

Où se situent *mapping reviews* et *scoping reviews* par rapport aux autres formes de synthèses ?

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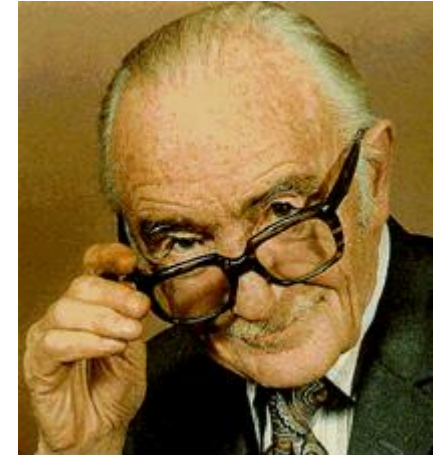
03/10/2023

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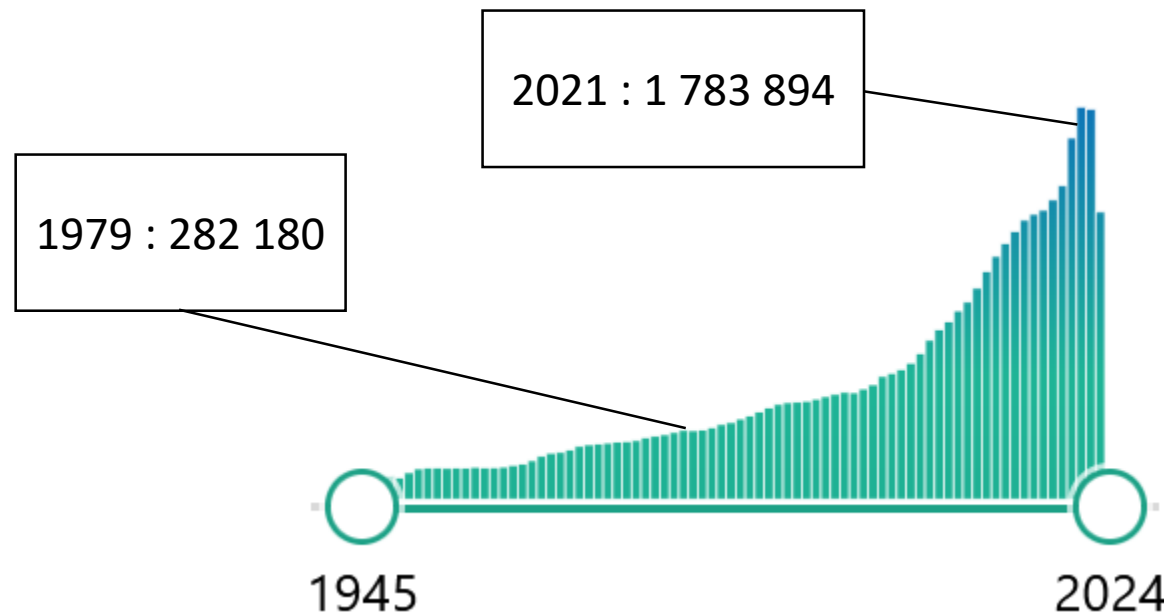


Contexte

“It is surely a great criticism of our profession that we have not organised a critical summary, by speciality and subspeciality, adapted periodically, of all randomised controlled trials” (Archie Cochrane 1979)



source: “Cardiff University Library, Cochrane Archive, University Hospital Llandough”



PubMed résultats par année

Literature reviews, une typologie difficile

En 2009, Grant et Booth établissent une liste de 14 types bien différenciés :

Critical review	Overview	Systematic review
Literature review	Qualitative systematic review	Systematic search and review
Mapping review/ systematic map	Rapid review	Systematized review
Meta-analysis	Scoping review	Umbrella review
Mixed methods review	State-of-the-art review	

Les critères de distinction

- Portée de la question
- Stratégie de recherche et sélection
- Nature des sources
- Évaluation critique
- Forme de la synthèse

Les critères : portée des questions

- Les revues systématiques et les méta-analyses répondent à des questions précises
- Les *scoping reviews* et les *mapping reviews* répondent à des questions beaucoup plus ouvertes

Exemple

Review > [Cochrane Database Syst Rev. 2023 Sep 26;9\(9\):CD010381.](#)

doi: [10.1002/14651858.CD010381.pub3.](#)

Extracorporeal membrane oxygenation for critically ill adults

[Aidan Burrell](#)^{1 2}, [Jiwon Kim](#)¹, [Patricia Alliegro](#)¹, [Lorena Romero](#)³, [Ary Serpa Neto](#)^{1 4}, [Frederick Mariajoseph](#)¹, [Carol Hodgson](#)^{1 5}

Affiliations + expand

PMID: 37750499 PMID: PMC10521169 (available on 2024-09-26)

DOI: [10.1002/14651858.CD010381.pub3](#)

Abstract

Background: Extracorporeal membrane oxygenation (ECMO) may provide benefit in certain populations of adults, including those with severe cardiac failure, severe respiratory failure, and cardiac arrest. However, it is also associated with serious short- and long-term complications, and there remains a lack of high-quality evidence to guide practice. Recently several large randomized controlled trials (RCTs) have been published, therefore, we undertook an update of our previous systematic review published in 2014.

Objectives: To evaluate whether venovenous (VV), venoarterial (VA), or ECMO cardiopulmonary resuscitation (ECPR) improve mortality compared to conventional cardiopulmonary support in critically ill adults.

Example

> [Nutrients](#). 2021 Dec 10;13(12):4418. doi: 10.3390/nu13124418.

Diet and Anxiety: A Scoping Review

Monique Aucoin ¹, Laura LaChance ^{2 3}, Umadevi Naidoo ^{4 5}, Daniella Remy ^{1 6}, Tanisha Shekdar ¹, Negin Sayar ¹, Valentina Cardozo ¹, Tara Rawana ¹, Irina Chan ¹, Kieran Cooley ^{1 7 8 9}

Affiliations [+](#) expand

PMID: 34959972 PMID: [PMC8706568](#) DOI: [10.3390/nu13124418](#)

[Free PMC article](#)

Abstract

Anxiety disorders are the most common group of mental disorders. There is mounting evidence demonstrating the importance of nutrition in the development and progression of mental disorders such as depression; however, less is known about the role of nutrition in anxiety disorders. This scoping review sought to systematically map the existing literature on anxiety disorders and nutrition in order to identify associations between dietary factors and anxiety symptoms or disorder prevalence as well as identify gaps and opportunities for further research. The review followed established methodological approaches for scoping reviews. Due to the large volume of results, an online program (Abstrackr) with artificial intelligence features was used. Studies reporting an association between a dietary constituent and anxiety symptoms or disorders were counted and presented in figures. A total of 55,914 unique results were identified. After a full-text review, 1541 articles met criteria for inclusion. Analysis revealed an association between less anxiety and more fruits and vegetables, omega-3 fatty acids, "healthy" dietary patterns, caloric restriction, breakfast consumption, ketogenic diet, broad-spectrum micronutrient supplementation, zinc, magnesium and selenium, probiotics, and a range of phytochemicals. Analysis revealed an association between higher levels of anxiety and high-fat diet, inadequate tryptophan and dietary protein, high intake of sugar and refined carbohydrates, and "unhealthy" dietary patterns. Results are limited by a large percentage of animal

Les critères : la stratégie de recherche et sélection

- Les revues narratives ne prétendent pas à l'exhaustivité
- La plupart des autres types tendent vers l'exhaustivité (plusieurs bases de données, recherches documentées et reproductibles)
- La sélection se fait sur des critères explicites et doit faire intervenir plusieurs évaluateurs pour les *SR*
 - Outils de *screenings* gratuits <https://sr-accelerator.com/> , <https://rayyan.ai/>

Les critères : nature des sources

- Qui peuvent être conceptuelles, empiriques ou synthétiques
 - Les *scoping reviews* peuvent aborder les terminologies et les méthodologies
 - Les méta-analyses ne réunissent que des essais
 - Les *umbrella reviews* sont des synthèses de synthèses

Exemple

Literature landscape of neurodevelopment and pesticides: A scoping review of methodologies

Jennifer E Reed ¹, Carol J Burns ², Federica Pisa ³

Affiliations + expand

PMID: 37781166 PMCID: [PMC10539886](#) DOI: [10.1016/j.gloepi.2023.100121](#)

Abstract

Pesticides are highly tested and regulated chemicals. There is currently great interest in the role that pesticides may play in childhood neurodevelopment. The objective was to identify and describe the body of evidence and to assess the ability to synthesize effect estimates. The epidemiologic literature from 2011 to 2022 was searched for publications on the association between pesticide exposure and neurodevelopment, behavior, and/or cognition in children. We identified 114 publications, representing 67 unique studies. While organochlorine and other insecticides were the most common classes of pesticides studied, up to 159 different metabolites or active ingredients were reported. Nine pesticides or their metabolites were reported in >10 publications. Similarly, multiple assessment methods were administered across studies to evaluate outcomes in neurodevelopment at ages which ranged from birth to 18 years of age. This scoping review reveals the heterogeneity among published studies with respect to exposures and health outcomes, in the methods used to assess and classify them, and in combinations of the two. This limits the adequacy of the evidence to evaluate specific risk estimates for a particular exposure-outcome pair. Intentional coordination among researchers to increase consistency in methodologies would facilitate the synthesis of results across studies. Research opportunities also exist to validate assumptions in exposure and outcome assessment which are implicit in many of the studies reviewed. In conclusion, there are many ongoing epidemiologic studies with a focus on pesticides and neurodevelopment. The variety of exposures, exposure assessment methods and tests for each outcome can be overwhelming. Interdisciplinary collaboration is recommended to harmonize data collection and to enable meaningful interpretation of the study results across populations.

Example

› [J Voice](#). 2022 Mar 19;S0892-1997(22)00039-X. doi: 10.1016/j.jvoice.2022.02.009.

Online ahead of print.

Frameworks, Terminology and Definitions Used for the Classification of Voice Disorders: A Scoping Review

[Christopher L Payten](#)¹, [Greg Chiapello](#)², [Kelly A Weir](#)³, [Catherine J Madill](#)⁴

Affiliations + expand

PMID: 35317970 DOI: [10.1016/j.jvoice.2022.02.009](#)

[Free article](#)

Abstract

Background: A challenge for clinicians and researchers in laryngology is a lack of international consensus for an agreed framework to classify homogenous groups of voice disorders. Consistency in terminology and agreement in how conditions are classified will provide greater clarity for clinicians and researchers.

Objective: This scoping review aimed to examine the published literature on frameworks, terminology, and criteria for the classification of voice disorders.

Design: Seven online databases (MEDLINE, Embase, CINAHL, PsycInfo, Scopus, Cochrane Collaboration, Web of Science) and grey literature sources were searched. Studies published from 1940 to 2021 were included if they provided a descriptive detail of a classification framework structure and described the methodological approaches to determine classification. A narrative synthesis of the main concepts including terminology, classification criteria, grouping of conditions, critical appraisal items and gaps in research was undertaken.

Exemple

› [Front Med \(Lausanne\)](#). 2023 Sep 13;10:1223862. doi: 10.3389/fmed.2023.1223862. eCollection 2023.

Thiamine as a metabolic resuscitator in septic shock: a meta-analysis of randomized controlled trials with trial sequential analysis

Frédéric Sangla ¹, Thomas Verissimo ², Anna Faivre ³, TERENCE Glauser ⁴, Saw Kian Cheah ⁵, Benjamin Assouline ¹, Sebastian Sgardello ⁶, David Legouis ^{1 2}

Affiliations + expand

PMID: 37780556 PMID: [PMC10533915](#) DOI: [10.3389/fmed.2023.1223862](#)

Abstract

Objective: Septic shock is one of the most common reasons for admission to the Intensive Care Unit (ICU) and is associated with high mortality. Fundamentally, its management rests on antibiotics, fluid therapy and vasopressor use while many adjunctive therapies have shown disappointing results. Thiamine has recently gained interest as a metabolic resuscitator, though recent trials have tempered this enthusiasm, more specifically when thiamine is associated with ascorbic acid. However, thiamine use alone has been poorly investigated.

Design: We conducted a systematic review and meta-analysis of randomized controlled trials (RCTs) in septic shock patients to assess the effects of thiamine without ascorbic acid as an adjunctive therapy.

Setting: PubMed, Embase and the Cochrane library databases were searched from inception to April of 2023. Data were extracted independently by two authors. The main outcome was mortality.

Example

Review

> Ann Surg Oncol. 2023 Sep 19. doi: 10.1245/s10434-023-14277-7. Online ahead of print.

Risk Factors for Breast Cancer-Related Lymphedema: An Umbrella Review

Aomei Shen^{1 2 3}, Wanmin Qiang¹, Liyuan Zhang¹, Jingru Bian¹, Fei Zhu⁴, Zijuan Zhang^{2 3}, Qian Lu^{5 6}

Affiliations + expand

PMID: 37725224 DOI: [10.1245/s10434-023-14277-7](https://doi.org/10.1245/s10434-023-14277-7)

Abstract

Background: Identification of risk factors facilitates the prevention of breast cancer-related lymphedema (BCRL). Several published systematic reviews have already addressed the risk factors for BCRL. This study aimed to systematically identify potential risk factors for BCRL and evaluate the quality of evidence.

Methods: The study followed methodologic guidance from the Joanna Briggs Institute, and the Cochrane Handbook. The following electronic databases were systematically searched from inception to 15 November 2022: PubMed, Embase, CINAHL, Web of Science, Scopus, CNKI, SinoMed, Wanfang, JBI Database, Cochrane Database, ProQuest, and PROSPERO. Two authors independently screened studies, extracted data, and assessed methodologic quality using AMSTAR2, risk of bias using ROBIS, and evidence quality using GRADE. The study evaluated overlap, assessed the small-study effect, and calculated the I^2 statistic and Egger's P value as needed.

Results: The study included 14 publications comprising **10 meta-analyses and 4 systematic reviews**. The authors identified 39 factors and 30 unique meta-analyses. In the study, 13 innate personal trait-related risk factors, such as higher body mass index (BMI) and axillary lymph nodes dissection, showed statistically significant associations with BCRL incidence. Breast reconstruction was found to be a protective factor. The methodologic quality was low or critically low. The majority of the systematic reviews and/or meta-analyses were rated as having a high risk of bias. Evidence quality was low for 22 associations and moderate for 8 associations.

Les critères : évaluation critique

Les études sont-elles passées au crible d'une analyse critique ?

- Non pour les « revues narratives »
- Oui pour les SR et les M-A
- Pas obligatoirement pour les *scoping reviews* et les *mapping reviews*

Les évaluations des risques de biais sont liées aux types de publication :

<https://sites.google.com/site/riskofbiastool/welcome>

Les critères : forme de la synthèse

- Elle peut-être narrative, tabulaire, numérique, graphique (carte)
- La norme PRISMA guide la forme des revues systématiques et méta-analyses <http://www.prisma-statement.org/>

Narrative review

Une synthèse répondant à une **question précise** après une fouille de la littérature et une sélection **laissée à la discrétion des auteurs**, réunissant des données **conceptuelles et empiriques**, sans **évaluation formelle**, synthétisées sous **forme narrative**.

Systematic review

Une synthèse répondant à une **question précise** après une fouille de la littérature et une sélection **exhaustive et formalisée**, réunissant des données **empiriques, avec évaluation formelle**, synthétisées sous **forme narrative avec des éléments tabulaires**.

Scoping review

Une synthèse répondant à une **question large** après une fouille de la littérature et une sélection **exhaustive et formalisée**, réunissant des données **conceptuelles et empiriques**, évaluées **qualitativement ou non**, sous **forme tabulaire et narrative**.

Méthodologie PRISMA-ScR

<http://www.prisma-statement.org/Extensions/ScopingReviews>

Mapping review

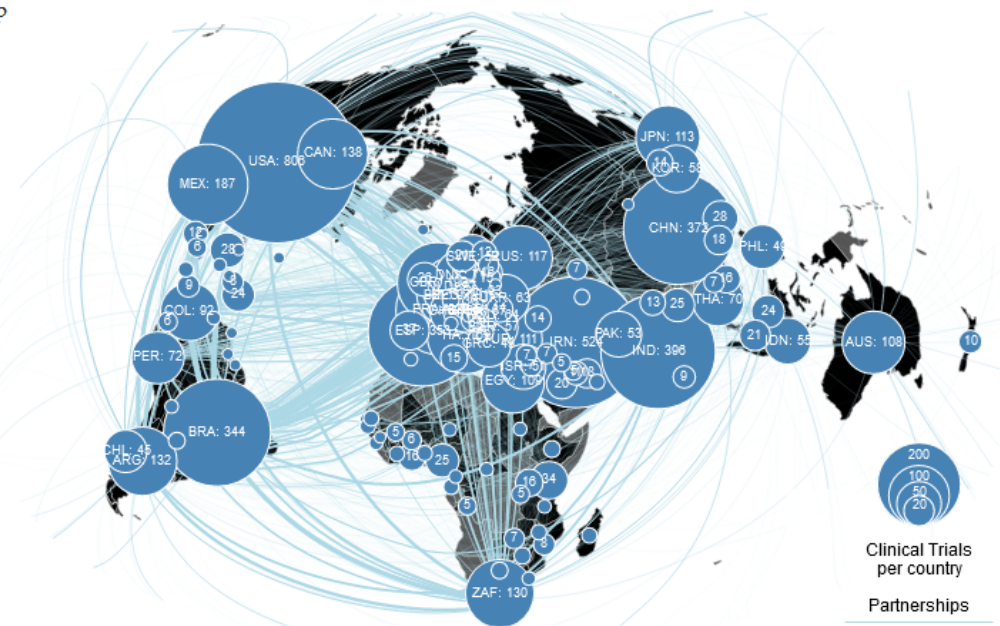
Une synthèse répondant à une **question large** après une **fouille exhaustive** de la littérature, réunissant des données **conceptuelles et empiriques**, évaluées **qualitativement ou non**, sous **graphique et tabulaire**.

relating to the prevention or treatment of COVID-19 will not be added to the mapping from January 26th, 2023 onwards. However, all studies that were included before that date will continue to be updated. The mapping of COVID-NMA continue to include all COVID-19 vaccines.

▼ User Guide 📖

- To see how to explore the mapping, check [our tutorial](#).
- Make your browser window as **wide** as possible for a 2-column display.
- Click on the **map** or any of the **graphs** to create filters on the data.
- All the **filters** are applied jointly, refining your selection.
- Click **Reset all** to remove the filters.
- Click on the **arrows** to open or close any section.
- For any questions or remarks, please [contact us](#).

▼ Map

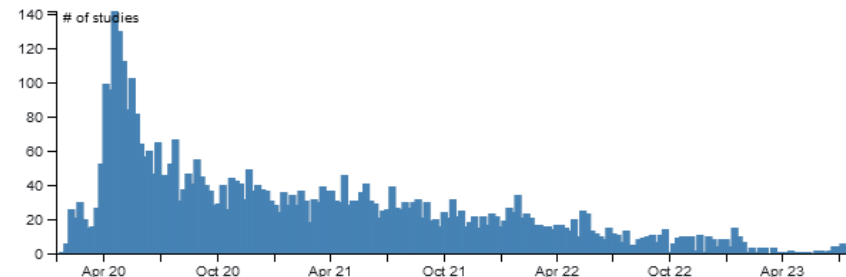


▼ Table

Show full table

Treatment (per arm)	Sample size	Severity at enrollment	Sponsor/Funder
(1) Nirmatrelvir + ritonavir vs (2) Nirmatrelvir + ritonavir vs (3) Placebo	900	Patients recovered from covid	Kanecia Obie Zimmerman
(1) Imidazolyl ethanamide pentandioic acid	233	Mild	Valenta Pharm JSC NCT05216497

▼ Registration date

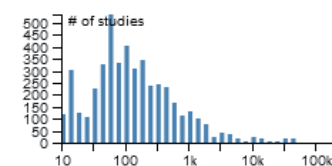


To filter by Registration dates, click and drag to create a range.

▼ Inclusion age

- minimum 18 yo (4,251 studies)
- less than 18 yo (378 studies)
- N/A (5 studies)

▼ Sample size



▼ Recruitment status

- Completed (1,658 studies) ⓘ
- Not recruiting (1,024 studies) ⓘ
- Recruiting (906 studies) ⓘ
- Terminated (409 studies) ⓘ
- Unknown (370 studies)
- Withdrawn (205 studies) ⓘ
- Not reported (35 studies)
- Suspended (27 studies) ⓘ

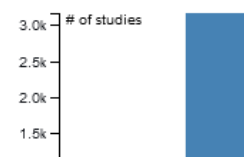
▼ Publication status

- Not published (3,719 studies)
- Published (915 studies) ⓘ

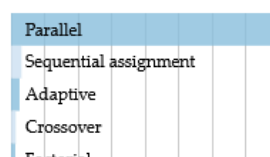
▼ Registry status

- No results posted (4,210 studies)
- Results posted in the registry (424 studies)

▼ Study aim



▼ Design



The COVID-NMA initiative A living mapping and living systematic review of Covid-19 trials <https://covid-nma.com/>

Analyse bibliographique ?

- Des outils qui peuvent être utilisés pour les *scoping* et *mapping reviews*...
- ... ou qui peuvent mener à une publication en tant que telle.

Web of Science Categories

Web of Science: Analyze results « asthma »

Sort by:

Results count

Show:

25

Minimum record count:

1

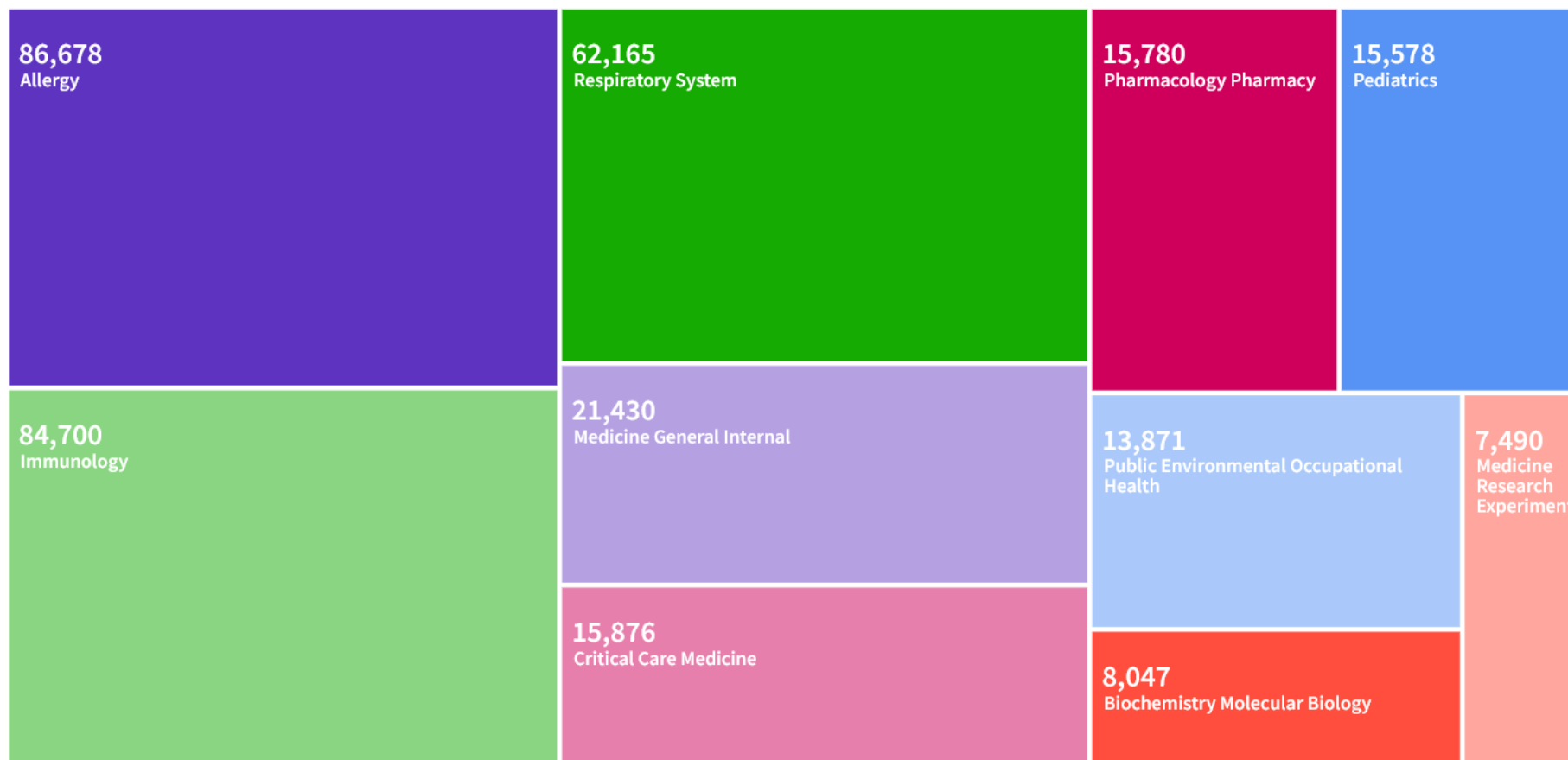
Visualization:

TreeMap Chart

Number of results:

10

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Countries/Regions ▼

Web of Science: Analyze results « asthma »

Sort by:

Results count ▼

Show:

25 ▼

Minimum record count:

1

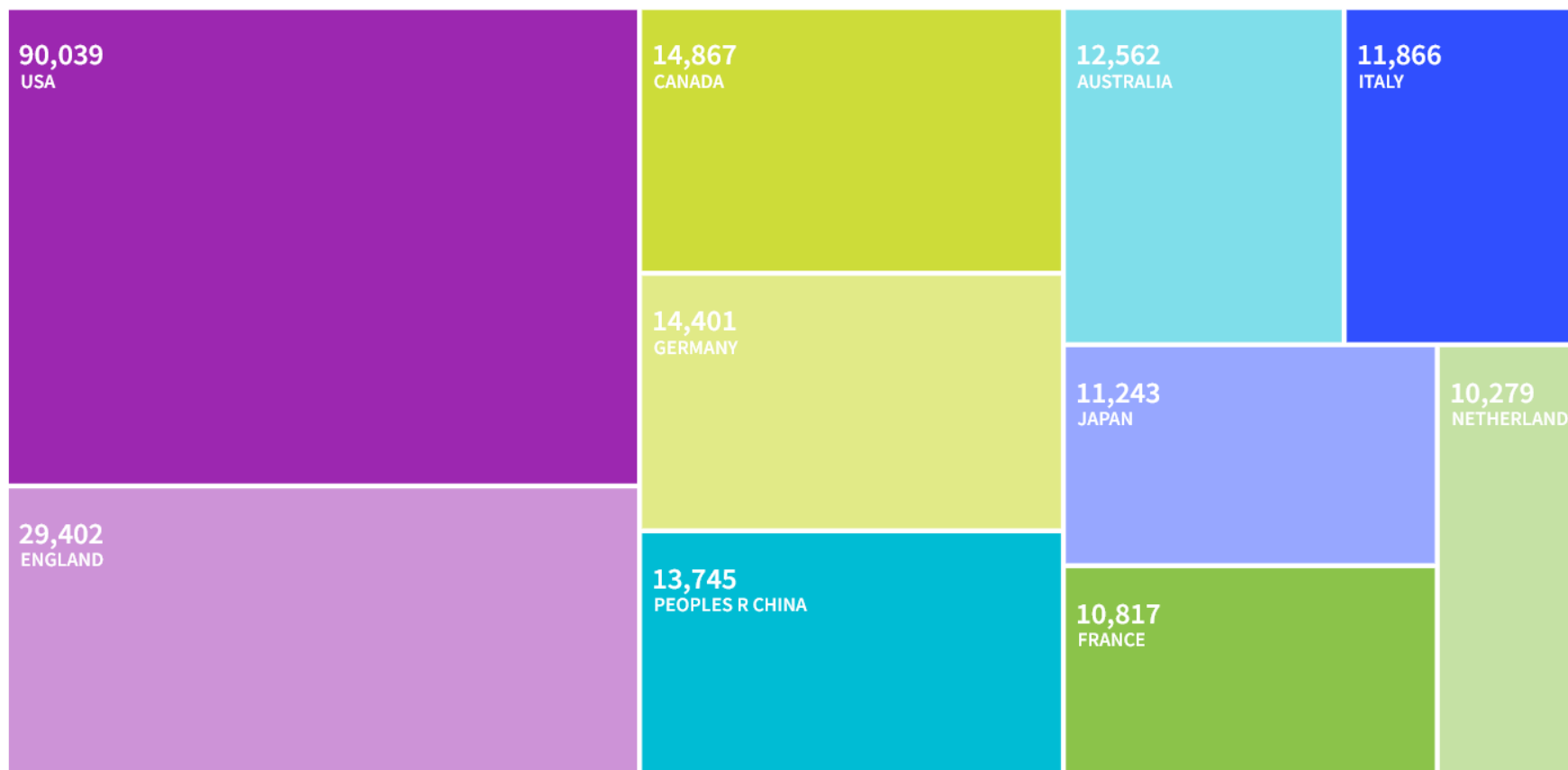
Visualization:

TreeMap Chart ▼

Number of results:

10 ▼

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Affiliations

Web of Science: Analyze results « asthma »

Sort by:

Results count

Show:

25

Minimum record count:

1

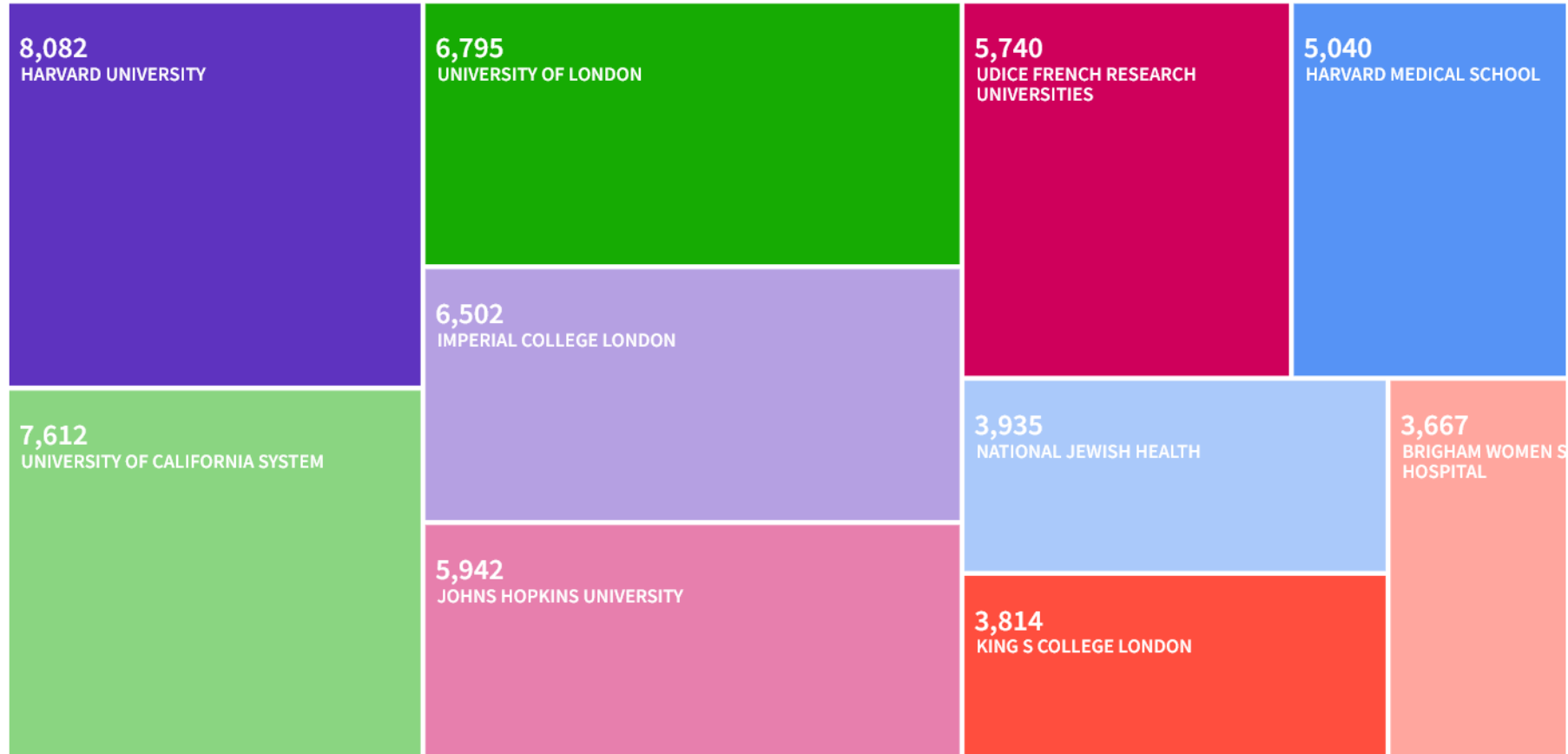
Visualization:

TreeMap Chart

Number of results:

10

DOWNLOAD



Bibliographie

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