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27-28 MARÇO 2014

FACULDADE DE MEDICINA  
DA UNIVERSIDADE DE LISBOA



# **Uso do MeSH (Medical Subject Heading) ‘Portugal’ na produção indexada da Acta Medica Portuguesa**

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**XI Jornadas APDIS**  
**27 e 28 de Março de 2014**





# Medical Subject Headings (MeSH)

**NIH U.S. National Library of Medicine**

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Home > Library Catalogs & Services > Fact Sheets > *Medical Subject Headings (MeSH®)*

## **Fact Sheet** **Medical Subject Headings (MeSH®)**

### **The Thesaurus**

MeSH is the National Library of Medicine's controlled vocabulary thesaurus. It consists of sets of terms naming descriptors in a hierarchical structure that permits searching at various levels of specificity.

MeSH descriptors are arranged in both an alphabetic and a hierarchical structure. At the most general level of the hierarchical structure are very broad headings such as "Anatomy" or "Mental Disorders." More specific headings are found at more narrow levels of the twelve-level hierarchy, such as "Ankle" and "Conduct Disorder." There are 27,149 descriptors in 2014 MeSH. There are also over 218,000 entry terms that assist in finding the most appropriate MeSH Heading, for example, "Vitamin C" is an entry term to "Ascorbic Acid." In addition to these headings, there are more than 219,000 headings called Supplementary Concept Records (formerly Supplementary Chemical Records) within a separate thesaurus.

### **MeSH Applications**

The MeSH thesaurus is used by NLM for indexing articles from 5,400 of the world's leading biomedical journals for the MEDLINE®/PubMed® database. It is also used for the NLM-produced database that includes cataloging of books, documents, and audiovisuals acquired by the Library. Each bibliographic reference is associated with a set of MeSH terms that describe the content of the item. Similarly, search queries use MeSH vocabulary to find items on a desired topic.

### **Establishing and Updating MeSH**

The Medical Subject Headings Section [staff](#) continually revise and update the MeSH vocabulary. Staff subject specialists are responsible for areas of the health sciences in which they have knowledge and expertise. In addition to receiving suggestions from indexers and others, the staff collect new terms as they appear in the scientific literature or in emerging areas of research; define these terms within the context of existing vocabulary; and recommend their addition to MeSH. Professionals in various disciplines are also consulted regarding broad organizational changes and close coordination is maintained with various specialized vocabularies.

### **MeSH Data**

MeSH, in machine-readable form, is provided at no charge via electronic means. The MeSH Web site <http://www.nlm.nih.gov/mesh> is the central access point for additional information about MeSH and for obtaining MeSH in electronic form.

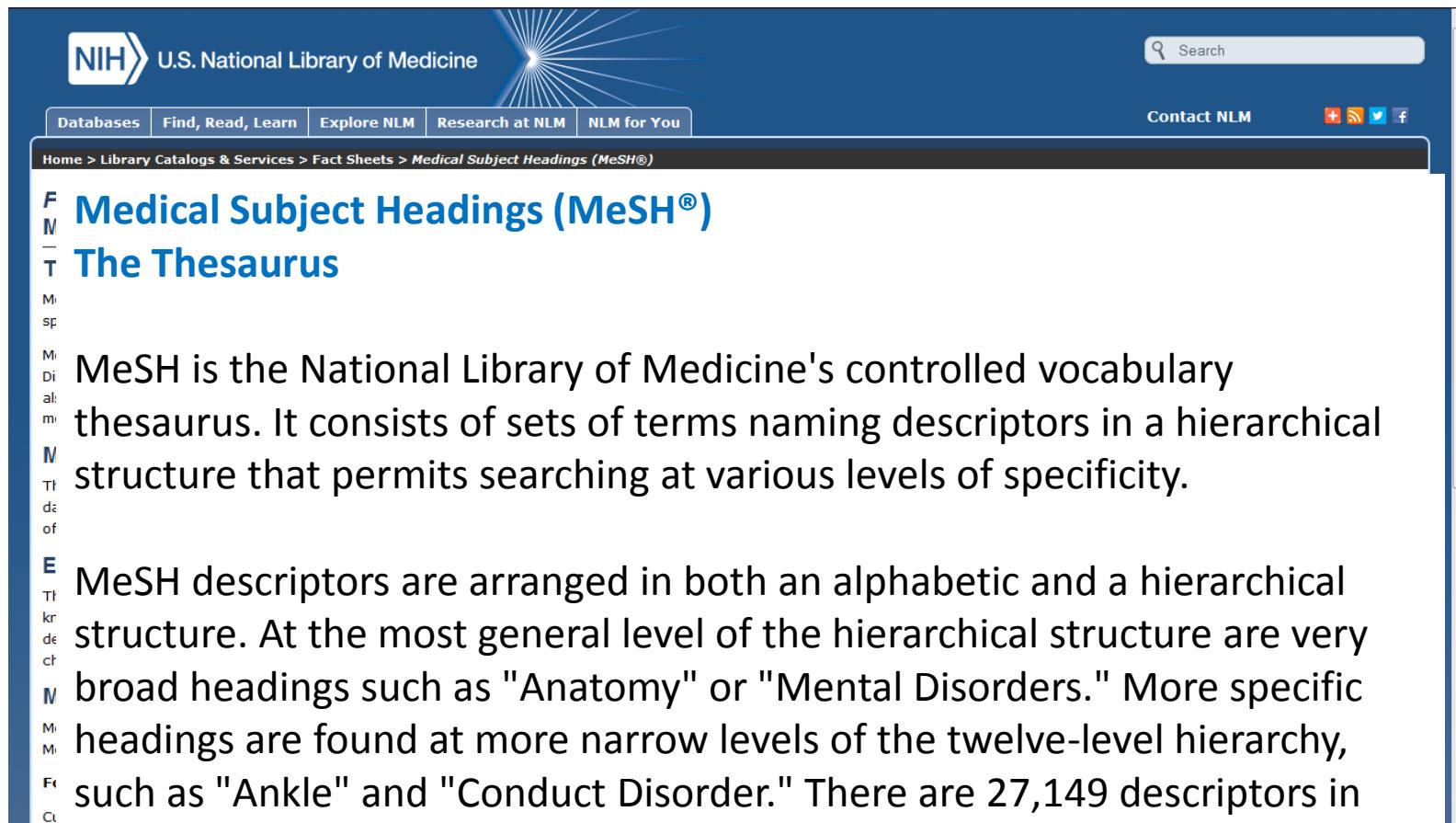
**For information on NLM services, contact:**

Customer Service

<http://www.nlm.nih.gov/pubs/factsheets/mesh.html>



# Medical Subject Headings (MeSH)



The screenshot shows the homepage of the U.S. National Library of Medicine's Medical Subject Headings (MeSH) website. The header includes the NIH logo, the U.S. National Library of Medicine logo, a search bar, and links for Databases, Find, Read, Learn, Explore NLM, Research at NLM, and NLM for You. The main content area displays the title "Medical Subject Headings (MeSH®)" and "The Thesaurus". Below the title, a large text block explains what MeSH is: "MeSH is the National Library of Medicine's controlled vocabulary thesaurus. It consists of sets of terms naming descriptors in a hierarchical structure that permits searching at various levels of specificity." To the left of this text, there is a vertical sidebar with partially visible text and logos for the National Institutes of Health (NIH) and the U.S. National Library of Medicine (NLM).

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# MeSH, porquê?

## Cochrane Handbook for Systematic Reviews of Interventions



Version 5.1.0

[updated March 2011]

Editors: Julian PT Higgins and Sally Green

[Handbook information](#)

[Part 1: Cochrane reviews](#)

[Part 2: General methods for Cochrane reviews](#)

[Part 3: Special topics](#)

[Additional material](#)

# MeSH, porquê?

## Cochrane Handbook for Systematic Reviews of Interventions

### 6.4.5 Controlled vocabulary and text words

MEDLINE and EMBASE (and many other databases) can be searched using standardized subject terms assigned by indexers. Standardized subject terms (as part of a controlled vocabulary or thesaurus) are useful because they provide a way of retrieving articles that may use different words to describe the same concept and because they can provide information beyond that which is simply contained in the words of the title and abstract.

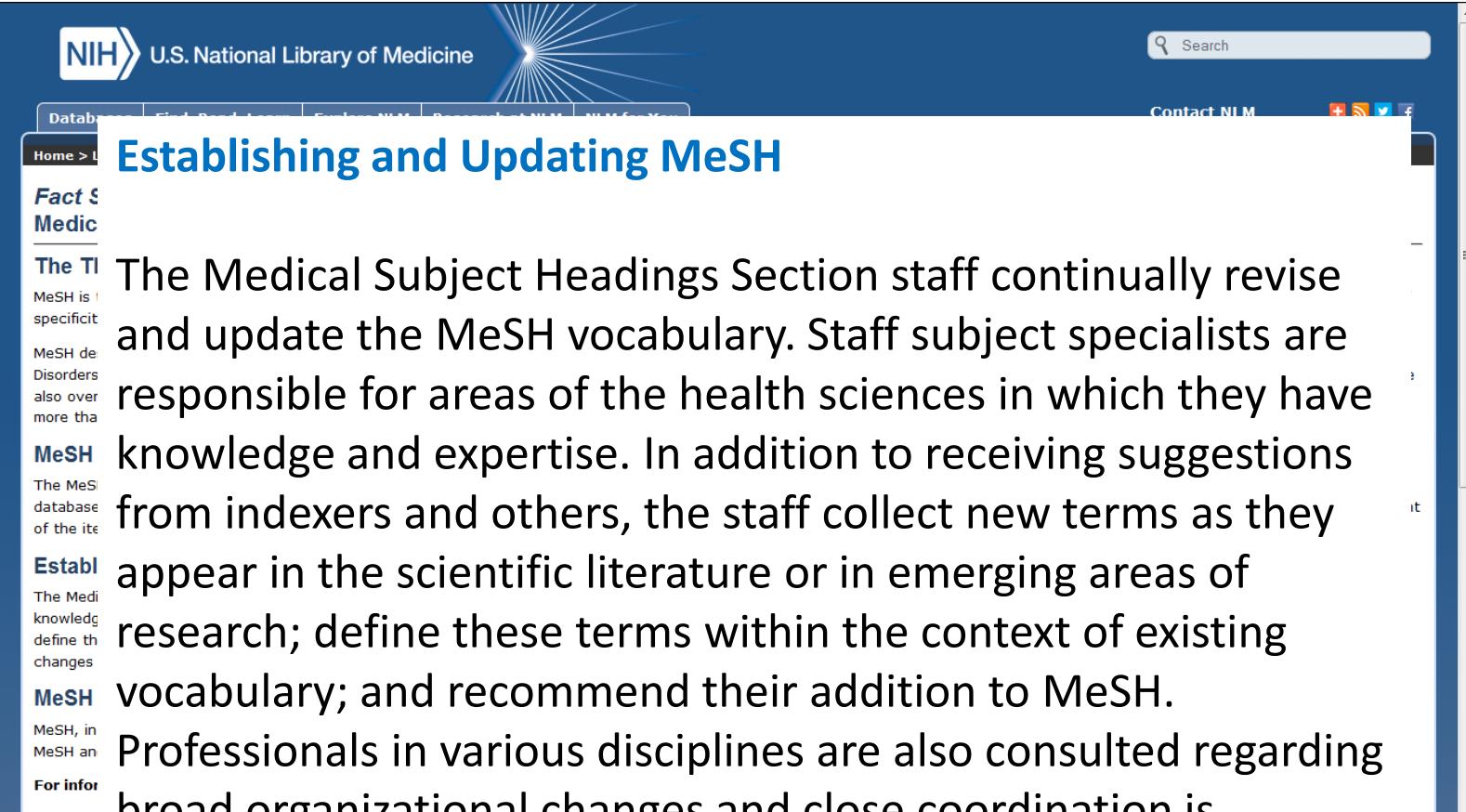
# MeSH, porquê?

## Cochrane Handbook for Systematic Reviews of Interventions

### 6.4.5 Controlled vocabulary and text words

When searching for studies for a systematic review, however, the extent to which subject terms are applied to references should be viewed with caution. Authors may not describe their methods or objectives well and indexers are not always experts in the subject areas or methodological aspects of the articles that they are indexing. In addition, the available indexing terms might not correspond to the terms the searcher wishes to use.

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# Medical Subject Headings (MeSH)



## MeSH Staff:

- Kilbourne, John, MD. (Section Head). Medical Doctor
- Case, James T., DVM., PhD. Pathology
- Cho, Dan-Sung, PhD. Genetics
- Hui, Chris. Cellular Biology and Molecular Genetics
- Jarnot, Miranda, PhD. Neurophysiology/Biomedical Sciences
- Koroma, Barba, PhD. Biochemistry and Biotechnology
- Pash, James, PhD. Biochemistry
- Powell, Tammy. Technical Information Specialist
- Schulman, Jacque-Lynne. Library Science
- Sorden, Nancy, PhD. Cell Biology and Biochemistry

### Establishing and Updating MeSH

The Medical Subject Headings Section [staff](#) continually revise and update knowledge and expertise. In addition to receiving suggestions from indexers, they define these terms within the context of existing vocabulary; and recommend changes and close coordination is maintained with various specialized vocabularies.

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## Portugal

PubMed search builder options

Subheadings:

 epidemiology ethnology Restrict to MeSH Major Topic. Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): Z01.542.727

Entry Terms:

- Madeira Island

[All MeSH Categories](#)[Geographical Locations Category](#)[Geographic Locations](#)[Europe](#)[Portugal](#)

# MeSH 'Portugal'

### [Europe](#)

[Andorra](#)[Austria](#)[Balkan Peninsula](#)[Belgium](#)[Europe, Eastern +](#)[Finland](#)[France +](#)[Germany +](#)[Gibraltar](#)[Great Britain +](#)[Greece](#)[Iceland](#)[Ireland](#)[Italy +](#)[Liechtenstein](#)[Luxembourg](#)[Mediterranean Region +](#)[Monaco](#)[Netherlands](#)[Portugal](#)[San Marino](#)[Scandinavia +](#)[Spain](#)[Switzerland](#)[Transcaucasia +](#)[Vatican City](#)

# MeSH geográficos



U.S. National L

[Databases](#) [Find, Read, Learn](#)[Cataloging: Using Medical Subje](#)[Home > About the NLM > Cataloging >](#)**Module 5—Geographi**

page 3 of 5

Assign the appropriate geographic MeSH term when the scope of the work being cataloged is limited to a particular geographic area and is significant to the topic of the work

**Introduction**

- Module 1**  
**Subject Analysis**  
**Principles**
  - Review Questions

- Module 2**  
**Introduction to MeSH**  
**Headings (MeSH) and the MeSH Browser**
  - Review Questions

- Module 3**  
**Selecting the Main Concept**
  - Review Questions

- Module 4**  
**Use of Topical Subheadings in MeSH**
  - Review Questions

- Module 5**  
**Geographic Headings**
  - Review Questions

- Module 6**
  - Review Questions

**Use of Geographic Headings**

- Assign the appropriate geographic MeSH term when the scope of the work being cataloged is limited to a particular geographic area and is significant to the topic of the work
- Geographic terms may be used in conjunction with any topical terms

**Examples**

- Title: "An Economic Analysis of Drug Eluting Coronary Stents: a Québec Perspective"
  - 650 12 \$a Drug-Eluting Stents \$x economics
  - 650 12 \$a Drug-Eluting Stents \$x utilization
  - 650 22 \$a Coronary Restinosis \$x epidemiology
  - 650 22 \$a Coronary Restinosis \$x prevention & control
  - 651 \_2 Quebec
- Title: "Current Status of Carotid Bifurcation Angioplasty and Atenting"
  - 650 12 \$a Angioplasty \$x trends
  - 650 22 \$a Endarterectomy, Carotid
  - 650 22 \$a Stents \$x utilization
- Do not use a geographic term, even if all the studies were in U.S. hospitals, since the location is not the topical focus

# MeSH geográficos

- Title: "Current Status of Carotid Bifurcation Angioplasty and Atenting"
  - 650 12 \$a *Angioplasty \$x trends*
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  - Do not use a geographic term, even if all the studies were in U.S. hospitals, since the location is not the topical focus

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  - 650 12 \$a *Drug-Eluting Stents \$x utilization*
  - 650 22 \$a *Coronary Restinosis \$x epidemiology*
  - 650 22 \$a *Coronary Restinosis \$x prevention & control*
  - 651 \_2 Quebec

# MeSH 'Portugal'

## Portugal

PubMed search builder options

Subheadings:

epidemiology

ethnology

statistics and numerical data

Restrict to MeSH Major Topic.

Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): Z01.542.727

Entry Terms:

- Madeira Island

[All MeSH Categories](#)

[Geographical Locations Category](#)

[Geographic Locations](#)

[Europe](#)

[Portugal](#)



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# MeSH geográficos

- Avaliação da prevalência de diabetes mellitus no baixo Alentejo
- Factors associated to differences in prevalence of diabetes mellitus in Europe: a systematic review





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# Objectivo

- Este estudo tem como objectivo analisar a idoneidade da utilização do termo MeSH ‘Portugal’ nos artigos da Acta Médica Portuguesa indexados na MEDLINE.
- Estudo piloto: ajuste do método de um estudo mais alargado do uso do MeSH ‘Portugal’ em toda as revistas portuguesas indexadas na MEDLINE.

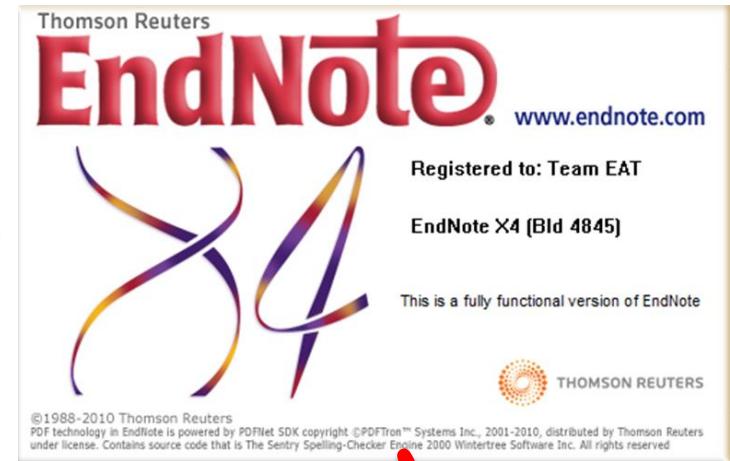
# Métodos



Agosto - 2013



De 1979 a 2012





JORNADAS  
APDIS

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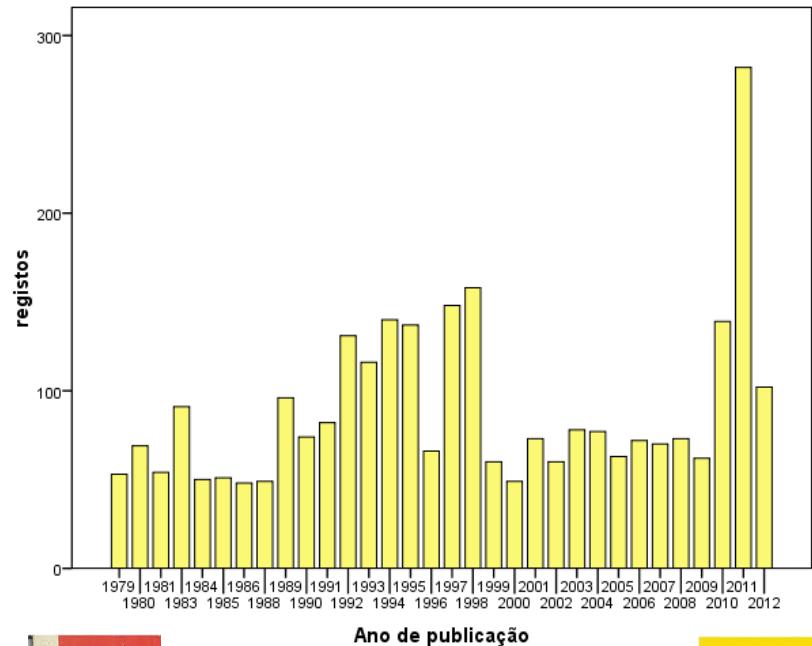
# Métodos

- Para identificar potenciais artigos onde poderia ter sido utilizado o termo MeSH ‘Portugal’, realizaram-se pesquisas nesse ficheiro do EndNote pelas seguintes palavras:
  - Portugal: incluiu-se sempre.
  - Portuguese: apenas quando era o adjetivo relativo ou pertencente a Portugal.
  - National: apenas quando era utilizado como adjetivo relativo a nação portuguesa.
  - Porto: quando se referia à cidade ou à Área Metropolitana do Porto.
  - Lisbo\*: quando se referia à cidade ou à Área Metropolitana de Lisboa.
- Quando aparecia algum destes termos identificou-se o campo onde os mesmos ocorriam: título, abstract, MeSH (registando se estava classificado como Major MeSH) ou afiliação do primeiro autor.



# Resultados

- **2.873 registos indexados na MEDLINE**
- **198 números editados**
- **89,8 (DP=48,1) contribuições por ano**
- **14,5 (DP=6,8) contribuições por número**
- **2.669 (92,9%) em língua portuguesa**

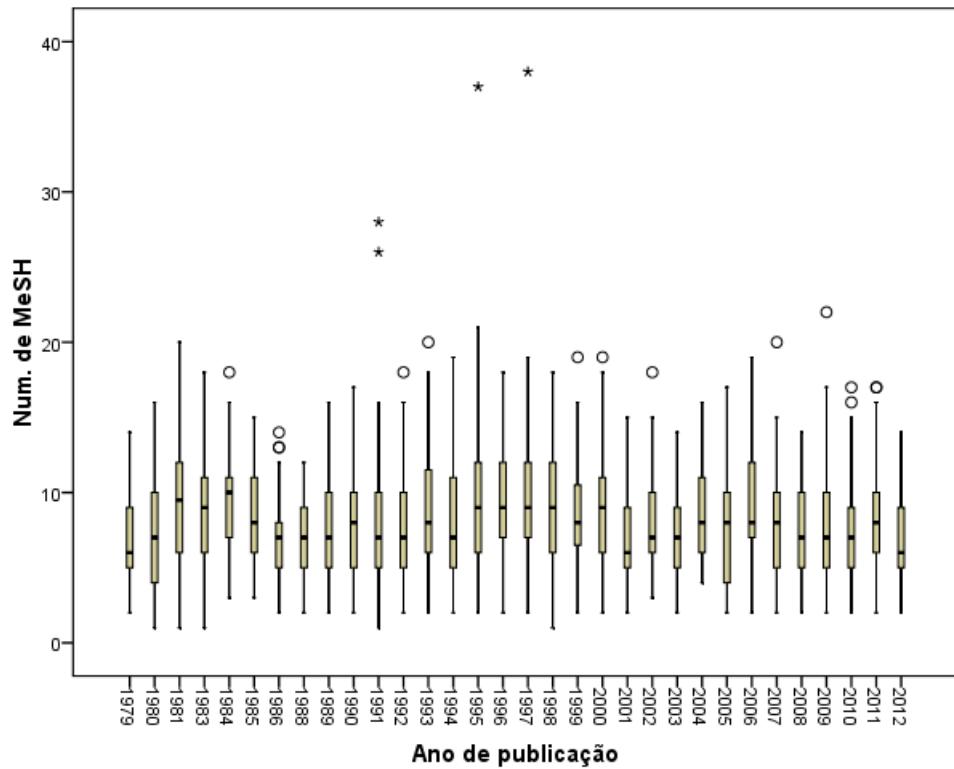


# Resultados

- Em Agosto 2013 havia 6 números, com um total de 75 contribuições, às quais a NLM ainda não tinha atribuído os termos MeSH.
- Os restantes 2.798 artigos foram indexados com uma média de 8,1 (DP=3,7) termos MeSH por artigo.
  - 5 artigos com apenas um termo MeSH,
  - 66 com 2 termos MeSH
  - ...//...
  - 1 artigo com 37 termos MeSH
  - 1 artigo com 38 termos MeSH
- O número de termos MeSH por artigo não apresentou grandes variações ao longo dos anos, sendo o máximo de 9,4 (DP=4,3) nos 148 artigos do ano 1997 e o mínimo de 6,7 (DP=3,0) nos 27 artigos do ano 2012 (Figura 1).

# Resultados

- O número de termos MeSH por artigo é estável ao longo dos anos.
  - Máx: 9,4 (DP=4,3) nos 148 artigos do ano 1997
  - Mín: de 6,7 (DP=3,0) nos 27 artigos do ano 2012





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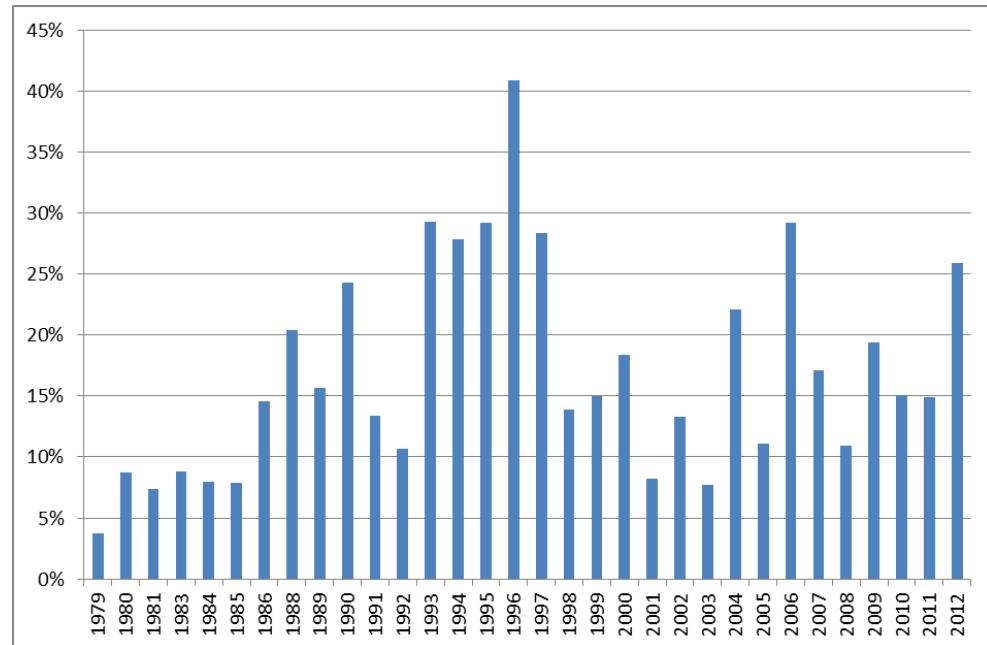


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# Resultados

- O termo MeSH ‘Portugal’ aparece em 492 artigos (17,6% dos 2.798 que têm termos MeSH atribuídos)



- Nunca aparece indicado como Major MeSH.



# Resultados

**Portugal , Portuguese, National, Porto, Lisbo\***  
**no abstract**

		Não	Sim	Tot,
MeSH 'Portugal'	Não	1579 89,0%	196 11,0%	1775
	Sim	154 39,6%	235 60,4%	389
	Tot.	1733	431	2164



# Resultados

**Portugal , Portuguese, National, Porto, Lisbo\***  
no título

		Não	Sim	Tot.
MeSH 'Portugal'	Não	2289 99,3%	17 0,7%	2306
	Sim	313 63,6%	179 36,4%	492
	Tot.	2602	196	2798



# Resultados

**Portugal , Portuguese, National, Porto, Lisbo\***  
no título ou no abstract

		Não	Sim	Tot.
MeSH 'Portugal'	Não	1574 88,7%	201 11,3%	1775
	Sim	133 34,2%	256 65,8%	389
	Tot.	1707	457	2164



# Resultados

- [Hepatic amebiasis in Lisbona. Apropos of a clinical case]
- [I National Congress of echography. Final echoes]
- [III National Meeting of Health Research. Development and Medical Technology]
- A case of Kawasaki disease in Portugal
- Autoantibodies in alcoholic liver cirrhosis in Portugal
- Alternatives to a bureaucratic structure for the national health service. The point of view of a nurse
- [Treatment of acute promyelocytic leukemia with trans-retinoic acid. Experience of the Santa Maria Hospital, Medical School of Lisbon]
- [Bone marrow transplantation with major ABO incompatibility. Experience at the bone marrow transplantation unit of the Center of Lisbon at the IPOFG]
- [Multicenter study of isolated micro-organisms resistant to antimicrobials in 10 Portuguese hospitals in 1994]
- [Profile of the resistance to macrolides and imidazoles of Helicobacter pylori in a sample of the Portuguese population]
- [Analysis of mutations in the BRCA1 gene in patients with cancer of the breast and/or the ovary in Portugal]
- [Cutaneous leishmaniosis in Portugal due to Leishmania infantum MON-1]
- [Pneumocystis jiroveci infection in immunocompetent patients with pulmonary disorders, in Portugal]
- [Macronutrient and ethanol intake in Portuguese adults]
- [Use of granulocyte growth factors: recommendations of the Portuguese Society of Hematology]
- [Clinical and therapeutic analysis of type 2 diabetics in Portuguese community pharmacies]
- [The importance of simulation in team training on obstetric emergencies: results of the first phase of the national plan for continuous medical training]



# Conclusão

- A atribuição do termo MeSH ‘Portugal’ actualmente realizada pela NLM parece estar mais associada aos títulos dos artigos que ao conteúdo dos abstracts, uma vez que mostra uma sensibilidade muito maior (91%) quando considerado o título como padrão do que quando considerado o abstract (54%).
- Com vista ao aumento da visibilidade da produção no geral, este facto reforça mais uma vez a necessidade da utilização de títulos declarativos (não figurativos) e suficientemente descritivos do conteúdo do artigo. Com vista ao aumento da visibilidade da literatura biomédica portuguesa, deveria considerar-se a utilização de topónimos que identifiquem o âmbito do estudo.