NEW YORK ACADEMY OF MEDICINE LIBRARY

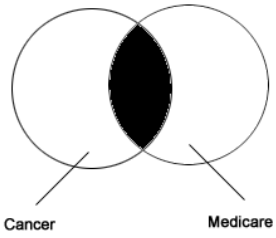
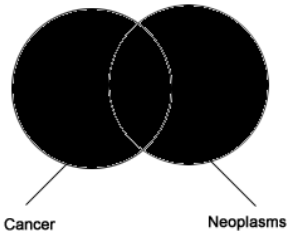
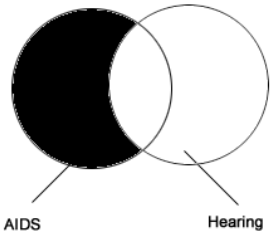
Introduction to Boolean Searching

What is Boolean searching?

Also called Boolean logic, the concept of Boolean searching is based on a system of mathematical logic developed by George Boole, a nineteenth century British mathematician. Boolean logic was developed to show relationships between entities. Boolean logic was later adopted for use in computer applications and online searching.

Elements of Boolean searching

Boolean searching uses three primary "operators" to show the relationship between terms in a search.

AND	• **intersection of two sets** • **used to connect different concepts** • **retrieves records in which all search terms appear** • **narrows**	**Cancer AND Medicare** 
OR	• **union of sets** • **used to connect similar/synonymous concepts** • **retrieves sets in which any one search term appears** • **broadens**	**Cancer OR Neoplasms** 
NOT	• **excludes a set** • **used to exclude terms from a search** • **retrieves set in which one term appears but not another** • **excludes**	**AIDS NOT Hearing** 

You can combine Boolean operators to create more complex search strategies.

Ex. ((AIDS NOT Hearing) AND Elderly) AND (Cancer OR Neoplasms) AND Medicare