

Roche's Position on Access to & Use of Real World Data

Background and Purpose

In the context of healthcare, real world data (RWD) denotes data relating to patient health status and/or the delivery of health care routinely collected from a variety of sources¹ instead of data generated through conventional interventional clinical trials and studies in dedicated research settings. RWD is seen as a potentially rich and underutilised source to generate insights as to how approved diagnostics systems, data-enabled services and products affect outcomes for patients under real world conditions.

The systematic measurement of standardised health outcomes combined with digital tools and data analytics, including Artificial Intelligence and other decision-supporting systems will enable a cycle of continuous learning in healthcare organisations, where outcomes are regularly analysed and shared with physicians and other decision-makers. Applied on a larger scale, this will lead to 'Learning Healthcare Systems' where quality improvement, outcomes research and dissemination of best practices can take place at a much faster pace than today. Health data ecosystems that generate robust RWD provide insight into effectiveness and cost efficiencies in treatment, enabling decisions that prioritise patient outcomes and reduce waste.

The purpose of this position paper is to provide key healthcare stakeholders (including, but not limited to patients and caregivers, healthcare providers, payers, regulators, researchers and developers, policy makers and healthcare system administrators, data owners) with a broad view of Roche's position on RWD related topics describing (a) *why* the access to and use of RWD is of interest to Roche, and (b) *how* Roche addresses various related concerns and intends to foster access to and use of RWD for an overall improvement of the healthcare system.

Roche's Position

...on RWD Relevance and Interest

Science is now enabling us to pinpoint exactly which treatment will be effective for which patient, and Roche expects a continuing shift from providing single products to providing integrated personalised healthcare solutions to optimise advanced patient care. Serving as many patients as possible, Roche's goal is for its integrated solutions to be designed to facilitate the delivery of the right healthcare to the right patient at the right time. Data-driven, medical insights are fundamental to realising the promise of a personalised, evidence-based approach to healthcare. Timely access to and appropriate use of RWD are key components to delivering integrated personalised healthcare solutions.

Roche views robust RWD as a credible source of data from which to generate scientific information and evidence, provided that (a) the *data is of high, fit-for-purpose quality*, and (b) the *analysis is subjected to scientifically rigorous research design and analytical methodologies*.

The level of data attributes required for the data to be considered high, fit-for-purpose

¹ While there is no single, globally agreed upon definition of RWD, a broad definition of RWD builds on the FDA definition.

quality (e.g. in terms of being clinically relevant, accurate², complete, transparent, scalable and having longitudinal follow-up) may vary depending on the type of RWD and on the setting in which the RWD is used (e.g. in exploratory research, trials decision-making, post-marketing surveillance, development, regulatory decisions, clinical support systems, outcomes-based pricing, reimbursement or other uses).

More specifically, Roche believes that the following purposes legitimise the processing and use of RWD, provided that appropriate safeguards are in place:

- protecting the vital interests of patients from prevention through diagnosis, treatment and ongoing care
- ensuring high quality and safety standards in healthcare
- addressing the general interest in an efficient and sustainable healthcare system
- accelerating development and access to innovative healthcare products and services to patients who need them without compromising patient safety
- improving personalised patient care
- reducing costs for society
- enabling more efficient and valuable scientific and clinical research
- expanding access and impact to a more diverse and wider range of patients

Translating RWD into actionable and clinically-relevant insights and evidence is critical to transforming the future of healthcare. Roche is committed to advancing this field, applying the highest standards, acknowledging that the outcome may not be always favourable for its products and leveraging the gained insights to optimise patient care.

...on Balancing Individual and Societal Interests

In considering how to regulate the use of RWD, Roche believes that policy makers should strike a balance between (a) the *extent of an individual's control* over their individually identified RWD, and (b) *the health system stakeholders' right-to-operate* in order to realise the benefits, for society as a whole, with respect to its processing of de-identified³ (i.e. anonymized⁴ or pseudonymized⁵) or aggregated RWD:

Ad (a): Roche concurs with the emerging view that an individual's right to exert control over their personal health data *fully extends to the rights under the respective data privacy laws, but not beyond that* (unless such rights are voluntarily expanded by explicit mutual agreements). More specifically, Roche maintains that at all times the individual's right to privacy has been respected once the individual's data has been properly de-identified according to and in compliance with legal requirements under applicable laws and state-of-the art practices.

Ad (b): The potential relevance and value of RWD is only built through the methodical, consecutive, time-consuming steps of determining, collecting, curating, aggregating, de-identifying, analysing, etc. (one can picture this as an 'RWD value creation chain') - this increases the complexity of interpreting the evidence generated

² i.e. it has undergone curation and quality-assurance processes

³ De-identified data is a term used under certain U.S. federal and state laws; it means health data that are no longer considered individually identifiable under HIPAA and its implementing regulations, due to the elimination of practical identifiers or an expert determination that such data are de-identified. De-identified data may also be exempt from US state privacy laws), if applicable standards under those laws are met.

⁴ Personal data is anonymised under the GDPR when the data subject is no longer identifiable, i.e. there are no reasonable or legal means that could likely be used to identify data subjects. An important consideration is ensuring that the data is not combined with other data sets that could potentially re-identify the data subject.

⁵ To pseudonymise the data, an identifying attribute in the data set is replaced by another, indirect identifier. Pseudonymisation reduces the linkability of a data set to another as additional information (key), which is kept separately, is required to re-identify the data.

from RWD and thus requires deep expertise from those using and generating the data. Worldwide, it is a general societal expectation for policy makers to formulate a view on how to orchestrate such an ecosystem in which access and generation of RWD brings public and private actors together. Currently, different models are emerging. For example, some jurisdictions assign a public entity with the task of establishing a nationwide, structured, de-identified RWD database (e.g. Finland, UK), which in turn enters into contractual (commercial) arrangements with public or private entities for its utilisation in research and healthcare practice. In other jurisdictions, like the US, the initial holders of RWD (e.g. hospitals) may enter into such contractual arrangements directly. Roche believes the greatest benefit lies in international harmonisation of efforts to the extent possible to increase RWD's impact for all such as demonstrated in the recent press release from ICMRA⁶.

...on RWD Access and Protection

Roche recognises that silos and lack of access are current hurdles to realising the benefits of RWD, and that generating high-quality RWD puts pressure on healthcare systems. Roche believes it is essential to help minimise the human cost of generating this data and is committed to sharing data in a responsible manner to limit over-creation of data, and to enable reuse, whenever possible and appropriate.

For Roche, as a matter of principle, appropriate protection of *any* data relating to an individual is an essential precondition to the use of RWD. Roche leverages the *deep data protection expertise* it has gained over several decades conducting thousands of clinical trials involving millions of patients across the globe.

With respect specifically to RWD access and protection, Roche has gained *extensive experience* through: (a) its obligation to maintain a comprehensive pharmacovigilance system⁷; (b) performing additional research with marketed products⁸; (c) collaborations with key data partners and providers to support R&D and (d) sharing data with regulators, as required by applicable law and to improve patient care and access to novel health technologies.

Under general circumstances, RWD supplied to Roche through public or private institutions is de-identified and the company has no way of tracking that data back to the individual to whom it relates. In situations where identifiable RWD is accessible to, or directly collected by, Roche or through our partners Roche applies appropriate technical and organisational safeguards to protect the data: an information security management system governs all IT systems; rigid identity management and access control concepts are applied; and all relevant Roche staff are trained and advised to respect data privacy principles.

...on Sharing and Communicating Evidence

Roche believes evidence generated from RWD can improve R&D value and enable personalised patient care and access. Roche is committed to sharing evidence with regulators and researchers that can advance science and medical practices with the broader communities using the appropriate channel(s) to the extent permitted under any data agreements and applicable laws. In general, Roche will ensure transparency in the communication of evidence generated from RWD by including

⁶ ICMRA statement: https://icmra.info/drupal/sites/default/files/2022-07/icmra_statement_on_rwe.pdf

⁷ I.e. to collect and report promptly to authorities potential issues with its marketed products and to conduct post marketing approval studies

⁸ E.g. to generate additional evidence for the use of a drug in a particular indication, or to provide additional evidence for payers and Health Technology Assessment

the research design, methodology, generalizability, limitations, sensitivity analyses, and other relevant information, and follow relevant international standards⁹.

Considering its extensive data collection programs, Roche looks to find ways to collaborate with the healthcare system to share data, such as Voyager (Ophthalmology), Wayfind-R (precision Oncology), Reality (Women's Health) and Intonate (Neuroscience), following RWD access and protection principles outlined above. With Intonate initiative, Roche also actively contributes to the formation of the Federated Data and Biosamples Network that allows sharing of resources for RWD use, for primary or secondary care settings and clinical care decision making, as well as research use, while preserving the data privacy.

...on Legal and Regulatory Frameworks

The sheer complexity, diversity and historic development of healthcare systems have led to diverse legal and regulatory frameworks across the globe, pertaining to different aspects of RWD (e.g. data privacy, access and sharing). Also, policies and regulations are often established at the national level, resulting in inconsistent frameworks across local jurisdictions. While Roche applauds and supports more recent calls by policy makers for regional or global alignment (e.g. the EMA registry guidance¹⁰, EU Darwin network¹¹, EHDS framework¹², US RWE framework¹³, etc.), it believes that such common frameworks will take some time to be realised. In the meantime, Roche will continue working with the relevant authorities and industry associations to shape consistent and transparent frameworks addressing technical, legal, ethical and governance issues related to access to and use of RWD and to build common good knowledge on these aspects across countries. This will also provide an opportunity to harmonise data collections and provide clarity on the processing of relevant data that is being proposed through the evolving guidance.

...on Engagement and Dialogue

As has been pointed out by many observers, the overall success of the RWD promise hinges on a collective effort among trusted partners. Roche strives to *build trust actively* in the healthcare community and the wider public by (a) being transparent about its motives and systematic efforts in RWD (e.g. by sharing best practices and use cases with regulators, payers, Health Technology Assessment (HTA), medical and scientific societies), (b) working with various stakeholders to shape the RWD landscape and to foster acceptance of RWD for research, regulatory and access decision making and (c) growing expertise in secondary data use.

Roche is involved through industry associations (e.g. IFPMA, EFPIA, MDIC-NEST, MedTech Europe, Digital Europe, PhRMA, BIO¹⁴) and health policy organisations

⁹ Roche's Position on Responsible Sharing of Scientifically Credible Information:

https://a.storyblok.com/f/126832/x/fbee4ea05e/31_roche-position-on-responsible-sharing-of-scientifically-credible-information.pdf

¹⁰ EMA guidance on registry based studies:

https://www.ema.europa.eu/en/documents/scientific-guideline/guideline-registry-based-studies_en-0.pdf

¹¹ EU Darwin network:

<https://www.ema.europa.eu/en/about-us/how-we-work/big-data/data-analysis-real-world-interrogation-network-darwin-eu>

¹² European Health Data Space:

https://health.ec.europa.eu/publications/proposal-regulation-european-health-data-space_en

¹³ US RWE framework: <https://www.fda.gov/media/120060/download>

¹⁴ International Federation of Pharmaceutical Manufacturers and Associations (IFPMA); European Federation of Pharmaceutical Industries and Associations (EFPIA); Medical Device Innovation Consortium, National Evaluation System for Health Technology (MDIC-NEST); Pharmaceutical Research and Manufacturers of America (PhRMA); Biotechnology Innovation Organization (BIO)

(e.g. Duke-Margolis Center for Health Policy) to drive the broad adoption of high quality and high security standards, regulations and interoperability, underscoring that a pragmatic approach to the use of RWD is essential to allow development of new technologies and products and to foster innovation across the portfolio disease areas. Roche is actively engaging with HTA¹⁵/payer stakeholders to understand methodological approaches to address concerns around bias with RWD in order for RWD to be more widely accepted to enable patient access. Roche, together with other industry members, is working with medical and scientific societies to share expertise and insights to advance clinically-meaningful RWD collection and evidence generation.

RWD Partnerships at Roche

Roche recognises the importance of high-quality RWD for evidence-based decision making and that there is a related cost to generating such data, and therefore the need to help healthcare systems to generate high-quality RWD and make it reusable to be leveraged in regulatory settings as well as by HTA, medical and scientific societies. In an effort to address these concerns, Roche has acquired (or formed partnerships with) organisations with novel approaches to RWD. These include, for example, Roche's acquisitions of Foundation Medicine, Inc. (specialising in genomic profiling)¹⁶, Flatiron Health (curating electronic medical records and providing high-quality data suitable for regulatory use and supporting R&D) and mySugr (offering a patient-centric digital health services platform in diabetes care). Roche is now working to integrate and evolve gained know-how for the benefit of patients around the world.

With proven expertise in both pharmaceuticals and diagnostics, and strong relationships with key industry partners, Roche will continue to support the evolution of how RWD is generated, harmonised, shared and used to gain insights to benefit the evolution of the healthcare ecosystem and take personalised healthcare to the next level.

To reflect the evolving landscape of the RWD topic, this position paper will be updated from time to time as needed.

This position paper was proposed by the Corporate Sustainability Committee and adopted by the Corporate Executive Committee on 17 January 2019 and entered into force the same day. It was revised in November 2022.

¹⁵ Roche Position on Health Technology Assessment:

<https://assets.cwp.roche.com/f/126832/18b080c040/roche-position-health-assessment-technology.pdf>

¹⁶ For more information please see <https://www.foundationmedicine.com/>