

中国人口
主要死因
地图集

ATLAS OF MORTALITY
FROM
MAIN DEATH CAUSES
IN
CHINA

中国地图出版社

中國人口
主要死因
總圖集

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MAJOR DEATH CAUSES
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中国人口 主要死因 地图集

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BY

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前 言

人口死亡原因的分析是了解人民健康状况及疾病流行分布情况的一个重要手段，其结果成为制定卫生工作计划，评价工作效果及研究人口发展趋势的重要依据。由于我国地域广大，自然地理环境有较大的差异；同时，各地人民文化经济生活习惯也各有特点，因而各地的死因分布情况是不同的。因此，编制我国人口主要死因地图集将有利于显示我国人口主要死因的地理分布情况，为卫生部门开展疾病的流行病学研究，制定卫生工作的防治计划等方面工作提供参考资料。

本图集是在卫生部科教司的直接领导和大力支持下顺利完成的。

全国性人口主要死因地图集系首次在我国出版发行。本图集中存在缺点错误，敬请批评指正。

编 者

PREFACE

The analysis of death causes of the inhabitants is important in reflecting the people's health state, and also is the scientific basis for the study of distribution pattern of the main death causes in China, working out the programme and assessing the effect of health work, and realizing the developing tendency of population in our country. Due to the vast territory of China, the physical geographical features of one place are quite different from another. In each area the inhabitants have their own economy, culture, habits and customs. As a result the distribution of death causes varies with local conditions. Therefore mapping out the distribution pattern of the main death causes will be helpful to show these geographical variations in China. This information can be used to help medical departments develop epidemiological research and work out the programmes for prevention and control of main diseases.

Under the direct leadership and support of Scientific and Educational Department of the Ministry of Public Health, this set of maps has been finished successfully.

This is the first edition of the *Atlas of Mortality from Main Death Causes in China*, and hence there may be shortcomings or errors in its contents. Please give your critical opinions and suggestions.

Editor

编辑说明

1. 资料来源

本图集资料来源于卫生部全国肿瘤防治研究办公室1976～1978年所组织的全国肿瘤死亡调查。该次调查采用了回顾性方法，对全国约 8.5亿人口在1973～1975三年中死亡人口的死因进行了全面调查统计。

该次调查历时 3 年, 其组织形式和实施方法, 已有专文介绍。

2. 资料的完整性和可靠性

全国肿瘤死亡调查的范围涉及了全国除去台湾省以外的几乎所有地区。仅有四川省及西藏自治区的35个县由于交通不便未行调查，具体情况见下表。

中国1973～1975年人口死因调查范围统计			
政区分级	应调查数	已调查数	%
省级	30	29	96.7
直辖市	3	3	100.0
省	22	21	95.5
自治区	5	5	100.0
地级	211	210	99.5
地 区	174	173	99.4
自治州	29	29	100.0
行政区	1	1	100.0
盟	7	7	100.0
省辖或地辖市	185	185	100.0
县级	2428	2393	98.6
县（市辖区）	2305	2270	98.5
自治县	66	66	100.0
旗	53	53	100.0
自治旗	3	3	100.0
镇	1	1	100.0

调查死亡例数, 为避免遗漏, 做了很细致的工作, 并补查了未报告死亡的婴幼儿死亡病例。因此, 实际调查得到的死亡例数超过公安部门所登记的死亡例数约 1.5~10.5% 左右, 保证了资料的完整性。调查工作事先经过严密地组织, 要求由具有一定水平的医务人员进行调查和确定死因, 并层层把关复核。由于农村医疗卫生事业的普及, 死者生前绝大部分都曾受到医疗服务, 因而死因基本明确, 调查质量比较可靠, 为了检验资料的可靠性, 各级死因调查技术指导小组在验收各县的报表时, 曾以统一标准对其进行抽样检查, 结果证明调查数据符合要求。此外, 将该次调查结果与我国曾开展过人口死因登记报告工作地区的资料比较, 结果亦基本一致。由此, 可以说明资料质量是良好的。

3. 死因分类

此次调查统计所采用的死因分类系根据我国当前具体条件, 并参照国际病伤死因分类方法确定。全部死因共分为20大类, 56种死因。20大类死因为: 1) 恶性肿瘤; 2) 结核病; 3) 传染病; 4) 寄生虫病; 5) 外伤、中毒和意外死亡; 6) 内分泌、营养缺乏和代谢疾病; 7) 血液及造血器官疾病; 8) 精神疾患; 9) 神经系统疾病; 10) 动脉硬化性心脏病; 11) 其它心血管疾病; 12) 脑血管疾病; 13) 呼吸系统疾病; 14) 消化系统疾病; 15) 泌尿生殖系统疾病; 16) 妊娠病、分娩病及产后病; 17) 先天畸形; 18) 新生儿疾病; 19) 其它疾病; 20) 诊断不明。

对于主要死因, 如恶性肿瘤及心血管疾病等则有较细致的分类。

为便于与国内原有资料对比, 按卫生部报表, 类型分为18大类。即结核病与传染病合并为传染病; 动脉硬化性心脏病与其它心血管疾病合并为心脏病。

本图集是在此基础上选择29种死因编制而成的。

4. 城市和农村分级

城市和农村分级除依据城市和农村差别分为城市和农村两大类外, 城市再以人口多少分为3级。大城市(人口在75万以上); 中等城市(人口在25万至75万之间); 小城市(人口在25万以下)。用作城市和农村比较研究的城市资料是按185个

城市资料进行分类归纳而成的，农村资料是用随机抽样方法抽取 200个县进行统计分析得到的。

5. 统计指标

1) 粗死亡率

如：恶性肿瘤粗死亡率 = $\frac{\text{三年恶性肿瘤死亡例数}}{\text{同期累积人口数}} \times 100,000/10^5$

2) 年龄调整死亡率

如：恶性肿瘤年龄调整死亡率 = $\frac{\sum P_i \times N_i}{\sum N_i} \times 100,000/10^5$

P_i = 各年龄组恶性肿瘤死亡专率

N_i = 各年龄组标准人口构成（应用中国1964年人口年龄构成）

3) 死因构成百分比

如：恶性肿瘤死亡构成百分比 = $\frac{\text{恶性肿瘤死亡人数}}{\text{全部死因总死亡人数}} \times 100\%$

6. 数据的分级

为便于表现各死因的地理分布特征及相互比较，各死因以地区、市为单位，采用百分位数分级方法，按各死因调整死亡率水平分为 6 级，即：第10百分位数；第10至25百分位数；第25至50百分位数；第50至75百分位数；第75至90百分位数及第90百分位数。

EXPLANATORY NOTES

1. Source of data

The data used in preparation of this atlas came from the nation-wide cancer mortality survey organized by the National Cancer Control Office of the Ministry of Public Health. Using a retrospective method, this three years survey completed an ad hoc investigation of causes of all deaths in years 1973-1975 for a population of approximately 850 million people.

We have written a special article to deal with the organization and complement about this survey.

2. Completeness and reliability of the data

This survey covered most of the area of China except Taiwan Prov. There were altogether 35 counties in Xizang Autonomous Region and Sichuan Prov. not surveyed because of their poor communication. (See table)

SCOPE OF THE SURVEY OF DEATH CAUSES IN CHINA FROM 1973 TO 1975

Grade of administrative areas	Number ought to be surveyed	Surveyed number	%
Province level	30	29	96.7
Municipality	3	3	100.0
Province	22	21	95.5
Autonomous region	5	5	100.0
Prefecture level	211	210	99.5
Prefecture	174	173	99.4
Autonomous prefecture	29	29	100.0
Administrative district	1	1	100.0
League	7	7	100.0
City under prov. or pref.	185	185	100.0
County level	2428	2393	98.6
County (District under mun. or city)	2305	2270	98.5
Autonomous county	66	66	100.0
Banner	53	53	100.0
Autonomous banner	3	3	100.0
Town	1	1	100.0

In order to avoid omission of death cases, we examined and checked data with public security organs and made the supplementary report of infant death cases which were not reported. Hence, the death cases of this survey practically are about 1.5-10.5% more than that mastered by the public security organs, this makes data more completed. This survey was strictly organized and the data were collected by the doctors having specified professional knowledge, checked at every class, therefore the data are reliable. At the same time due to the development of cooperative health service in rural areas, the popularization of medical net, and that most persons had received medical treatment and service before they died, the death causes are basically clear. In order to examine the reliability of data, the leading group of professional guidance at various levels checked the data by sampling according to the united standard. The result shows that the surveyed data are in accordance with the standard. Additionally, the surveyed data are compared with the data from the same areas in which there is completed report and registration system of death causes, the result is consistent. So, the quality of this survey is good.

3. Classification of death causes

Depending on the practical conditions in China and referring to the ICD, the death causes for this survey is classified. All causes are divided into 20 categories and 56 kinds. The categories of death causes are: 1) Malignant neoplasms; 2) Tuberculosis; 3) Infectious diseases; 4) Parasitic diseases; 5) Injury, poisoning and accidental death; 6) Endocrine, nutritional and metabolic diseases; 7) Blood and blood-forming organ diseases; 8) Mental disorders; 9) Diseases of nervous system; 10) Ischaemic heart diseases; 11) Other heart artery diseases; 12) Cerebrovascular diseases; 13) Diseases of respiratory system; 14) Diseases of digestive system; 15) Diseases of genitourinary system; 16) Diseases of pregnancy, birth trauma and originating in the perinatal period; 17) Congenital anomalies; 18) Neonatal diseases; 19) Other diseases; 20) Diagnosis unclear.

The main death causes, such as malignant neoplasms and heart diseases, are classified in detail.

In order to be compared with the original domestic data, all death causes are divided into 18 categories according to the report table of the Ministry of Health. Tuberculosis is united with infectious diseases as infectious diseases, and ischaemic heart diseases and other heart diseases are formed into heart diseases.

4. Grading of city and countryside

According to their differences, city and countryside are

divided into urban and rural area. The urban area is sorted into three classes; large city (population more than 750,000), middle city (population between 250,000 and 750,000) and small city (population less than 250,000). The data of urban area to be compared with those of rural area come from 185 cities, and the data of rural area are obtained by random sampling which covers 200 counties.

5. Statistical indices

1) Crude mortality rate

e.g. the crude mortality rate of malignant neoplasms

$$\frac{\text{total death cases from malignant neoplasms within three years}}{\text{accumulated population at the same period}} \times 100,000/10^5$$

2) Age-adjusted mortality rate

e.g. the age-adjusted mortality rate of malignant

$$\text{neoplasms} = \frac{\sum P_i \times N_i}{\sum N_i} \times 100,000/10^5$$

P_i = age-specific mortality rate of malignant neoplasms

N_i = age standardized population (based on the age composition of China's population in 1964).

3) Constituent percentage of specific death causes

e.g. Constituent percentage of malignant neoplasms

$$= \frac{\text{total death cases of malignant neoplasms}}{\text{total death cases of all death causes}} \times 100\%$$

6. Ranking of data

In order to present the geographical distribution of the death causes and to facilitate comparison, the age-adjusted mortality rates for each death cause was calculated by prefecture and city, and was then grouped into one of the 6 grades in percentile scale, they were: 10th, 10-25th, 25-50th, 50-75th, 75-90th and 90th.

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死因地图按死因分为30个图组,各图组皆由7部分构成:1.中国××疾病死亡分布图(男),2.中国××疾病死亡分布图(女),3.各省、市、自治区××疾病死亡率(表),4.各地区、市××疾病死亡率按顺序百分位数排列(表),5.××疾病性别年龄组死亡统计(表),6.××疾病年龄组死亡率曲线,7.××疾病死亡年龄分布(直方图)。

The mortality maps are divided into 30 sections by death causes. Each section consists of 7 parts. They are: 1. Distribution of the deaths in China (male), 2. Distribution of the deaths in China (female), 3. Age-adjusted mortality rates (1/10⁵) by province, municipality and autonomous region, (table), 4. Percentile ranking of prefectures and cities according to magnitude of age-adjusted mortality rates, (table), 5. Age specific mortality rates and relative frequency, (table), 6. Age specific mortality curve, 7. Diagram of age distribution of the deaths.

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