence from Western Europe in Central and Eastern European health policy decision making

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Aim: Real-world data and real-world evidence (RWE) are becoming more important for healthcare decision making and health technology assessment. We aimed to propose solutions to overcome barriers preventing Central and Eastern European (CEE) countries from using RWE generated in Western Europe. **Materials & methods:** To achieve this, following a scoping review and a webinar, the most important barriers were selected through a survey. A workshop was held with CEE experts to discuss proposed solutions. **Results:** Based on survey results, we selected the nine most important barriers. Multiple solutions were proposed, for example, the need for a European consensus, and building trust in using RWE. **Conclusion:** Through collaboration with regional stakeholders, we proposed a list of solutions to overcome barriers on transferring RWE from Western Europe to CEE countries.

Plain language summary: Collecting real-world data and generating real-world evidence from it becoming more important for making better decisions in healthcare. We investigated the main barriers which prevent using real-world evidence in Central and Eastern Europe, originally generated in Western Europe. After identifying the nine most important barrier, with the help of local experts we propose



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