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ABSTRACT

Consumers are becoming more actively involved in making decisions about health care, but librarians have had difficulty providing them with current, authoritative, and readable information. Medical databases provide the best reference to information on most health questions, from the latest breakthroughs to information on treatment methods and diagnostic techniques. The database MEDLINE is the major source of information for health professionals. Within the last 5 years databases geared to consumers have become available. The two primary consumer databases are Health Periodicals Database (HPD) and Combined Health Information Database (CHID). Each of these three databases was searched to obtain information about five common diseases. The output of the three databases was compared as well as the subject content, time coverage, timeliness, cost, and search features of each one. These data were collected from vendor manuals and from the database producer. The study showed that: (1) HPD generally provides more information on most consumer health topics; (2) CHID provides hard to find information; (3) MEDLINE is not a necessary supplement for the two consumer databases because it is far too technical for most people to use; and (4) HPD is not so comprehensive that it can be used to the exclusion of CHID. For the five questions searched, HPD and CHID provided only one common citation. A list of CHID subfiles and a description of the search strategies used in evaluating the databases are appended. (Contains 20 references.) (KRN)

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MEDICAL REFERENCE:  
A COMPARATIVE ANALYSIS OF TWO  
CONSUMER HEALTH DATABASES  
WITH MEDLINE

A Master's Research Paper submitted to the  
Kent State School of Library Science  
in partial fulfillment of the requirements  
for the degree Master of Library Science

by

Lori M. Gawdyda Merolla

April 1992

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Master's Research Paper by

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B.A., Youngstown State University, 1983

M.L.S., Kent State University, 1992

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## ABSTRACT

Consumers are becoming more actively involved in making decisions about health matters. Librarians have had difficulty providing them with information that is current and authoritative but readable. The answer may be in computerized information sources.

Medical databases provide the best reference to information on most health questions - from the latest breakthroughs to information on treatment methods and diagnostic techniques. The major source of information for health professionals is MEDLINE. However, this source and most other medical databases are too technical for the average person. It has only been within the last five years that databases geared to consumers have been offered. There are two primary consumer databases - Health Periodicals Database (HPD) and Combined Health Information Database (CHID).

This project has evaluated CHID and HPD for subject content, sources indexed, time coverage, cost and timeliness. Since MEDLINE is the best source of medical information, it has been compared with them to determine if it is relevant in consumer health. The librarian can now determine the most useful and effective database, can advise consumers on how much overlap there is and decide if additional databases should be searched.

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## CHAPTER 1

### INTRODUCTION

#### Rationale

More and more people want information on how to stay healthy as well as information about medical diagnosis and treatment. The patient as a consumer increasingly recognizes the value of informed choice and wants to share in decision making. It is evident that consumers want more information by the fact that 400 consumer health books and over 60 health-related periodicals are published annually.<sup>1</sup>

The health literature can be divided into technical literature written for the health professional and non-technical literature written for the lay person. Alan Rees points out that popular, non-technical health literature is playing a vital role in freeing the public from the medical profession's hold over specialized knowledge. He feels that popular publications succeed in providing credible, well researched and authoritative materials.<sup>2</sup> Unfortunately, it has not been until recently that consumers have had easy access to the most current health information in language that they can easily understand.

This study compared two major consumer databases, Consumer Health Information Database (CHID) and Health Periodicals Database (HPD) with MEDLINE. Five questions were searched online

in each of the databases to identify the database of first choice and to determine the degree of overlap among databases.

### Purpose

There are over eighty biomedical databases available. Only a few address the information needs of consumers. CHID and HPD offer general consumer health information. In the light of the escalating cost of performing an online search, it is necessary that searches be as economical as possible, yet still serve the information needs of the patron. This study attempted to assist librarians to accomplish this goal.

This project discusses the features of CHID and HPD. It compared results of five online questions in CHID, HPD and MEDLINE to determine the most appropriate database and the degree of overlap between databases. For the first time an indepth review of these databases was performed. The type of information produced by this study may be of use to librarians to study their own methods of search strategy development and to update them on the features of these important databases.

### Background

Libraries have had a difficult time providing consumer health information. In general the public library has had inadequate collections in health subjects and a lack of specialized

knowledge on the part of the library staff to answer health related questions.

Librarians could be more helpful by using computerized information sources. Medical databases provide the best information on most health questions - from the latest breakthroughs to information on treatment methods and diagnostic techniques. Unfortunately, MEDLINE, the major source for health professionals, is geared to clinicians, researchers, and scientists because it furnishes information that is too technical for the average person. However, in the past few years several databases have emerged which focus on providing consumers with answers to their health questions.

The primary consumer databases are Health Periodicals Database (HPD) and Combined Health Information Database (CHID). This project evaluated CHID and HPD for subject content, sources indexed, time coverage, cost and timeliness.

Combined Health Information Database is a joint project of several federally funded agencies in the Public Health Service who provide health information. These agencies coordinated their efforts and combined their individual files and resources into one online publicly accessible database. Each agency retains responsibility of its own file. CHID is a combination of these files. It provides bibliographic information which focuses on health resources and patient education materials, dealing with subjects ranging from arthritis to joint diseases. The twenty-

one files (CHID refers to them as subfiles) are listed in Appendix A.

Health Periodicals Database is a unique database that includes a combination of non-technical health information and technical articles from major medical journals. Articles are from popular health literature, health related articles in general interest publications, and from over 130 professional health journals. HPD is the first health database to provide a "consumer summary", a brief synopsis of the technical articles in less technical terms. Full text is available from over 60 of the core publications and technical medical journals and from any of the general publications that the

Traditionally, MEDLINE is the best source of medical information, it is international in scope and indexes over 3,200 journals in the field of medicine. It will be compared with these databases to determine its place in consumer health information.

#### Definition of Terms

(All definitions are taken from Online Searching: A Dictionary and Bibliographic Guide<sup>23</sup>)

Bibliographic Database- File containing items which are generally bibliographical, i.e., they refer to other primary sources for information.

Citation- Complete record of information available in the database.

Commercial Search Service- Organizations which offer access to one or more databases by providing all necessary computer operations and support services.

Controlled Vocabulary- Standardized subject terms or headings used to index documents by subject. These controlled terms are generally known as descriptors.

Database- Collection of data in machine readable form which is accessible by a computer

Descriptors- Standardized index terms usually listed and defined in an established thesaurus.

Free text searching- Type of searching when no controlled vocabulary has been used to index the documents in the database. All fields with subject content, title abstract, note and identifier fields can be directly searched.

Online Searching- Means of retrieving desired information, often bibliographic in nature, by using a machine, specifically a computer.

Search terms- Words or phrases searched to retrieve documents or items. May be only key words, e.g., subject-related words from the title or abstract, or index terms, e.g., assigned identifiers or descriptors.

Search strategy- Set of prepared search statements which represent a plan for accessing a database and retrieving desired information.

## Limitations

CHID has twenty-one subfiles which cover specific topics. For example there are subfiles titled AIDS Education, Cancer Prevention and Control and Eye Health Education. In order to fairly evaluate the number of citations from each database questions were restricted to areas covered by CHID subfiles. The questions and citations are restricted to those in English and published in the year 1991.

## Chapter 2

### REVIEW OF THE LITERATURE

Librarians have been providing health information to consumers for many years. The literature is replete with examples of ways to best serve the public. Paterson has written an excellent bibliography of the issues libraries face when providing health information to the lay person.<sup>4</sup>

Rees also discusses the role of different types of libraries in providing consumer health information in his book *Consumer Health Information Source Book* which evaluates recent popular books, magazines, newsletters, pamphlets and other lay information sources.<sup>5</sup> Rees feels that popular health periodicals provide a valuable, inexpensive source of reliable information. He discusses the self care movement, the growth of medical consumerism and the role of popular health literature.

Berk and Fecher trace the trends that have developed regarding the role of different types of libraries in the provision of consumer related health information.<sup>6,7</sup> The advantages of using a hospital library to fulfill this purpose are discussed by Eisenstein and Faust.<sup>8</sup>

Ferry suggests a list of information sources found to be helpful to the patrons of the New York Academy of Medicine Library, one of the few medical libraries open to the public.

Because sources written for health professionals are usually updated more frequently and since consumers are increasingly knowledgeable, she recommends both standard medical texts and consumer oriented titles in her list.<sup>9</sup>

The importance of using online searching to get comprehensive, current health information is considered by Albright.<sup>10</sup> He feels that online databases are indispensable resources that are being neglected by many physicians and other health care professionals. The issues of doing online searching of health databases for consumers are detailed by Van Camp<sup>11</sup> and Quint<sup>12</sup>.

Several evaluations have been done on HPD and CHID. The first information about the databases is generally distributed by the vendor. HPD is supplied by DIALOG and it is described in DIALOG's Chronolog<sup>13</sup>, in the Blue Pages of the DIALOG Search handbook<sup>14</sup> and in the database chapter for file 149. Reviewers have also evaluated the database. The special features are described and it is compared with similar resources by Lingle.<sup>15</sup> A more in-depth evaluation is provided by Snow.<sup>16</sup> A comparison of HPD with its CD-ROM counterparts is given by Kaya and Yanq.<sup>17</sup>

BRS is the vendor that supplies CHID and describes it in their newsletter.<sup>18</sup> There have been two in-depth evaluations of CHID by reviewers. Hewison describes subject searching, bibliographic form, search features and discusses each subfile.<sup>19</sup> Lunin goes

into detail on the development of the database and the subfiles.<sup>20</sup>

Only one study has been identified which briefly compared HPD and CHID. No studies have been found which have dealt primarily with the issues of providing consumer health information.

The methodology employed in the study is similar in style to that used by Nixon when evaluating nutrition databases.<sup>21</sup> Another helpful study by McCain and associates which compared online database performance was used.<sup>22</sup> Both studies described how the databases were searched and how results were compared.

## CHAPTER 3

### METHODOLOGY

#### Introduction to the Research Plan

This project evaluated consumer medical information as obtainable from consumer-oriented databases, as well as the technically based MEDLINE. The project was divided into five major steps. These were the selection of relevant databases, selection of appropriate topical questions, defining and listing of the factors to be evaluated in each database, the search process, analysis of results and conclusion.

#### Selection of Databases

MEDLINE was chosen as the "control" database. It is generally agreed to be the best of all medical databases, the most comprehensive and technical. It is a major source for obtaining thorough medical information.

Van Camp lists thirty seven consumer health databases.<sup>23</sup> The primary consideration for choosing the other two databases were that they are dedicated to providing non-technical health information geared to the layperson and that the database is not dedicated to a specific topic. The consumer health databases are listed in Table 1.

Table 1. Consumer Health Databases

Database Name	Dedicated to Consumer Health Info	Specific for a topic
ABLEDATA	N	Y
Aqeline	N	N
AIDS Policy & Law	N	Y
Books in Print	N	Y
CATLINE		
CHID	Y	N
Comprehensive Core	N	N
Medical Library		
Computerized AIDS	N	Y
Information		
Consumer Drug	Y	N
Information Fulltext		
Cumulative Index to	N	N
Nursing & Allied Health		
Current Contents	N	N
DIRLINE	N	N
Disabilities Forum	N	Y
D&B Dun's Electronic	N	N
Yellow Pages		
Encyclopedia of	N	Y
Associations		
Environmental Health	N	Y
News		
ExpertNet	N	Y
Family Resources Database	N	Y
Handicapped Users	N	Y
Database		
HealthNet	N	N
Health Periodicals	Y	N
Database		
Human Sexuality	N	Y
Int'l Medical		
Tribune Syndicate	Y	N
Magazine Index	N	N
Medline	N	N
Medical & Psychological	N	N
Previews		
New England Journal	N	N
Of Medicine		
Orphan Drug Database	N	Y
Physician Data Query	N	N
Quality of Worklife	N	Y
Database		
Rare Disease Database	N	Y
Reader's Guide	N	N
REHABDATA	N	Y
SPORT	N	Y

## Selection of Search Questions

In order to compare the number of relevant citations from each of the databases a number of questions were searched online in each database. The questions were comprised of areas where consumers frequently require information. The following questions considered:

1. What is the relationship of blood cholesterol to heart disease?
2. List AIDS education programs.
3. What are current treatments for arthritis?
4. How is alcohol connected to hypertension?
5. What are current methods of diagnosis for Alzheimer's?

## Method of Collection

A search strategy was designed for each question. Appropriate descriptors were chosen by the searcher. Each question was then searched using descriptors from each database. The same search terms were be used when possible. The citations were limited to those published in 1991 to insure currency. The titles were reviewed to make sure that the citations were relevant. They were then counted and compared to retrievals found in the other databases to find original citations.

The databases were also be compared for subject content, time coverage, timeliness, cost and search features. This data was collected from the vendor search manuals or from the database producer.

## Method of Evaluation

The first statistic obtained was the total number of references for each database and each question, shown in Table 2. Shown in Table 3 is the total number of unique references for each question. To obtain these figures, citations for each question were sorted by title and manually compared to determine the number of unique citations. The duplicates were subtracted from the total to give the number of unique citations.

Table 3 shows the percentage of unique citations found in each database. The number of citations found for each question in each databases was then divided by the total number of unique citations to determine the percentage. For example, Medline found 333 of 405 citations on arthritis, which is 82% of the unique citations retrieved for this search.

## CHAPTER 4

### FINDINGS

#### Comparison of Total Citations

The first statistic that was obtained was the total number of references for each question, they are listed in Table 2. MEDLINE was the database that retrieved the highest number of citations on all five questions. MEDLINE is usually the database of first choice for health related questions. However, after examining the titles few, if any, of the articles would be suitable for the general public. For example, the first citation from the MEDLINE cholesterol search was:

Balasubramaniam, Simons. "High density lipoproteins, genetic polymorphism for apo A-I and coronary artery disease. Australian & New Zealand Journal of Medicine. 21 (June 1991): 330-4.

TABLE 2.  
NUMBER OF CITATIONS BY QUESTION AND DATABASE

	MEDLINE	HPD	CHID	TOTAL
CHOLESTEROL	64	47	0	111
AIDS	108	85	44	247
ARTHRITIS	368	98	9	475
HYPERTENSION	14	1	1	16
ALZHEIMER'S	50	27	10	87

MEDLINE is very technical and uses specialized terminology making it difficult for the average person to comprehend.

MEDLINE indexes over 3000 journals internationally and many of the journals are unavailable at public libraries.

Comparison of Unique Citations in MEDLINE, HPD and CHID

Table 3 shows the number of unique citations retrieved from each database by question. A unique citation is a citation found in only one of the three databases. Although MEDLINE has the most unique citations the problem still remains that most of the articles are unsuitable for the general public.

TABLE 3.  
NUMBER OF UNIQUE CITATIONS BY QUESTION AND DATABASE

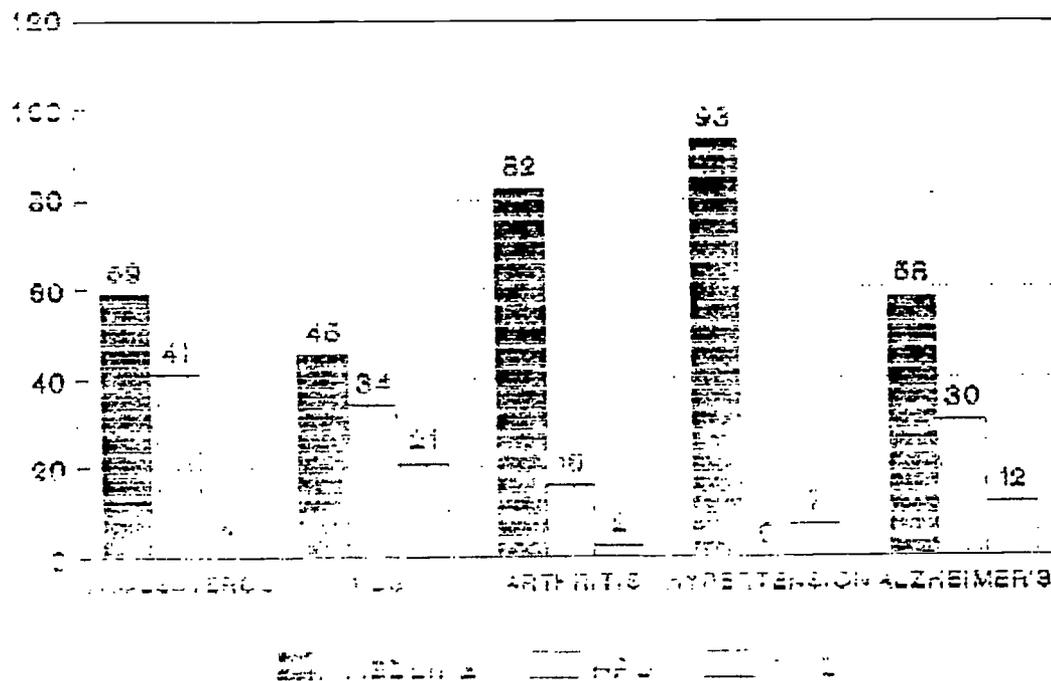
	MEDLINE	HPD	CHID	TOTAL
CHOLESTEROL	56	39	0	95
AIDS	94	71	43	208
ARTHRITIS	333	63	9	405
HYPERTENSION	13	0	1	14
ALZHEIMER'S	46	24	10	80

HPD indexes over 100 journals which are also indexed by MEDLINE and there was overlap. However, when comparing results, HPD had many articles from journals indexed by MEDLINE that did not appear when the same search was performed in MEDLINE. This difference is due to the different search strategies and to the way that descriptors are assigned.

For example, when searching arthritis in Medline it is possible to "explode" the term arthritis, which expands the search to include all types of arthritis. Then the search could be limited to articles whose main focus was arthritis. HPD does not have the capability to explode or to limit to major focus. Terms found in the descriptor field were used to retrieve suitable articles.

There was only one article which was found in both CHID and MEDLINE. CHID is developed and managed by health related agencies within the Federal government and consequently, much of the information is not referenced in any other source. Table 4 illustrates the percentage of unique citations found in each database.

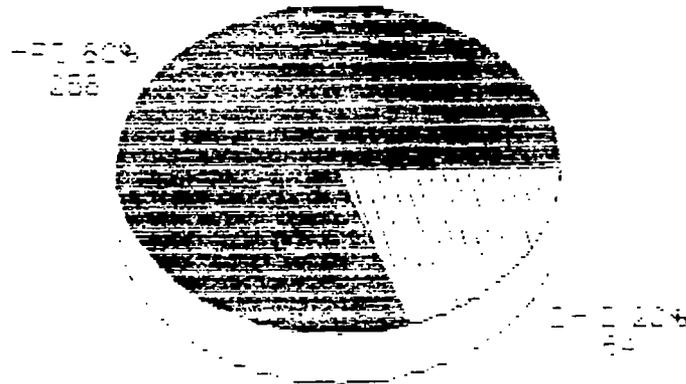
TABLE 4.  
PERCENTAGE OF UNIQUE CITATIONS IN MEDLINE, HPD AND CHID



### Comparison of HPD and CHID

Since MEDLINE has been determined to be too technical for the average consumer, the two remaining databases were examined to determine the database of choice for consumer health information. Figure 5 compares the total number of citations found in HPD and CHID. There was no overlap between these two databases.

TABLE 5.  
PERCENTAGE OF CITATIONS FOUND IN HPD AND CHID



The breakdown by question is shown in Table 6. HPD has the highest total number of citations and for four of five questions HPD had the higher number of retrievals (for the remaining question each database had one citation). Based on these results, HPD was selected as the database of first choice for providing current consumer health information. It indexes consumer health publications, medical journals and popular magazines. For example the Alzheimer's search retrieved 16

articles from medical journals, 2 newspaper articles and 6 articles from consumer sources.

TABLE 6.  
NUMBER AND PERCENTAGE OF CITATIONS IN HPD AND CHID

	HPD		CHID		TOTAL
CHOLESTEROL	47	100%	0	0%	47
AIDS	85	66%	44	34%	129
ARTHRITIS	98	92%	9	8%	107
HYPERTENSION	1	50%	1	50%	2
ALZHEIMER'S	27	73%	10	27%	37

Most searches in HPD provide information from both the medical community and from the popular press. Every article from a medical journal provides a consumer summary, which is a summary of a technical article written in lay terms. HPD indexes key clinical medical journals which are more readily available to the public.

CHID is the smallest database and has the smallest number of citations. However, these citations were unique and the majority are not indexed in any other source, print or online. It indexes materials found in several Federal health clearinghouses. Many of these are excellent sources of information. By choosing the 300 or 400 audience code, materials written especially for the general public or consumers can be found. Two examples of citations found in the AIDS search was:

"Someone at School has AIDS: Now What?" PTA Today. 16(Feb 1991): 25-26.

"Maternal and Child Health in America's Cities." Washington D.C.: Children's Defense Fund. 1991. 27 pg.

### Factors Which Contribute to Search Results

Search results are affected by several factors. One of the objectives of this study was to examine these factors. Of the many influences contributing to the results of an online search, some of the more apparent are: subject content, sources indexed, time coverage and timeliness.

Another interesting factor is cost. HPD is \$90 per hour and is offered through DIALOG. CHID is \$36 per hour and is offered through BRS. MEDLINE searches were performed on CD Plus MEDLINE produced by CD Plus, formerly Online Research Systems, Inc.

### Subject Content

HPD is described as a comprehensive bibliographic database that provides broad coverage of information in the areas of health, medicine, fitness and nutrition. It includes such topics as aging, alternative medicine, dentistry, health insurance, mental health, patient rights and sports medicine.

CHID provides access to hard-to-find materials such as educational materials, review papers, brochures, books and AV materials. Much of this information is not indexed in any other database. CHID is restricted to the topics of the 21 subfiles.

These subfiles are listed in Appendix B. The topics which are covered include arthritis, smoking education, AIDS education, kidney and urologic diseases.

#### Sources

HPD indexes 110 "core publications", journals that deal primarily with consumer health. It also indexes over 130 professional medical journals (including 62 of the 110 journals included in AIM) and over 3,000 general interest publications from files such as Magazine Index, Trade & Industry Index, National Newspaper Index and Legal Resource Index. Full text is available for over 62 of the core publications and technical journals and from some of the general interest publications.

CHID results from the cooperative efforts of several Federal agencies. The producers of the subfiles are listed in Appendix A. Available inclusive dates are listed below. Each subfile is unique, as each producing agency has its own rules for selection, cataloging and indexing.

#### Timeliness

HPD is a relatively new database. It began indexing its core collection in January 1988. HPD is competitive in its timeliness with a time lag from publication to indexing that ranges from two weeks to two months for articles which need consumer summaries.

#### HPD Inclusive Dates:

Core publications: Jan 1988-present  
Technical Journals: June 1989-present  
General Publications: January 1976-present

Update frequency: Weekly

File size: Over 266,000 records as of Nov. 1991

CHID began in early 1985, however, each subfile varies and the years of coverage are different for each, with 1973 being the earliest.

CHID Inclusive Dates:

AIDS Education: 1987-present  
AIDS School Health Education: 1987-present  
Alzheimer's Disease: 1987-present  
Arthritis & Musculoskeletal & Skin Diseases: 1978-present  
Cholesterol, High Blood Pressure & Smoking Ed: 1983-present  
Diabetes: 1973-present  
Digestive Diseases: 1979-present  
Disease Prevention: 1986-present  
Health Education: 1977-present  
Kidney and Urologic Diseases: 1987-present  
Veterans Administration Patient Health Ed.: 1986-present

Update Frequency: quarterly

File Size: 76,000 documents as of January 1992.

Search Features

In HPD the Basic Index has the following fields: author abstract (AB), company name (CO), caption (CP), descriptor (DE), named person (NA), product name (PN), title (TI), and text (TX). If no suffix is specified all Basic Index fields are searched.

It is important to note that if it is available the full-text of the article is included. When searching full-text it is helpful to use both field qualifiers and proximity operators to achieve greater precision. The (S) operator limits the search to terms in the same paragraph in the text and to the same subfield in other parts of the record.

All keywords in titles, abstracts, full-text, captions from tables, graphs, maps and charts are searchable. Descriptors are

taken from Library of Congress Subject Headings, National Library of Medicine's Medical Subject Headings, and from Mosby's Medical and Nursing Dictionary.

CHID has a unique composition, each subfile has its own selection, cataloging, indexing and processing rules that allow each agency to retain responsibility for its own subfile. Each subfile has its own thesaurus which lists descriptors, related terms and specific scope notes. Many of the citations were written by the agency responsible for the subfile.

In CHID the Basic Index contains the following fields: title (TI), abstract (AB), and descriptor (DE). Other fields that are available include: accession number (AN), audience code (AC), year published (YR), corporate group name (CN), source (SO), availability (AV), major (MJ) and minor descriptors (MN) and evaluation (EV). However, not all fields are available in all databases, availability is described in the CHID Search Reference Guide.

There is a Word List which lists all descriptors from all subfiles. For this project all subfiles were searched. It is possible to search only one particular subfile. Each subfile has been given a symbol, for example the symbol for the subfile AIDS Education is AD. By combining the symbol with the Accession Number field (AN) all of the items in the AIDS Education subfile would be retrieved. The search strategy would be AD.AN.

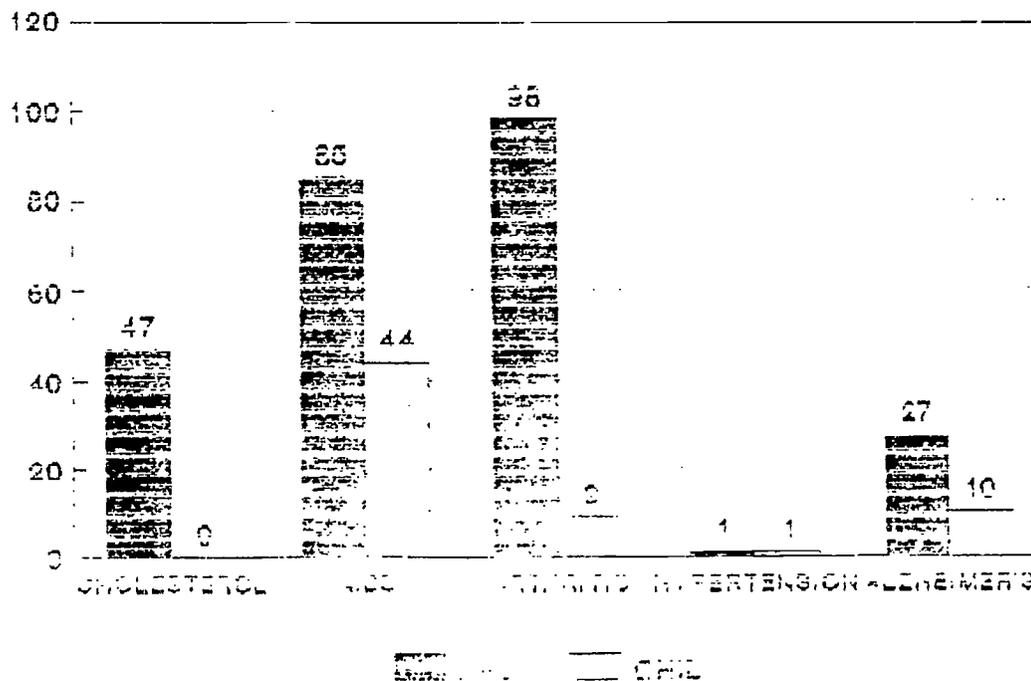
CHAPTER 5

SUMMARY AND CONCLUSIONS

This study intended to demonstrate that: 1. Health Periodicals Database would generally provide more information on most consumer health topics 2. Combined Health Information Database would provide hard to find information 3. Medline would be a necessary supplement 4. It would be necessary to search more than one of these databases for comprehensive information.

The first hypothesis proved to be correct. HPD had 258 total retrievals and CHID had only 64. HPD also had more retrievals on four of five questions and for the remaining question each had one retrieval. The following table shows the number of retrievals for each question.

Table 7.  
Number of Citations in HPD and CHID



The second hypothesis also proved to be true. CHID indexes sources which were not found in any either of the other databases. Of the 64 citations retrieved there was only one citation shared between CHID and the other two databases.

The third hypothesis was not proven. Although MEDLINE may be useful in some cases it is not a necessary supplement because it is far too technical for most people to use. HPD indexes over 100 of the most popular clinical medical journals also found in MEDLINE and provides a "consumer summary" which is an abstract written in lay terms.

The fourth hypothesis was also proven. The most interesting finding is that HPD is not so comprehensive that it can be used to the exclusion of CHID. Of the five questions searched, there was only one citation in common.

Health Periodicals Database generally provided the most useable consumer health information. Combined Health Information Database added information that is not generally indexed elsewhere, in online or print sources. It provided important additional sources that would prove useful to the consumer.

Medline provided many citations, although these proved to be so technical in nature that the average consumer would not find them helpful. Therefore, Medline would have to be the last choice for a consumer health database.

It is obvious that medical databases provide the best reference to information on most health questions. It is also apparent that public libraries must have access to these

databases, if they are to meet the needs of their users for  
consumer health information.

Appendix A

SUBFILES OF CHID

AIDS Education  
AIDS School Health Education  
Alzheimer's Disease  
Arthritis and Musculoskeletal and Skin Disease  
Asthma Education  
Blood Resources  
Cancer Patient Education  
Cancer Prevention and Control  
Cholesterol, High Blood Pressure and Smoking Education  
Deafness and Other Communication Disorders  
Diabetes  
Digestive Diseases  
Disease Prevention/Health Promotion  
Eye Health Education  
Health Promotion and Education  
Heart Attack  
Kidney and Urologic Diseases  
Maternal and Child Health  
Oral Health  
Post Traumatic Stress Disorder  
Veterans Administration Patient Health Education

## APPENDIX B

### SEARCH STRATEGIES

All sets were restricted to the year 1991 and to English in all databases. In addition in CHID all searches were restricted to the 300 or 400 audience code which limited the set to items written especially for consumers(300) and patients(400). In MEDLINE the asterisk indicates that the set was restricted to major focus, subheadings are indicated after the slash and all terms were MESH terms.

#### MEDLINE

##### CHOLESTEROL

explode cholesterol/bl and explode \*heart disease

##### AIDS

\*acquired immunodeficiency syndrome and \*patient education

##### ARTHRITIS

explode \*arthritis/dh,dt,th,su

##### HYPERTENSION

\*alcohol drinking and explode \*hypertension

##### ALZHEIMER'S

\*alzheimer's disease/di

#### HPD

##### CHOLESTEROL

blood cholesterol/de and (heart or cardiovascular)/de

##### AIDS

(aids or acquired()immunodeficiency()syndrome or hiv or human() immunodeficiency()virus)/de and education/de

##### ARTHRITIS

arthritis/de and (drug or drug()therapy or surgery or therapy or treatment)/de

##### HYPERTENSION

hypertension or (high()blood()pressure) and alcohol?/de

##### ALZHEIMER'S

alzheimer()s/de and diagnosis/de

CHID

CHOLESTEROL

cholesterol and (heart or cardiovascular)

AIDS

(aids or hiv or (acquired adj immunodeficiency adj virus) or  
(human adj immunodeficiency adj virus).de.

ARTHRITIS

arthritis.mj. and (treatment or drug adj therapy or therapy or  
surgery).de.

HYPERTENSION

alcohol& and hypertension

ALZHEIMER'S

alzheimers.de. or alzheimers-disease.de. and diagnosis.de.

## Notes

1. Alan Rees, "Characteristics, Content, and Significance of the Popular Health Periodicals Literature," Bulletin of the Medical Library Assoc. 75 no. 4 (Oct. 1987).
2. Ibid, 317.
3. All definitions are taken from Greg Eyerly's Online Searching: A Dictionary and Bibliographic Guide. (Littleton, Colorado: Libraries Unlimited, 1983).
4. Ellen Paterson. "Health Information Services for Lay People: A Review of the Literature with Recommendations," Public Library Quarterly 8 no. 3/4 (1988): 81-91.
5. (Rees 1987)
6. Berk, 195-206.
7. Ellen Fecher. "Consumer Health Information: A Prognosis," Wilson Library Bulletin (Feb 1985): 389-391.
8. Eva F. Eisenstein and Julia B. Faust. "The Consumer Health Information Library in the Hospital Setting," Medical Reference Services Quarterly 5 (Fall 1986): 63-74.
9. Claudia Perry. "Patron Medical Queries: A Selected List of Information Sources," Library Journal (Nov 1 1988): 45-50.
10. Robert Albright, M.D. A Basic Guide to Online Information Systems for Health Care Professionals. (Arlington, Va: Information Resources Press, 1988), 1-11.
11. Van Camp, 16-21.
12. Barbara Quint. "Connect Time," Wilson Library Bulletin (Oct 1990): 92-94.
13. "Health Periodicals Database Now Available on DIALOG" DIALOG CHRONOLOG 89 (Nov 1989): 429-431.
14. DIALOG Blue Pages. (Nov 1989): 149-1 - 149-3.
15. Virginia Lingle. "The Health Periodicals Database: Full-Text Access to Consumer and Technical Health Information," Medical Reference Services Quarterly 9 (Fall 1990): 1-13.
16. Bonnie Snow. "Health Periodicals Database: A Closer Look," Database (Feb 1991): 84-88.

17. Kathryn K. Kaya and Andrea M. Yanq. "Consumer Health Information from Information Access Company," Database (Feb 1991): 54-56.
18. "Combined Health Information Database (CHID)," BRS Information Technologies Database Catalog (1989): 8.
19. Nancy Hewison. "Combined Health Information Database," Medical Reference Services Quarterly 6 (Summer 1987): 71-81.
20. Lois Lunin. "CHID: A Unique Health Information and Education Database," Bulletin of the Medical Library Association 75 (April 1987): 95-100.
21. Judith Nixon. "Online Searching for Human Nutrition: An Evaluation of Databases." Medical Reference Services Quarterly 8 (Fall 1989): 27-35.
22. Katherine McCain, Howard White, and Belver Griffith. "Comparing Retrieval Performance in Online Data Bases," Information Processing and Management 23 (June 1987): 539-553.
23. Van Camp, 21.

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