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# **International Mortality Data Base**

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From the CENTERS FOR DISEASE CONTROL AND PREVENTION/  
National Center for Health Statistics

Diskettes EP 1a and 1b

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control and Prevention  
National Center for Health Statistics

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## **International Mortality Database on Diskette**

The enclosed 9 diskettes contain 265 Lotus spreadsheets containing mortality data for the United States and 40 other industrialized countries. The first 6 diskettes contain total, age-adjusted and age-specific mortality **rates** for 19 causes of death for up to 37 years during the period 1955-1991. The last 3 diskettes contain **deaths** tabulated by age for those same years.

Also contained on the second set of diskettes is a spreadsheet containing **estimated population**, by age and sex, for each year for which deaths are available for each of the 41 countries. All rate and death spreadsheets are provided separately for both sexes combined, for males and for females.

Death rates are found in the compressed file WHORATE.ZIP contained in 6 diskettes labelled Death Rates (**blue** labels). Deaths and estimated population are found in the compressed file WHODEATH.ZIP contained in 3 diskettes labelled Deaths and Estimated Population (**white** labels).

The file IMDB.DOC (WordPerfect 5.1), an electronic version of the documentation and other background information supplied in this booklet, is found on Death Rate diskette #1.

This database was created in Lotus 1-2-3, Version 2.3. A minimum of 90 kilobytes of free memory, PC-DOS or MS-DOS version 2.0 or higher, and approximately 37 megabytes of hard disk space are required to install these tables onto

your IBM-compatible personal computer. Lotus 1-2-3 version 2 or higher, or any software that can read WK1 files (e.g., Borland Quattro Pro and Microsoft Excel) are required to use these spreadsheets. To copy the spreadsheets onto your hard disk you will need to supply two parameters: (1) the drive letter and (2) the name of two existing subdirectories on the hard disk.

### **Installation Instructions**

Before beginning installation, create two Lotus subdirectories: WHORATE and WHODEATH in your Lotus Directory (e.g., C:\LOTUS\WHORATE, C:\123R4W\WHORATE, etc.).

### **Death Rates:**

1. Copy the file PKUNZIP.EXE (found on Death Rate diskette #1 in uncompressed form) to the WHORATE subdirectory.
2. Place Death rate diskette #6 in source drive (B: or A:).
3. Type at the WHORATE subdirectory  
**PKUNZIP B:WHORATE.ZIP**

A prompt will ask you for disk #1. Insert Death Rate Diskette #1. PKZIP will begin deflating (unzipping ) 132 files (containing approximately 27 megabytes of information) to C:\LOTUS\WHORATE. You will be prompted to insert diskettes #2-6. When installation is complete, you will be returned to the WHORATE subdirectory.

### **Deaths and Estimated Population**

1. Copy PKUNZIP.EXE to the WHORATE subdirectory.
2. Place Deaths and Estimated Population diskette #3 in source drive.
3. Type at the WHORATE subdirectory  
**PKUNZIP B:WHODEATH.ZIP**

You will be prompted to insert disk #1. Insert Deaths and Estimated Population diskette #1. PKUNZIP will begin deflating 133 files (containing approximately 10 megabytes of information) to C:\LOTUS\WHODEATH. Insert diskettes #2 and #3 when prompted. When installation is complete, you will be returned to the WHORATE subdirectory.



**National Center for Health Statistics,  
International Mortality Database**

**Documentation**

This database consists of 265 Lotus spreadsheet files of three types. Death rates (per 100,000 population), deaths and population estimates. For death rates and deaths, spreadsheets will be found for both sexes, males and females, respectively, for 41 countries. The file names for these country files are given in Table 1. Population estimates for males and females are combined in one file.

**The Data**

These spreadsheets are derived from a mortality data set containing information for 39 countries covering the period 1955 to 1991. In addition,

data were also tabulated for the United Kingdom (combining data for England and Wales, Scotland and Northern Ireland) and the Federal Republic of Germany (i.e, united Germany combining data for the former Federal Republic of Germany and the German Democratic Republic), making for a total of 41. Data were not available for the nations that replaced the former USSR, Yugoslavia and Czechoslovakia. For the United States, spread sheets are provided for all races combined, white, black, and all other races.

**Source**

These data are drawn from tapes supplied by the World Health Organization. For the United States, they were up-dated with data received from the U.S. National Vital Statistics System.

**It is requested that material drawn from this database for publication acknowledge WHO and NCHS as the respective sources and include a disclaimer crediting any analyses, interpretations or conclusions to the author of the published data and not to either organization which are responsible only for the provision of the basic information.**

The mortality indicators included in this dataset consist of total (unadjusted and age-adjusted) mortality rates, age-specific mortality rates for standard 10-year groupings, and expectation of life at birth. Age-adjusted rates were calculated by the direct methods using the WHO “Old” European standard. While this standard was slightly modified in 1992, it has been used by WHO to

calculate age-adjusted rates for many years and is routinely presented in the World Health Statistics Annual (1).

A detailed description of the content, coverage and quality of information contained in the WHO data bank may also be found in that publication.

The user may also wish to refer to recently published tabulations and graphics using the International Mortality database (2).

Cause-of-death data in the WHO data files are limited to those causes contained in the Basic Tabulation List (for ICD-9) and the "A" List for ICD6-8. Because of this, tabulations based on these files are restricted to conditions coded to three-digits (Table 2). It should be noted, however,

that the causes for which mortality rates are given in these spreadsheets are identified by the code numbers assigned in the 9<sup>th</sup> Revision of the International Classification of Diseases. For deaths that occurred prior to the implementation of this revision, Table 2 provides the WHO codes used to group deaths under the various ICD revisions employed during the period covered.

**Data Limitations**

Although the countries for which data are presented were selected because their statistical agencies produce high quality statistics, the information presented in this chartbook is nonetheless subject to a number of important limitations that have been extensively treated in the literature (3-7). These data should be used with those limitations in mind.

While adequate for most purposes, the amount of detail available in the WHO cause-of-death tabulation lists made several adjustments necessary:

(a) It was not possible to identify the category Chronic Obstructive Pulmonary Diseases (COPD), as defined in the Ninth Revision of ICD, prior to the implementation of ICD-9. Because a significant proportion of mortality from this cause of death is not included in the three-digit tabulations of previous ICD revisions, no tabulations for COPD are presented for the period prior to the late 1970 s.

(b) Deaths from colorectal cancer (ICD-9 category number 153-154) could not be separately identified prior to the Ninth Revision of ICD. The

more inclusive category (ICD9 category numbers 152-154) differs only slightly from the former, however, owing to the relatively small number of deaths to cancer of the small intestine. For this reason, mortality from the broader category was tabulated for the entire 1955-1989 period.

(c) Deaths to injuries from motor vehicle traffic related crashes could not be distinguished from those from motor vehicle non-traffic accidents prior to the Ninth Revision. On the other hand, non-traffic accidents were not separately identifiable in the ICD three-digit codes for the Ninth Revision. The use of the Ninth Revision three-digit code had the result of excluding the relatively small number of deaths from motor vehicle non-traffic related crashes from tabulations involving countries and years where deaths were coded under that Revision.

National statistical offices have not adopted WHO ICD revisions uniformly. The user is referred to the latest issue of the World Health Statistic Annual for a listing of the ICD Revision employed by individual countries in any given data year.

**Reporting Completeness**

**Cause:** For some years in several countries, records are missing concerning certain causes of death-almost always involving the so-called “E” codes (E800-E999 in the 9<sup>th</sup> Revision-injuries, suicide, homicide), but sometimes for Cirrhosis of the Liver. In most cases, the data line for the year(s) affected was not printed out. Occasionally, however, the user will find a year for which all entries are 00.00. The latter should be interpreted to mean that no data were contained in the WHO file for that cause in that year.



**Age:** In some countries, the oldest age group for which data were reported for some years was 75+ instead of 85+ (e.g. Romania). In these situations, the entry for the age group 85+ will read 0.0 (rate files) or 0 (death files) and the age group 75-84 should be interpreted as 75+.

Mortality rates for the “age not stated” category were not calculated nor were deaths in this category distributed to other age groups.

Mortality rates for the age group “under 1” are rates per 100,000 births and not 1,000 as is customary. Moreover, in the estimated population file, figures for this age group represent the absolute number of births. For all other ages population is presented in 00s.

## **References**

1. World Health Organization. World Health Statistics Annual 1992. Geneva: World Health Organization. 1992.
2. Zarate AO. International Mortality Chartbook: Levels and trends, 1955-91. Hyattsville, Maryland; Public Health Service. 1994.
3. Alderson, M. International Mortality Statistics New York: Facts on File, Inc. 1981.
4. Kelson M, Farebrother M. The effect of inaccuracies in death certification and coding practices in the European Economic Community (EEC) on international cancer mortality statistics. International Journal of Epidemiology 16(3):411-14. 1989.

5. Kelson MC, Heller RF. The effect of death certification and coding practices on observed differences in respiratory disease mortality in eight EC countries. *Rev Epidemiol Sante' Publ* 31:423-32. 1983.

6. Manton, KG. Mortality Data: Concepts and data quality issues. In: Manton KG, Stallard E. *Recent Trends in Mortality Analysis*. Orlando: Academic Press, Inc. 1984.

7. Rosenberg HM. The nature and accuracy of cause-of-death data. In: National Committee on Vital and Health Statistics Report of the Workshop on Improving Cause-of-Death Statistics. October 15-17, 1989, Virginia Beach, Virginia. Hyattsville, National Center for Health Statistics. 1989.

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**Table 1.** Countries and Lotus File names (\*)  
included in International Mortality Data Base.

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Argentina	ARG
Australia	AUSTRAL
Austria	AUSTRIA
Belgium	BELGIUM
Bulgaria	BULG
Canada	CANADA
Chile	CHILE
Costa Rica	COSTA
Cuba	CUBA
Czechoslovakia	CZECH
Denmark	DENMARK
England and Wales	EW
Germany, Fed. Republic of	GERMANY
Germany, Fed. Republic of (1)	FRG
Finland	FINLAND

France	FRANCE
German Democratic Republic	GDR
Greece	GREECE
Hong Kong	HKONG
Hungary	HUNGARY
Ireland	IRELAND
Israel	ISRAEL
Italy	ITALY
Japan	JAPAN
Netherlands	NETHER
New Zealand	NEWZ
Northern Ireland	NIRE
Norway	NORWAY
Poland	POLAND
Portugal	PORT
Romania	ROMANIA
Scotland	SCOT
Singapore	SING
Spain	SPAIN

Switzerland	SWITZ
United Kingdom	UK
United States	
All races	US
White	USW
Black	USB
All other races	USA
Uruguay	URUGUAY
U.S.S.R.	USSR
Yugoslavia	YUGO

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Country population estimates      WHOPOP93

\* Preceded by B, M or F, refers to Both sexes combined, males and females, respectively.

(1) Before unification. Does not include former German Democratic Republic.

**Table 2.** WHO Special Tabulation List line numbers utilized in tabulating cause of death according to ICD revisions applied during 1955-1991.

Cause of Death	ICD9*	ICD8**	ICD7**	ICD6**
1. All Causes	---	---	---	---
2. Heart Disease	25,260,28	80-84	79-83	79-83
3. Ischemic Heart Disease	27	83	81	81
4. Cerebrovascular Diseases	29	85	70	70
5. Cancer	08-14	45-60	44-59	44-59
6. Int./Rectal	092-094	48-49	47-48	47-48
7. Prostate	124	57	54	54
8. Respiratory	10	50-51	49-50	49-50
9. Female Breast	113	54	51	51
10. Diabetes mellitus	181	64	63	63
11. Pneumonia	321	91-92	89-91	89-91
12. Influenza	322	90	88	88

Cause of Death	ICD9*	ICD8*	ICD7*	ICD6*
13. Chronic Obstructive Pulmonary Disease	323-324	---	---	---
14. Cirrhosis of the liver	347	102	105	105
15. Motor Vehicle Accidents	471	138	138	138
16. Other Accidents	E470,E472- E479,E48-53	139-146	139-147	139-147
17. Suicide	54	147	148	148
18. Homicide	55	148	149	149
19. Signs, symptoms & Ill-defined conditions	46	136- 137	136- 137	136-137

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\* ICD Basic Tabulation List

\*\* ICD List A



For more information on these or other electronic products available from the National Center for Health Statistics, contact:

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