

Is real-world evidence reaching clinicians?

A target audience analysis of publications and congress presentations

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Background

- Real-world evidence (RWE) is the body of evidence generated from real-world data (RWD) from various sources outside of the clinical trials setting, including¹:
 - Electronic health records (EHRs)
 - Disease and product registries
 - Claims and billing databases
 - Data from “wearables” and health monitoring devices
- RWE can complement registrational trial data by expanding the outcomes and populations evaluated, leading to a richer body of knowledge to inform decision-making related to:
 - clinical practice²
 - patient outcomes optimization and monitoring³
 - drug development and potential label expansion⁴
- The importance of RWE has been highlighted by multiple recent FDA guidance documents that outline the use of RWD to support regulatory decision making¹
- With this context in mind, is RWE effectively reaching clinicians to inform clinical decision-making?**

Objective

We performed a target audience analysis of publications and congress presentations to evaluate whether RWE is reaching clinicians through publications.

Disclosures

This study was supported by InCight. All authors are employees of InCight.

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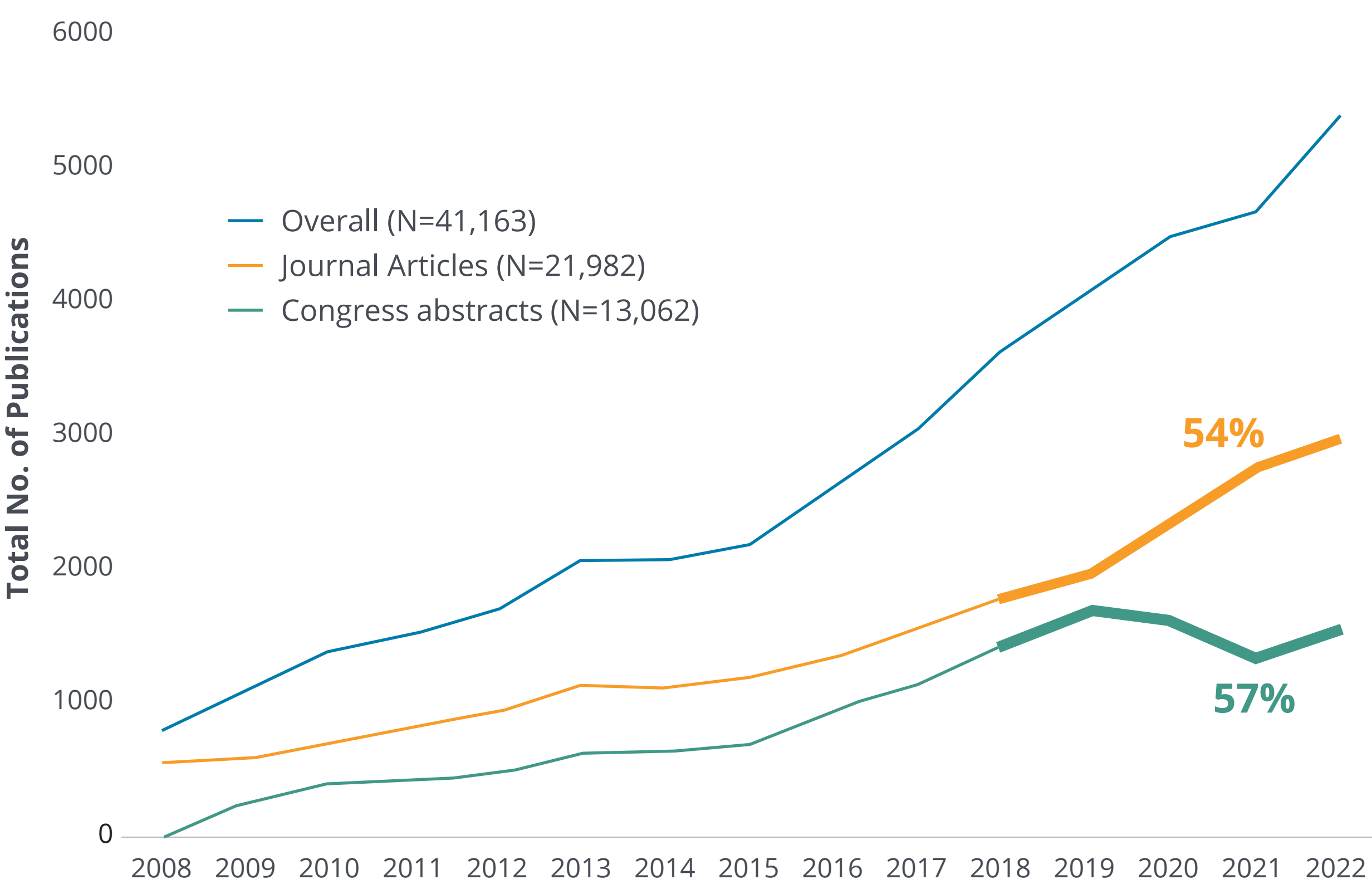
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Results

1 Overall publication trends

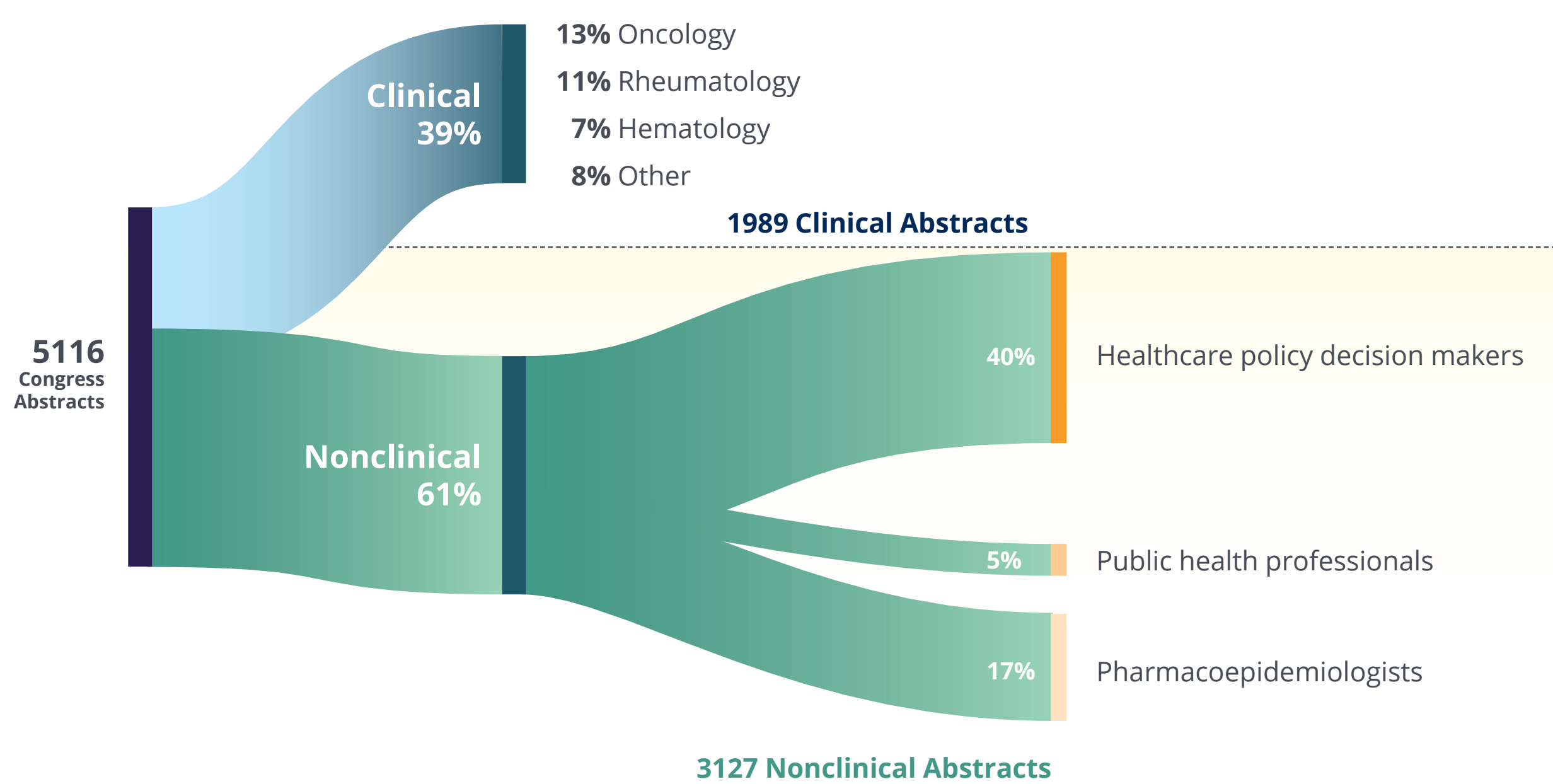
- Between 2008 and 2022, we identified 41,163 publications including RWD, of which 21,982 were journal articles and 13,062 were congress abstracts (**Figure 1**)
- The volume of publications including RWD has increased over the last 15 years, with the majority of those publications occurring within the last 5 years

Figure 1: Publications containing RWD between 2008 and 2022



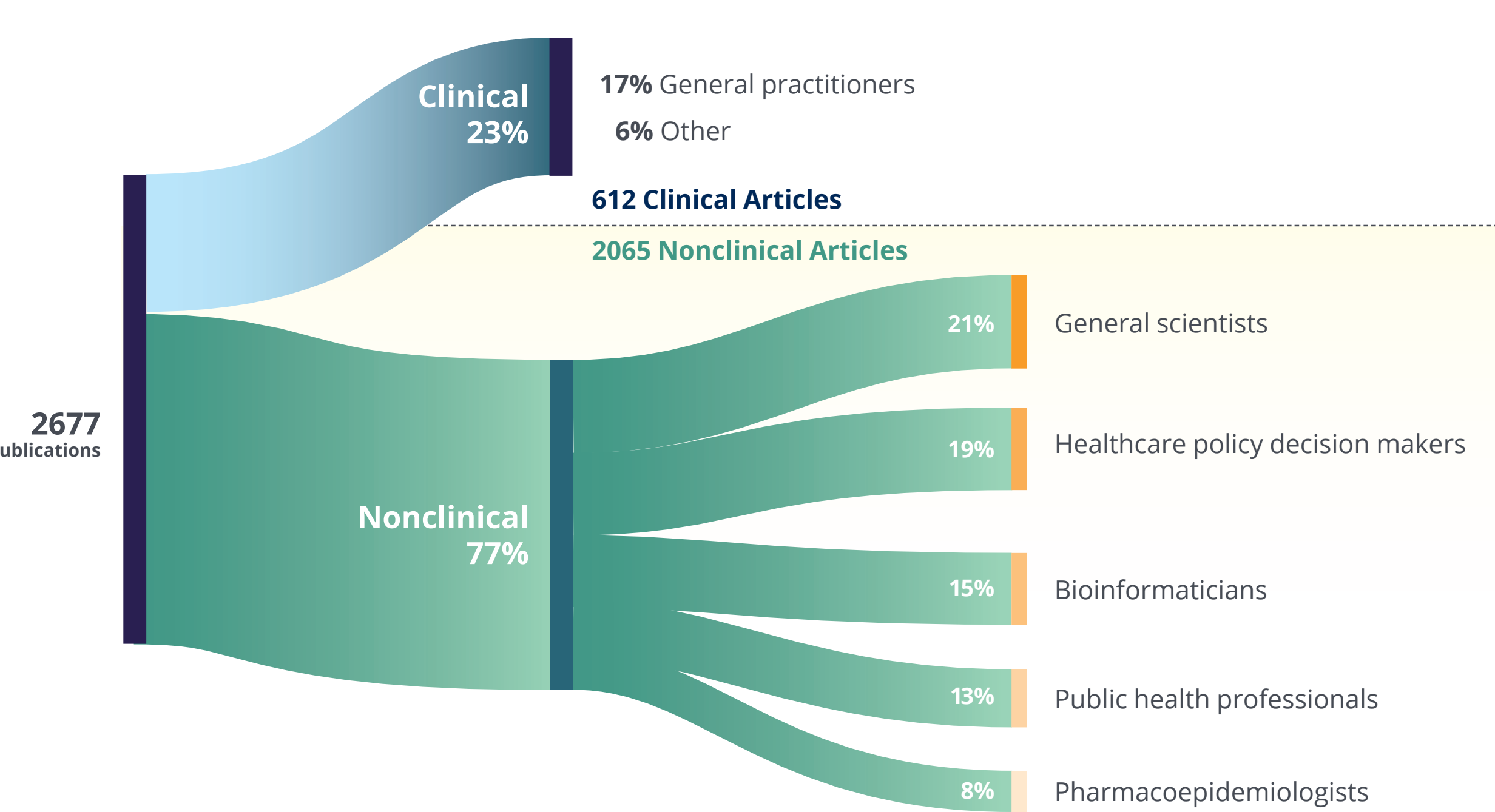
2 Target audience analysis

Figure 2: Target audience for RWD congress abstracts



- Only 39% of RWD abstracts were presented at clinical congresses
- Among top clinical congresses, RWD were primarily disseminated to oncologists (ASCO and ESMO), hematologists (ASH), rheumatologists (EULAR), and general practitioners

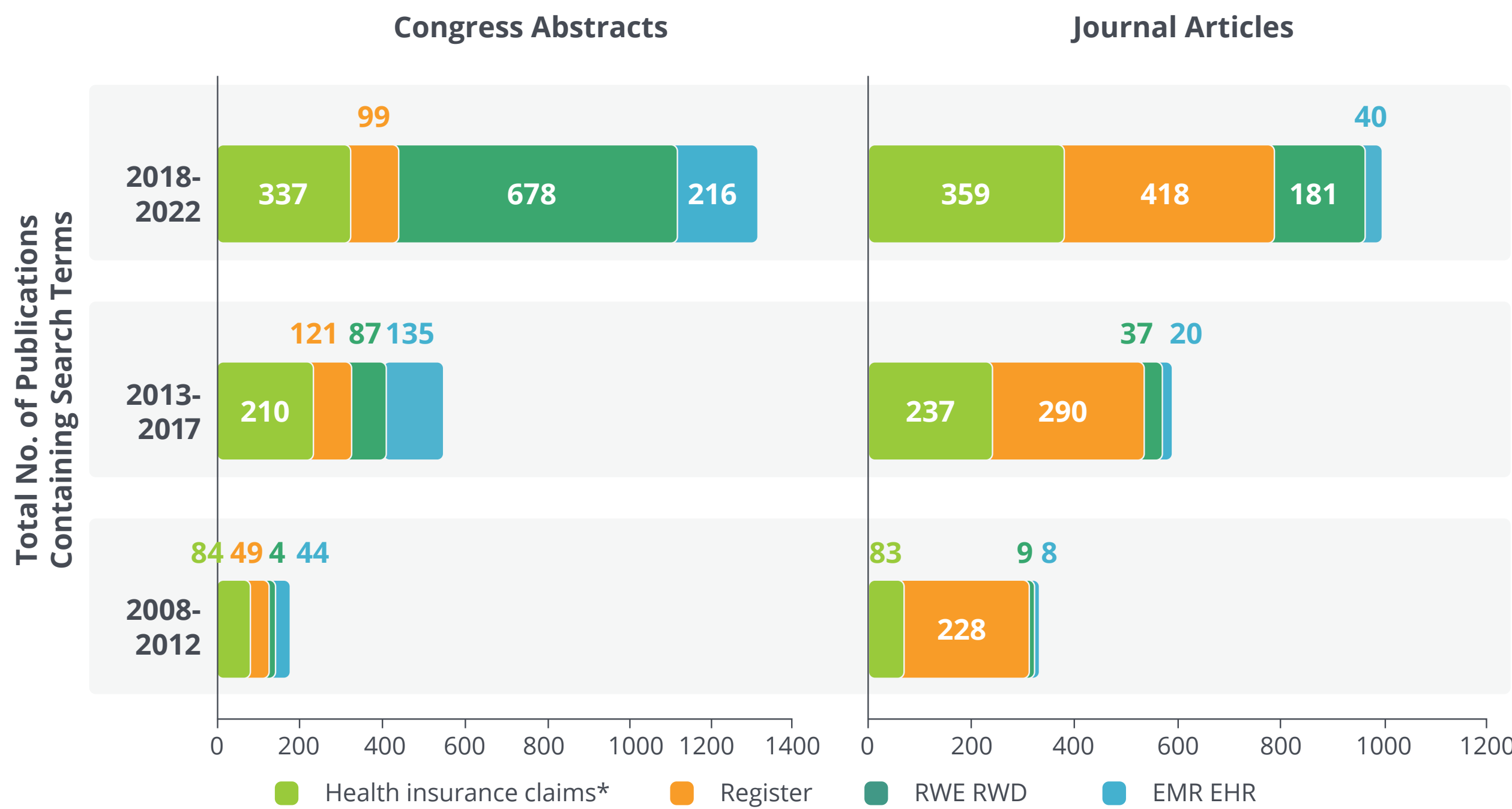
Figure 3: Target audience for RWD journal articles



- Only 23% of journal articles containing RWD targeted clinical audiences
- Among the top 10 clinical journals, RWD was primarily being disseminated to general practitioners (*BMJ Open*)

3 Evolution of RWD sources in clinical publications over time

Figure 4: RWD sources in clinical publications



*Represents the following search terms: “Billing AND claims,” “Claims,” “Administrative claims AND health care,” “Administrative health data,” “Administrative data,” “Health insurance,” “Pharmacy claims”

- RWD presented at congresses targeting clinicians include insurance data, electronic data, and generalized “RWE/RWD,” which may represent novel forms of RWD
- Journal articles targeting clinicians commonly use registry and insurance data

4 RWE/D publications in the top 10 clinical journals by impact factor

Figure 5: RWE/D publications in the top 10 clinical journals by impact factor

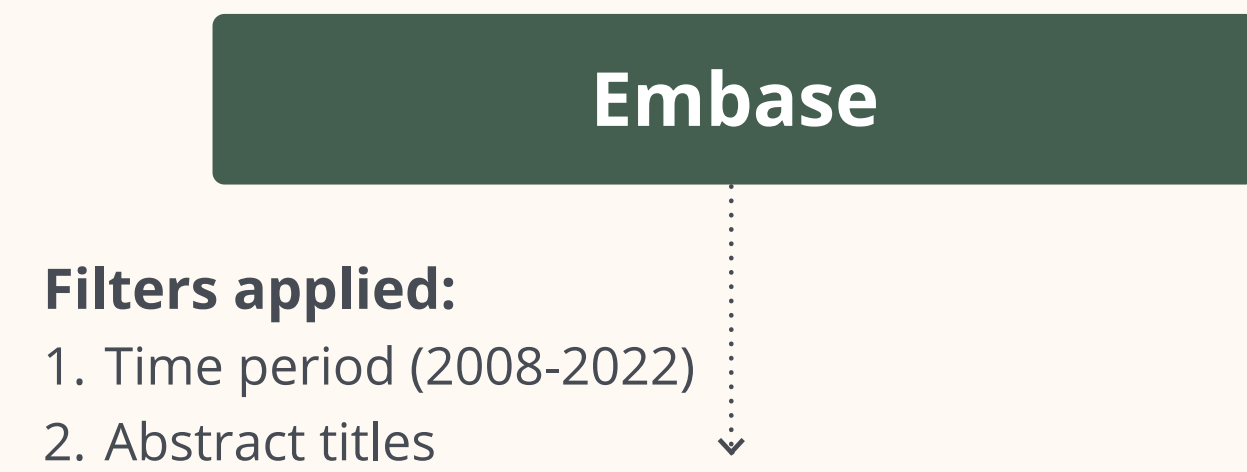


- Collectively, *The Lancet*, *New England Journal of Medicine*, and *JAMA* published a combined total of 27 journal articles containing RWD in the last 15 years, compared with 556 publications in *PLOS ONE*

Research design and methods

- Embase was used to search abstracts focused on RWE/D published between 2008 and 2022

Summary of Embase search terms and outputs



Specific Search Terms Used

Real World:

- “Real world evidence”
- “Real world data”

Electronic Data:

- “Electronic medical record”
- “Electronic health record”

Registry Data:

- “Register”

Health Insurance Claims:

- “Billing AND claims”
- “Administrative data”
- “Claims”
- “Health insurance”
- “Pharmacy claims”
- “Administrative claims AND health care”
- “Administrative health data”

Results/Outputs

Target Audience: Top 10 Congresses and Journals

RWD Sources in Clinical Publications Over Time

RWD Publications in the Top 10 Clinical Journals by Impact Factor

Discussion

- Our data show that clinicians are not receiving RWE through publications
 - Those barriers might include:
 - Lack of familiarity with RWE/D, and its role and application to clinical practice
 - Inadequate background or knowledge of the methodology used to generate RWD and the statistics used to interpret it, hence impacting the likelihood of acceptance of those data upon submission
 - The perceived importance of registrational trial data compared with RWD
- RWD are evolving and sources are becoming more diverse over time, requiring clinicians to keep up with these trends
- Clear and effective communication and education around RWD sources and methodology can mitigate these barriers
- Leveraging publication extenders (i.e., talking papers, infographics, graphical and video abstracts) will simplify these complex topics

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