

**Evaluating the information retrieval  
quality and methodological accuracy  
of Systematic Reviews and Meta-  
analysis on congenital  
malformations (2004-2014)**

**MEDICAL LIBRARIANS MATTER FOR EVIDENCE BASED MEDICINE  
4th National Gathering (Meet & Greet) of Swiss medical librarians  
Friday, September 9, 2016, Berne**

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Gaétan Kerdelhué (CISMeF team. Rouen, France)

Pablo Iriarte (CHUV. Lausanne, Switzerland)

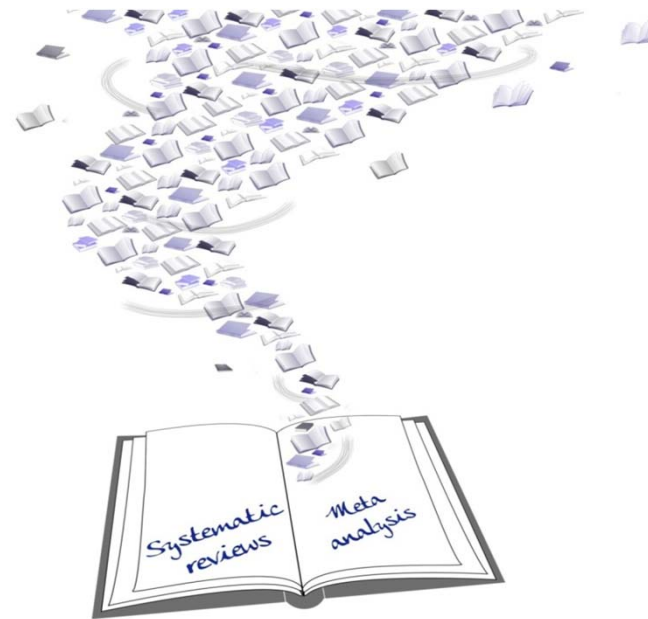
Rebeca Isabel-Gómez (AETSA. Sevilla, Spain)

*Rigorous*

*Explicit*

*Useful &  
Instructive*

*Exhaustive*



Synthesis of the **best evidence available** that meets **pre-established criteria**, in order to answer a **specific research question**.

Introduction

**EUNETHTA**

**COCHRANE**

**CADTH**

**NICE**

**PRISMA**

**CRD**

**MAIN  
ASPECTS  
REGARDING:**

**TITLE**

**ABSTRACT**

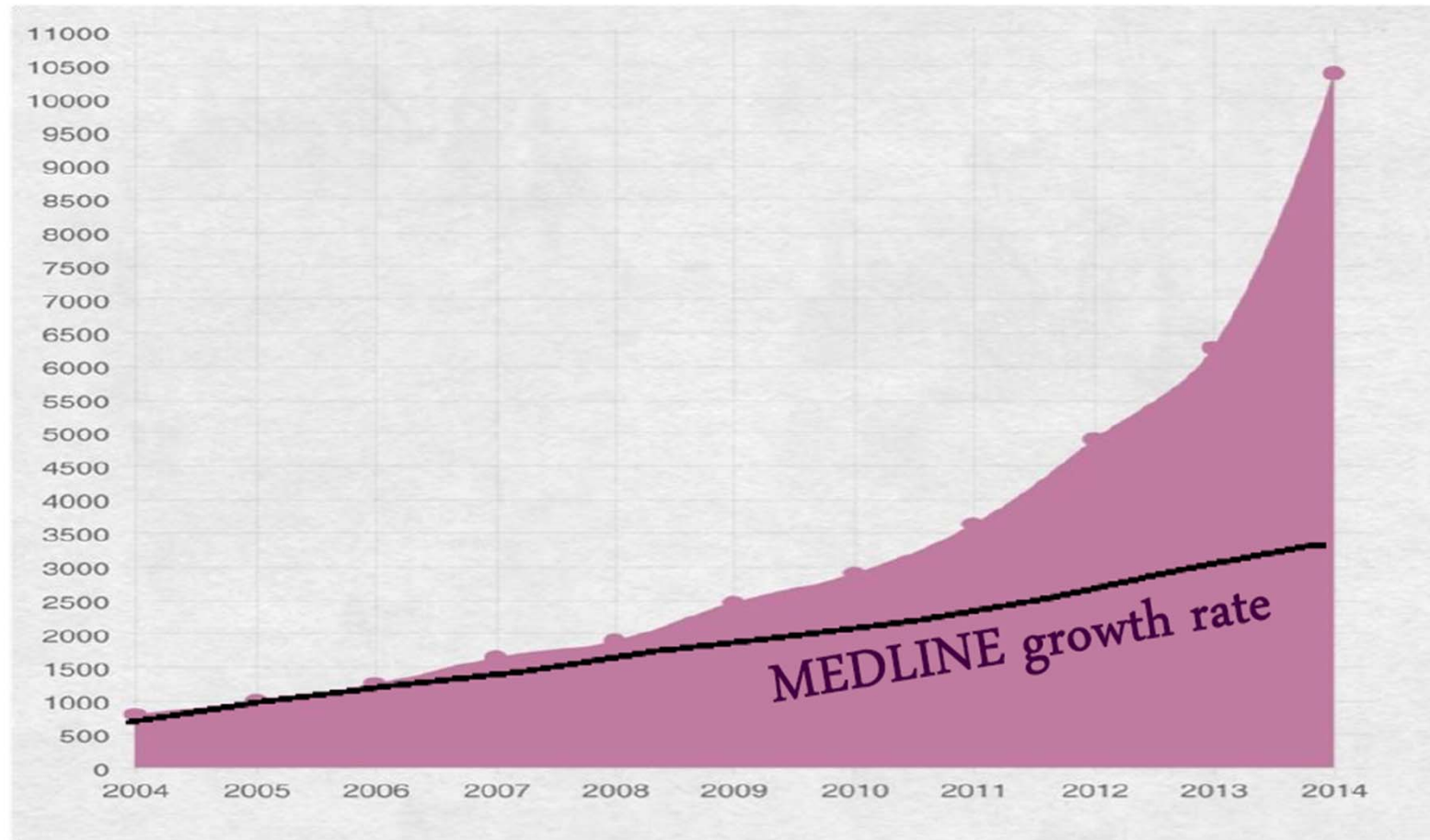
**METHODS**

**RESULTS**

**DISCUSSION**

## Growing of published SR or MA

Introduction

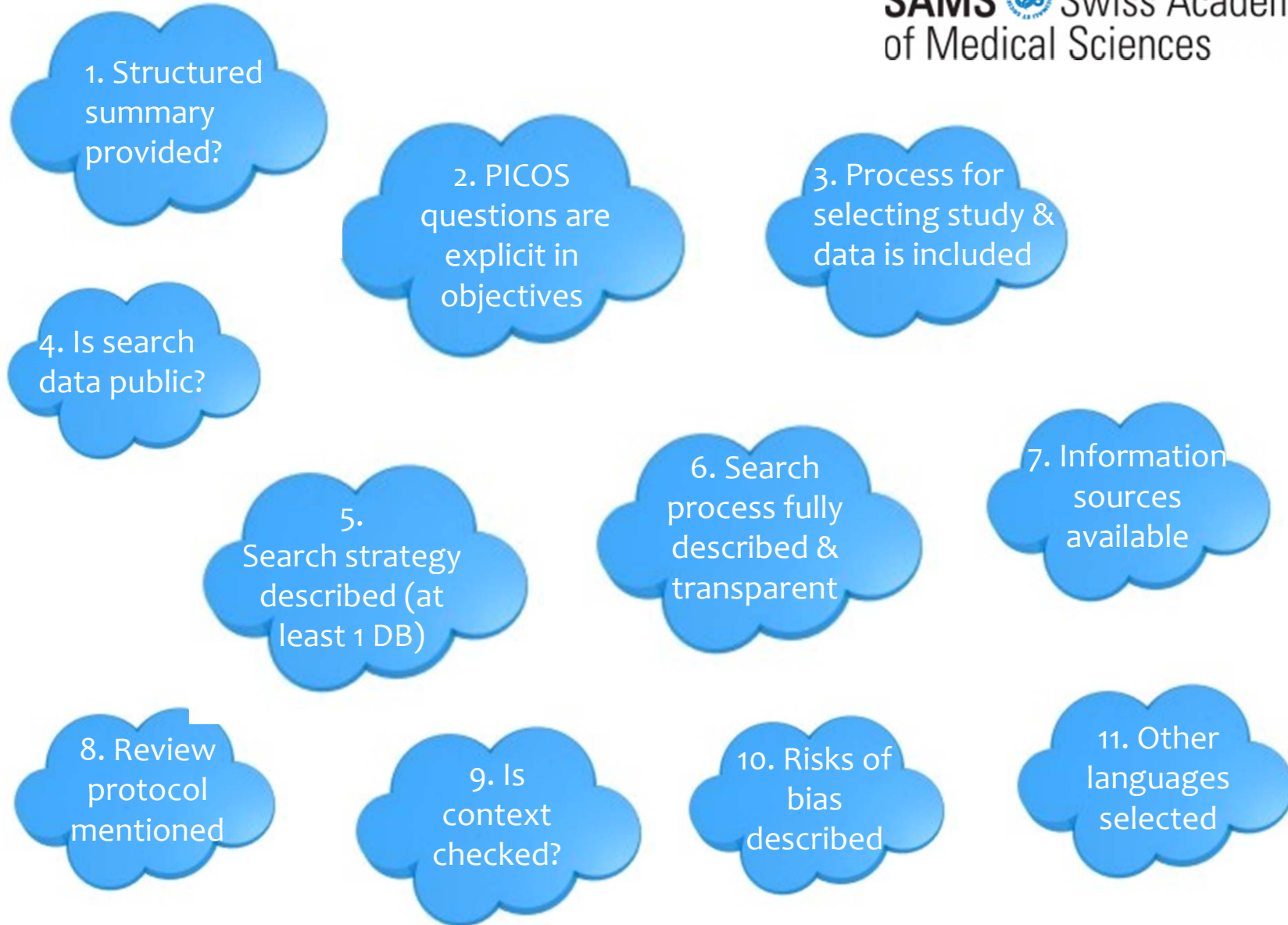


Objectives

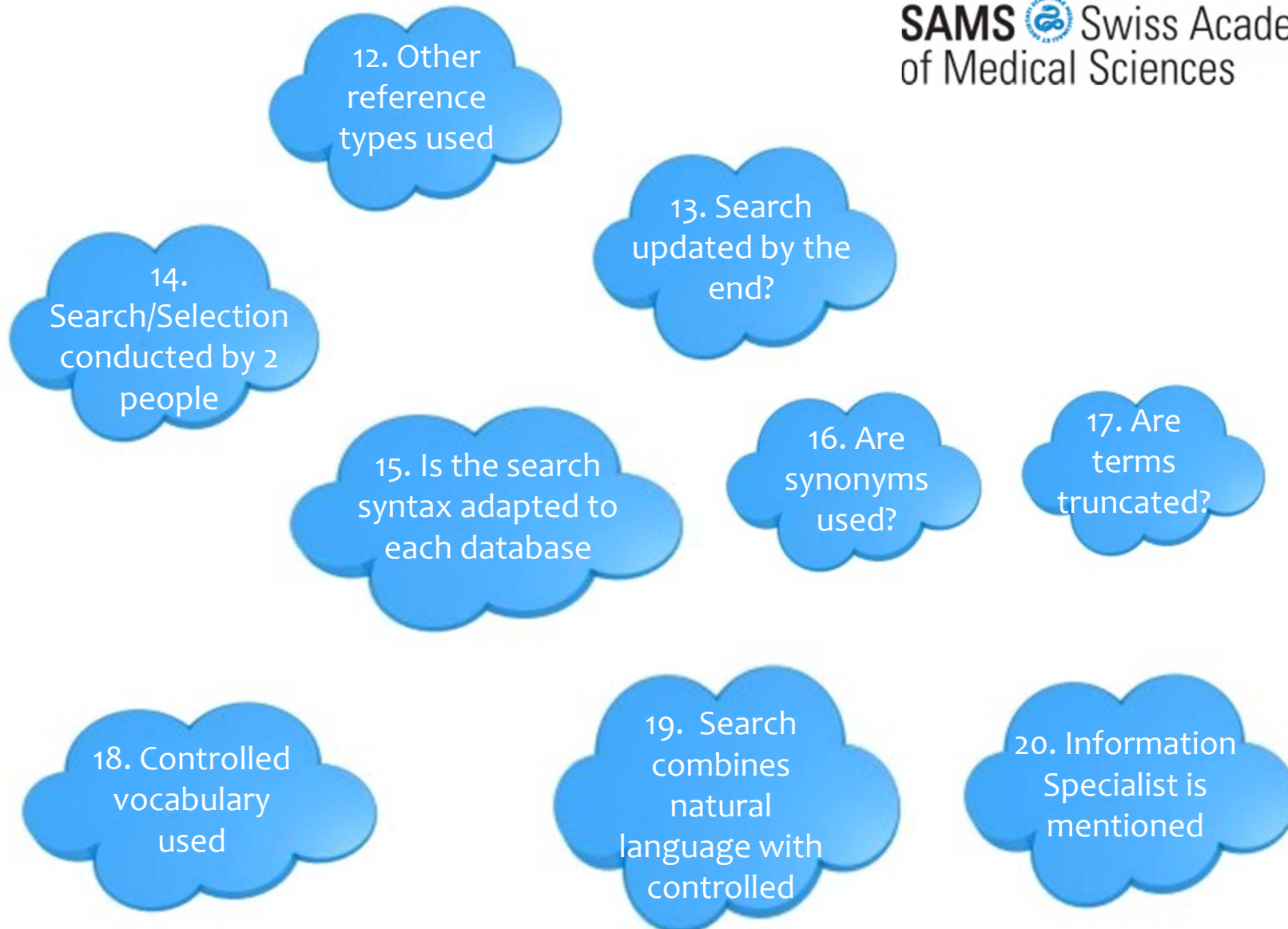


- ✓ **To check if articles using the terms 'systematic review' or 'meta-analysis' in the title accomplish the established requirements, focusing on search and methodology.**
- ✓ **To observe if librarians have participated in a visible manner in the process.**

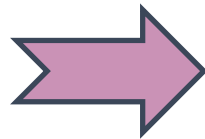
**Methods**



**Methods**



Methods



**Databases:**

Embase + Medline

**Subject:**

congenital  
malformations

**Title:**

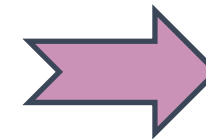
Systematic Review OR  
Meta-analysis

**Year:**

2004-2014

**Languages:**

English, Spanish,  
French, German

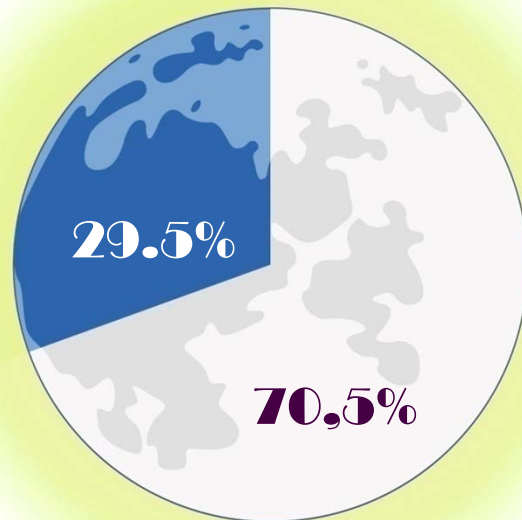


**162**  
**references**

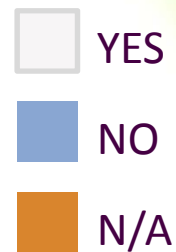
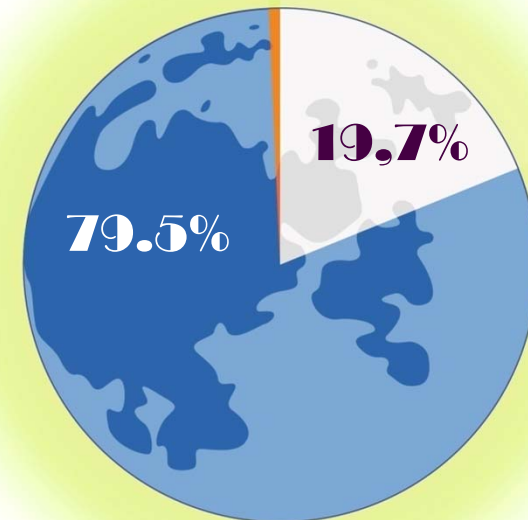


Results

### 1. Structured Summary

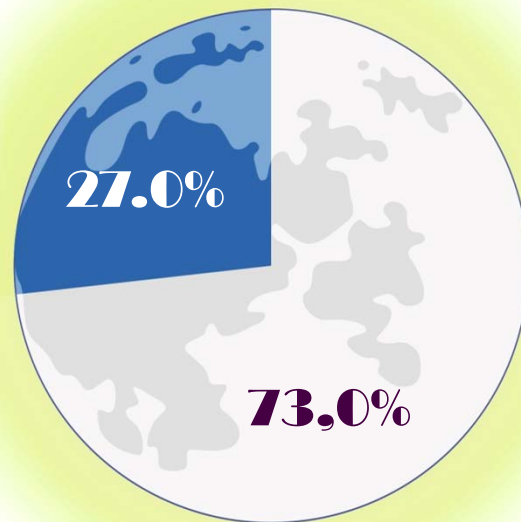


### 2. PICOS explicit in objectives

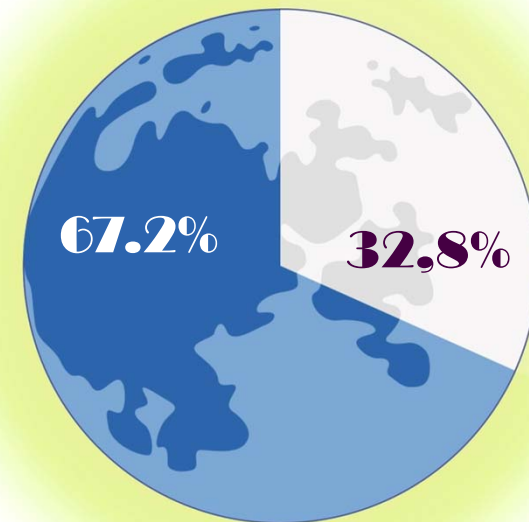


Results

### 3. Process for selecting studies and data included

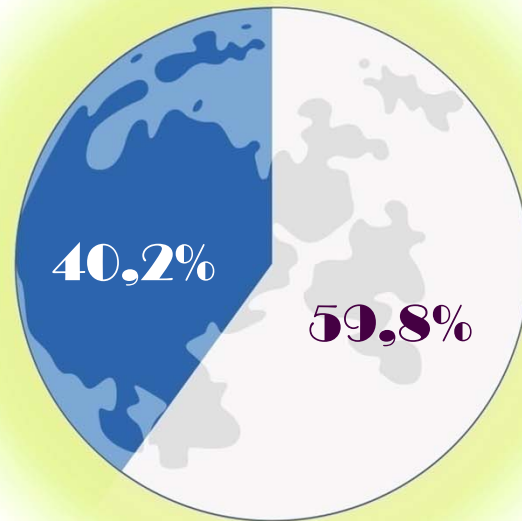


### 4. Search date public

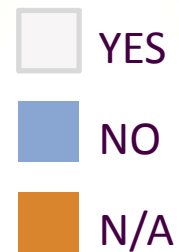
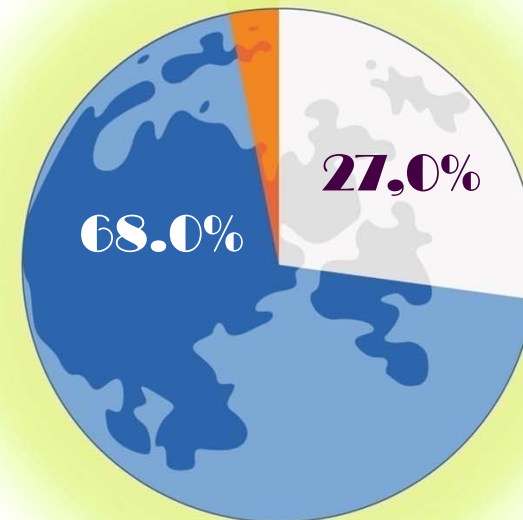


Results

### 5. Search Strategy described

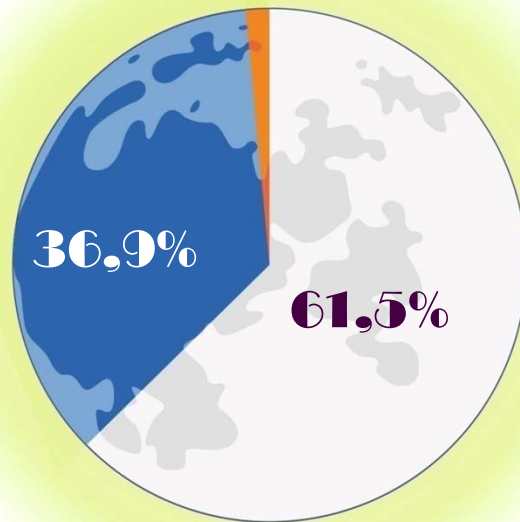


### 6. Search Process described/transparent

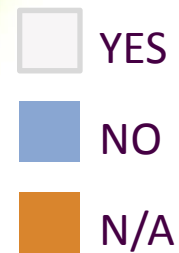
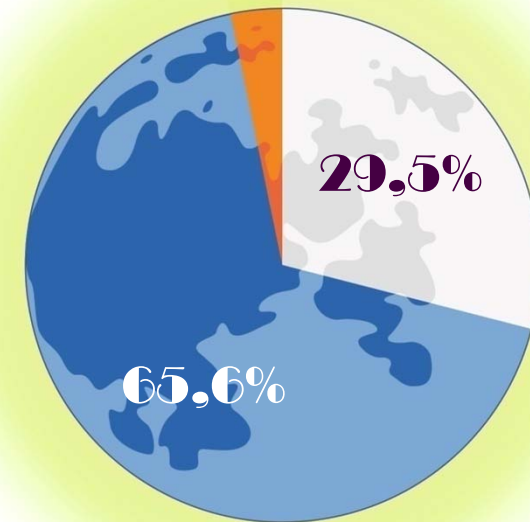


Results

### 7. Information sources available

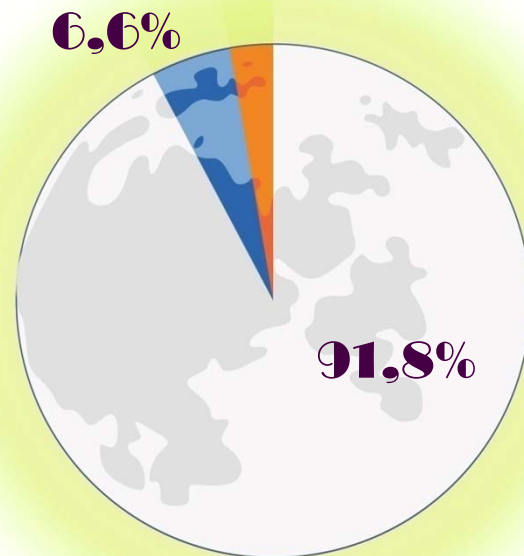


### 8. Review protocol mentioned

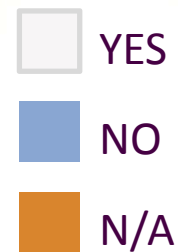
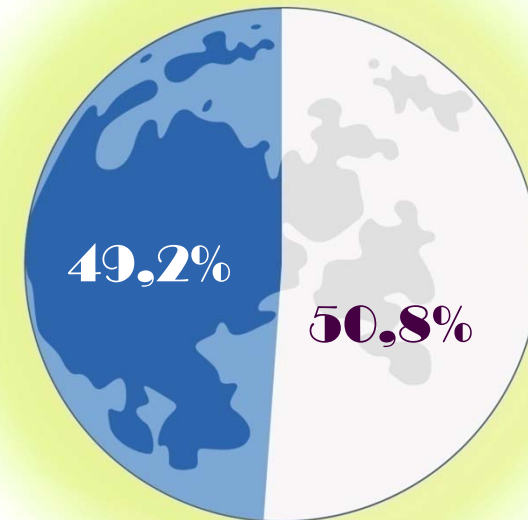


Results

### 9. Context Checked

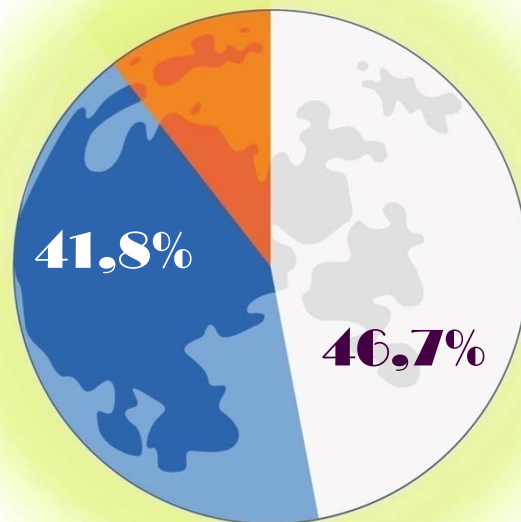


### 10. Risks of bias described

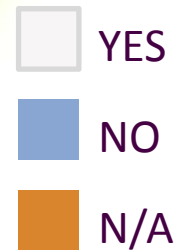
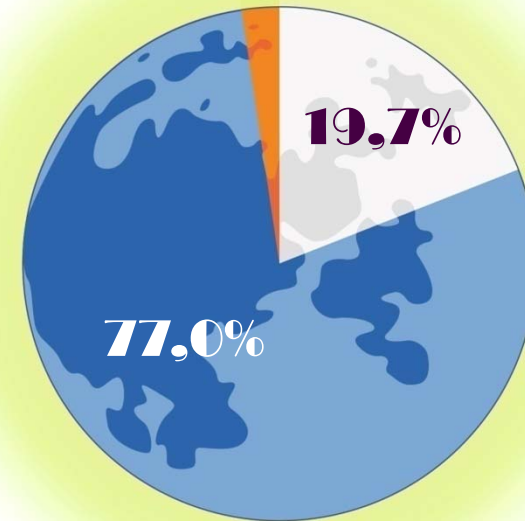


Results

### 11. Other languages selected

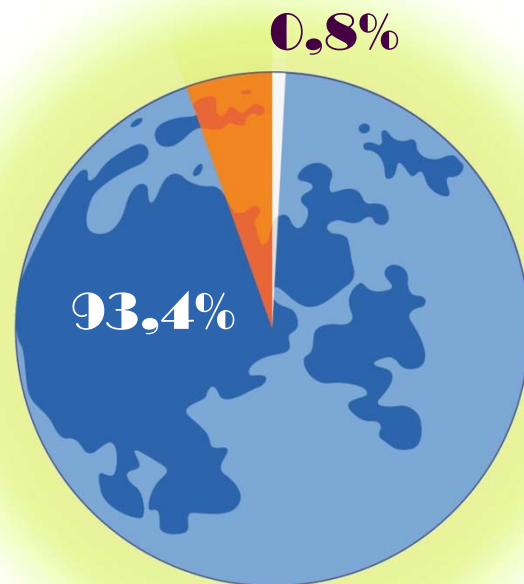


### 12. Other document types used

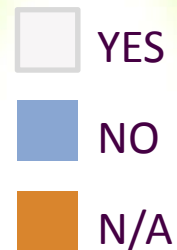
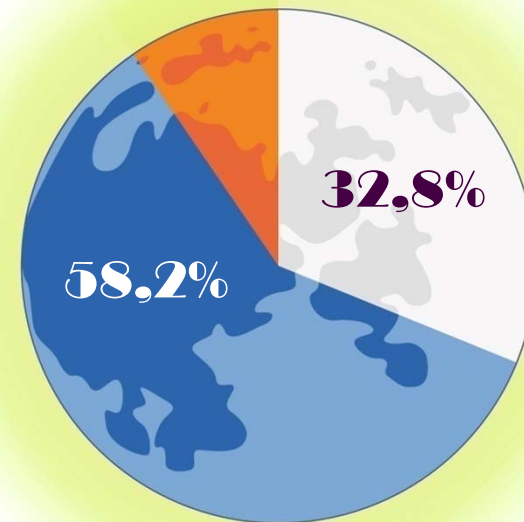


Results

13. Search updated by  
the end

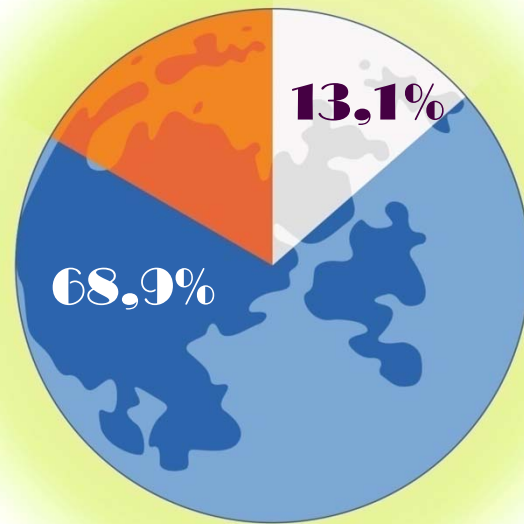


14. Search or selection  
conducted by 2 people

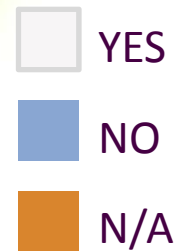
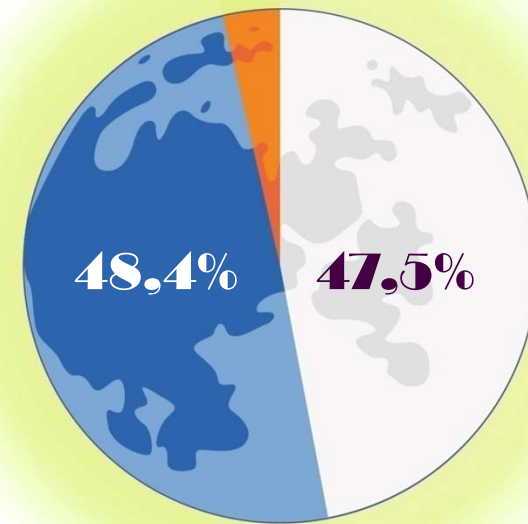


Results

### 15. Search Syntax adapted to databases



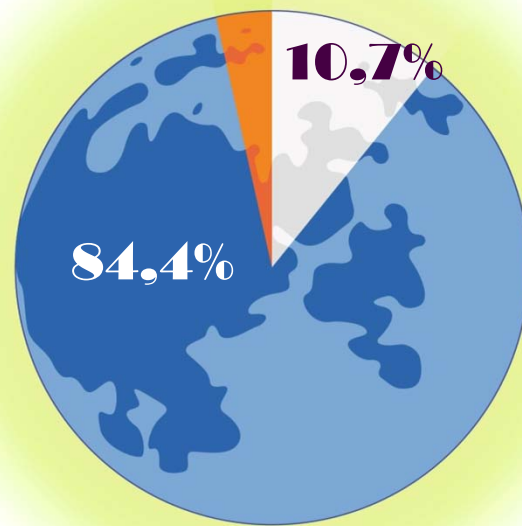
### 16. Synonyms used



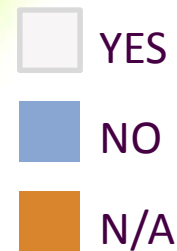
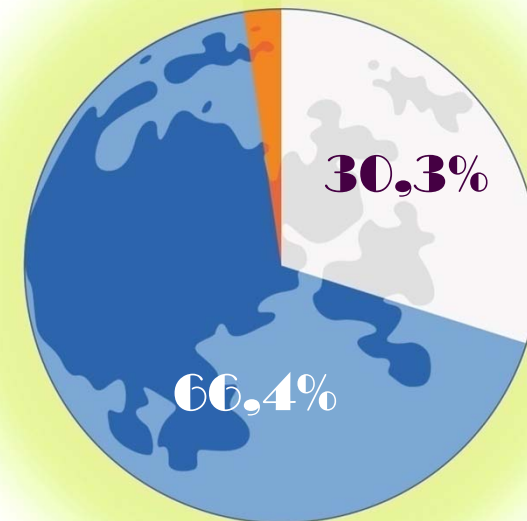


Results

### 17. Terms truncated

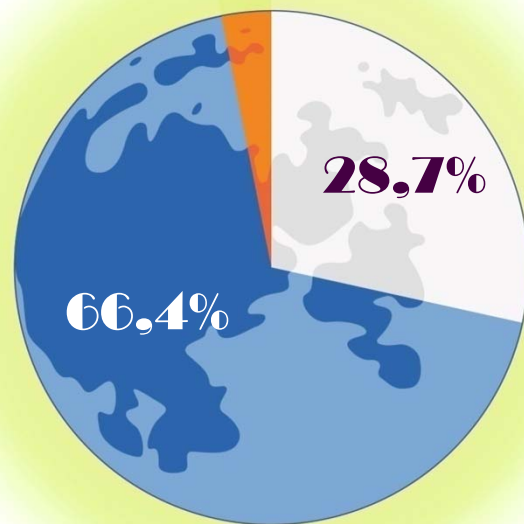


### 18. Controlled vocabulary used

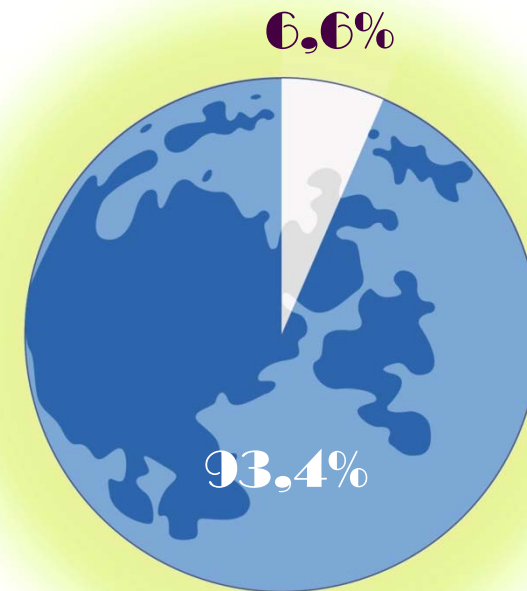


Results

### 19. Natural language and controlled vocabulary combined

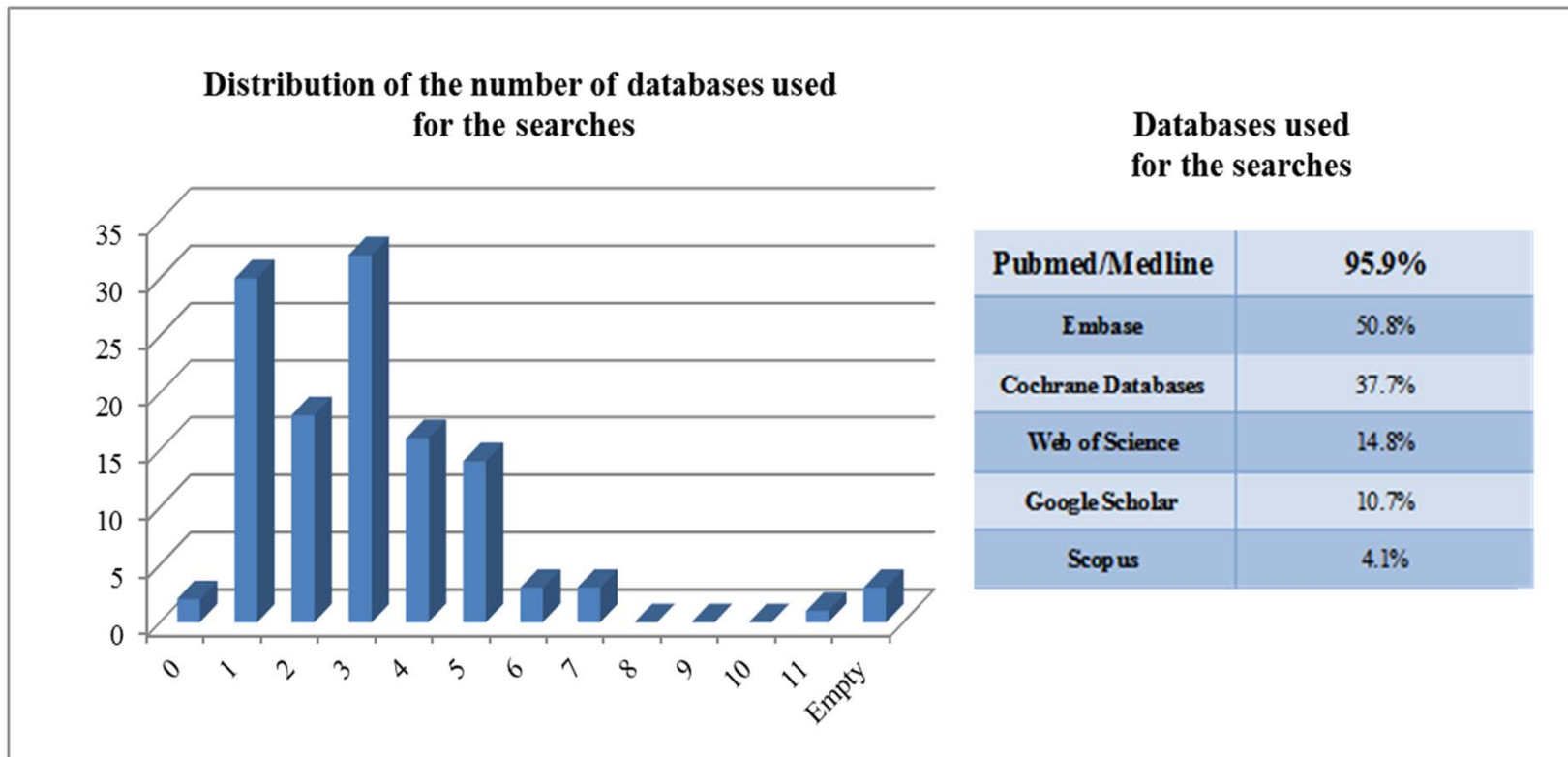


### 20. Information Specialist mentioned



## Databases used for the search

Results



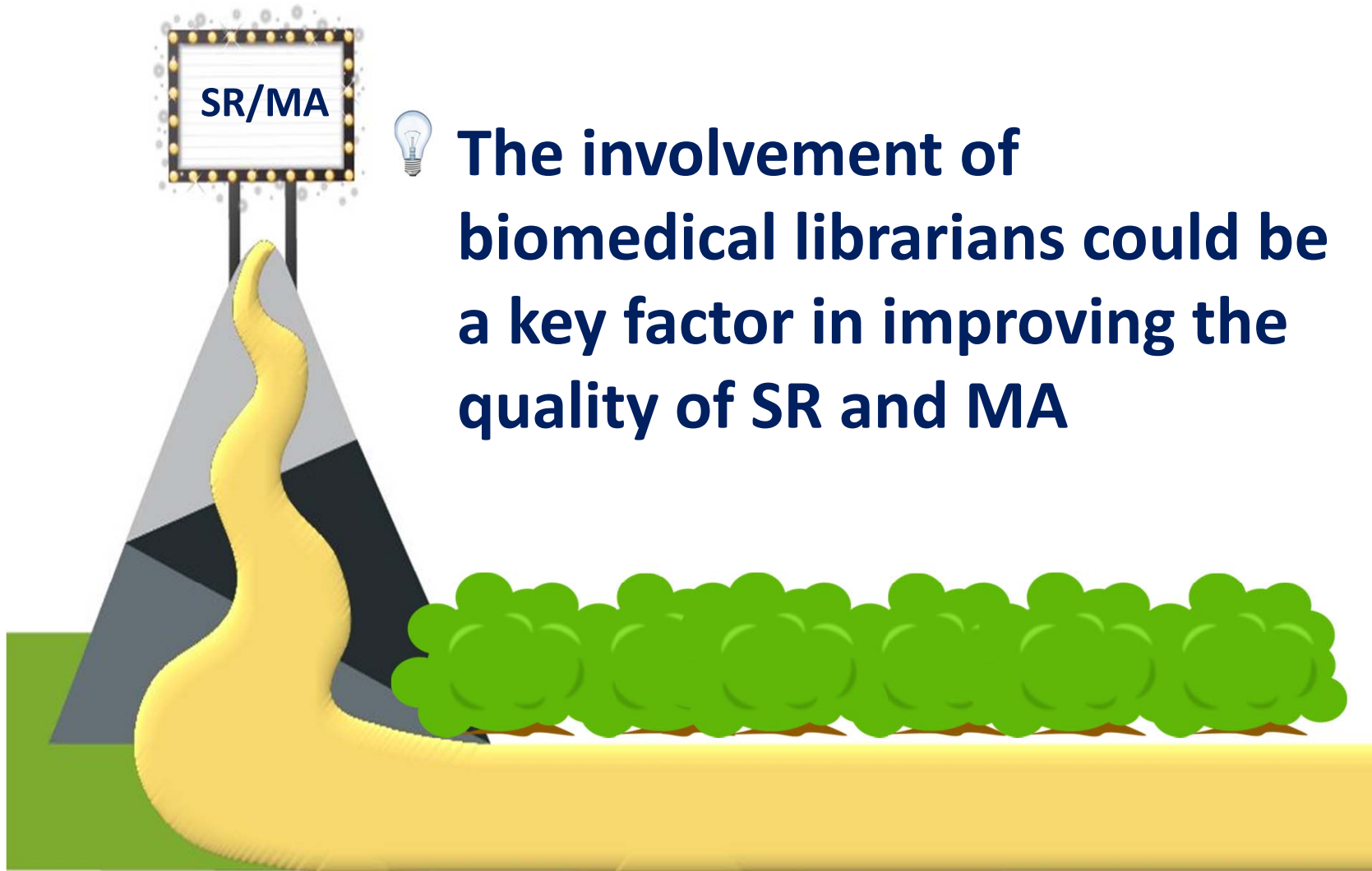
Results

Question	Yes	No	N/A
Context is checked?	91,8%	6,6%	1,6%
The process for selecting study and data is included?	73,0%	27,0%	0%
Structured summary provided?	70,5%	29,5%	0%
Information sources are available?	61,5%	36,9%	1,6%
Electronic search strategy is described for at least one database?	59,8%	40,2%	0%
Risks of bias are described?	50,8%	49,2%	0%
Synonyms are used?	47,5%	48,4%	4,1%
Other languages are selected?	46,7%	41,8%	11,5%
The search or the selection is conducted by two different people?	32,8%	58,2%	9,0%
The search date is public?	32,8%	67,2%	0%
A controlled vocabulary is used?	30,3%	66,4%	3,3%
A review protocol is mentioned?	29,5%	65,6%	4,9%
The search combines natural language terms with controlled terms?	28,7%	66,4%	4,9%
The search process is fully described and transparent?	27,0%	68,0%	4,9%
There are other references types used?	19,7%	77,0%	3,3%
PICOS questions are explicit in the objectives?	19,7%	79,5%	0,8%
The search syntax is adapted to each database?	13,1%	68,9%	18,0%
Terms are truncated?	10,7%	84,4%	4,9%
An information specialist is mentioned?	6,6%	93,4%	0%
The search is updated by the end of the writing of the article?	0,8%	93,4%	5,7%

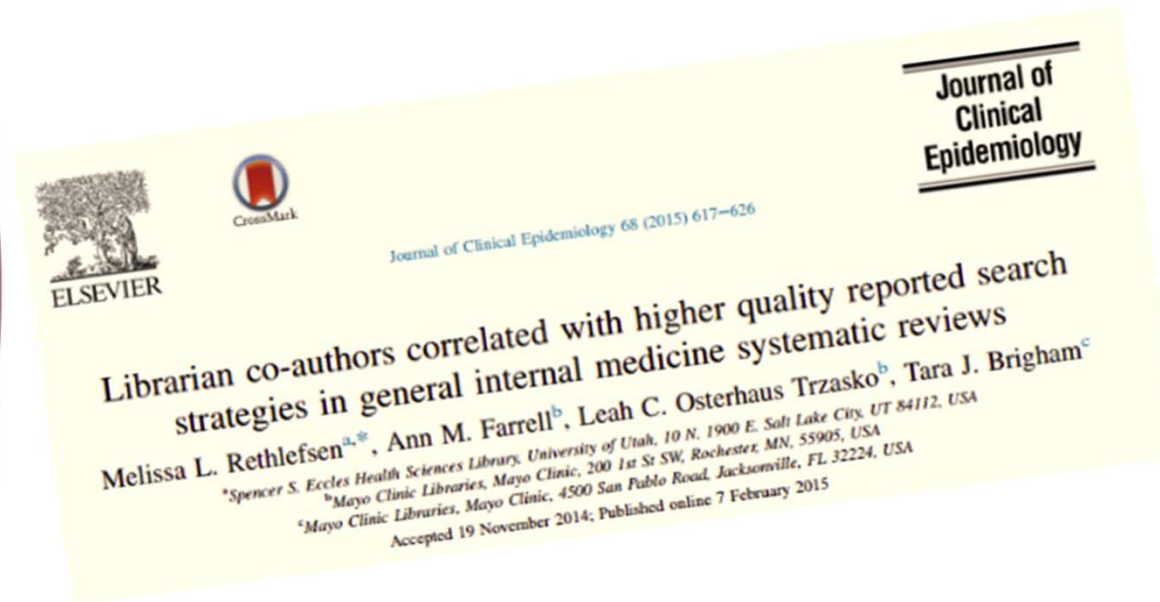
## Conclusions

- 💡 Additional databases and other resources should be searched → best & accuracy results
- 💡 Lack in methods and resources
- 💡 Search Strategies are mostly not transparent/not reproducible
- 💡 Publishers should guarantee that the main guidelines are accomplished by the authors
- 💡 In the SR referred guidelines there are no exhaustive recommendations about the search methodology

Conclusions



# Conclusions



Rethlefsen ML, et al.  
J Clin Epidemiol.  
2015 Jun;68(6):617-  
26.

1st recommendation: Information specialists should form an integral part of the project team of a systematic review from the beginning of the project.

(2.2.1. Expertise in searching)



**Thanks!**  
**Danke!**  
**Merci!**  
**Grazie!**

