DeCS
Health Sciences Descriptors

BIREME/PAHO/OMS

Unit: DeCS
Office: Sources of Referencial Information
Department: Information Sources Administration

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Summary

• What DeCS is
• Use
• DeCS in numbers
• Structure
• Main categories
• Term distribution by categories
• Annual growth
• Site options
• DeCS Search
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• Vocabulary characteristics
What DeCS is

DeCS – the Portuguese acronym for Descritores em Ciências da Saúde, or Health Sciences Descriptors

- Controlled trilingual vocabulary created by BIREME in 1982.

- Developed from the Medical Subject Headings of the U.S. National Library of Medicine – MESH

- An integrating component of the VHL
Use

Its main goals are:

• To serve as a unique language for the indexing of scientific and technical health literature among the Latin American and Caribbean countries;

• To permit search and retrieval by subject in the scientific literature available in the bibliographic databases of the VHL;

• To provide a uniform dialog between the English, Spanish and Portuguese language communities on health topics.
DeCS in numbers

The DeCS vocabulary contains approximately 165,000 terms (descriptors and synonyms) being:

- 47,000 from MeSH
- 94,000 from MeSH descriptor translations
- 24,000 from other DeCS descriptors and synonyms and their translations and extra synonyms (or see cross references) added to MeSH descriptors

Source: 2005 DeCS
The DeCS vocabulary is divided into 19 categories (or areas):

- 15 categories coming from MeSH
- 4 categories created by BIREME in association with the specialized institutions (Science and Health, Homeopathy, Public Health and Health Surveillance)
Main Categories

A - Anatomy
B - Organisms
C - Diseases
D - Chemicals And Drugs
E - Analytical, Diagnostic And Therapeutic Techniques And Equipment
F - Psychiatry And Psychology
G - Biological Sciences
H - Physical Sciences
HP - Homeopathy
I - Anthropology, Education, Sociology And Social Phenomena
J - Technology And Food And Beverages
K - Humanities
L - Information Science
M - Persons
N - Health Care
SH - Science And Health
SP - Public Health
VS - Health Surveillance
Z - Geographic Locations
Category A: Anatomy

A- Anatomy

A01- Body Regions
A02- Musculoskeletal System
A03- Digestive System
A04- Respiratory System
A05- Urogenital System
A06- Endocrine System
A07- Cardiovascular System
A08- Nervous System
A09- Sense Organs
A10- Tissues
A11- Cells
A12- Fluids and Secretions
A13- Animal Structures
A14- Stomatognathic System
A15- Hemic and Immune Systems
A16- Embryonic Structures
A17- Integumentary System
Category B: Organisms

**B- Organisms**

- B01- Animals
- B02- Algae
- B03- Bacteria
- B04- Viruses
- B05- Fungi
- B06- Plants
- B07- Archaea
Category C: Diseases

C- Diseases

C01- Bacterial Infections and Mycoses
C02- Virus Diseases
C03- Parasitic Diseases
C04- Neoplasms
C05- Musculoskeletal Diseases
C06- Digestive System Diseases
C07- Stomatognathic Diseases
C08- Respiratory Tract Diseases
C09- Otorhinolaryngologic Diseases
C10- Nervous System Diseases
C11- Eye Diseases
C12- Urologic and Male Genital Diseases
C13- Female Genital Diseases and Pregnancy Complications
Category C: Diseases  
(continued)

C14-  Cardiovascular Diseases
C15-  Hemic and Lymphatic Diseases
C16-  Congenital, Hereditary, and Neonatal Diseases and Abnormalities
C17-  Skin and Connective Tissue Diseases
C18-  Nutritional and Metabolic Diseases
C19-  Endocrine System Diseases
C20-  Immune System Diseases
C21-  Disorders of Environmental Origin
C22-  Animal Diseases
C23-  Pathological Conditions, Signs and Symptoms
Category D: Chemicals and Drugs

D- Chemicals and Drugs
  D01- Inorganic Chemicals
  D02- Organic Chemicals
  D03- Heterocyclic Compounds
  D04- Polycyclic Compounds
  D05- Macromolecular Substances
  D06- Hormones, Hormone Substitutes, and Hormone Antagonists
  D07- Reproductive Control Agents
  D08- Enzymes and Coenzymes
  D09- Carbohydrates
  D10- Lipids
  D11- Growth Substances, Pigments, and Vitamins
  D12- Amino Acids, Peptides, and Proteins
  D13- Nucleic Acids, Nucleotides, and Nucleosides
Category D: Chemicals and Drugs
(continued)

D14- Neurotransmitters and Neurotransmitter Agents
D15- Central Nervous System Agents
D16- Peripheral Nervous System Agents
D17- Anti-Inflammatory Agents, Antirheumatic Agents, and Inflammation Mediators
D18- Cardiovascular Agents
D19- Hematologic, Gastrointestinal, and Renal Agents
D20- Complex Mixtures
D21- Anti-Allergic and Respiratory System Agents
D22- Antineoplastic and Immunosuppressive Agents
D23- Dermatologic Agents
D24- Immunologic and Biological Factors
D25- Biomedical and Dental Materials
D26- Pharmaceutical Preparations
D27- Chemical Actions and Uses
Category E: Analytical Diagnostic and Therapeutic Techniques and Equipment

E- Analytical Diagnostic and Therapeutic Techniques and Equipment
   E01- Diagnosis
   E02- Therapeutics
   E03- Anesthesia and Analgesia
   E04- Surgical Procedures, Operative
   E05- Investigative Techniques
   E06- Dentistry
   E07- Equipment and Supplies
Category F: Psychiatry and Psychology

F- Psychiatry and Psychology
   F01- Behavior and Behavior Mechanisms
   F02- Psychological Phenomena and Processes
   F03- Mental Disorders
   F04- Behavioral Disciplines and Activities
Category G: Biological Sciences

**G- Biological Sciences**

- **G01-** Biological Sciences
- **G02-** Health Occupations
- **G03-** Environment and Public Health
- **G04-** Biological Phenomena, Cell Phenomena, and Immunity
- **G05-** Genetic Processes
- **G06-** Biochemical Phenomena, Metabolism, and Nutrition
- **G07-** Physiological Processes
- **G08-** Reproductive and Urinary Physiology
- **G09-** Circulatory and Respiratory Physiology
- **G10-** Digestive, Oral, and Skin Physiology
- **G11-** Musculoskeletal, Neural, and Ocular Physiology
- **G12-** Chemical and Pharmacologic Phenomena
- **G13-** Genetic Phenomena
- **G14-** Genetic Structures
Category H: Physical Sciences

H- Physical Sciences
H01 Natural Sciences
Astronomy
Biological Sciences
Chemistry
Electronics
Evolution, Chemical
Evolution, Planetary
Geography
Geology
Mathematics
Nanotechnology
Nature
Physics
Science
Time
Weights and Measures
Category HP: Homeopathy

HP- *Homeopathy*
   HP1- Homeopathy
   HP2- Homeopathic Clinics
   HP3- Homeopathic Therapeutics
   HP4- Materia Medica
   HP5- Repertory
   HP6- Homeopathic Semiology
   HP7- Homeopathic Pharmacy
Categories I and J

I- Anthropology, Education, Sociology and Social Phenomena
   I01- Social Sciences
   I02- Education
   I03- Human Activities

J- Technology and Food and Beverages
   J01- Technology, Industry, and Agriculture
   J02- Food and Beverages
Category K: Humanities

K-  Humanities

K01-  Humanities

Art
Awards and Prizes
Ethics
Knowledge
History
Literature
Music
Occultism
Philosophy
Religion
Secularism
Category L: Information Science

L-  *Information Science*

L01-  *Information Science*
   Book Collecting
   Chronology
   Classification
   Communication
   Communications Media
   Computer Security
   Computing Methodologies
   Copying Processes
   Data Collection
   Data Display
   Informatics
   Information Centers
   Information Management
   Information Services
   Information Storage and Retrieval
   Information Theory
   Library Science
   Medical Informatics
   Pattern Recognition, Automated
   Publishing
   Systems Analysis
Category M: Persons

M- Persons

M01- Persons
- Abortion Applicants
- Adult Children
- Age Groups
- Caregivers
- Child of Impaired Parents
- Child, Abandoned
- Child, Exceptional
- Child, Unwanted
- Consultants
- Crime Victims
- Disabled Persons
- Famous Persons
- Friends
- Homebound Persons
- Homeless Persons
- Jehovah's Witnesses
Category M: Persons
(continued)

M01- Persons
  Legal Guardians
  Medically Uninsured
  Men
  Mentors
  Minors
  Multiple Birth Offspring
  Occupational Groups
  Parents
  Patients
  Population Groups
  Prisoners
  Refugees
  Research Personnel
  Research Subjects
  Sexual Partners
  Siblings
  Single Person
  Spouses
Category M: Persons
(continued)

M01- Persons
Students
Survivors
Terminally Ill
Tissue Donors
Transients and Migrants
Veterans
Visitors to Patients
Voluntary Workers
Vulnerable Populations
Women
N- Health Care

  N01- Population Characteristics
  N02- Health Care Facilities, Manpower, and Services
  N03- Health Care Economics and Organizations
  N04- Health Services Administration
  N05- Health Care Quality, Access, and Evaluation
SH Category: Science and Health

SH - Science and Health

SH1 - Health Sciences, Technology and Innovation Management

SH1.010 - Policies and Cooperation in Science, Technology and Innovation

SH1.020 - Scientific and Technical Activities Resources for Research

SH1.040 - Scientific Communication and Diffusion

SH1.050 - Science, Technology and Society
Category SP: Public Health

SP- Public Health

SP1 - Health Administration and Planning
SP2 - Delivery of Health Care
SP3 - Demography
SP4 - Environmental Health
SP5 - Epidemiology and Biostatistics
SP6 - Nutrition
SP8 - Disasters
SP9 - Health Law
Category VS: Health Surveillance

VS-  Health Surveillance
    VS1-  Health Surveillance System
    VS2-  Health Surveillance of Products
    VS3-  Health Surveillance of Health Services
    VS4-  Health Surveillance of Environments
Category Z : Geographic Locations

Z- Geographic Locations
   Z01- Geographic Locations
      Africa
      Americas
      Antarctic Regions
      Arctic Regions
      Asia
      Atlantic Islands
      Australia
      Cities
      Europe
      Historical Geographic Locations
      Indian Ocean Islands
      Oceania
      Oceans and Seas
      Pacific Islands
## Term Distribution by Categories

<table>
<thead>
<tr>
<th>Areas</th>
<th>Percentages</th>
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<tbody>
<tr>
<td>Chemicals and Drugs [D]</td>
<td>23.5%</td>
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<tr>
<td>Anatomy [A], Organisms [B] and Biological Sciences [G]</td>
<td>21.3%</td>
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<tr>
<td>Diseases [C]</td>
<td>12.9%</td>
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<td>Analytical, Diagnostic and Therapeutic Techniques and Equipment [E], Geographic Locations [Z] and the other MeSH categories</td>
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<td>Health Surveillance [VS]</td>
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<td>Science and Health [SH]</td>
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## Annual Growth

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<th>DeCS</th>
<th>2002</th>
<th>2003</th>
<th>growth</th>
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<tr>
<td>Descriptors</td>
<td>74.823</td>
<td>78783</td>
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<tr>
<td>Synonyms</td>
<td>67.086</td>
<td>76.144</td>
<td>13.5%</td>
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<td>Descriptors and Synonyms</td>
<td>141.909</td>
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<td>76.144</td>
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<tr>
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<td>154.927</td>
<td>159.958</td>
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<table>
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<th>DeCS</th>
<th>2004</th>
<th>2005</th>
<th>growth</th>
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<tbody>
<tr>
<td>Descriptors</td>
<td>80.550</td>
<td>83.046</td>
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<tr>
<td>Synonyms</td>
<td>79.408</td>
<td>81.455</td>
<td>2.6%</td>
</tr>
<tr>
<td>Descriptors and Synonyms</td>
<td>159.958</td>
<td>164.501</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
DeCS Site Options

The user finds the following options when he clicks on **HEALTH TERMINOLOGY** on the Regional VHL homepage:

- Texts **ABOUT DECS**;
- The **DECS SEARCH** System;
- **DECS NEWS** *(latest annual changes which include new, modified and deleted descriptors, an overview of these changes, statistical data, and annual changes from previous years)*;
- The **SUGGESTIONS FOR NEW TERMS** form;
- A **USER SUPPORT SERVICE** by e-mail.
DeCS Homepage

http://decs.bvs.br
Alphabetic Index

Enter a word or a root: osteoporosis

or select a letter to initiate the index

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Alphabetic Index

Search on: OSTEOPOROSIS
Displaying: 1 .. 4
From: OSTEOPOROSIS
To: OSTEOPOROSIS, SENILE

OSTEOPOROSIS
OSTEOPOROSIS, AGE-RELATED
OSTEOPOROSIS, POST-TRAUMATIC
OSTEOPOROSIS, POSTMENOPAUSAL
OSTEOPOROSIS, SENILE
Keywords in Context Index

Enter a word or a root: osteoporosis

Keywords in Context Index

Search on: OSTEOPOROSIS
Descriptors Found: 8
Displaying: 1 .. 8
From: age-related OSTEOPOROSIS
To: senile OSTEOPOROSIS

age-related OSTEOPOROSIS
OSTEOPOROSIS
OSTEOPOROSIS, age-related
OSTEOPOROSIS, post-traumatic
OSTEOPOROSIS, postmenopausal
OSTEOPOROSIS, senile
postmenopausal OSTEOPOROSIS
senile OSTEOPOROSIS

New Search  Index  Show  Tree
Tree Index

Enter a descriptor: osteoporosis

or navigate from tree top

ANATOMY +
ORGANISMS +
DISEASES +
CHEMICALS AND DRUGS +
ANALYTICAL, DIAGNOSTIC AND THERAPEUTIC TECHNIQUES AND EQUIPMENT +
PSYCHIATRY AND PSYCHOLOGY +
BIOLOGICAL SCIENCES +
PHYSICAL SCIENCES +
HOMEOPATHY +
ANTHROPOLOGY, EDUCATION, SOCIOLOGY AND SOCIAL PHENOMENA +
TECHNOLOGY AND FOOD AND BEVERAGES +
HUMANITIES +
INFORMATION SCIENCE +
PERSONS +
HEALTH CARE +
PUBLIC HEALTH +
GEOGRAPHIC LOCATIONS +
The descriptor **osteoporosis** belongs to **DISEASES**
the following categories:

**DISEASES**
- **Musculoskeletal Diseases**
- **Bone Diseases**
  - **Bone Diseases, Metabolic**
    - **Bone Demineralization, Pathologic + Mucolipidoses**
    - **Osteomalacia**
  - **Osteoporosis**
    - **Osteoporosis, Postmenopausal**
    - **Pseudohyoparathyroidism + Rickets**
A Sample DeCS Record

Descriptor English: Drugs, Generic
Descriptor Spanish: Medicamentos Genéricos
Descriptor Portuguese: Medicamentos Genéricos
Synonyms English: Drugs, Nonproprietary
                     Generic Drugs
Tree Number: D26.360
             SP1.030.239.748.135
             VS2.002.001.003
Definition English: Drugs whose drug name is not protected by a trademark. They may
                   be manufactured by several companies.
Indexing Annotation English: GEN only or unspecified; D25-26 qualif; for specific drug as a generic,
                             coord IM with drug (IM)
History Note English: 92
Allowable Qualifiers English: administration & dosage
                            analysis
                            classification
                            contraindications
                            economics
                            isolation & purification
                            pharmacology
                            poisoning
                            supply & distribution
                            toxicity
Record Number: 30149
Unique Identifier: D016568
Vocabulary Characteristics

- 3 LANGUAGES
- POLYHIERARCHY
- QUALIFIERS
- CHECK TAGS (OR LIMITS)
- PUBLICATION TYPES
- PRECOORDINATION
There are two kinds of polyhierarchies in the DeCS structure.

1) A descriptor may belong to more than one category;

Example: **Ethics** (F01.829.500.519, K01.316, K01.752.256, N05.350)

Belongs to 3 distinct categories:

- Psychology and Psychiatry (F)
- Humanities (K)
- Health Care (N)
2) A term may belong to several branches of the same category.

Example: **Environmental Education**

It belongs to 2 branches of the same category:

- Public Health (SP)
- Environmental Health (SP4)
- Disasters (SP8)
Qualifiers

Terms that stand next to the descriptors for defining different aspects and points of view.

Examples:
- disease/therapy
- disease/drug therapy
- disease/surgery
- disease/diagnosis
- disease/epidemiology
- pharmaceutical preparations/adverse effects
- pharmaceutical preparations/therapeutic use

The qualifiers and their synonyms may be found in DeCS preceding them by a slash / in the alphabetical index, because this is the way the system recognizes the term as being a qualifier. For 2007, there will be a decrease from the present 83 qualifiers to only about 40.
Check tags (or Limits)

Terms used to specify limits in the scope of research subjects. Differently than the qualifiers, which are related to health, these are generic, and deal with genre (e.g., Male), and type of research (In Vitro). Some, such as some organism terms (e.g., Animals, Humans), and age groups (e.g., Adult), may also be used as regular descriptors.

A complete list may be obtained in the search index of the bibliographic databases of the VHL.
Publication Types

Terms used for describing the document format.

Examples:
LETTER, COMMENTARY, EDITORIAL

Today the complete list is accessible through the “keyword context index, by writing “publication” or in the “publication type” index of the bibliographical databases. For the 2006 DeCS these will have hierarchical codes (or tree numbers) and will be visible in the tree structure.
There are two types of precoordenation:

a) Descriptor1/qualifier use Descriptor2

   Example: HEART/abnormalities use "HEART DEFECTS, CONGENITAL"
            PREGNANCY/complications use "PREGNANCY COMPLICATIONS"

b) Descriptor1 and Descriptor2 use Descriptor3

   Example: “WOUNDS AND INJURIES” and HEART use “HEART INJURIES”
            TRANSPLANTATION and KIDNEY use “KIDNEY TRANSPLANTATION”
Thank you very much.