Objectives

- Understand the life cycle of publishing
- Understand the role of the National Library of Medicine and other database producers
- Articulate the various ways to search MEDLINE
- Demonstrate how to turn a natural language query into a search
- Demonstrate: boolean operators, subject heading searches

Life Cycle of Publishing

Timeline
Exercise

Searching Parts 1-5

Jan 28, Feb 4, Feb 11, Feb 25, Mar 3
Health Related Databases

- Medical databases
  - MEDLINE
  - EMBASE
  - CINAHL
  - EBM
  - IPA (International Pharmaceutical Abstracts)
  - MEDLINEPlus

- Others
  - BioethicsLine
  - Biological Abstracts
  - Web of Science
  - PsycINFO
  - Dissertation Abstracts

Other Controlled Vocabularies

- EMBASE
  - EMTREE
- CINAHL
  - MeSH + other nursing headings
- PsycINFO
  - Thesaurus of terms - broader, narrower, related terms

Database Structure

- What does a journal article have in terms of information?
- How much of this information is can be included in a database record?
- What is in a MEDLINE record?
- What other information is in MEDLINE record?

Searching Part 1 - MEDLINE

- Produced by the National Library of Medicine - US Government supported
- contains over 11 million journal references + links to publisher sites
- covers ~4,600 journals in about 30 languages - ~86% are in english
- ~52% articles published in the US

MEDLINE - Scope

- Coverage: 1966 forward – some older material being added OLDMEDLINE
- Scope: biomedicine and health including life sciences, behavioral sciences, chemical sciences and bioengineering
- Abstracts added in early 70’s

MEDLINE - Interfaces

- PubMed – free to anyone
- Commercial vendors such as DIALOG, OVID, EBSCO – search costs based on vendor charges
- Internet Sites such as MDConsult - be alert to how the search interface works
**PubMed - Content**
- Updated Tues - Sat
- Contains
  - PubMed - in process - not fully indexed citations
  - PubMed - as supplied by publisher
  - PubMed - indexed for MEDLINE - fully indexed references
  - Links to publisher site from citation - some full text

**Definitions**
- Natural Language
  - Everyday words - variations in format
- Controlled vocabulary
  - Specific terms - set format
- Boolean Operators
  - OR, AND, NOT
- Textword search
  - search using natural language
- Truncation (* ? : $)
  - symbols that replace letters in word

**Steps in a Search**
- Formulate a search question
  - Identify the primary topics
  - Identify searchable terms
- Relate the search terms
- Select a database to search
- Restate searchable terms using vocabulary of selected database(s)
Common filters

- Document types
- language
- currency
- human vs. animals
- "in hand" items only

Search Question – does green tea reduce the risk of cancer?

What are the primary topics?
How do you want to combine them?
Where are you going to search for this information

Practice Searches

1. Use of ritalin to treat ADDH
2. Incidence of breast cancer in men
3. Designing a new academic health sciences library
4. Tolosa Hunt Syndrome
5. Adverse effects of erythromycin in neonates
6. Adverse effects of glue sniffing
7. Does alcohol affect patients with Hepatitis C
8. Is post traumatic stress disorder always present after a traffic accident?
9. What is the most effective medication to lower blood pressure?