

中国公共卫生的典范

SUCCESSFUL PUBLIC HEALTH MODEL IN CHINA

——中国消除淋巴丝虫病纪实

THE HISTORY OF LYMPHATIC FILARIASIS ELIMINATION IN CHINA

中华人民共和国卫生部 Ministry of Health, P.R.China

军事医学科学出版社

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谨以此画册献给为中国消除丝虫病奉献
青春、智慧、心血和汗水的人们！

This publication is dedicated to all the people who have greatly contributed their efforts towards the elimination of lymphatic filariasis in China!

中华人民共和国卫生部
Ministry of Health, P.R.China

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医疗卫生事业是造福人民的事业，关系广大人民群众的切身利益，关系千家万户的幸福安康，也关系经济社会协调发展，关系国家和民族的未来。

——胡锦涛总书记2006年在中央政治局第35次集体学习时的讲话

Medical and health undertakings benefiting the populace involve the immediate interests of a vast number of people, influence the happiness and peaceful life of every family, concern coordinated development of economic society and affect the future of our nation and country.

——Hu Jintao, Secretary-General of the Political Bureau of the Central Committee of the Communist Party of China at the 35th Political Bureau collective study in 2006.

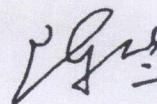
序

淋巴丝虫病（简称丝虫病）是一种古老的寄生虫病。该病具有严重的致残性，其特有的症状如象皮肿以及反复发作的淋巴系统急性炎症等，导致肢体和生殖系统畸形，不仅给患者在生理上和心理上造成极大痛苦，而且给千万个家庭带来不幸。

中国曾是世界上丝虫病流行最严重的国家之一，该病在我国已有2700多年的流行历史。新中国成立后，在党中央和国务院的高度重视下，我国广大的寄生虫病防治、科研工作者针对丝虫病传播与流行的规律，结合现场防治工作，潜心研究，积极探索，取得了一系列有理论价值和实际指导意义的重大成果。在此基础上，经过几代丝虫病防治、科研工作者艰苦卓绝的不懈努力，终于在2006年消除了丝虫病。这是继我国宣布消灭天花和实现无脊灰目标以来，在疾病控制领域取得的又一举世瞩目的成就。这是科学研究指导疾病控制的成功典范，更是流行区各级政府、广大干部和群众积极参与、共同创造的一部可歌可泣的壮丽史诗。这一重大历史性成就，令国人振奋，令全球鼓舞。

为了回顾中国消除丝虫病的奋斗历程，总结半个世纪以来中国消除丝虫病的成功经验，弘扬老一辈防治和科研人员严谨治学、不畏艰辛、无私奉献的精神，激励广大疾病控制工作者为实现“健康中国2020”战略贡献智慧和力量，特编辑出版这本画册。此画册真实记录了半个世纪以来我国丝虫病防治工作的光辉历程，形象、生动地总结了我国防治丝虫病的经验。值此画册编辑完成之际，乐为之序。

中华人民共和国卫生部部长
2008年8月



Foreword

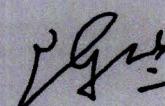
Lymphatic filariasis (simply known as filariasis) is an ancient parasitic disease. The typical symptoms of recurrent attacks of acute lymphadenitis and lymphangitis, and chronic swelling of the limbs and genital organs - elephantiasis - can lead to severe disability. These not only cause physiological abnormalities and huge mental distress to patients, but also result in tragedies for ten millions of families.

China used to be one of the most heavily endemic countries of filariasis in the world. The symptoms of the disease have been recognized in China for more than 2700 years. After the founding of the People's Republic of China, high priority was given by the Communist Party of China (CPC) and the State Council, to control of disease transmission and prevalence. Many health staff and scientists targeted this disease. From study and research, combined with active field work, they made great advances of both theoretical value and practical significance. On the basis of these achievements, through the untiring and hard work of several generations of health staff and scientists, filariasis was finally eliminated in all of China in 2006. This was a great achievement in disease control, and followed on from the eradication in the nation of smallpox and poliomyelitis. Scientific research guided the control work and provided a successful model for the control of other diseases. This was a magnificent achievement of government at different levels, of all cadres and of the population who all actively contributed. This great historic achievement not only inspires the Chinese people, but also motivates all peoples of the world.

This photo album was compiled in order to record the history of the struggle of the past half century to eliminate this disease; to set an example of rigorous and dedicated scholarship in difficult circumstances; to encourage, by the experience of these pioneering scientists and health care workers, all workers in the field of disease control, to strive their utmost to achieve the goal of the realization of the national strategy "Healthy China 2020". Candidly recording the splendid achievement of filariasis control in the past half century, this photo album summarizes the electrifying achievement of filariasis control. On the occasion of its publication, I am very glad to write a foreword for it.

Minister of Health, People's Republic of China

August 2008



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前言

我国曾经是世界上淋巴丝虫病（简称丝虫病）流行最严重的国家之一。在我国大陆地区，丝虫病曾广泛流行于16个省、自治区、直辖市的864个县（市、区），受威胁人口达3.4亿。

新中国成立后，在党和政府的高度重视和关怀下，在有关部门的密切配合和流行区人民群众的积极参与下，全国开展了轰轰烈烈的丝虫病防治工作。依靠几代科研、防治工作者的不懈努力，到2006年，我国实现了全国消除丝虫病的目标。

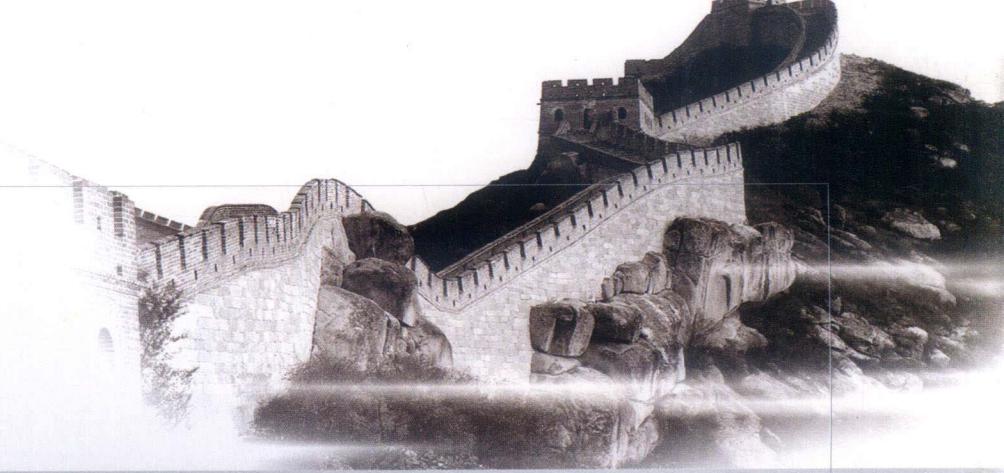
本画册从丝虫病的严重危害、政府的高度重视、明确的防治目标、健全的防治和监测网络、科研服务于防治、举世瞩目的成就等方面，全景反映了我国防治丝虫病走过的艰辛历程，真实记录了我国防治丝虫病的每一个坚实脚步，展示了丝虫病防治科研工作者无私奉献的精神风貌。谨以此画册告慰逝者，激励后人，永远铭记那些为中国消除丝虫病做出卓越贡献的人们。

PREFACE

China used to be one of the most heavily epidemic countries for lymphatic filariasis (simply known as filariasis) in the world. There were 864 counties/cities/districts in 16 provinces/autonomous regions/municipalities with a total population of 340 million at risk of infection.

Since the founding of the People's Republic of China, the Communist Party of China (CPC) and the State Council have set it as a top priority to the control of filariasis. Due to decades of sustained efforts, close cooperation related to filariasis control among government departments and active participation of epidemic populations, an all-round campaign for filariasis prevention and control has been carried out vigorously and successfully. Great achievements have been made through persistent endeavors of Chinese scientists and disease control workers for many years. The ultimate goal to eliminate filariasis in all of China was achieved in 2006.

By demonstrating the serious harm of filariasis, the great importance attached by the government, specific control goals, sound control and monitoring networks, scientific research assisted prevention and treatment and world-acclaimed achievements, this photo album serves as a documentary of the arduous process of China's prevention and treatment of filariasis and the spirit of selfless dedication of the scientific research workers. It intends to comfort the deceased and inspire future generations to forever remember those who made extraordinary contributions to the eradication of filariasis of China.



流行区域广泛 社会危害严重

Widespread endemic areas and the serious threat to society

丝虫病是一种古老的寄生虫病，早在2700多年前春秋、战国时期的古籍中就有类似丝虫病症状的描述。1876年英国医生Manson在福建省厦门市首次发现班氏丝虫微丝蚴，此后我国学者李宗恩、冯兰洲等也陆续发现并证实中国存在班氏和马来两种丝虫病。新中国成立后，逐步查清了我国大陆丝虫病的地理分布和流行范围。丝虫病流行区南起海南省三亚市(北纬 $24^{\circ}10'$)，北至山东省乐陵县(北纬 $37^{\circ}48'$)，东迄浙江省舟山群岛(东经 $122^{\circ}30'$)，西至四川省雅安市(东经 103°)。流行区人口达3.4亿，有丝虫病病人3099.4万人，其中慢性丝虫病患者约540万人。

丝虫病在全球80多个国家流行，感染者1.2亿多人。反复发作的淋巴系统急性炎症，以及肢体、外生殖器象皮肿等丝虫病特有的症状、体征，使许多患者因病致残，丧失了劳动能力，给患者在生理和心理上造成极大痛苦，也给其家庭带来了不幸。丝虫病的流行严重影响经济发展和社会安定。

Filariasis is an ancient parasitic disease, the symptoms similar to those of the disease were recognized in China as early as 2,700 years ago during the Spring and Autumn and the Warring States Periods. In 1876, the microfilariae of *Wuchereria bancrofti* was discovered in the peripheral blood of a patient by a British doctor named Manson in Xiamen City, Fujian Province for the first time. Afterwards, two Chinese scientists, Li Zong'en and Feng Lanzhou, discovered and confirmed that *W. bancrofti* infection and *B. malayi* infection existed in China. After the founding of the People's Republic of China, the geographic distribution of endemic areas for filariasis in China had been delineated through many years of investigation. The southernmost limit of the endemic areas was Sanya City, Hainan Province ($24^{\circ}10'N$); while the northernmost was Leling County, Shandong Province ($37^{\circ}48'N$). The easternmost limit extended to Zhoushan Islets, Zhejiang Province ($122^{\circ}30'E$); while the westernmost limit was Ya'an City, Sichuan Province ($103^{\circ}E$). The population in endemic areas was 340 million, of which 30.994 million were infected, including 5.4 million clinically chronic cases.

More than 80 countries in the world are endemic for filariasis with 120 million infected subjects. The symptoms and signs of filariasis, including acute inflammatory episodes as well as the progressive chronic diseases of lymphedema, chyluria, and hydrocele, caused tremendous suffering and overall disability. The patients and their family members suffered from physiological and psychological pain. The prevalence of filariasis seriously affected economic development and social stability.



編病者由勞役肢體熱盛自取風令而爲京濕所
折入於肌肉筋脈結聚所成也其狀赤脉起如繩
急痛壯熱其發於脚者急從鼠蹊起至踝赤如
編繩故謂編病也發於臂者尋腋下起至手也可
即治取消其潰沈勝則筋攀也其著脚若置不治
不消復不潰其熱歇氣不散變作腫脹緩澑相搏
脹脹已成膿也

壅肺候

壅肺者由風濕令氣搏於血結聚所生也人運役
勞動則陽氣發泄因而汗出遇風令濕氣搏於經

又云假卧今兩足布膝頭取踵置尻下以口內氣
腹脹自極以鼻出氣七息除氣瘡數小便莖中痛
陰以下溼小腹痛膝不隨也

膏淋候

膏淋者淋而有肥狀似膏故謂之膏淋亦曰肉淋
此腎虛不能制於肥液故與小便俱出也

勞淋候

勞淋者謂勞傷腎氣而生熱成淋也腎氣通於陰
其狀尿留莖內數起不出引小腹痛小便不利勞
倦即發也

重刊巢氏諸病源候總論序

論林學並醫學士秦祖慶宣判官故大夫蕭夏司郎中知醫務
撰列御書上諭軍常品制國醫食邑三百石紫金紫金紫金紫金
臣聞人之生也陶六氣之和而過則爲沴醫之
作也求百病之本而善則能全若乃分三部九
候之殊別五聲五色之變揆盈虛於表裏審躁
靜於性韻達其消息謹其攻撫茲所以輔合寧
之命裨有邦之治也國家不冒萬字交脩庶職
執技服於官守寃疾存乎政典 皇上東靈圖

公元610年隋·巢元方著《诸病源候论》中，记述有类似丝虫病的临床症候。

The description of clinical symptoms characteristic of lymphatic filariasis in "Commentaries on Original Signs of Diseases" written in 610 A.D. by Chao Yuanfang of the Sui Dynasty.

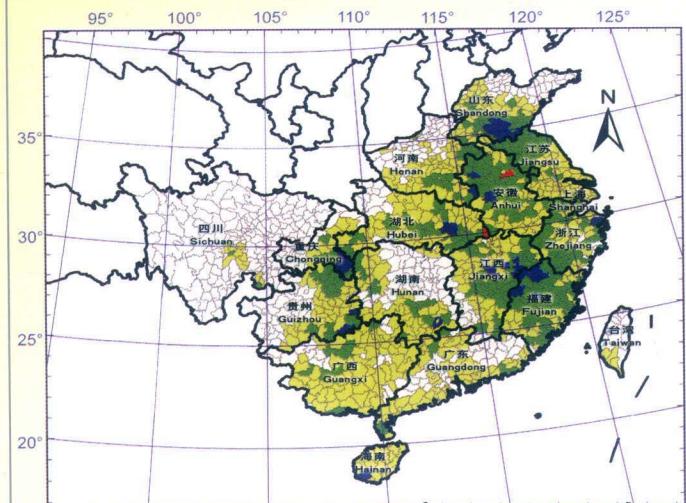
中国淋巴丝虫病流行（蓝色）分布示意图

Distribution of endemic areas for lymphatic filariasis in China (in blue color)



中国淋巴丝虫病流行区地理分布及流行程度示意图

Distribution and intensities of prevalence of lymphatic filariasis in China



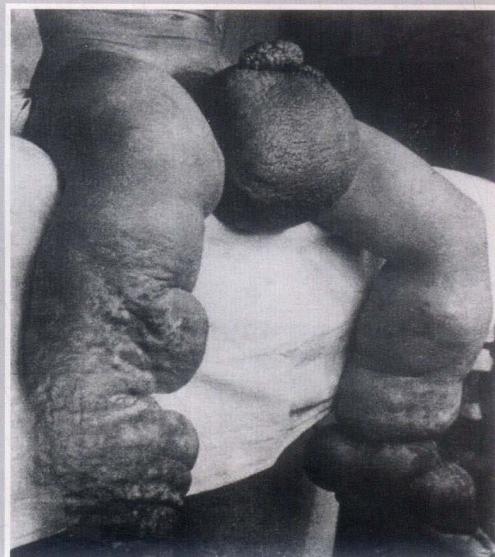
微丝蚴检出率(%)
Detection rate of microfilaraemia(%)

>0
5-
20-
30-





单侧上肢象皮肿
Elephantiasis in an upper limb



双下肢及阴囊象皮肿
Elephantiasis in lower limbs and the scrotum



在一些重度流行区曾经流传着“八条粗腿围一桌，狗在桌下钻不出，穷人有病等着死，一人生病全家愁”的民谣。

In some heavily endemic areas, there was a Chinese folk rhyme that goes as follows: "When four men with big legs sit around a table, a dog inside the table cannot come out; the diseased poor are waiting for death, and their families are distressed."



政府高度重视 防治目标明确

Great attention paid by the government and setting up clear objectives

新中国成立以来，我国政府一直将消除丝虫病危害、保护人民健康作为自己的神圣使命。党和国家几代领导集体都对丝虫病防治工作高度关注，并作出重要指示。地方各级人民政府进一步加强对丝虫病防治工作的领导，制定防治规划，加大经费投入。各级领导干部深入丝虫病防治第一线视察，有力地促进了防治工作的开展。

1956年我国提出了在一切可能的地方基本上消除丝虫病，在全国各地相继开展了大规模的丝虫病摸底调查和防治工作。1978年我国提出了到1985年在全国范围内实现基本消除丝虫病的目标。1983年山东省在全国率先实现基本消除丝虫病。经过广泛的防治工作实践和科学的论证，1991年将全国消除丝虫病确定为中国防治丝虫病的最终目标。

Since the founding of the People's Republic of China, the Chinese government has always taken responsibility for maintaining the population's health and eliminating filariasis as its important mission. The leading bodies of the Communist Party and Central Government have paid great attention to filariasis control. The local governments at different levels have strengthened supervision of disease control and prevention, formulating control programs and enhancing economic inputs. Leading cadres at all levels have inspected the work of filariasis control in the field.

In 1956, the Central Government aimed to basically eliminate filariasis in all endemic areas if possible, and large-scale filariasis control and investigation were carried out in succession throughout the country. In 1978, the Central Government put forward the objective to achieve basic elimination of filariasis in the entire country by the year 1985. Shandong was the first province to achieve province-wide basic elimination for filariasis in 1983. In 1991, after implementation of extensive control practices and confirmation by scientific evidence, the final goal of elimination of filariasis in the entire country was confirmed.



1956年，毛泽东主席召集最高国务会议，将防治丝虫病等严重危害人民健康的疾病纳入全国农业发展纲要。

In 1956, Mao Zedong, late Chairman of the Communist Party of China, personally presided over the Highest State Conference. During the conference, the control of filariasis and other diseases that pose a serious threat to the population's health was included in the National Program for Agricultural Development.