

新交流

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美国和中国在全球健康上通力合作

The U.S. and China Working Together on Global Health



封面：
在布拖县诊所，一家彝族人正与美国疾病控制与预防中心的全球艾滋病项目主任马克·巴尔特里斯博士（右）交谈。布拖位于四川省南部的凉山自治州。（照片由美国疾病控制与预防中心提供）

Front Cover:
Family from the Yi minority group speaking with the Director of the U.S. CDC Global AIDS Program, Dr. Marc Bulterys (right), at the Butuo County clinic. Butuo is in Liangshan prefecture in the south of Sichuan province. (Courtesy of U.S. CDC in China)

2005年7月17日，在北京清华大学参加艾滋病宣传日活动时，休斯顿火箭队篮球明星中锋姚明（左二）收到孩子们的礼物，著名演员、防治艾滋病形象大使濮存昕（右二）在一旁注视。姚明和其他三位NBA球星一起看望了30名中国儿童，其中有些孩子是艾滋病病毒携带者，还有一些则是艾滋病致孤儿童。该活动是NBA国际篮球和社区关系外展项目“篮球无国界”的一项内容。（美联社供图，Ng Han Guan）

Houston Rockets star center Yao Ming (second left) appreciates a gift from Chinese children as Chinese actor and Anti-AIDS spokesman Pu Cunxin (second right) looks on during a HIV/AIDS Awareness Day at the Tsinghua University in Beijing, China on July 17, 2005. Yao and three other NBA (National Basketball Association) players met with 30 Chinese children, some HIV positive and others orphaned by AIDS. The activity was part of "Basketball without Borders," the NBA's international basketball and community relations outreach program. (AP Photo/Ng Han Guan)

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美国和中国在全球健康上通力合作 The U.S. and China Working Together on Global Health



美国疾病预防控制中心 (U.S. CDC) 负责人 Thomas Frieden 与中国疾病预防控制中心主任王宇就美中公共卫生合作事务进行商讨。中美设立年度疾病预防控制中心负责人会晤机制至今已有十年历史。(照片由美国疾病控制与预防中心提供)

U.S. CDC Director Thomas Frieden speaks with counterpart Wang Yu, Director of the Chinese Center for Disease Control and Prevention (China CDC) about the U.S. – Sino public health collaboration. China and the U.S. have a 10-year history of annual CDC Director meetings. (Courtesy of U.S. CDC in China)

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Letter from the Editor

中国协和医科大学(PUMC)始建于1906年，至今仍位于紫禁城附近的旧址，原为古代宫殿和园林，其建筑融合了传统的中式风格和西式风格。

美国和英国的一些机构和当时的中国政府共同建立了这所大学，并在建校初期负责学校的运营。在洛克菲勒基金会随后成立的美国中华医学基金会的监督下，1921年，中国协和医科大学建立了一所集医院、教学和研究于一身的综合性设施。洛克菲勒基金会是由美国工业巨子、慈善家和标准石油公司的创始人约翰·洛克菲勒于1913年创立的。洛克菲勒是早期医学领域最伟大的捐助者之一。

长期以来，中国协和医科大学汇集了一流的医生、医学工作者和研究人员，因此成为中国最为优秀的大学之一，协和医院也因此成为中国医学技术水平最高的医院之一。协和医科大学和协和医院是中美两国在医疗卫生方面持续至今的成功合作的典范。

中美两国当前在医学研究和公共卫生领域的合作在很多方面都对整个世界产生了影响。例如美国疾病预防控制中心已经与中国在公共卫生领域进行了30年的合作，这一合作使各国人民获益。中美两国共同证实了叶酸的功效，叶酸可以使全世界的儿童免受出生缺陷的困扰。现在，我们正在探索HIV预防、检测和治疗的新方法。我们也正在对造成心血管疾病的危险因素进行研究，而心血管疾病是世界范围内主要致死原因之一。中美两国还与其他国家共同合作进行流感

监测，从而为全世界人民提供更好的保护。在以下的篇幅中，我们将为大家讲述几个故事，并且登载有关全球卫生问题的一些文章。



1924年，中国协和医科大学(Bundesarchiv, Bild 137-009049 / Salzmann, E.v. / CC-BY-SA)
Peking Union Medical College in 1924 (Bundesarchiv, Bild 137-009049 / Salzmann, E.v. / CC-BY-SA)

下个月，我将离开中国，不再担任《新交流》的编辑，今后的出版工作将由新的编辑来完成。在我在中国工作的这段时间里，中国人民给我留下了非常美好的印象。在我编辑的最后一期《新交流》中，我们将看到中美两国的合作如何造福两个国家的人民以及全世界。在离开中国之际，我感到欣慰的是，中国人民将拥有一个健康的未来。我在这里接触的人们向我展现了一个生动而真切的中国，他们的音容笑貌在我心中留下了不可磨灭的记忆，我将永远记住在中国的这段生活。□

夏诺文
《新交流》编辑



2010年，坐落于北京的中国协和医科大学老建筑（网络相簿，伊万·沃什尔）
Old building of Peking Union Medical College in Beijing in 2010 (Flickr by Ivan Walsh)



湖南省某学校的孩子们聚集在美国驻华使馆美国疾病预防控制中心风险沟通和应急准备主任福美琳 (Melinda Frost) (照片中中间位置的成年人) 的周围。这所学校的学生参加了由福美琳女士领导的美国疾病预防控制中心小组组织的预防狂犬病宣传教育资料试用活动。(照片由美国疾病预防控制中心提供)
 Children at a school in Hunan province surrounding Director of Risk Communications and Emergency Preparedness of the U.S. CDC in Beijing, Melinda Frost (the adult standing near the center of the photo). The students from the school worked with a team from U.S. CDC led by Ms. Frost to test rabies prevention educational materials. (Photo courtesy of the U.S. CDC)

Founded in 1906, Peking Union Medical College (PUMC), with its mixture of traditional Chinese and western architecture, still stands today on the former site of a palace and gardens near the Forbidden City.

A group of American and British organizations and the then-Chinese government founded and originally maintained the college. The Rockefeller Foundation later established the China Medical Board to oversee the construction of a hospital and an academic and research complex at PUMC in 1921. The Rockefeller Foundation was created in 1913 by the American industrialist, philanthropist and founder of the Standard Oil Company John D. Rockefeller, Sr., who became one of the first great benefactors of medical science.

PUMC continues to gather together leading physicians, medical professionals and researchers making its college one of the most selective and its hospital one of the most technically advanced in China. The college and hospital are symbols of the successful collaboration in health care between the United States and China that continues to today.

In many respects, the current collaborative work between the U.S. and China in medical research and public health impacts the entire world. The U.S. Centers for Disease Control and Prevention (U.S. CDC) for instance,

has worked for 30 years with China on public health issues that have benefited people of all nations. Together our nations proved the benefits of folic acid which saves children around the world from birth defects. We are exploring together novel approaches to HIV prevention, testing and treatment. We are researching risk factors for cardiovascular disease – one of the world's leading causes of death. Along with other nations, China and the U.S. are working together on influenza surveillance to better protect the world. These are some of the stories that will be told in the following pages, along with articles on global health.

Next month, I will be leaving China and my job as editor of *Xin Jiao Liu*. In my time here, it has been the Chinese people who have made the most positive impression on me. In the pages of my last issue, we see how collaboration between the U.S. and China benefit the people of each nation and of the world. It is reassuring to know that the people I'm leaving behind have healthy futures. It is the faces of the Chinese people – the ones who made the country alive for me – which have made an indelible impact on my memories of living in China. □

Rowena Saura
Xin Jiao Liu Editor



全球健康倡议 Global Health Initiatives

2003年非典爆发期间，这个孩子因可能携带非典病毒在台北国际机场引发人们的担忧。在全球化的世界，病毒的传播和人员往来一样迅速。
 During the 2003 SARS epidemic, this child raised concerns at the Taipei International Airport that he might carry the SARS virus. In the globalized world, viruses travel as fast as people. (© AP Images)

全球健康马歇尔计划： 更大的力度，更好的收效

A Marshall Plan for Global Health: Greater Power, Better Results

作者：戴维·班斯伯格，医学博士、公共卫生硕士和瓦尼莎·
布拉福德·克里，医学博士、理学硕士

By David Bangsberg, MD, MPH, and Vanessa Bradford Kerry, MD, MSc

保健工作是一项全球性公益事业，超越了边界和人口。由于生病的公民经济生产力较低，因此不佳的健康往往加重经济和社会的不平等，而改善公共健康则有助于提高收入。简言之，国家的人口健康状况既反映了其经济和社会条件，同时又对这些条件产生影响。

Health is a global public good, capable of transcending borders and populations. Because ill citizens are less economically productive, poor health fuels economic and social inequity, while public health improvements correlate instead with economic gains. In short, the health of a country's population both reflects and contributes to its economic and social conditions.



在印度高哈蒂（Gauhati）公立医院，一名护士准备为一名肺结核患者进行注射。（©美联社供图）
A nurse prepares to administer an injection to a tuberculosis patient at a state hospital in Gauhati, India. (© AP Images)

健康是发展

人口健康状况不佳有损于经济发展。例如：

据世界卫生组织（WHO）统计，心脏疾病、中风和糖尿病造成的过早死亡使中低收入水平国家的国内生产总值下降1%到5%。

据联合国开发计划署（U.N. Development Programme）在赞比亚收集的信息，在家庭中赚取主要收入的人死于艾滋病时，三分之二的家庭在经济、社会和教育方面受到严重负面影响：80%的家庭报告收入下降，61%的家庭迁入房价或租金较低的住房，39%的家庭失去清洁饮水，20%的家庭有儿童辍学。

根据世界卫生组织的计算，人均寿命若增加十年，每年经济会多增长3%。

促进健康的战略是经济援助和发展项目取得成功的要素，适度的投资能够确保针对世界上许多最可怕疾病开展的防治工作取得可持续的成功。由于美国和其他一些国家的资助，发展中国家已经根除了天花，基本消除了小儿麻痹症，并通过疫苗接种预防了其他疾病。根据联合国艾滋病规划署（Joint U.N. Programme on HIV/AIDS）发布的数据，世界各地逾700万人已经开始接受艾滋病毒相关治疗，新增感染者数量和比例都比十年前下降，其中部分原因是采用抗逆转录病毒疗法。

但是，通过从以疾病为中心的短期措施转向相互协调的长期投资以增强卫生系统和相关人力资源，美国及其国际伙伴的投资将能产生更大的影响。例如，自2008年以来，协调持续的投资使卢旺达能够支付其健康开支的约50%。

收获合作投资的成果

虽然哈里·杜鲁门总统（Harry Truman）在二次世界大战结束时承诺为欧洲各国提供200亿美元的长期低息贷款，但是这项投资并没有能够解决欧洲的社会和经济问题。1947年6月，国务卿乔治·马歇尔（George C. Marshall）宣布一项新计划，要求受援国制定出解决其共同问题的多边方案。由于这项妥善协调的“马歇尔计划”（Marshall Plan），欧洲实现了几十年的经济发展和政治稳定。

一项基于相同原则的充分协调的国际健康计划——即捐助方提供的援助直接投资于伙伴国和受援

国为共同目标而建立和管理的项目——能够帮助非洲撒哈拉以南地区和其他贫困地区开启改善健康、增进繁荣与稳定的新时代。

这样的健康计划必须侧重于作为伙伴国发展重点的保健系统和基础设施并统筹进行各种疾病的预防、诊断和治疗，而不是有选择地针对特定疾病。传统上，以疾病为中心的做法在公共卫生工作中占据主导地位，这种做法往往导致脆弱和资金不足的卫生系统更加扭曲。作为千年发展目标（Millennium Development Goals）一项核心内容的母婴健康一直由于这种做法而受到忽略：在1990年至2006年间有27个国家在减少儿童死亡方面几乎毫无进展。

向统一协调模式的转变变得日益重要。心血管疾病和癌症等非传染性疾病加重了艾滋病、疟疾或结核病等传染病带来的负担。极其重要的是，恶性肿瘤、慢性阻塞性肺病、心血管疾病、糖尿病和精神病等慢性病造成的死亡80%发生在发展中国家。新出现和尚未受到充分认识的致病和致死的原因——包括损伤和环境灾难——也需要予以关注。

统一协调的做法是以加强国家的医疗保健能力为重点。对于很多国家来说，这一战略要求对人力资源进行投资，例如对医生、护士和其他卫生工作者进行培训。今天，有57个国家短缺近240万名卫生专业人员。疾病负担最重的地区需要量最大。在全球疾病中，非洲承受的负担达24%，但非洲仅有占全球3%的卫生工作者和1%的保健支出，难以扭转这一不平衡的状况。如全球抗艾滋病行动所表明，必须对整个卫生保健系统进行战略提升，使之从加强特定疾病防治能力转向社区支持。

不仅需要增加卫生工作者的人数，还需要提高其素质。捐助方能够帮助制定有效的计划，针对当地的疾病负担对专业人员进行教育和培训。这方面成功的例子包括：

- 美国总统防治艾滋病紧急救援计划（Emergency Plan for AIDS Relief, PEPFAR）发起一项医学和护理教育伙伴关系行动（Medical Education and Nursing Education Partnership Initiative），旨在提高13个PEPFAR伙伴国的医护能力。

- 许多医学中心——如马萨诸塞州总医院或布里格姆和妇女医院（Brigham and Women's Hospital）——正在

2008年秘鲁成为第一个为保护婴幼儿和青少年免于感染乙型肝炎而开展疫苗接种活动的国家。（© 美联社供图）

In 2008, Peru became the first country to launch a vaccination campaign to protect children and teenagers against hepatitis B. (© AP Images)



与发展中国家的公共部门合作，帮助加强医学和公共卫生教育。

- 拟议中的全球卫生保健服务队（Global Health Service Corps）将是美国资助的一个项目，旨在支持美国专家为受援国卫生工作者提供培训，从而直接加强这些国家的卫生保健能力。

通过加强各国提供卫生保健服务和培养下一代卫生工作者的能力，此类项目能够以相对较少的投资带来巨大的健康收益，同时增强可持续性。

结束语

在这个日益互相关联和互相依赖的世界上，没有哪个国家能够忽视其他国家的健康问题。健康与发展密不可分，不对卫生保健进行投资将会加剧社会不稳定、发展迟缓、丧失经济生产力和增长能力的恶性循环。为建立卫生保健基础设施而妥善协调多边投资则能够增进健康和推动经济发展，形成可持续几代人的健康和进步的良性循环。□

写于2012年12月2日

HEALTH IS DEVELOPMENT

Failure to address poor health undermines economic development. For example:

- Premature death from heart disease, stroke and diabetes reduces gross domestic product between 1 percent and 5 percent in low-and-middle-income countries, according to the World Health Organization (WHO).

- Two-thirds of Zambian households suffered devastating declines in economic, social and educational status when their breadwinners died of AIDS: 80 percent of families reported decrease in income, 61 percent moved to cheaper housing, 39 percent lost access to clean water, and 20 percent of children dropped out of school, according to the U.N. Development Programme.

- The WHO calculates 3 percent economic growth when life expectancy increases by 10 years.

Strategies to improve health are integral to the success of economic aid and development programs, and modest investments can secure sustainable success against many of the world's most feared diseases. U.S. and international investments to improve health in developing countries already have eradicated smallpox, nearly ended the scourge of polio and prevented other diseases through vaccination. According to the Joint U.N. Programme on HIV/AIDS, more than seven million people have started HIV treatment worldwide, and antiretroviral therapy has helped decrease the number and rate of new infections compared with a decade ago.

However, the United States and its international partners can have an even greater impact by transitioning from short-term, disease-oriented approaches to more long-term, coordinated investments designed to bolster health systems and related human resources. For example, coordinated, sustained investments have enabled Rwanda to pay for approximately 50 percent of its own health expenditures since 2008.



2008年11月30日（周日），在北京标志性建筑鸟巢（国家体育馆），卫生主管部门与联合国艾滋病防控机构共同揭开一个巨大的红丝带图标，以此发起一项在中国抵制歧视艾滋病患者的运动。该图标是艾滋病宣传的标志。（美联社供图/ Elizabeth Dalziel）
Health authorities and the U.N. AIDS agency launched a campaign to fight discrimination against people with AIDS in China with the unveiling of a massive red ribbon, the symbol of AIDS awareness, at the iconic Bird's Nest national stadium in Beijing, China, Sunday, Nov. 30, 2008. (AP Photo/ Elizabeth Dalziel)

REAPING REWARDS OF COOPERATIVE INVESTMENT

Though President Harry Truman committed \$20 billion in long-term, low-interest loans to individual European countries at the end of World War II, this investment failed to reverse Europe's social and economic problems. In June 1947, Secretary of State George C. Marshall announced a new plan that required aid recipients to fashion multilateral solutions to their common problems. The coordinated Marshall Plan led to decades of economic development and political stability in Europe. A well-coordinated international health plan built on a similar principle—donors supplying aid that directly invests in programs developed and managed by our partner countries and recipients cooperating toward a mutual end can help jump-start an era of improved health, prosperity and stability in sub-Saharan Africa and other vulnerable regions.

Such a health plan needs to focus on building health systems and infrastructure based on partner-country priorities and integrate prevention, diagnosis and treatment across diseases rather than selectively targeting specific diseases. Disease-focused approaches, which have dominated traditional public health efforts, often exacerbate existing distortions in weak and underfunded health systems. Maternal and child health, a major focus of the Millennium Development Goals, has been a casualty of this approach; 27 countries made little or no progress in reducing childhood deaths between 1990 and 2006.

A move to an integrated approach is increasingly important. Noncommunicable diseases such as cardiovascular disease and cancer are compounding the burden from infectious diseases such as AIDS, malaria or tuberculosis. Critically, 80 percent of deaths from chronic

diseases including malignancies, chronic obstructive pulmonary disease, cardiovascular disease, diabetes and mental health disorders occur in developing countries. Emerging and underrecognized causes of morbidity and mortality, including trauma and environmental catastrophes, will also need attention.

An integrated approach would focus on increasing a country's capacity to deliver health care. For many countries, this strategy will require investing in human resources such as training doctors, nurses and other health care workers. Today, there is a shortage of approximately 24 million health professionals in 57 countries. Regions with the highest disease burden have the greatest need. Africa has 24 percent of the global disease burden, but only 3 percent of the global health care workforce, and only 1 percent of the world's health expenditure to rectify this imbalance. As the global HIV campaign has demonstrated, a strategic scale-up across health care systems from disease expertise to community support will be required.

More health care workers are needed, but also better trained ones. Donor countries can help by creating effective programs that invest in professional education and training designed to address the disease burdens of individual settings. Successful examples include:

- The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) launched a Medical Education and Nursing Education Partnership Initiative to strengthen medical and nursing health skills in 13 PEPFAR countries.
- Many academic medical centers such as the Massachusetts General Hospital or Brigham and Women's Hospital now partner with public sector institutions in developing countries to help improve medical and public health education.
- The proposed Global Health Service Corps would be a U.S.-funded program to support U.S. health professionals who teach and train health care workers in recipient nations and thus directly increase health capacity in those countries.

By strengthening the capacity of countries to deliver health care and invest in the next generation of health

professionals, programs like these could yield significant health gains and promote sustainability for relatively little investment.

CONCLUSION

In our increasingly interconnected and interdependent world, no country can ignore the health problems of other countries. Because health and development are inextricably linked, failure to invest in health will fuel a vicious cycle of social instability, weak development, and lost economic productivity and growth. Coordinated, multilateral investment to build health care infrastructure in vulnerable countries can bolster health and economic development, and spark a cycle of health and progress that can be sustained over generations. □

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全球健康计划中那些内容有效？ What Works in Global Health Programs?

作者：阿曼达·格拉斯曼
By Amanda Glassman

一名北京胸科医院的医生正在给病人做肺结核诊断。(© 美联社供图)
A doctor at the Beijing Chest Hospital gives a patient a tuberculosis diagnosis. (© AP Images)

过去60年里，全球健康状况显著改善，平均寿命每年延长近4个月。今天，发展中国家一个普通公民的寿命比1960年时长15年。

这些进展得益于许多因素，主要是经济增长与保健服务的改善。1952年至1992年之间，健康领域取得的近50%的成果来自收入的增加。更有效地提供医疗服务也能显著降低死亡率并改善生活品质。例如，据医学杂志《柳叶刀》(Lancet) 2005年的一项研究报告，获得适当的医疗服务能使全球婴儿死亡率降低41%到72%。

全球发展中心通过一项恰当命名的行动计划“什么有效？”对与全球健康计划有关的成功要素进行了研究。由露丝·莱文(Ruth Levine)领导的一个由学者和研究人员组成的工作组对各类评估资料进行了细致的分析，努力找出最佳策略与方法。

该工作组发现，最成功的健康计划(例如在世界范围内根除天花以及在拉丁美洲根除小儿麻痹症)一般包含几项共同的关键因素，并在题为《拯救亿万生命：全球健康领域的成功例证》的报告中发表了研究结果。这些因素可应用于所有类型的健康计划，但一

些业经证明有效的最佳方式和方法对公共健康工作尤其重要，有助于解决需要实施可持续性方案的长期问题。上述关键因素包括：

1. 国际和当地资助者提供可预知的充足资金。最成功的项目往往享有长期资金支持的承诺。稳定充足的资金对确保项目长期维持和产生重大影响必不可少。例如，艾滋病防治项目需要长期稳定的资金，以保障患者得到治疗，从而防止疾病恶化和传播蔓延。

2. 政治领导人发挥带头作用。几乎在所有情况下，高层领导对一项事业的公开承诺都具有重大意义。政治领导人的支持能使健康问题受到高度重视，有助于加强问责和争取公众支持。例如，泰国政府积极参与了遏制艾滋病蔓延的努力。其成功经验表明，由政府推动在全国范围内预防艾滋病毒的传播是一种有效的做法。

3. 在一个有效的实施系统中推动价格合理的革新。新技术只有在便于推广以及价格合理的情况下才能产生效益。例如，开发一项新的健康产品或技术并不足以确保健康干预的成功。但是，如果通过一个运行正常且可持续的健康系统进行推广，技术进步就能增进健康。例如，政府与民间合作组织“GAVI联盟”在提供资金时就通过其疫苗项目加强了健康系统。

4. 有效利用信息。积极管理和传播信息至关重要。基本做法包括：

- 就某一健康问题的严重程度传播信息，以提高公众意识，促使领导人和医务人员寻找对策。

- 对健康行为以及提供医疗服务的不同途径的有效性进行研究，这有助于制定适当的计划，并提高成功的概率。

- 介绍那些取得迅速进展的项目、国家或地区的情况，这有助于调动项目经理和医务人员的积极性，

使他们为取得更好的成果而努力。

- 在项目开始前和实施过程中收集信息，这有助于纠正项目过程中出现的错误或修订战略。

有助于健康计划成功的要素还包括社区和非政府组织的参与。

随着援助预算的紧缩，优化公共健康计划及系统的运行日益重要。找出增进全球健康的最佳方法有助于确保有限的资源得到充分利用。□

Over the past 60 years, there have been marked improvements in health around the globe. Every year, nearly four months are added to average life expectancy. Today, an average person in a developing country can expect to live 15 years longer than she or he would have expected to live in 1960.

These advances are attributable to many factors, most notably to economic growth and improvements in the health sector. Between 1952 and 1992, almost half of all health gains were from income growth. More efficient delivery of health care also can substantially decrease mortality and improve quality of life. For instance, access to appropriate health care can reduce infant deaths by 41 percent to 72 percent worldwide, according to a 2005 study from *The Lancet*, a medical journal.

The Center for Global Development conducted studies on factors related to success in global health programs through an aptly named initiative, “What Works?” A team of academics and researchers led by

Ruth Levine pored over evaluation data to identify best strategies and practices.

The working group determined several key factors are common to the most successful programs, which include eradicating smallpox worldwide and eliminating polio in Latin America, and published its findings in *Millions Saved: Proven Successes in Global Health*. These factors can be applied to health programs of all types. But the best approaches and practices identified are particularly important for public health efforts designed to address long-term problems that require sustainable solutions. The key factors include:

1. Predictable, adequate funding from international and local sources. The most successful efforts managed to obtain long-term commitments of financial support. Steady adequate funding is necessary to ensure that programs are sustained long enough to have a major impact. For example, funding for HIV prevention and treatment requires long-term and consistent funding to keep people on treatment, thus preventing disease progression and transmission.

2. Political leadership. Nearly all cases illustrate the importance of visible, high-level commitment to a cause. Political support brings health issues to the forefront, increasing accountability and public support. For example, in Thailand, the government has been actively involved in efforts to curb the growing HIV/AIDS epidemic. The Thai success is a testimony to the power of HIV prevention on the national scale.

3. Innovation at a reasonable price within an effective delivery system. Technology is only as effective as it is accessible and affordable. For example, development of a new health product or technology alone is not sufficient to ensure the success of a health intervention.

But technological advances can help improve health if they are introduced within a functioning and sustainable health system. For example, GAVI Alliance, a public-private partnership, provides funding to strengthen health systems in conjunction with its vaccination projects.

4. Effective use of information. The importance of active management and dissemination of information is paramount. Essential elements include:

- Disseminating information about the extent of a health problem that raises public awareness and focuses leaders' and practitioners' attention on finding solutions.
- Conducting research on health behaviors and the effectiveness of different approaches to health services that can help shape the design of a program and increase its prospects for success.
- Providing information about programs, countries or regions making fast progress that can motivate program managers and health workers to strive for better results.

• Collecting information before and during the implementation of a program allows mid-program corrections or changes in strategy.

Other factors that contribute to the success of health programs include community participation and involvement of nongovernmental groups. □

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用简单方法治愈疾病 Attacking Ills with Simple Devices

作者: 安德来伊·日那尼茨基 (Andrzej Zwaniecki)
By Andrzej Zwaniecki

Lila Kerr (右) 和 Lauren Thies 展示她们用沙拉搅拌机改制的血液离心机。(全球健康技术研究所供图)
Lila Kerr, right and Lauren Thies with their salad spinner-turned-blood centrifuge. (Courtesy of the Institute for Global Health Technologies)

莱斯大学 (Rice University) 本科生莱拉·克尔 (Lila Kerr) 和劳伦·泰斯 (Lauren Theis) 接受了一项作业: 寻求一种经济实惠的办法不用电就能诊断贫血症, 这是贫困国家许多医务人员每天面临的挑战。为了找到解决办法, 该两人小组借助厨房开展项目。克尔和泰斯将一个普通凉拌菜搅拌机改造成一台造价30美元的血液离心机, 目前正在厄瓜多尔、斯威士兰和马拉维等国进行测试。

学生发明家的到来

大学生研发小组正日益进入过去由特立独行的有经验的发明家主宰的领域: 改变扶贫产品的设计与推广方式。斯坦福、莱斯及麻省理工等美国一流大学的有关计划吸引了来自不同系科的师生, 有时还有校外合作伙伴, 他们共同开发低成本的简单装置。大多数项目涵盖整个过程, 从确定贫困国家的需求到开发适当的商业模式, 直至推广成品。

“恢复运动设计公司” (ReMotion Designs) 的共

同创始人、来自牙买加的乔尔·萨德勒 (Joel Sadler) 在谈到斯坦福大学的创业设计课时说: “我们在这些课堂上做一些神奇的事。”



全球健康行动计划的阿亚·考德威尔 (Aya Caldwell) 站在一个用汽车部件制作的婴儿孵化器旁, 此产品设计者为“精心设计公司” (Design that Matters)
Aya Caldwell of the Global Health Initiative Program and an infant incubator made from car parts by Design that Matters (Courtesy of the CIMIT Global Health Initiative)

一些“神奇”构思催生了新公司，通过产品推广帮助那些有需求的人们。萨德勒和他的合作者成立了“恢复运动设计公司”，以便在印度推广“JaipurKnee”产品。该产品是一种造价低廉的假腿，专供截肢者使用，是斯坦福大学生物设计项目开发的产品。在莱斯大学，学生开发的技术——如剂量测定器和血液离心机——已为20多个欠发达国家的人们带来福祉。

然而，推广这些技术以满足人们的需求仍是一项重大挑战。在向那些每天靠一、两美元为生的人们推销产品时，保持低成本与保证实用性同样重要。

过去，医疗设备通常是通过慈善组织、援助机构或发展中国家的政府等途径销售或捐助的。莱斯大学商学教授马克·爱泼斯坦（Marc Epstein）指出，在大部分情况下，无论是政府还是援助机构在推广技术方面均没有效率，通过政府的官僚体制运作通常耗时太长，而且满足政府规定也导致成本太高。

“Respira”的设计者们在试图把该产品投放于一个新兴市场国家时就遇到这个问题。“Respira”售价仅为1美元，用于帮助儿童使用治疗哮喘的喷雾式药物。至于慈善组织，由于其资金来源不稳定，常常使技术提供者遭遇困难。

展望市场

新一代发明家越来越多地选择商业推广途径。沃顿商学院（Wharton Business School）创业项目主任埃米莉·切里（Emily Cieri）指出，具有企业基本特征的非营利组织享有两种优势。她说，企业式结构可确保非营利组织在追求社会效益时具有高效率。

一些新公司与跨国公司合作推广产品。不过大多数新公司依靠当地合作伙伴在目的地国家建立立足点。萨德勒举例说，恢复运动公司如果没有与印度一家非政府组织合作，就无法接触到印度的截肢者。□

写于2011年12月2日

Rice University undergraduates Lila Kerr and Lauren Theis received an assignment: find an inexpensive way to diagnose anemia without electricity—a challenge that many health workers in poor countries face every day. For the solution the duo went to... the

kitchen. Kerr and Theis modified an ordinary salad spinner into a \$30 portable blood centrifuge that is being tested in Ecuador, Swaziland and Malawi.

INVASION OF STUDENT INNOVATORS

Student teams are increasingly venturing into an area previously dominated by lone seasoned inventors: changing the way innovations designed to help the poor are created and distributed. Programs at major U.S. universities, such as Stanford, Rice and the Massachusetts Institute of Technology, bring together students and faculty from different departments and sometimes outside partners to work on low-cost, simple devices. Most programs cover the entire process, from identifying the needs in poor countries to developing appropriate business models to distribute final products.

“We're doing magical things in these classes,” said Joel Sadler, Jamaican co-founder of ReMotion Designs, about Stanford's entrepreneurial design class.

Some of the “magical” ideas lead to start-ups intended to bring devices to those who need them. Sadler and his partners launched ReMotion Designs to market in India the JaipurKnee, an inexpensive leg prosthetic for amputees they had developed as part of Stanford's Biodesign program. At Rice, student-developed technologies such as a medication-dosing device and the blood centrifuge already have benefited people in more than 20 less-developed countries.

However, getting such technologies to the people who need them remains a major challenge. Keeping costs low matters as much as usefulness when you are trying to market your product to people who live on only \$1 or \$2 a day.

Traditionally, medical devices have been sold or donated through charities, aid agencies or developing countries, governments. But Marc Epstein, a business professor at Rice University, said that, for the most part, neither governments nor aid organizations have been effective at distributing technologies. Breaking

through government bureaucracy often proves time-consuming, and meeting government requirements can be too costly.

Such was the experience of the designers of Respira—a \$1 paper device that facilitates the delivery of aerosolized asthma medication to children—when they tried to introduce it in an emerging-market country. As for charities, their funding fluctuates, often leaving technology providers in limbo.

LOOK TO THE MARKET

The new generation of inventors increasingly opts for commercial distribution. A nonprofit enterprise with basic aspects of a commercial venture has the advantages of both, according to Emily Cieri, managing director of the

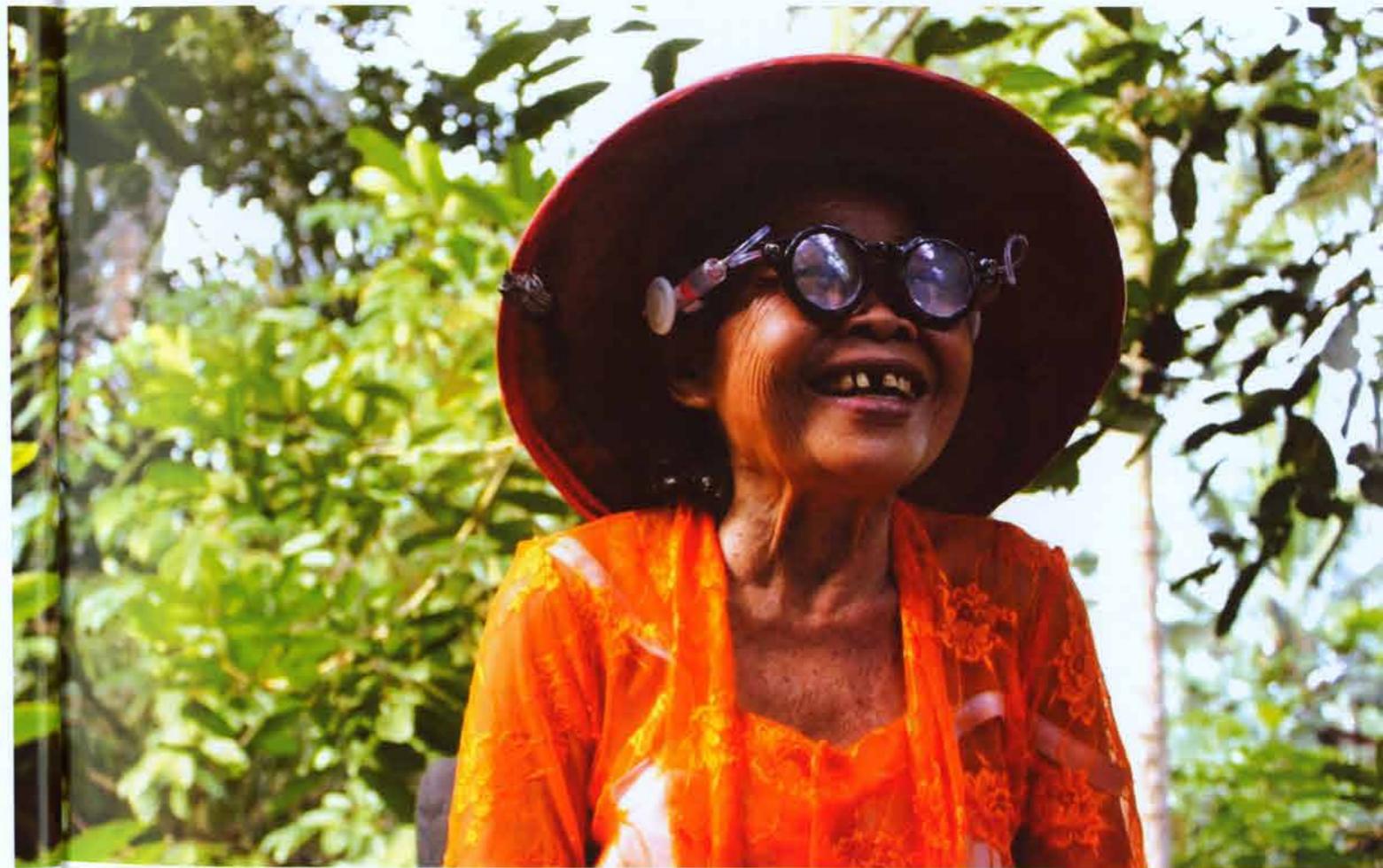
Wharton Business School's entrepreneurial programs.

The business structure ensures efficiency in the quest for the social impacts, she said.

Some startups are able to partner with multinational corporations to push their devices. But most rely on local partners to get a foothold in target countries. For example, ReMotion would not have been able to reach amputees in India without its partnership with an Indian nongovernmental group, according to Sadler.

“They know the country and patients, and serve as a bridge between us and the culture,” he said. But once trials are finished, he and his partners plan to commercialize their venture. □

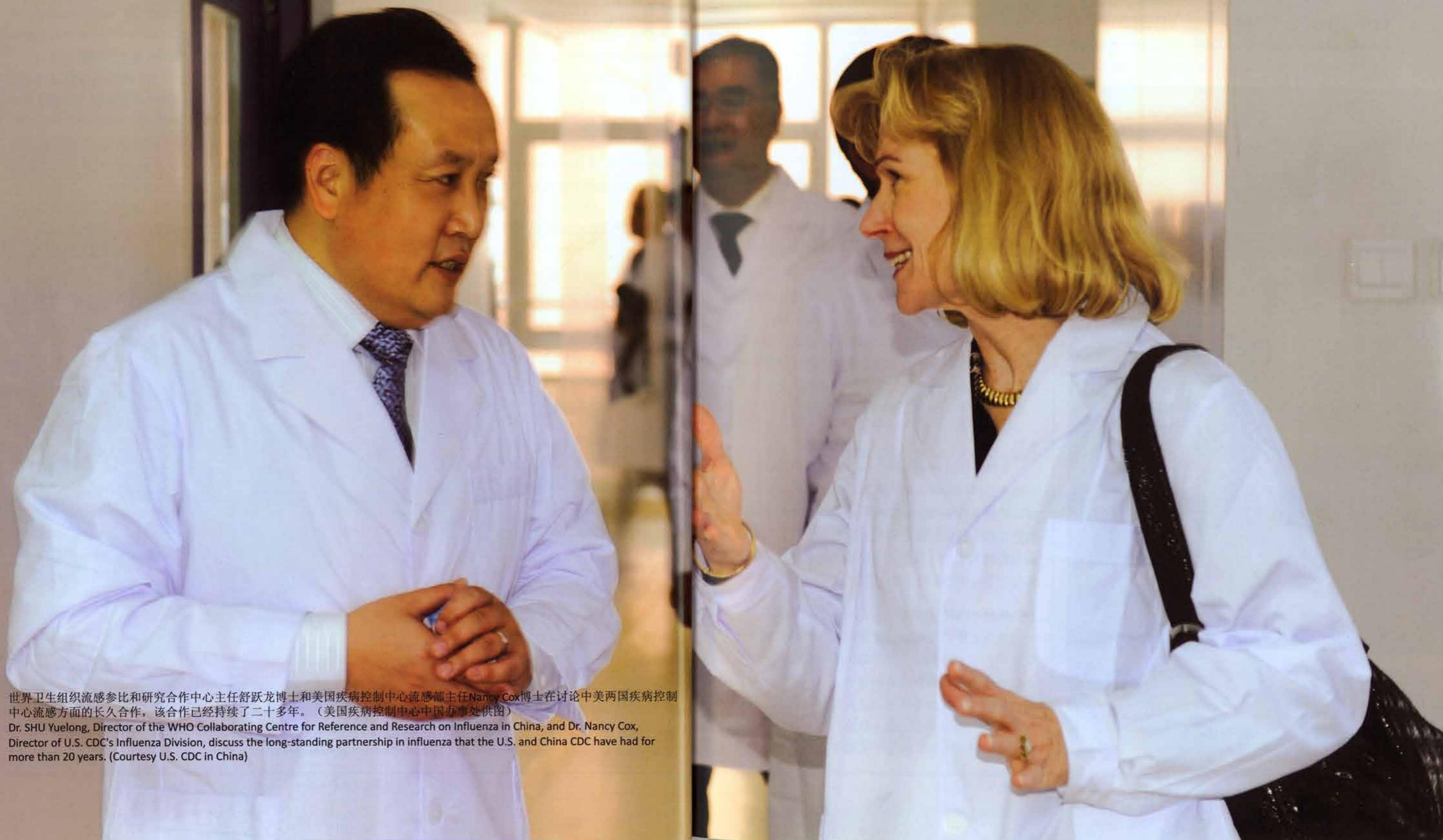
Written on 02 December 2011



带着一副自调式眼镜，她看到了光明的未来。(Kopernik.info网站供图)
Wearing a pair of self-adjustable glasses, she sees a brighter future. (Courtesy of Kopernik.info)

美国和中国在健康问题上的合作

U.S. and China Collaboration on Health Issues



世界卫生组织流感参比和研究合作中心主任舒跃龙博士和美国疾病控制中心流感部主任Nancy Cox博士在讨论中美两国疾病控制中心流感方面的长久合作，该合作已经持续了二十多年。（美国疾病控制中心中国办事处供图）

Dr. SHU Yuelong, Director of the WHO Collaborating Centre for Reference and Research on Influenza in China, and Dr. Nancy Cox, Director of U.S. CDC's Influenza Division, discuss the long-standing partnership in influenza that the U.S. and China CDC have had for more than 20 years. (Courtesy U.S. CDC in China)

美国疾病控制和预防中心： 30多年致力于改善中国和美国人民的生活

U.S. CDC: Improving Lives in China and at Home for more than 30 Years



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Director, U.S. Centers for Disease Control and Prevention,
China Programs

在当今这个相互联系日益加深的世界里，我们自身的健康与世界各地的每个人、每个社区的健康息息相关：我们与世界上防护能力最弱的个人和社区经受着同样的健康威胁。由于认识到这一事实，美国疾病控制和预防中心（CDC）向世界上许多国家（包括中国）派驻科学家和健康问题专家。这些专业人员协助美国其他政府机构和合作伙伴，通过与东道国卫生当局合作，提供拯救生命的科学成果、突破性的医学研究成果、前沿创新成果和业经证明有效的长期健康投资，从而推动建立更健康的社区，发展更高效的经济，建设更稳定的社会。

美国疾病控制和预防中心驻中国办事处与东道国的相关机构在美两国共同关心和共同受益的关键领域开展紧密合作。

保障中国全社会人口健康，减少全球人口的疾病负担

美国疾病控制和预防中心驻中国办事处将继续与中国有关部门加强在新出现和重新出现的传染病、通过注射疫苗可预防的疾病和艾滋病毒/艾滋病等传统领域的合作。我们在流感监测、食源性沙门氏菌监测、麻疹控制和艾滋病毒感染者的识别和治疗以及减少母婴传染方面已经取得了重大进步。

疾病无国界

当今世界，人、动物、食品、原材料、制成品乃至生活方式和时尚在全球范围内传播的速度快于历史上任何时期。传染性疾病的爆发、被污染的食物或危险的生活方式以前所未有的速度跨越国家和大陆的界限在全球传播。为应对这一挑战，二十多年以来，美国和中国携手合作，积累了大量专业知识和信息，研

发出大量工具，以满足人们和全社会通过各种方式保护自身健康的需求。这些方式包括采用新的疾病监测手段、倡导保护健康的意识、预防疾病、伤害和残疾以及提前准备应对新的健康威胁。这项合作不仅有助于确保中国公民的健康和安全，也有助于保护美国人免受蔓延到美国的疾病的困扰。

培养实地检测致命疾病的能力

我们工作的中心内容是向我们的中国合作伙伴传播公众健康的理念和做法。为达此目的，我们直接开展中国流行病基层培训项目，设立各种长期、短期的奖学金计划，让中国科学家赴美生活和工作。我们还在与中国合作伙伴的日常交往中间接地传播上述理念和做法。

非传染性疾病成为紧迫而且日益重要的全球突发公共卫生事件

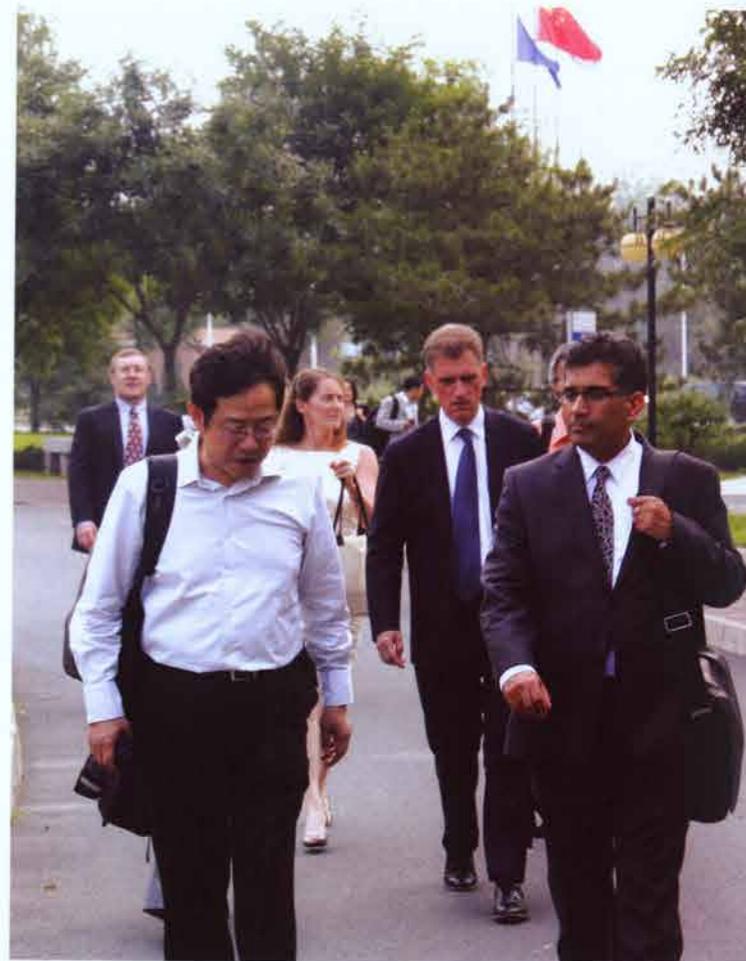
在最近的两年中，美国疾病控制和预防中心与中国合作的广度和深度不断加大。中国已显著降低5岁以下儿童的死亡率，这在很大程度上是由于成功推广免疫接种和有效控制传染病。目前，约80%的死亡由非传染性疾病（NCD）导致。为应对这一情况，美国疾病控制和预防中心已派遣一名流行病专家主管两国间新设立的、令人振奋的慢性非传染性疾病的合作项目，该合作项目的初步重点是控制高血压、中风和吸烟。这些努力将帮助中国遏制上述日益严重的健康问题，并可能为美国预防和控制这些健康问题提供宝贵的经验教训。

美国疾病控制和预防中心驻中国办事处将继续致力于提供高水平的专家支持，以应对我们两国共同关心的、重要的医疗卫生问题。我们与中国政府的长期合作卓有成效，已经取得了许多令人瞩目的成绩。

重要的是，这些成绩是中美两国众多专业人员精诚合作的成果。在此，我衷心感谢这些专业人员所付出的努力，并期待我们能在未来继续合作。□

杰弗里·麦克法兰（医学博士）
美国疾病控制和预防中心中国项目总监

In our interconnected world, our health is linked with the health of individuals and communities throughout the world: we are only as safe from health threats as the most vulnerable individuals and communities. In recognition of this fact, the United States Centers for Disease Control and Prevention (U.S.CDC) has stationed scientists and health experts in countries across the globe, including China. Centers for Disease Control and Prevention (CDC) professionals U.S.CDC complement the efforts of other U.S. government agencies and partners by collaborating with host nation health authorities to deliver



美国疾病控制中心公共卫生预防和应对办公室主任阿里·汗（音译）博士（右）正与中国疾病预防控制中心公共卫生应急处理中心主任冯子健博士（左）探讨美中疾病预防工作。（美国疾病控制中心中国办事处供图）
Dr. Ali S. Khan (right), Director of U.S. CDC's Office of Public Health Preparedness and Response discusses U.S. and China's preparedness efforts with Dr. Feng Zijian (left), China CDC's Director of the Public Health Emergency Center. (Courtesy U.S. CDC in China)

life-saving science, groundbreaking medical research, cutting-edge innovation, and proven long-term health investments that translate into healthier communities, more productive economies, and more stable societies.

The U.S. CDC in China works closely with our host country counterparts on key areas of mutual interest and benefit.

ENSURING A HEALTHIER SOCIETY IN CHINA WHILE REDUCING GLOBAL DISEASE BURDEN

U.S. CDC in China continues to strengthen our traditional areas of collaboration in emerging and re-emerging infectious disease, vaccine-preventable diseases and HIV/AIDS. Major advancements have been made in influenza surveillance, food-borne salmonella surveillance, measles control and the identification and treatment of HIV infected individuals as well as reducing mother-to-child transmission.

DISEASE KNOWS NO BORDERS

In today's world people, animals, food, raw materials, manufactured goods, and even practices and fashions move across the globe faster than at any time in history. An outbreak of infectious disease, a contaminated food or a dangerous practice can spread across countries, continents and the globe at unprecedented speed. The U.S. and China have been collaborating for more than two decades to create the expertise, information, and tools that people and communities need to protect their health through disease surveillance, health promotion, prevention of disease, injury and disability, and preparedness for new health threats. This work is not only helping keep Chinese citizens safe but is also protecting Americans against the spread of disease to the U.S.

BUILDING ON-THE-GROUND CAPABILITY TO DETECT DEADLY DISEASE

Key to our efforts is transferring the culture and

practice of public health to our Chinese collaborators. We do this directly through the Chinese Field Epidemiology Training Program and through both long- and short-term fellowship programs that allow Chinese scientists to live and work in the U.S., as well as indirectly throughout our daily interactions with our Chinese collaborators.

NON-COMMUNICABLE DISEASES REPRESENT AN URGENT AND GROWING GLOBAL PUBLIC HEALTH EMERGENCY

U.S. CDC's collaborative work in China has expanded in breadth and depth during these last two years. Due in large part to the success of immunizations and better control of infectious disease, China has significantly reduced mortality among children less than five years old. As a result, approximately 80% of deaths are now caused by noncommunicable diseases (NCD). U.S. CDC has assigned a medical epidemiologist to lead a new and exciting collaboration on NCDs, with an initial focus on reducing hypertension, stroke and smoking. These efforts will assist China in curbing these growing problems, and potentially offer valuable lessons on the prevention and control of these conditions in the U.S.

On behalf of the U.S. CDC in China, we remain committed to providing high-level, expert assistance on these shared health priorities. Much advancement has taken place as a result of our long-standing collaboration with the Government of China.

It is important to acknowledge that these achievements are the result of collaborative work carried out by many dedicated health professionals from both China and the U.S. I thank all of them for their efforts to date and look forward to our future collaborations. □

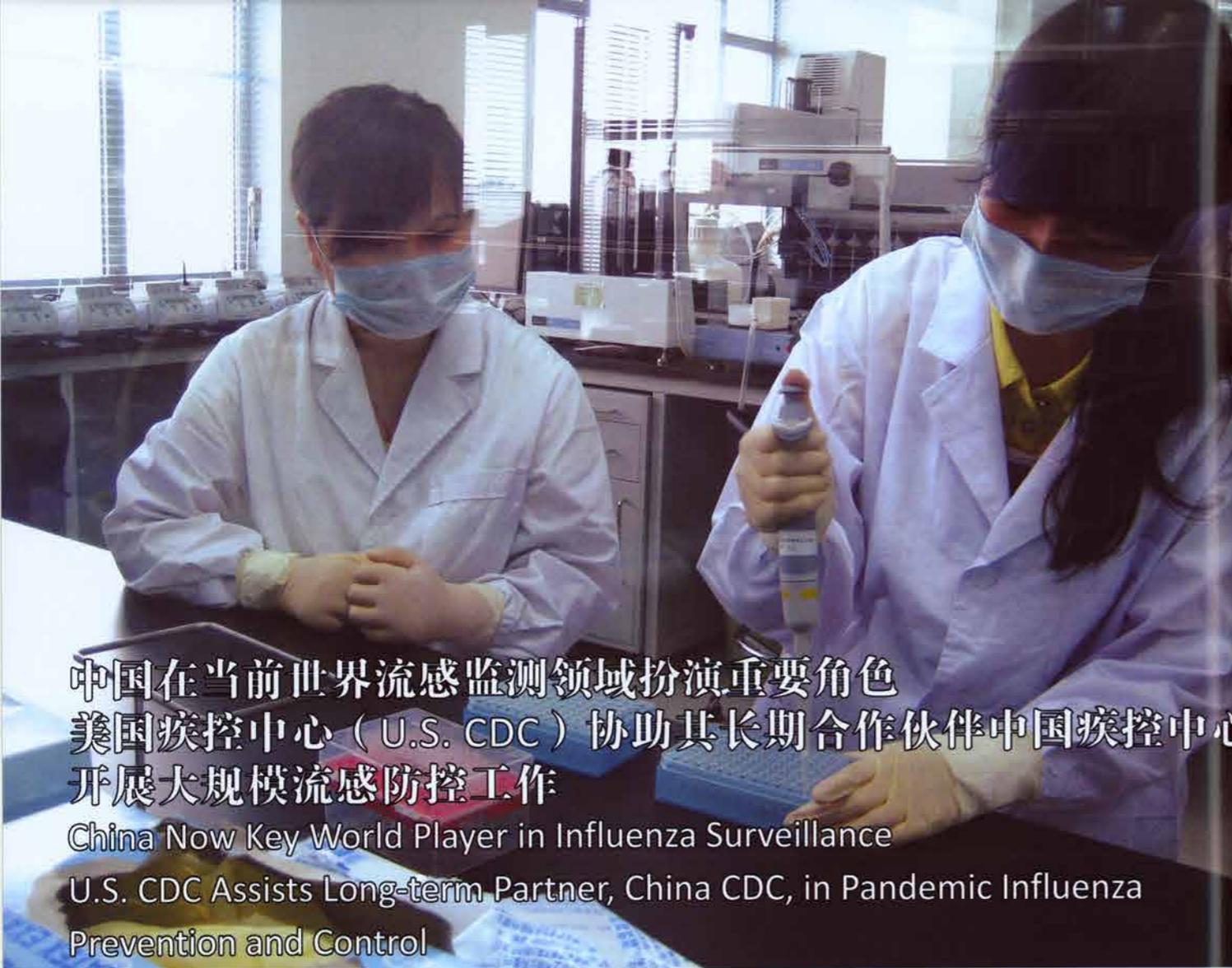
Jeffrey W. McFarland, MD
Director, U.S. Centers for Disease Control and Prevention, China Programs



流感 Influenza

2013年4月14日，周日。图为一名在北京地坛医院发热门诊工作的护士，那里收治了一名感染H7N9禽流感病毒的女孩。一名世界卫生组织的官员周日表示，继华东地区出现数十例人感染禽流感疫情以来，病毒扩展到北京地区，并不令人感到意外。（美联社供图/Andy Wong）

A nurse works at a specialized fever clinic inside the Ditan Hospital, where a Chinese girl is being treated for the H7N9 strain of bird flu, in Beijing Sunday, April 14, 2013. A World Health Organization official said Sunday that it wasn't surprising that a new strain of bird flu has spread to China's capital after sickening dozens in the eastern part of the country. (AP Photo/Andy Wong)



中国在当前世界流感监测领域扮演重要角色
美国疾控中心 (U.S. CDC) 协助其长期合作伙伴中国疾控中心
开展大规模流感防控工作
China Now Key World Player in Influenza Surveillance
U.S. CDC Assists Long-term Partner, China CDC, in Pandemic Influenza Prevention and Control

世界卫生组织流感参比与研究合作中心中国办事处的实验人员正在对一组流感病毒的类型进行检测，该病毒由疾病监测系统送检，此系统包括全国554家医院和408家实验室。（美国疾病控制中心中国办事处供图）
 Laboratory workers in the WHO Collaborating Centre for Reference and Research on Influenza in China work to determine influenza typing from a disease surveillance system that spans 554 hospitals and 408 laboratories across China. (Courtesy U.S. CDC in China)

2010年10月，中国国家流感中心（CNIC）成为世界卫生组织（WHO）指定的全球第五家人类流感参比和研究合作中心，这在很大程度上归功于中方与美国疾控中心流感局开展的互惠互利合作。目前，中国与澳大利亚、日本、英国和美国一道在全球流感监测工作中发挥着举足轻重的作用。世界卫生组织指定全球第五家研究合作中心的决定将对保障中国和世界人口的健康产生立竿见影的效果。

美国疾控中心流感局局长南希·考克斯博士(Dr. Nancy Cox)说：“这是一个令人振奋的成就。中国负责对13亿人口进行流感监测，而现在他们有了自己的合

作中心。今后，在中国新出现的流感病毒在人类群体中广泛传播之前，全球医疗卫生界将更有能力发现这些病毒，并予以妥善应对。”

自1988年以来，美国疾控中心一直协助中国国家流感中心提供培训和制定用于监测的技术规范。考克斯博士说：“我们是在上世纪八十年代末期开始与中国国家流感中心合作的，当时，我们很有兴趣扩大世界卫生组织的全球流感监测网络，以监控更多在中国传播的病毒。这主要是因为流行病以及流感病毒的季节性变种经常来自中国及其所在的地区。”

在中国，新流感病毒定期出现的最显著的证据是1957年至1958年的大规模流感、1968年至1969年的大规模流感以及自1997年开始不时发现的人类感染H5N1（一种禽流感病毒）的病例。通过加强监测可以及时发现这些病毒，帮助公共卫生官员更好地防止疾病的广泛传播。

在美国疾控中心的支持下，中国的国家流感监测网络稳步扩展。2004年，中国国家流感中心与美国疾控中心流感局签订在中国全国范围内扩大中国流感监测网络的双边协议。自2007年以来，通过实施中美新发再发传染病合作项目（EID项目），美国疾控中心已经在流行病学研究、监测改进、耐药性研究等方面向中国提供直接技术和资金支持，以便为有关疫苗的决策提供依据。在2009年的H5N1大流行过程中，流感专家发现中国迫切需要建立更加强有力的监测体系。美国疾控中心流感局代表和美国疾控中心中国地区总监杰弗里·麦克法兰博士（Dr. Jeff McFarland）说：“中国的流感监测网络从197家预警医院扩大到556家，从63



世界卫生组织流感参比和研究合作中心中国办事处是该组织在世界范围内的第五个办事处。中国国家流感中心于2010年10月成立，已进入全球顶尖流感监测实验室的行列。（美国疾病控制中心中国办事处供图）
 The WHO Collaborating Centre for Reference and Research on Influenza in China is the fifth of its kind globally. Designated in October 2010, the Chinese National Influenza Centre joined an elite group of laboratories dedicated to global influenza surveillance. (Courtesy U.S. CDC in China)

家实验室扩大到411家。现在全国31个省份和300个地区都至少配备一家实验室和一家医院。”

美国疾控中心将继续向新指定的中国研究合作中心的流感专家提供支持和指导。这些专家已开始培训专门的技术研究人员，收集中国及周边国家的流感流行病学资料，协助制定应对流感大流行的预案。

他们的职责还包括对世界各地实验室发来的有代表性的疫苗病毒进行研究，并与其他研究人员共享相关信息。

中国国家流感中心主任舒跃龙博士说：“流感病毒的密集进化和不确定性使防控成为一项艰巨而长期的任务。这并不仅仅是某一个国家或机构的使命。新成立的研究合作中心将不仅造福于中国和美国，而且造福于整个国际社会。” □



世界卫生组织流感参比和研究合作中心实验室工作人员帮助确定全球流感类型。美国疾病控制中心继续支持、指导并对中国疾病控制中心的人员提供培训，帮助发现并控制影响中国、美国乃至全球人群的流感疫情。（美国疾病控制中心中国办事处供图）
 Laboratory workers in the WHO Collaborating Centre for Reference and Research on Influenza in China help determine global strains of influenza. U.S. CDC continues to provide support, guidance and training to their partners in China CDC in an effort to identify and control influenza pandemics which affect the populations of China, the U.S. and the world. (Courtesy U.S. CDC in China)

Thanks in large part to a mutually beneficial collaboration with U.S. CDC's Influenza Division, China's National Influenza Center (CNIC) in Beijing was designated by the World Health Organization (WHO) as the fifth WHO Collaborating Centre for Reference and Research on Influenza in humans in October 2010. China now joins Australia, Japan, the United Kingdom, and the United States in playing a pivotal role in global influenza surveillance. This new designation benefits China as well as the health of the world's population in immediate ways.

"This is an exciting achievement." China is responsible for influenza surveillance in 1.3 billion people. Now that they are equipped with their own Collaborating Center, the global health community is in a much better position to detect and prepare for emerging influenza viruses in China before they circulate widely in the human population," says Dr. Nancy Cox, director of the Influenza Division at U.S. CDC.

U.S. CDC began assisting the CNIC with training and surveillance protocol development in 1988. "When we started collaborating with CNIC in the late 1980s, we really had a great interest in expanding the WHO Global Influenza Surveillance Network to capture more of the viruses that were circulating in China," says Dr. Cox. "This is because pandemics and seasonal variants of flu viruses have often emerged from China and that region of the world."

In China, the periodic emergence of new influenza viruses is most notably evidenced by the 1957-1958 pandemic, the 1968-1969 pandemic, and sporadic reports of human infection with H5N1 (an avian influenza virus) that began in 1997. Earlier detection of these viruses through enhanced surveillance gives public health officials a better chance of preventing widespread illness.

The Chinese national influenza surveillance network grew steadily with support from the U.S. CDC. In 2004, a bilateral agreement was signed between CNIC and U.S. CDC's influenza Division to expand China's influenza surveillance network throughout the country. Since 2007, under the EID cooperation, U.S. CDC has provided direct technical and financial support to China for epidemiologic studies, surveillance improvements, drug resistance and research to inform vaccine-related decisions. During the 2009 H1N1 pandemic, influenza experts saw a real need for China to have an even stronger surveillance system. "China expanded their Network from 197 to 556 sentinel hospitals and from 63 to 411 laboratories. Now there is at least one lab and one sentinel hospital in each of the 31 provinces and over 300 prefectures," says Dr. Jeff McFarland, Influenza Division assignee and CDC Country Director for China.

U.S. CDC will continue to provide support and guidance to its fellow influenza experts at the new Collaborating Center as they begin to train researchers in specialized techniques, collect epidemiological information on influenza disease prevalence in China and surrounding countries, and assist in developing pandemic preparedness plans. Their responsibilities also include studying representative vaccine viruses sent from laboratories around the world, then sharing that information with other researchers.

"The intensive evolution and uncertainty of influenza viruses produce a formidable and long-term task in prevention and control," says Dr. Shu Yuelong, Director of the Chinese National Influenza Center. "It is not just the mission for a single country or organization. The new Collaborating Center will benefit not only China and the United States, but also the global community." □

同一个世界，同一个健康在中国 研究动物和人类疾病传播之间的联系

One World, One Health – Studying the Link between Animal and Human Disease Transmission in China

中国是为数不多的受高致病性禽流感H5N1影响的国家之一，美国疾控中心驻中国代表处为中美两国就这一全球性健康问题开展合作研究提供了机会。禽流感H5N1给禽类带来具有致命性的伤害，对人类健康也构成严重威胁。在野生鸟类或家禽中传播的禽流感病毒还可能与人类流感病毒结合。迄今为止，人类在直接或密切接触受感染禽类后死于H5N1禽流感的事件时有发生。如果禽流感病毒与人类流感病毒相互结合，使得禽流感病毒实现有效而持续的人际传播，那么可能将导致流感大流行，在全球范围内出现大规模疫情和死亡。

人类健康、动物健康与环境之间复杂的互动是防止H5N1流感传播的极为重要的因素。预防和控制传染性需要负责人类医疗卫生的部门和负责动物卫生事务的部门之间开展密切合作。美国疾控中心驻中国代表处倡导“同一个世界、同一个健康”的理念。目前，美国疾控中心驻中国代表处、中国林业局、中国疾控中心和湖南省疾控中心，以及中国农业部正密切合作，对湖南省东洞庭湖湿地自然保护区内与鸟类密切接触人员所面临的感染禽流感的风险进行研究。这一研究团队测量野生迁徙鸟类和家禽粪便以及环境样本中的禽流感病毒分布，以此研究人类（禽流感病毒）和动物（禽流感病毒）之间的相互影响。该团队还对自然保护区内工人感染禽流感的血清进行测量，以确定因职业暴露而感染病毒的风险。疾控中心与林业局之间开展持续合作，可以使我们更好地了解禽流感如何从野生鸟类和家禽传播至人类。

这一研究已在负责人类医疗卫生事务的各级部门



科学家们正在洞庭湖岸边进行取样工作以研究人类和动物疾病之间的微妙联系。以野生鸟类活体家禽类为宿主的禽流感有可能与人类流感病毒相结合。（中国国家流感中心供图）

Scientists taking samples on the banks of China's Dongting lake to determine the delicate connection between animal and human health. Avian influenza viruses circulating among wild bird or poultry populations have the potential to combine with human influenza viruses. (Courtesy of the National Influenza Center in China)

和负责动物卫生事务的各级部门之间建立起重要的协作关系。中国林业局明确承诺将继续推进这一合作研究项目。联合国粮农组织也已经了解这项研究所取得的成就，并建议与美国疾控中心、中国疾控中心、中国相关省级疾控中心和农业部进行合作，在2013年开展一项有关猪流感病毒如何在猪与人之间传播的研究。该合作研究项目可能揭示目前未知的动物与人类健康之间存在的重要关联因素。□

China is one of the few countries that has been impacted by the Highly Pathogenic Avian Influenza H5N1 endemic, and U.S. CDC's presence in China offers the two countries an opportunity to collaborate on research on this global health problem. The endemic is deadly for avian populations and poses serious threats to public health. Avian influenza viruses circulating among wild bird or poultry populations have the potential to combine with human influenza viruses. There have been sporadic fatal cases of human H5N1 influenza resulting from direct or close contact with infected poultry. If these viruses combine so that efficient and sustained transmission among humans becomes possible, an influenza pandemic could result, causing large scale illness and death worldwide.



在中国湖南省东洞庭湖湿地自然保护区内，一名研究人员正在收集环境样本。如果样本中检测出的这些病毒相互结合并且可能在人际间形成有效、持续的传播，那么流感疫情的爆发将会导致世界范围内的大规模感染和死亡病例。美国疾病控制中心支持这项研究，以更好了解由野生鸟类和家禽传染给人类的疾病。（中国国家流感中心供图）

A researcher gathers environmental samples at the Eastern Dongting Lake Wetland Nature Reserve in China's Hunan Province. If these viruses detected in samples combine so that efficient and sustained transmission among humans becomes possible, an influenza pandemic could result, causing large scale illness and death worldwide. U.S. CDC supports this research to better understand disease transmission from wild birds and poultry to humans. (Courtesy of the National Influenza Center in China)

The complex interplay between human health, the health of animals, and the environment is extremely vital to prevent H5N1 transmission. Prevention and control

of infectious diseases requires close collaboration between human and animal health sectors. U.S. CDC in China promotes the concept of "One World, One Health." U.S. CDC in China, China's Forestry Administration, U.S. CDC, Hunan CDC, and China's Ministry of Agriculture are studying risk factors for people who work closely with bird populations at the Eastern Dongting Lake Wetland Nature Reserve in China's Hunan Province. The team is researching the role of the human – animal interface by measuring avian influenza virus distribution among fecal and environmental samples of migratory wild birds and poultry. It is also measuring serologic evidence of avian influenza infection among workers at the nature reserve to determine occupational exposure to the virus. The ongoing cooperation between CDC's and the Forestry Administration makes it possible to better understand disease transmission from wild birds and poultry to humans.

This study has built a critically important network between the human health and animal health sectors at all levels. China's Forestry Administration has made a strong commitment to continue this cooperative study. In recognition of the achievements already made, the UN's Food and Agricultural Organization has proposed cooperating with U.S. CDC, China CDC, provincial CDC's and the Ministry of Agriculture to begin a study in 2013 of the influenza viruses in swine and the people who work with swine. This cooperative project may reveal currently unknown and important factors linking animal and human health. □

"力图发现动物健康和人类健康之间联系的想法既新颖又及时。目前在中国开展的工作将有助于提供线索，（以实现这个目标），保护中国、美国和世界各国人民的健康。"

——杰弗里·麦克法兰 (Dr. Jeffrey McFarland), 美国疾控中心驻中国代表处主任

"Discovering the links between animal and human health is both novel and timely. The work here in China will help provide clues to help protect the health of people in China, the U.S. and the world."

—Dr. Jeffrey McFarland, Director, U.S. CDC in China

美国官员谈美中卫生事务合作及全球卫生伙伴关系

Global Health Partnership Is Strong Amid China Flu Reports

By Charlene Porter



2013年4月11日，周四，香港两名卫生工作人员对鸡进行血液取样。香港政府开始加强措施以避免新型禽流感疫情扩散到香港。周四开始，香港有关部门正对中国大陆运进的活禽进行H7N9病毒检测。每1000只鸡中取30只进行检测。（美联社供图/Vincent Yu）

Health workers take a blood sample from a chicken in Hong Kong on April 11, 2013. The Hong Kong government started enhanced measures to prevent a new strain of bird flu from entering the city. Authorities took samples of live poultry from mainland China to test for the H7N9 virus. Thirty samples were taken in every 1,000 chickens. (AP Photo/Vincent Yu)

美国卫生与公众服务部 (U.S. Department of Health and Human Services) 的一名助理部

长4月5日表示，美国和中国为应对潜在的疾病爆发事件已取得显著的进步。正当一种以前从未在人身上检

测到的禽流感病毒已确认在中国造成五人死亡之际，尼尔斯·道莱尔博士（Dr. Nils Daulaire）对两国公共卫生事务的双边合作进行了评估。

因一种流感毒株从动物向人类跨越式传播而爆发的疾病使人们担心新型流感可能迅速传播。但在过去十年中积累的类似经验已经使中国卫生当局提高了警惕。道莱尔表示，中国已经建立了一个有效的疾病监测系统，并与美国疾病控制和预防中心（U.S. Centers for Disease Control and Prevention, CDC）密切合作，以妥善应对传染病的威胁。

道莱尔说：“在这个领域，全球卫生外交直接发挥了保护中国人民、美国人民，当然也保护全世界人民的作用。”

4月5日，负责全球卫生事务的助理部长道莱尔在位于华盛顿的“战略与国际研究中心”（Center for Strategic and International Studies）出席一个专家研讨会时发表上述讲话。这个专家研讨会对奥巴马政府未来数年的卫生问题重点议程进行了讨论。道莱尔指出，全球卫生安全和应对大规模流行疾病的能力已被纳入重点议题之列。

道莱尔指出，国际社会必须建立能辐射全球的“强有力的体系”，以便检测和应对传染性疾病的威胁。随着人们日益承认全球相互联系的程度并广泛认识到传染病病原体在世界经济体内以航空飞行的速度迅速传播，实现这一目标的能力得到有力的支撑。

美国国务院（U.S. Department of State）将通过近期设立的“全球卫生外交办公室”（Office of Global Health Diplomacy）支持促进卫生医疗合作的努力。莱斯利·罗伊大使（Ambassador Leslie Rowe）负责领导该办公室的工作，包括向各大使馆提供其所需要的信息、支援和专业支持，用以促进改善卫生系统并加强多边合作，解决如艾

滋病毒/艾滋病（HIV/AIDS）、结核病和疟疾等广泛的健康问题。

罗伊表示，该办公室将力争让公共卫生成为“各位大使日常外交对话的一部分”。这项新的任务也能得到国务卿约翰·克里（John Kerry）的大力支持。他在担任美国参议员时期就长期支持各类全球卫生计划，

并一贯强调美国为根除脊髓灰质炎、防治艾滋病毒/艾滋病和降低孕产妇死亡率等问题发挥的作用。

道莱尔指出，为进一步扩大今后几年奥巴马政府希望解决的健康问题的范围，美国必须从国内和国际两方面努力降低非传染性疾病的发病率，如心脏病、中风以及多种形式的癌症。这些疾病无论在发展中国家还是在发达国家都已成为导致死亡的主要病因，因而必须找到更加有效的方法阻止其发展趋势。

不合标准的、劣质或假冒药品的大肆销售是另一个范围日益扩大的全球卫生问题。道莱尔指出，贩卖假药不仅使病人身心受损、康复无望，还具有波及面更广、更具破坏性的影响。

道莱尔说，市面上流通的有些名不副实的药品的确含有微量消费者冀望的实际药用成分。以稀释的形式向患者出售这样的产品可能使病原体产生对药物的抗药性，造成一度有效的药物失去效用。

道莱尔表示，这个问题需要采取协调一致的国际行动加以应对。作为合法药品制造商和经销商的民营企业参与解决这个问题也与之利益攸关。

道莱尔和罗伊都预期，为其他全球卫生问题寻求解决方案的努力将得到民营部门更大的支持。例如，向发展中国家扩展业务的跨国公司需要一支精力充沛的员工队伍。反过来，这支员工队伍也需要一个强有力的公共卫生体系。□

写于2013年4月8日

The United States and China have made remarkable progress in responding to a potential disease outbreak, said a U.S. Department of Health and Human Services Assistant Secretary April 5. Dr. Nils Daulaire's assessment of the bilateral relationship on public health issues comes as a form of bird flu never previously detected in humans has caused five confirmed deaths in China.

Outbreaks of a flu strain that has made the leap from animals to humans raise anxiety about possible rapid transmission of a new form of influenza. But similar experiences over the last decade have put Chinese health authorities on alert. China has built an effective disease surveillance system, said Daulaire, and it has

worked closely with the U.S. Centers for Disease Control and Prevention (CDC) to develop the proper response to infectious threats.

"This is an area in which global health diplomacy is working directly to protect both the Chinese people, the American people and, of course, the world," said Daulaire.

The Assistant Secretary for Global Health made the remarks at the Center for Strategic and International Studies in Washington April 5 as he participated in a panel on Obama administration health priorities for the next several years. Daulaire said global health security and the capability to respond to pandemic illness are high on that list.

The international community must build "robust systems" with global capabilities, Daulaire said, to detect and respond to infectious disease threats. The capability to achieve that goal is bolstered by "a growing recognition of global interconnectedness" and the broad realization that infectious pathogens can travel as fast as airliners in a world economy.

The U.S. Department of State will be supporting efforts to build health care cooperation through the recently created Office of Global Health Diplomacy. Ambassador Leslie Rowe is leading the office, which will work to provide embassies with the information, support and expertise they need to serve as advocates for improved health systems and increased multilateral cooperation in addressing broad health problems such as HIV/AIDS, tuberculosis and malaria.

Rowe said the office will strive to make public health "a part of the daily diplomatic dialogue that ambassadors engage in." This new undertaking will also be able to rely on backing from Secretary of State John Kerry, who was a longtime supporter of global health programs as a U.S. senator and who has since spoken about the U.S. role in eradicating polio, fighting HIV/AIDS and improving maternal mortality.

Further expanding the list of health concerns that the Obama administration hopes to tackle in the next few years, Daulaire said the United States must work both domestically and internationally to lower the rates of noncommunicable diseases such as heart disease, stroke and the many forms of cancer. These have become leading causes of death in both the developing and developed world, and more effective ways to address those trends must be identified.



2013年4月19日，周五，世界卫生组织驻中国代表迈克尔·奥利里对在世卫组织北京办事处参加人感染H7N9禽流感病毒吹风会的媒体时发表演讲。世卫组织表示，即使有一些H7N9感染者亲属也染病，但还没有证据表明禽流感容易在人与人之间的传播。Dr. Michael O'Leary, the head of the World Health Organization's office in China speaks to the media during a briefing on human infections with H7N9 bird flu virus at the WHO office in Beijing Friday, April 19, 2013. The World Health Organization says there's no evidence that a new strain of bird flu in China is spreading easily among humans even though a few people who were close to patients with the virus have fallen sick. (AP Photo/Andy Wong)

The broad sale and distribution of substandard, inferior or counterfeit pharmaceuticals is another global health problem growing in scope. Daulaire said this trafficking in false medications can disappoint and harm a patient hoping for relief, but they can have a broader, more damaging impact.

Some misrepresented pharmaceuticals circulating in the marketplace do contain trace amounts of the real medicinal compounds that the consumer is expecting, Daulaire said. Dispensing such products to patients in a diluted form may allow pathogens to develop a resistance to the drugs, rendering a once-effective medicine useless.

This is a problem that demands coordinated international action for an effective response, Daulaire said. Private companies, as manufacturers and distributors of legitimate medicines, will also have an interest in becoming part of the solution.

Both Daulaire and Rowe foresee attempts to gain greater private sector support in the search for solutions to other global health problems. Multinational companies expanding operations into developing countries, for example, need a vigorous workforce. This workforce, in turn, needs a capable public health system. □

Written on 08 April 2013

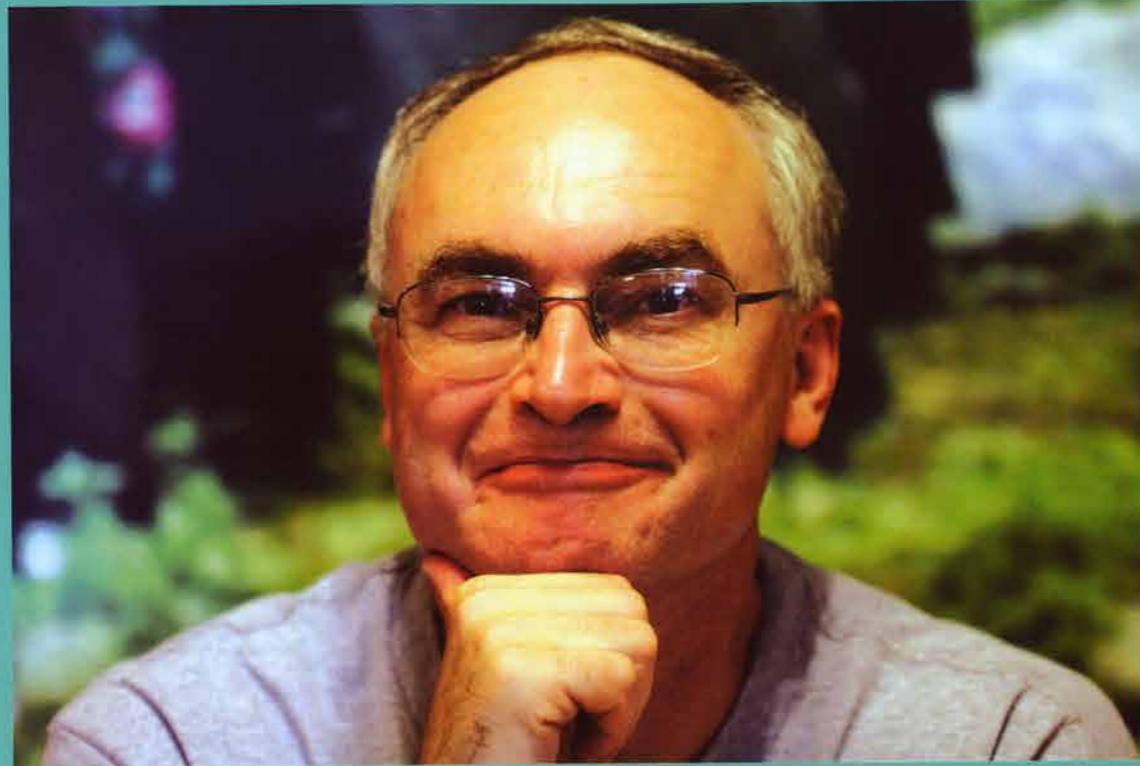


HIV / 艾滋病 HIV / AIDS

2006年11月30日，在中国东部的江苏省南京市，小学生在世界艾滋病日粘贴他们自制的红丝带。(美联社供图/EyePress)
Primary school students paste red ribbons they made to mark World AIDS Day in Nanjing, in China's eastern Jiangsu Province, Nov. 30, 2006. (AP Photo/EyePress)

一位在中国抗击艾滋病的美国医生

An American Doctor Fighting AIDS in China



今年是布尔特利斯 (Bulterys) 博士在美国疾病预防控制中心 (CDC) 工作的第十五个年头。2008年, 布尔特利斯博士成为美国CDC全球艾滋病项目派驻北京的中国办事处主任。在此之前, 他于2004-2007年曾担任美国CDC全球艾滋病项目赞比亚办事处主任, 2011年1月至2月霍乱爆发期间担任美国CDC海地办事处主任。布尔特利斯博士在美国CDC工作期间一直致力于艾滋病毒和艾滋病的研究。2009年, 布尔特利斯博士获得凯利·拉蒂格人道主义全球健康奖; 2011年10月, 他获得中国卫生部部长陈竺颁发的中国艾滋病毒/艾滋病防控贡献奖。此外, 布尔特利斯博士是美国加州大学洛杉矶分校 (UCLA) 的流行病学兼职教授和埃默里大学的儿科传染病和免疫学兼职副教授。

Dr. Marc Bulterys is in his 15th year with the U.S. CDC. He became Director of the U.S. CDC Global AIDS Program in Beijing, China in 2008. He previously served as U.S. CDC Country Director in Zambia (2004-07) and in Haiti (Jan-Feb 2011 on detail for CDC during the cholera outbreak). Dr. Bulterys has worked on HIV/AIDS during his entire career at the U.S. CDC. In 2009, he received the Kellie Lartigue Humanitarian Award for Global Health at U.S. CDC. In October 2011, Bulterys received an Award from Chinese Minister of Health Chen Zhu for his contributions to HIV/AIDS prevention and control in China. He is an Adjunct Professor of Epidemiology at University of California, Los Angeles (UCLA) and an Adjunct Associate Professor of Pediatric Infectious Disease and Immunology at Emory University.



卜特瑞博士参观云南省德宏州泸溪县的一个创新型预防艾滋病母婴传播的项目, 该地区位于中缅边境附近。(图片由美国疾病预防控制中心提供)
Dr. Bulterys visiting the innovative Prevention of Mother-to-child Transmission (PMTCT) program in Luxi, Dehong prefecture, Yunnan, an area near the border with Myanmar. (Courtesy of U.S. CDC in China)



在布拖县诊所, 一位彝族妇女与布尔特利斯 (Bulterys) 博士 (右) 聊天。布拖县位于四川省南部的凉山自治州。(图片由美国疾病预防控制中心提供)
Family from the Yi minority group speaking with Dr. Bulterys (right) at the Butuo County clinic. Butuo is in Liangshan prefecture in the south of Sichuan province. (Photo courtesy of U.S. CDC in China)



四川省昭觉县医院, 一位彝族母亲和她的孩子。令人遗憾的是, 彝族在获得医疗卫生服务方面一直面临很大障碍。在中国56个少数民族中, 彝族的艾滋病毒病毒感染率是最高的。(美国疾病预防控制中心供图)
A Yi minority mother and child in Sichuan province and Zhaojue county hospital. Sadly, the Yi have historically faced significant barriers to medical care and have the highest rate of HIV/AIDS among China's 56 ethnic groups. (Courtesy of U.S. CDC in China)



卜特瑞博士在宁夏回族自治区一所穆斯林女子师范学院的学生们讲授关于预防艾滋病毒和艾滋病的知识。(图片由美国疾病预防控制中心提供)
Dr. Bulterys giving a session on HIV/AIDS prevention to aspiring teacher's at a Muslim teachers' college for young women in Ningxia province, an area with a Hui ethnic minority. (Courtesy of U.S. CDC in China)



Free Hugs
 爱的拥抱
 如果我是-名艾滋病毒携带者...你愿意和我拥抱吗?
 爱滋徒步
 CHINA AIDS WALK
 Hugs
 爱的拥抱
 一名艾滋病毒携带者...你愿意和我拥抱吗?

一群长城健走活动者在休息期间宣传“自由拥抱”以消除与这种疾病有关的误解。中国首次艾滋病健走活动在2012年10月进行，有100多人参加活动，其中包括美国疾病控制中心的工作人员及其家人。中国艾滋病健走活动现已募集近24,000美元捐款。（美国疾病控制中心供图）
 A hardy group of Great Wall hikers took a break for some free hugs to dispel stigmas associated with the disease. China's first AIDS walk occurred in October of 2012 where more than 100 people joined the walk including U.S. CDC staff and family members. The China AIDS walk collected nearly \$24,000 in donations. (Courtesy of U.S. CDC in China)



陆国安(音译)医生在家访中为一名患者检查病情,陆医生是美国疾病控制中心艾滋病病毒/艾滋病项目的主培训师。他供职于广西鹿寨培训中心,帮助中国农村地区对艾滋病病毒/艾滋病进行治疗。(美国疾病控制中心中国办事处供图)
Dr. Lu Guogan, master trainer supported by US CDC's HIV/AIDS program, examines a patient during a home visit. Dr. Lu helps bridge the gap of current HIV/AIDS treatment to rural areas in China from the Luzhai Training Center in Guangxi province. (Courtesy U.S. CDC in China)

农村艾滋病培训中心为未来艾滋病防治工作树立典范 Rural AIDS Training Centers Set a Model for the Future

据估计,在中国有78万人感染艾滋病毒,约20万人需要进行抗逆转录病毒治疗。2003年,根据“四免一关怀”政策,中国政府承诺为所有农村艾滋病患者提供免费的抗逆转录病毒治疗。随后,据卫生系统报告,对抗逆转录病毒治疗服务的需求增加,特别是在农村地区。

美国疾病控制和预防中心中国办事处在中国设立了两个农村艾滋病临床培训中心,以提高中国农村偏

远地区治疗、护理艾滋病毒携带者和艾滋病患者的能力。与克林顿基金会合作建设的安徽利辛培训中心于2004年开办(利辛县在20世纪90年代初曾经受到不安全献血做法的严重影响)。广西鹿寨培训中心建于2010年3月,性传播和使用注射毒品在当地是主要的艾滋病毒传播途径。

这两所培训中心提供为期10周的住院医师密集培训课程,推广社区艾滋病防控理念,全面介绍艾滋病

护理和治疗的有关做法。培训中心的学员是来自中国各地县级医疗机构的、负责传染病治疗的临床医生,都具有至少3年治疗HIV/AIDS的工作经验。在上述两所培训中心各自所在省份的艾滋病高发县,这些学员作为县级医疗机构的医生为患者提供直接的护理和治疗服务,他们因此获得难得的第一手实践经验。在完成培训课程之后,他们将在自己家乡省份推广应用这些经验。

“通过这次培训,我认识到抗逆转录病毒治疗的重要性、依从性发挥的关键作用以及全面管理患者的重要性。通过培训获得的这些能力为我毕业后开展工作奠定了基础。现在,(在我所在的地区)我已经成为这一领域的专家。”2004年毕业于安徽利辛培训中心的利辛人民医院传染科主任李传杰如是说。

截至2011年9月,共有133名毕业生完成了高强度的住院医师培训课程。目前,这些毕业生正在16个省市自治区负责对16,000多名艾滋病患者进行治疗。超过80%的毕业生在培训结束后继续从事艾滋病毒携带者/艾滋病患者护理和治疗领域的工作。目前,通过逐级培训的方式,这些毕业生已经为各自所在的县超过2,871名卫生工作者提供了延伸培训。

2011年,利辛中心被成功移交给安徽省地方政府。美国疾病控制和预防中心仍将继续为该中心的培训师和在利辛开展的宣传活动提供少量支持。培训中心为农村地区(特别是少数民族地区)的艾滋病治疗和护理输送了大量生力军。这一培训课程能够满足农村地区真正的需求,已经在主办地区得到成功。□

In China, an estimated 780,000 people are living with HIV and approximately 200,000 people are in need of antiretroviral treatment. In 2003, the Chinese government pledged to provide free antiretroviral treatment to all rural AIDS patients under the “Four Frees and One Care” policy. The health system immediately saw an increased demand for antiretroviral services, particularly in rural areas.

The U.S. CDC in China established two rural AIDS clinical training centers to improve capacity to care for HIV and AIDS patients in remote areas of the country. The Lixin, Anhui training center was opened in 2004,

in collaboration with the Clinton Foundation, in a rural county heavily affected by unsafe plasma donation practices of the early 1990s. The Luzhai, Guangxi training center was opened in March 2010 and is located in an area where HIV is primarily spread through sexual transmission and injecting drug use.

The training centers provide 10-week intensive residency training on comprehensive HIV care and treatment practices by using a residential community-based approach. Trainees are county-level infectious disease clinicians from across China with at least 3 years of experience treating HIV/AIDS patients. They provide direct care and treatment services in the high epidemic counties in the province, providing county-level doctors with rare hands-on experience that they can then apply in their home provinces.

“Through this training... I have gained understanding of the importance of antiretroviral treatment, the key role of adherence, and importance of comprehensive management of patients. All of these capacities I have gained from the training have become the cornerstone of my work after graduation. Now I have become one of the experts (in my region),” reflects Li Chuanjie, Director of Department of Infectious Disease, Lixin People's Hospital and 2004 graduate of the Lixin training center.

As of September 2011, a total of 133 graduates have completed the intensive miniresidency training program. These graduates are now treating more than 16,000 AIDS patients in 16 provinces. Over 80% of the graduates continue work in HIV/AIDS care and treatment. Using a cascade training approach, graduates have provided extended training to more than 2,871 health workers in their countries.

In 2011, the Lixin Center was successfully transferred to the Anhui Province local government, while U.S. CDC continues to provide nominal support for trainers and outreach activities in Lixin. The training centers have substantially increased the workforce for AIDS treatment and care in rural and often ethnic minority areas of China and stand as model programs that meet a true need and can successfully be adopted by a host region. □



美国疾病预防控制中心的马克·卜特瑞博士在四川省凉山彝族自治州昭觉县农村艾滋病临床培训中心。一名彝族医生为彝族患者提供治疗和护理服务。(美国疾病预防控制中心供图)
U.S. CDC's Dr. Marc Bulterys at the Rural AIDS Clinic training center in Zhaojue county of Liangshan Yi minority prefecture in Sichuan province. An Yi minority doctor provides treatment and care service to Yi patients. (Courtesy U.S. CDC China)

为中国农村独特的少数民族群体中的艾滋病病人/艾滋病毒携带者提供与其文化背景相适应的艾滋病防治服务

Culturally Appropriate Care for a Unique Population Living with HIV/AIDS in Rural China

作为少数民族的彝族是中国最古老的民族之一。与讲普通话的多数民族——汉族——相比，彝族在文化和语言方面有其独特性。历史上，彝族在获得医疗保健服务方面一直面临很大的障碍。在中国56个民族中，彝族的艾滋病毒感染率/艾滋病发病率也是最高的。凉山彝族自治州是四川省南部的一个边远贫困山区，拥有222万彝族人口，占该地区总人口的50%，是中国最大的彝族人口聚居地。凉山地区的医疗保健体系（包括设施、设备、医疗人员和与当地文化相适应的配套资源）一直发展缓慢，当地急需引入更多合格的医生以及适应彝族病患特殊需求的医疗服务模式。

2012年初，为了满足这一需求，美国疾病控制和预防中心中国办事处与默克公司基金会（Merck Company Foundation）、中国疾病预防控制中心以及当地非政府组织“中国爱之关怀”建立了特殊的公私合作伙伴关系。这一合作伙伴关系的有关各方在凉山昭觉人民医院设立了农村艾滋病临床治疗培训中心。该培训中心充分利用美国疾病控制和预防中心驻中国办事处以往建立农村培训诊所的经验，开设为期八周的微型住院医生密集培训课程，重点传授以社区为基础的、全面的艾滋病毒携带者/艾滋病患者护理和治疗方法。该培训中心强调依托社区推广艾滋病毒携带者/艾滋病患者护理和治疗的办法，重点招聘彝族医生。在

培训过程中，这些彝族临床医生学习如何提高针对艾滋病毒携带者/艾滋病患者的保健和治疗工作的质量。在两届学员毕业后，艾滋病患者得以直接用母语与医疗工作者进行交流。此外，该中心也为讲普通话的学员提供语言和翻译支持，以便他们能够为彝族患者提供服务。

此前，该地区对艾滋病毒检测阳性的人群从未开展过任何形式的心理支持工作。为解决这一问题，昭觉医院试行了同伴关怀和支持计划，招聘艾滋病毒携带者/艾滋病患者，指导他们为艾滋病检测结果呈阳性的病友提供心理支持和相关的后续服务。该计划改善了地处偏远、缺乏支持的彝族少数民族群体的艾滋病护理和治疗支持系统。该培训中心的模式可以复制到昭觉县的其他地区，直至覆盖凉山自治州全境。这一创新模式尊重当地的习俗文化，建立了适应地方需求的培训课程和立足社区的护理模式。□

同伴辅导员王女士指出：“坚持抗逆转录病毒治疗对预防进一步传播非常重要。这意味着我对患者进行的依从性教育很有意义，也极为重要。”

“Antiretroviral therapy adherence is so important for prevention of further transmission which makes my work on adherence education to patients very meaningful and important.” — Ms. Wang, peer counselor

The Yi ethnic minority is one of the most ancient populations in China. Culturally and linguistically distinct from the Mandarin-speaking, Han ethnic majority, the Yi have historically faced significant barriers to medical care and have the highest rate of HIV/AIDS among China's 56 ethnic groups. Liangshan Yi Autonomous Prefecture has 2.22 million Yi — 50% of the Liangshan population which represents the largest Yi community in China. Liangshan is a remote, impoverished and mountainous area in southern Sichuan Province. Health care including facilities, equipment, personnel and culturally appropriate resources have been slow to develop. This created a growing need for qualified physicians and care models for Yi patients.

To address this need, U.S. CDC in China entered into a unique public private partnership with China CDC, Merck Company Foundation, and the local non-governmental organization AIDS Care China in early 2012. This partnership established a Rural AIDS Clinical Training Center located at the Zhaojue People's Hospital. The training center builds on U.S. CDC in China's previous experience in developing rural training clinics by providing an intensive eight-week mini-residency program focused on comprehensive HIV/AIDS care and treatment practices. The center uses a community-based approach and emphasizes the recruitment of ethnic Yi physicians. During training, these clinicians learn strategies to improve the quality of care and treatment for people living with HIV/AIDS. After two cohorts of trainees, patients interact with their provider in their native language. In addition, language facilitation and translation support is provided for the Mandarin-speaking trainees when they are providing services to Yi patients.

No form of psychological support existed for HIV-positive individuals in this area, therefore Zhaojue Hospital piloted a peer care and support program.

“我接受了艾滋病防护治疗知识和技能培训……（这）让我今后更有信心开展治疗和护理当地彝族艾滋病患者的临床工作。”——参加培训的彝族毕业生QUBI YILIN如是说。

“I have received knowledge and skills training on AIDS treatment and care... (this) gives me confidence for my future clinical work on AIDS treatment and care to the local Yi AIDS patients.” — Qubi Yilin, Yi training graduate

People living with HIV/AIDS are recruited and trained as peer counselors to provide adherence and psychological support as well as follow-up services. This program has provided an improved system of care and treatment support for an underserved and hard-to-reach minority group. This training center will serve as a model that can be duplicated for the rest of Zhaojue County and eventually all of Liangshan Prefecture. This is an innovative approach to developing a culturally sensitive and appropriate training curriculum and community based care model. □



No. 4 在云南省一个活跃的同伴教育项目培训女性工作者生殖健康以在该人群中帮助防止感染艾滋病毒/艾滋病。(美国疾病控制中心供图)
In Yunnan province an active peer education program trains female sex workers about reproductive health to help prevent HIV/AIDS infections among this population. (Courtesy U.S. CDC in China)

一种配偶双方共同接受艾滋病检测咨询的新方法在全中国试行

A New Approach for Couples Testing and Counseling is Adopted Nationwide in China

小林和王凯参加了由成都同志关爱组织/成都同乐健康咨询服务中心组织的男同性恋伴侣艾滋病检测咨询项目的活动。经检测发现小林为HIV阳性，王凯为HIV阴性。检测咨询活动结束后，小林说王凯十分关心他，并且王凯还保证将继续和小林保持爱侣关系。这是中国疾病预防控制中心牵头实施的配偶双方共同接受艾滋病检测咨询试点项目见证的正能量事例中的一个。目前，在美国疾病控制和预防中心驻中国办事处的支持下，中国疾病预防控制中心正在进一步改进和推广配偶双方共同接受艾滋病检测咨询项目。



2011年四川省，一对夫妻在艾滋病病毒检测和咨询试点项目中接受辅导。该试点项目社会反映良好，减少了患者心理负担，增加了夫妻间的互帮互助。（美国疾病控制中心中国办事处供图）

A couple is counseled during a pilot HIV testing and counseling program in Sichuan province in 2011. The pilot program was well accepted, which reduced disclosure burdens, and increased mutual support between partners. (Courtesy U.S. CDC in China)

伴侣艾滋病检测咨询项目。在这次试点项目招募作为研究对象的五十三对伴侣中，近20%仅有其中一位伴侣的检测结果显示HIV阳性。此次检测咨询活动得到参与者的广泛接受，减少了参与者对披露病情的顾虑，伴侣之间的相互支持度也得到大大提升。全球艾滋病项目中国首席医疗官Leland Li博士指出：

“中国以前没有推行过伴侣共同接受艾滋病检测咨询的方案，这一新方式将有可能极大地促进艾滋病预防

干预工作，并且从长期来看有助于加强高危伴侣间的相互沟通。”

配偶双方一起参与艾滋病检测咨询活动消除了仅仅针对个人开展艾滋病检测咨询工作带来的许多缺点。咨询师为双方相互吐露事实创造了一个安全环境，能够根据双方艾滋病毒感染状况调整咨询信息，促进双方合作，推动双方积极参与行为风险教育，也可以在必要时鼓励双方为未来的治疗和护理做好计划。异性伴侣研究结果已经表明，采用这个方式每年可减少近三分之一伴侣间的艾滋病毒传播。在了解试点结果后，2011年中国疾病预防控制中心将男男性行为人群的艾滋病检测咨询课程纳入国家心理咨询师培训计划。来自美国疾病控制和预防中心和埃默里大学的专家将继续支持针对有需求人群进行的艾滋病检测咨询工作。□

中国的艾滋病疫情主要集中在注射吸毒者和男男行为人群。新发艾滋病感染病例中经性传播感染艾滋病的比例越来越大。为了推动男性行为人群加大艾滋病防控力度，2011年在四川成都开始试点男同性恋



图为红丝带和一张照片。照片显示，2012年11月30日，世界艾滋病日前一天，时任中国国家主席胡锦涛（右三）和时任副总理李克强（右四）参观北京地坛医院会议室。（美联社供图/Alexander F. Yuan）

Red ribbons and a photo showing then Chinese President Hu Jintao, third from right, and then Vice Premier Li Keqiang, fourth from right, visiting Ditan hospital are seen in a meeting room of the hospital in Beijing Nov. 30, 2012, a day before World AIDS Day. (AP Photo/Alexander F. Yuan)

Xiao Lin and Wang Kai participated in a male couples HIV counseling and testing program at Chengdu Tongle Gay Care Organization. During the testing, Xiao Lin was found to be HIV-positive and Wang Kai HIV-negative. After the counseling, Xiao Lin said that Wang Kai showed great concern for him, and reassured him that they would stay together and continue their loving relationship. This is one among many positive stories from the couples counseling and testing program piloted and now widely adapted by China CDC with support from U.S.

一位HIV检测结果呈阳性的丈夫表示：“如果没有参加这个项目，我肯定不会告诉妻子我感染了艾滋病毒的事情...为了保护我的妻子，我可能会选择离婚。这对我们和3岁的儿子来说会是一场悲剧。配偶双方共同接受艾滋病检测咨询计划挽救了我的家庭，帮助我维护良好的家庭关系，并且保护我的妻子免于感染艾滋病毒。”

“Without the program, I would definitely not have told my wife my HIV status... To protect my wife, I might have chosen to divorce, which would have become a tragedy for both of us and my 3-year-old son. So couples counseling and testing has saved my family, maintained our good relationship, and protected my wife from acquiring HIV.” – HIV positive husband

CDC in China.

More than 20 years ago, the challenges of individual HIV counseling and testing were realized when working with pregnant women. After women learned of their HIV status, they worried about disclosing the results and struggled to convince their partners to test. In response, experts at Emory University developed a unique counseling and testing program for couples. In 2009, it was adapted for use with male couples in the U.S. and quickly expanded to South Africa and China.

China's HIV epidemic is largely concentrated among injecting drug users and men who have sex with men. An increasing percentage of new cases have occurred due to sexual transmission. To increase prevention activities among men who have sex with men, a pilot of male couples counseling and testing was conducted in Chengdu, Sichuan in 2011. Fifty-three couples were enrolled, with nearly 20% having only one partner with HIV-positive results. Among the participants, counseling and testing was well accepted, reducing disclosure burdens and increasing mutual support between partners. “Couples testing and counseling had not previously been implemented in China but it has the potential to greatly improve HIV prevention interventions and long-term communication between couples at-risk,” observed Dr. Leland Li, Chief Medical Officer for the Global Aids Program in China.

Counseling and testing a couple together eliminates many weaknesses of individual counseling and testing. The counselor creates a safe environment for results disclosure, tailors counseling messages based on both partners' HIV status, facilitates cooperation for behavioral risk education, and, if necessary, encourages planning for future treatment and care. Research among heterosexual partners has shown that this reduces HIV transmission between partners each year by nearly one third. In 2011, after learning the results of the pilot, China CDC incorporated a male couples counseling and testing curriculum into the national training plan for counselors. Experts from U.S. CDC and Emory University will continue to support counseling and testing efforts among populations in need. □

传染病 Infectious Diseases

控制结核病的蔓延

STOP TB

社会

家庭

个人

结核病
TB

● 全球结核病人 2000万，年新发800万，死亡200万。

● 我国结核病人600万，年新发200万，死亡25万。

● 咳嗽两周以上，请到结核病防治机构检查和治疗

● 督导下规律用药 (DOT) 可以治好全部新病人。

全球每年约 1000 万 儿童死于结

核病。以下列出的婴幼儿，死于结核病的如粟粒性结核及结核性脑膜炎更易危及 2 岁以下的婴幼儿。

结核病是全球引起妇女死亡的主要传染病

每天夺去2700多妇女的生命



由于地位低下、经济困难及家务和工作的双重负担等原因，妇女患结核病不易被发现并接受正规治疗。

妇女患结核病常常给家庭成员，尤其给孩子带来传染的威胁。

妇女患结核病或死亡，



上图为摄于2009年3月27日的一张照片。在这张照片中，在北京胸科医院，一名戴着口罩的男子走过宣传肺结核危害的海报前。该医院位于中国北京通州区，是治疗肺结核的专科医院。(美联社供图/Ng Han Guan)
In this March 27, 2009 photo, a man wearing a mask walks past posters highlighting the dangers of tuberculosis at the Beijing Chest Hospital which specializes in the treatment of tuberculosis in Tongzhou, China. (AP Photo/Ng Han Guan)



内蒙古自治区巴彦淖尔市杭锦后旗肺结核专科医院的一名卫生工作者正采访一位乡村医生，了解肺结核感染风险及知识，针对肺结核感染的态度和做法。肺结核是卫生工作者面临的主要威胁。（美国疾病控制中心中国办事处供图）

A healthcare worker in Hangjin Rear Banner TB Dispensary in Bayan Nur, Inner Mongolia, interviews a village doctor about her TB infection risk and knowledge, attitude and practice of TB infection control. TB infection is a major threat to healthcare workers. (Courtesy U.S. CDC in China)

识别风险，改变行为方式，保护中国乡村医生的生命安全

Identifying Risks and Changing Behavior Protects the Lives of Village Doctors in Rural China

中国是世界第二大结核病（TB）高发国家，目前共有523万人感染结核病，其中约35万人患有耐多药结核病（MDRTB）。在中国，约80%的结核病患者是低收入的农村居民，他们往往先在乡村卫生室寻求医疗救治。因此，乡村医生可能面临更大的感染结核病的风险。2011年11月，美国疾控中心驻中国代表处与中国疾控中心合作，对内蒙古巴彦淖尔地区乡村医生中的潜伏性结核感染和活动性结核病情况进行评估。潜伏性结核感染者没有症状，并且不能向其他人传播结核病。内蒙古位于中国西北部，是结核

“对大多数参与此项目的乡村医生来说，这是他们职业生涯中第一次接受结核病感染控制培训以及与职业有关的疾病筛查。”

——闫岱勤

“For the majority of participating village doctors, this was the first TB infection control training and job-related medical screening during their entire occupational history.”

— YAN Daiqin

病及耐多药结核病的高发区之一。巴彦淖尔是内蒙古的一个主要农业区。

该项目用胸部X光和症状筛查法来检测活动性结核病，用结核菌素皮肤试验和干扰素伽玛释放法验血来检测潜伏性结核感染。约40%的参与者被检测出潜伏性结核感染呈阳性。六名先前未被诊断出活动性结核病的医生被确诊，高于全国平均水平。所有参与者接受结核空气传播感染控制的培训，以及结核感染和疾病的教育。通过参与该项目，乡村医生的个人健康状况和医疗技能得到了提高。

除了次优的空气传播感染控制，很多乡村卫生室没有用于手部清洁的自来水和肥皂。美国疾控中心与其合作者对现有的、在这种环境下进行手部清洁的做法进行了调查。作为结核病调查项目的内容，一些接受调查的乡村医生收到了酒精类洗手液。调查人员还通过电话问卷的形式对乡村医生进行调查，对使用无水洗手液进行揉搓的消毒方法的接受度和可行性进行评估。这些乡村医生自述对手部清洁规定的依从性很

低，但是，如果免费或低价提供洗手液，那么他们对此种手部清洁方法的接受度是很高的。很多受访的乡村医生说：“我们希望收到更多的酒精类洗手液，以便在工作中使用”。

巴彦淖尔市结核病防治所闫岱勤博士在谈到这一合作项目时说道：“他们现在对感染风险有了更好的了解，并已经认识到拥有良好的感染控制知识和操作办法能够保护他们，使他们在工作中免受感染。对患有活动性结核病的乡村医生进行及早诊断和及时治疗，也可以更好地保护他们的同事、家人和朋友。”□

China has the second highest tuberculosis (TB) burden in the world with 5.23 million TB patients; approximately 350,000 of these have multi-drug-resistant TB (MDR-TB). About 80% of TB patients in China are low-income rural residents who often first seek medical care in village clinics. Thus, village doctors

probably have an increased risk of TB exposure. In November 2011, U.S. CDC in China collaborated with China CDC to assess latent TB infection and active TB disease among Chinese village doctors in Bayan Nur, Inner Mongolia. People with latent TB infection do not have symptoms and cannot spread TB to others. Located in northwestern China, Inner Mongolia has some of China's highest rates of TB including MDRTB. Bayan Nur is a major agricultural region in Inner Mongolia.

The project tested almost 700 village doctors for active TB disease using a chest-xray and symptom screening and for latent TB infection using a tuberculin skin test and an interferon-gamma release assay blood test. Approximately 40% of the participants tested positive for latent TB infection. Six doctors with previously undiagnosed active TB disease were identified, which is higher than the national average. All participants received training on tuberculosis airborne infection control and



美国疾病控制中心全球疾病检测项目中国办事处实验室负责人John Klena博士在讲解如何运用特殊实验检测肺结核感染。这种方式被用来在中国试点医院中监测卫生工作者肺结核感染率。（美国疾病控制中心中国办事处供图）

Dr. John Klena, U.S. CDC's Chief of Laboratory for the Global Disease Detection program in China, demonstrates how to use a special laboratory test to detect TB infection. This test was used to determine the frequency of healthcare worker TB infection in pilot hospitals in China. (Courtesy U.S. CDC in China)



内蒙古自治区巴彦淖尔市临河区肺结核专科医院卫生工作者探讨卫生工作人员安全和预防措施，避免工作场所的肺结核感染。
(美国疾病控制中心中国办事处)
Healthcare workers in Linhe District TB Dispensary in Bayan Nur, Inner Mongolia, discuss healthcare worker safety and precautions to avoid TB infection in the workplace. (Courtesy U.S. CDC in China)

education on tuberculosis infection and disease. Village doctors' personal health status and medical skills were improved by participating in this project.

In addition to sub-optimal airborne infection control, many village clinics do not have running water and soap for proper hand hygiene. U.S. CDC and collaborators investigated the hand hygiene practices in such environments. As part of the TB survey some participating village doctors received alcohol-based hand sanitizers. A telephone-based questionnaire was administered to evaluate the acceptability and feasibility of using hand rub for sanitizing hands among village doctors. The self-reported hand hygiene compliance was low, but acceptability of hand sanitizer was high as long as it was provided for free or at low cost. "We would like to receive more alcohol-based hand rub to use at work" stated many of the village doctors interviewed.

"They have a better understanding of the risks now and they have become aware that good infection control, knowledge, and practice can protect them from being infected at work. The early detection and timely treatment of village doctors who have active TB can also provide protection to their colleagues, families and friends," said Dr. Yan Daiqin of the collaboration with his Bayan Nur Tuberculosis Dispensary. □

"对大多数参与此项目的乡村医生来说，这是他们职业生涯中第一次接受结核病感染控制培训以及与职业有关的疾病筛查。"

——闫岱勤

"For the majority of participating village doctors, this was the first TB infection control training and job-related medical screening during their entire occupational history."

"我们现在知道，我们有能力执行国际公共卫生项目。我们和乡村医生之间建立了信任关系，因为他们知道我们关心他们的健康，对这一点我们也引以为豪。"

——闫岱勤，内蒙古巴彦淖尔市结核病防治所所长

"We now know we have the ability to conduct international public health projects and we are very proud of ourselves to build trust with local village doctors because they know we care about their safety."

— YAN Daiqin, Director of Bayan Nur Tuberculosis Dispensary, Bayan Nur, Inner Mongolia

中国的食源性疾病 – 医生改变行为方式 有助于增进患者和公众健康

Foodborne Disease in China – Physician Behavior

在中国，医生经常在没有进行适当实验室检测的情况下就给病人开抗生素。广东一家综合性医院的一位医生说，“检测结果往往不呈阳性，而且也花费时间，所以我宁愿立即给病人治疗，也不愿坐在那里空等。”不幸的是，很多其他医生也有这样的想法。另外，医院的微生物检测人员也没有认识到细菌或微生物培养检测在帮助医生提供适当治疗方案方面所具有的价值，这使问题进一步复杂化。这种没有实验室依据的诊断和治疗可能导致抗生素的滥用，造成对抗生素的耐药反应，产生严重后果。

美国疾控中心与中国在食源性疾病治疗方面开展了一项合作，其目标是改变医生的行为方式，帮助患者得到恰当的医疗服务。这一合作项目旨在优化临床实验室检测程序，加快检测结果处理速度，提高检测结果的确诊率。该项目还向医生提供培训课程，强调实验室检测的重要性，指出实验室检测结果能够指导他们对患者进行正确治疗。这一项目与广东、上海和河南等省市的多家预警医院合作实施，要求这些医院的医生在给腹泻患者开药之前，先进行细菌或微生物培养检测。实施这一规程后，医生看到根据实验室检测结果对症下药的益处。例如，如果实验室检测结果显示是病毒感染，医生就没有必要开抗生素药物；如果是细菌感染，则应当使用抗生素进行治疗。上海和陆家医院的一位医生说，“当我告诉病人，他们不是细菌感染，不需要使用抗生素时，他们都很高兴。他们觉得自己得到了正确治疗。这也促使我更多地让病人进行细菌或微生物培养检测，因为我知道这真的有用！”医生对实验室检测的信赖也对微生物检测人员产生了积极影响，加强了临床医生和微生物检测人员之间的工作关系。

医生行为方式的改变已经产生良好的效果，增进了公众健康。当医生要求进行细菌或微生物培养检测时，实验室将病原株送往公共卫生实验室做进一步亚

型分析。这一分析可以帮助公共卫生系统确定疾病爆发的可能性。数种食源性疾病的爆发已通过此类公共卫生实验室网络被发现。如果没有应医生的要求进行实验室检测，我们就不可能及时发现这些食源性疾病的疫情。改变医生在病情检测方面的行为方式似乎只是迈出一小步，但是却为增进患者及公众健康带来了极大的益处。□

In China physicians often prescribe antibiotics without conducting proper laboratory tests. "Testing often does not give positive results and it takes time, so I would rather treat my patients rather than wait for nothing," said one physician from a general hospital in Guangdong. Unfortunately, this reflects the view of many physicians. To further complicate the issue, microbiologists in hospitals do not see the value of testing cultures to help physicians provide proper treatment. Such diagnosis and treatment without laboratory evidence can increase the abuse of antibiotics and can have serious implications on antibiotic resistance.

The goals of the U.S. CDC collaboration in foodborne disease are to change physicians' behavior and to help the patients get proper medical care. The program helps optimize clinical laboratory testing procedures to speed up turn-around times and to increase the positive rate of testing. To emphasize the importance of the laboratory testing in guiding their proper treatment, the program provides training courses to physicians. The program works with a series of sentinel hospitals in several provinces, e.g., Guangdong, Shanghai, and Henan. In these hospitals physicians are encouraged to order cultures for patients



1. 广东疾病预防控制中心微生物学家柯（音译）博士正向临床实验室工作人员展示沙门氏菌血清分类流程。追踪食物供应中的沙门氏菌将有助于阻止疾病在中国传播。（美国疾病控制中心中国办事处供图）

Microbiologist Dr. Ke from Guangdong CDC shows clinical laboratory staff the procedure of serotyping for Salmonella. Tracing Salmonella in the food supply will help prevent illness throughout China. (Courtesy U.S. CDC in China)

2. 广东疾病预防控制中心流行病学家黄博士与同事对新型食物传播性疾病报告系统进行检查。食物传播性（疾病）报告系统将帮助更快速地发现中国爆发的疾病疫情，并有助于避免不必要的疾病。（美国疾病控制中心中国办事处供图）

Epidemiologist Dr. Huang from Guangdong CDC reviews the new foodborne disease reporting system with colleagues. The foodborne reporting system will help identify disease outbreaks that may occur in China more rapidly which will help avoid unnecessary illness. (Courtesy U.S. CDC in China)

3. 广东疾病预防控制中心一名微生物学家正在对食物传播性疾病进行实验检测。医生与公共卫生实验室之间更好地共享信息和检测结果可以帮助对疾病进行快速准确的诊断。（美国疾病控制中心中国办事处供图）

A microbiologist from local CDC in Guangdong is preparing a laboratory test for foodborne illness. Better sharing of information and test results between physicians and public health labs are allowing for quick and accurate diagnoses. (Courtesy U.S. CDC in China)

with diarrhea before they decide to prescribe medication.

After working with this protocol, the physicians could see the benefit of prescribing treatment according to the laboratory results. For example, if the laboratory results showed a viral infection, no antibiotics are needed; if a bacterial pathogen is found, appropriate antibiotics should be prescribed. "My patients are happy when I tell them that they do not need to take antibiotics because they are not infected by certain bacteria. They feel that they have been properly treated," explained a physician from Shanghai United Family Hospital. "This makes me order cultures more frequently as I know it can help!" The trust from doctors has also had a positive impact among

microbiologists. This has strengthened the working relationship between clinicians and microbiologists.

Improved practice has benefitted public health. When cultures are ordered by physician, laboratories send pathogen strains to public health laboratories for further sub-typing. This analysis allows the public health system to identify possible outbreaks. Several foodborne outbreaks have been detected through such networks. This would not have been possible without physician-ordered laboratory tests. Changing physicians' behaviors in terms of patient testing may seem like a small step, but it has greatly helped both individual patients as well as the public's health. □

1995年10月19日，北京某公园内，人们试着用竹圈套住掉在地上作为奖品的香烟。美联社供图/Mike Fiala
people try their luck at winning cigarettes by throwing bamboo hoops over the packets at a Beijing park (October 19, 1995). (AP Photo/Mike Fiala)



非传染性疾病 Non-communicable Diseases



山东居民参加一项在百货商店寻找低钠产品的比赛活动。(山东“少盐项目”供图)
Shandong residents join a competition to find low-sodium products in local grocery stores. (Courtesy of the Shandong Salt Reduction Program)

南甜、北咸、东鲜、西辣 中国北方的山东省如何改变高盐饮食

Sweetness in the South, Saltiness in the North,
Freshness in the East, and Hotness in the West
Addressing Salty Diets in China's Northern Province of Shandong

高玉娟并没有高血压，但高血压的确影响着她的生活。玉娟的父母是高血压患者，而中国的高血压患者人数已经达到1.6亿。高血压是造成心脏病和中风的主要因素，这两者已成为中国人主要的死亡原因。中国约有25%的成年人患有高血压，这些人中只有36%的人知道自己患有高血压，只有约5%的人使用药物控制高血压。美中两国在非传染性疾病领域的合作将重点致力于减少导致高血压的一个主要风险因素——过度摄入食盐。

中国是食盐摄入量较高的国家，在北方沿海省份山东省，食盐的摄入量尤其高。山东省是中国第二个人口大省，居民人口总数约为9600万。有数据表明，山东省

的成人高血压患病率及食盐摄入量均高于全国平均水平。

“山东省减盐防控高血压项目”于2011年3月启动。该项目目前由中国卫生部和山东省政府提供支持，由美国

疾控中心提供技术援助和指导。这是中国第一个由政府领导的省级减盐防控高血压项目。一支由15个政府部门和民间机构组成的队伍正在实施一项全面战略，以减少当地居民的食盐摄入量。这一项目将可能对山东省乃至整个中国的高血压预防和控制工作产生巨大的影响。

“少盐更健康”是这一项目的宣传口号，已经通过动画视频、新闻发布、电视和广播讲座等方式向大众广泛传播。玉娟也通过这些宣



美国疾病预防控制中心科学家蔡莹（音译）和Mike Engalgau与中国国家和地方同行共同分享在“少盐”工作方面的知识和经验。(山东“少盐项目”供图)
U.S. CDC scientists, Cai Ying and Mike Engalgau, work with national and local counterparts to share their knowledge and experience with sodium reduction efforts. (Courtesy of the Shandong Salt Re

传很快就认识到了高钠摄入的风险，并开始在家烹制低钠食物。她还被选中代表她的家乡参加“山东省家庭健康美食厨艺大赛”，并获得最高奖项。她现在希望成为减盐防控高血压项目的志愿者。

目前，在项目实施团队的支持下，有关方面已经制定了减少食盐摄入量的政策和法规，以减少餐馆食品、加工食品和其他销售食品中的盐含量。2013年，所有加工食品将根据新的食品标签法的规定在食品标签上标注食盐含量。□

Gao Yujuan doesn't suffer from hypertension but it does affect her life. Yujuan's parents are among the 160 million people in China with hypertension. Hypertension is a major contributor to heart disease and stroke, both of which are leading causes of death in China. Approximately 25% of the adult population in China has hypertension; however, only 36% of those know they have it, and approximately 5% of them control their hypertension with medication. The U.S.-China collaboration in noncommunicable disease focuses its efforts on reducing one of the major risk factors for hypertension — salt intake.

Salt intake is high in China, but it's particularly high in Shan Dong province on the northeastern seaboard. It is the second most populous province with approximately 96 million residents. Data suggest that Shandong has higher adult hypertension rates and salt consumption than the national average.

The Shandong Salt Reduction Program was launched in March 2011. It is currently supported by the China Ministry of Health and Shandong provincial government with technical assistance and guidance provided by U.S. CDC. It is the first provincial and government-led salt reduction program in China. A team of 15 government agencies and organizations are implementing a comprehensive strategy to reduce salt intake. This program has great potential to affect prevention and control of hypertension efforts in this province and ultimately throughout China.

“Less Salt, Better Health” was the project slogan

heard and seen through numerous mass media campaigns including cartoon videos, news releases, TV, and radio lectures. As information was broadcast throughout the region, Yujuan quickly learned about the risks of high sodium intake, which led her to start cooking low-sodium foods in her home. She was ultimately selected to represent her hometown in the Shandong Family Cooking Campaign, where she won the highest award. She now would like to serve as a volunteer for the program.

Policies and regulations for salt reduction have been developed with support from the project's implementation team to reduce salt in restaurant food, processed food, and other foods sold. In 2013, all processed food will show sodium content on food labels as mandated by new food labeling laws. □



一名社区领导和山东居民一起参与低盐烹饪展示环节。山东省举办了社区活动来告诉居民低盐食物可以降低患高血压的风险，高血压是心脏病和中风的主要诱因。(山东“少盐项目”供图)

A community leader joins Shandong provincial residents together for a low sodium cooking demonstration. The province rolled out a number of community events to teach residents about low-sodium diets that can help reduce the risks of hypertension—a major contributor to heart disease and stroke. (Courtesy of the Shandong Salt Reduction Program)



荣获诺贝尔奖的医生参与中国的抗癌事业 Nobel - Prize Winning Doctor Engages China in the Fight against Cancer

瓦慕斯博士参观上海复旦大学癌症中心的干细胞研究实验室（照片由美国驻华大使馆安超提供）
Dr. Varmus visiting the stem cell research laboratory at Shanghai Fudan University Cancer Center (Photo Courtesy of U.S. Embassy Beijing—Ann Chao)

美国国家癌症研究所所长、诺贝尔医学奖得主哈罗德·瓦慕斯博士于2013年3月访问中国，并与美国国家癌症研究所在中国的众多研究伙伴和中国政府领导人会晤，商讨与中国在抗癌领域进行科学合作。他在中国的一些医学院、中国国家癌症中心以及首届中美癌症机构控烟论坛上发表了演讲（该论坛由美国国家癌症研究所和中国国家癌症中心联合主办），强调烟草控制和使用疫苗预防全球癌症的紧迫性以及中国、亚洲和全世界公众共享科学论文的重要性。瓦慕斯博士同中国的很多研究生和年轻的科学家进行了交谈，用自己的生活经历和工作经历来激励这些年轻人。以下是他的自传，该自传是他在1989年获得诺贝尔奖时为诺贝尔基金会撰写的。

Dr. Harold Varmus, Director of the U.S. National Cancer Institute (NCI), and winner of the Nobel Prize in Medicine, visited China in March 2013 and met with NCI's many research partners and government leaders to discuss scientific cooperation with China in the fight against cancer. His talks at several Chinese medical colleges, the Chinese National Cancer Center, and the First Sino-U.S. Tobacco Control Forum for Cancer Institutions (jointly sponsored by the NCI and the Chinese National Cancer Center) emphasized the urgency of tobacco control, use of vaccines in global cancer prevention, and the importance of public access to scientific papers in China, Asia, and throughout the world. Dr. Varmus spoke with many of China's graduate students and young scientists and inspired them with his life and career experiences. Following is his autobiography, which he wrote for the Nobel Foundation in 1989 upon receipt of his prize.

自传 罗德·瓦慕斯博士

1939年12月18日，在二战的阴影下，我出生在纽约长岛南岸。这里是东欧犹太人聚集地，这些犹太人二十世纪初叶移居到纽约市及周边地区。我的爷爷雅各布·瓦慕斯在二十世纪之初离开华沙附近一个不知名的村庄，来到美国，成为美国纽约州纽堡镇的一个农民，后来又迁居到新泽西州的纽瓦克，成为一名制帽匠。他的妻子埃莉诺因1918年流感而离世，当时我的父亲只有11岁。我母亲的父母哈利·巴拉什和里贾纳·巴拉什来自奥地利林茨附近的两个村庄。他们在纽约自由港创办的童装店至今仍然生意兴隆。作为第二代移民，我的父母都接受了良好的教育。我的父亲（弗兰克）曾经分别在哈佛大学（两年后由于经济拮据不得不退学）和塔夫茨大学医学院接受教育。我的母亲（比阿特丽斯）曾经在卫尔斯利女子学院和纽约社会工作学院学习。

在我出生前三年，我的父母在母亲的家乡自由港定居。父亲在那里开办了一家综合性诊所，母亲每天坐车去纽约市从事一份社会服务工作。后来，随着美国卷入战争，父亲被派遣到佛罗里达州冬季公园附近的空军医院工作。我儿时最初的记忆就是漫长的沙滩以及在短吻鳄出没的湖泊钓鱼。1946年初之前，我们一直住在佛罗里达州，免于经受战争之苦。在此期间，我唯一的妹妹艾伦·珍出生了。她现在是加州伯克利市的一名遗传学顾问和三个孩子的母亲。

我在自由港的成长经历无忧无虑，在许多方面甚至可以说很幸运。我入读的公立学校注重体育运动而不是智力开发。尽管我不擅长运动，喜欢独自阅读，但我依然有一个很有情趣的朋友圈子。我和朋友们常常去琼斯海滩州立公园玩耍（我的父亲在那里担任过多年的医务官），或者和家人一道去新英格兰滑雪，我还参加童子军的各种野外活动，后来又参加了普特尼暑期工作营。

在我的学术发展史上最具决定性意义的转折点是1957年秋天，当时我进入安默斯特学院打算入读医学

院。忙碌而充满各种乐趣的学院生活对我未来成为一名医生的想法构成了挑战。我学习的方向因而从科学转为哲学，最后又转向英国文学。另外我也积极从事政治和新闻活动，并最终成为一名校报编辑。从安默斯特学院毕业以后，我获得了伍德罗·威尔逊奖学金，开始学习哈佛大学的研究生课程，以便测试自己对文学研究的热爱程度。在这一年，我再一次感受到医学的吸引力，因而进入哥伦比亚大学医学院。虽然起初是受精神病学和国际卫生学的强烈吸引决定进入医学院，在听了埃尔文·卡巴特、哈利·罗斯、赫伯罗·森克兰茨、欧文·查加夫和保罗·马克斯等人的讲座后，我同时也受到基础医学研究的吸引。在印度巴雷利一所教会医院的实习经历还激发了我对赴国外行医的兴趣。



瓦慕斯博士(Dr. Varmus)和中国协和医科大学的学生们一起用早茶（照片由美国驻华大使馆赵天紫博士提供）
Dr. Varmus enjoying morning tea with students from Peking Union Medical College (Photo Courtesy of U.S. Embassy Beijing—Ann Chao)

1966年至1968年，我开始为从事医学研究做准备，在哥伦比亚长老会医院担任实习医生，后来加入美国国立卫生研究院艾拉·帕斯坦实验室担任临床助理。这让我第一次真正接触实验室研究并体验到实验成功的喜悦。由于从事环腺苷酸（cAMP）对细菌基因的调节作用的研究（与鲍勃·帕尔曼和伯诺伊·德克隆布鲁吉合作）以及学习国立卫生研究院为初级医师/科学家提供的夜校课程，我萌发了进一步接受分子生物学博士后训练的想法，特别是在肿瘤病毒学领域。这个决定，加上对旧金山生活的好奇，促使我于1969年投入迈克·毕肖普的门下。1970年，我成为加州大学旧金山分校的博士后研究员，并在此后不久被任命为讲

师。1972年，我成为加州大学旧金山分校微生物学和免疫学系（先后由欧内斯特·贾维茨、莱昂·莱文顿领导）的固定教职人员，并在1979年晋升为教授。

近二十年以来，我一直在加州大学旧金山分校工作，研究兴趣一直集中在逆转录病毒行为：它们不寻常的生命周期的各个方面、其转化基因的性质和来源及其导致基因变化的潜力。在开展这项工作的过程中，我主要与迈克·毕肖普合作，特别是在1984年之前，我们共用设备、人员和资金。在上世纪七十年代我与其它教授的合作领域包括血红蛋白病（Y.W.简）和糖皮质激素的作用（戈登·汤姆金斯和凯斯·山本）。八十年代，我与唐·加内姆开展了大量关于乙肝病毒的合作研究（他最初是博士后研究员，后来成为教学人员）。在加州大学旧金山分校，我有幸与多位杰出的教授共事。另外，我能够取得长足的职业发展也有赖于学校的优秀的研究生、医学专业本科生、源源不断的博士后研究员、忠诚的研究助理（尤其是苏珊娜·奥尔蒂斯、南希·昆特尔和珍妮·杰克逊等人）提供的支持。

1969年，我与康斯坦斯·路易丝·凯西结婚。她出生在美国华盛顿特区，时任特区《国会季刊》记者。目前



美国加州大学旧金山分校两位从事癌症研究的教授哈罗德·瓦慕斯(Harold E. Varmus)博士和迈克尔·毕晓普(J. Michael Bishop)博士(大胡子者)被授予1989年诺贝尔医学奖后在新闻发布会上干杯。(美联社图片/保罗·佐久间) University of California, San Francisco professors Harold E. Varmus, M.D. and J. Michael Bishop, MD. (with beard) make a toast during a press conference after it was announced that the cancer researchers were awarded the 1989 Nobel Prize in Medicine. (AP Photo/Paul Sakuma)

她是圣何塞《水星报》的书籍评论员。我们搬到加州不久，我的父母相继离世。我母亲在1971年死于乳腺癌。我父亲在1972年死于冠状动脉疾病。1973年我的儿子雅各·凯雷出生，1978年克里斯托弗·艾萨克出生，两个孩子为我们的生活增添了许多乐趣。他们在旧金山公立学校读书，是忠实的巨人队球迷，都喜欢音乐（尤其是雅各，他是一个有天赋的小号手）。加州的天气让我十分热爱户外运动，包括骑自行车、跑步、徒步旅行、滑雪和钓鱼。我对艺术、文学、戏剧、音乐和电影也保持着浓厚的兴趣。自1971年以来，我们几乎一直住在旧金山海特阿什伯里区一栋维多利亚式的房子里，但是，1978年和1979年，我利用学术休假期间在伦敦帝国癌症研究基金支持的麦克·佛里德的实验室做访问学者。另外，1988年至1989年，康妮因获得尼曼奖学金而远赴哈佛大学，而我则加入怀特黑德研究院鲍勃·温伯格和戴维·巴尔的摩的实验室。

我与迈克·毕肖普共享多项重大奖项，包括诺贝尔奖。早期的奖项包括加州年度科学家奖（1982年）、阿尔伯特·拉斯克基础医学研究奖（1982年）、帕萨诺基金会奖（1983年）、哈默癌症研究奖（1984年）、通用汽车公司癌症基金会颁发的阿尔弗雷德·P·斯隆奖（1984年）、盖尔德纳基金会国际奖（1984）和美国医师协会奖（1987年）。此外，我曾当选为美国国家科学院院士（1984年）、美国艺术与科学学院院士（1988年）。我被阿默斯特学院授予名誉学位（1985年），被哥伦比亚大学医学院授予校友金质奖章（1989年）。自1984年以来，我一直是美国癌症学会的分子病毒学教授。□

摘自《诺贝尔奖》丛书，《1989年诺贝尔奖》，编辑Tore Frängsmyr, [诺贝尔基金会]斯德哥尔摩，1990年这本自传/传记撰写于作者获奖之时，后来收录于《诺贝尔奖/诺贝尔奖获得者演讲集》，其内容可能根据获奖者提交的补充资料更新。

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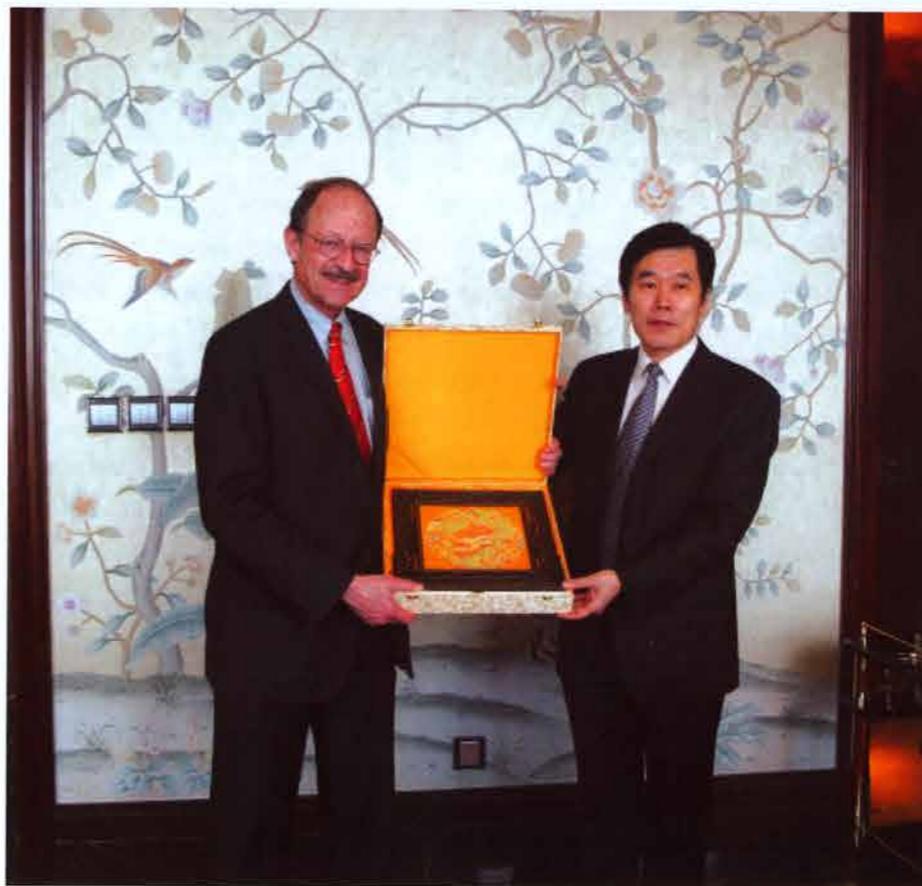
Autobiography Dr. Harold Varmus

I was born in the shadow of World War II, on December 18, 1939, on the south shore of Long Island, a product of the early twentieth century emigration of Eastern European Jewry to New York City and its environs. My father's father, Jacob Varmus, left a village of uncertain name near Warsaw just after the turn of the century to become a farmer in Newburgh, New York, and later a hatter in Newark, New Jersey. His wife, Eleanor, was a victim of the influenza epidemic of 1918, when my father was eleven. My mother's parents, Harry and Regina Barasch, came from farming villages around Linz, Austria, to found a children's clothing store, still in existence, in Freeport, New York. As children of immigrants, my parents both had notable educations, my father (Frank) at Harvard College (until financial considerations required him to

withdraw after two years) and at Tufts Medical School, and my mother (Beatrice) at Wellesley College and the New York School of Social Work.

Three years before my birth, my parents settled in Freeport, my mother's home town, where my father established a general medical practice, while my mother commuted to a social services job in New York City. With the entry of the United States into the War, however, my father was assigned to an Air Force Hospital near Winter Park, Florida, and my first memories were to be of long beaches, and bass fishing on a lake with alligators. We remained in Florida, spared the pain of war, until early in 1946. In the interim, my only sibling, Ellen Jane, was born; she is now a genetic counselor and mother-of-three in Berkeley, California.

My growing-up in Freeport was undemanding and in many ways privileged. The public schools I attended were dominated by athletics and rarely inspiring intellectually, but I enjoyed a small circle of interesting friends, despite



中国国家癌症中心主任赫捷博士和美国国家癌症研究所所长哈罗德·瓦慕斯博士在北京（照片由美国驻华大使馆赵天紫博士提供） China's National Cancer Director, Dr. Jie He, with Director of the U.S. National Cancer Institute, Dr. Harold Varmus in Beijing (Photo Courtesy of U.S. Embassy Beijing — Ann Chao)



瓦慕斯博士讲述他在北京美国中心的生活和工作情况（照片由美国驻华大使馆夏若文(Rowena Saura)提供）
Dr. Varmus spoke about his life and career at the Beijing American Center (Photo Courtesy of U.S. Embassy Beijing — Rowena Saura)

my ineptitude at team sports and my preference for reading. Life was enriched by frequent outings to Jones Beach State Park (where my father was the medical officer for many years), family skiing vacations to New England, and many outdoor adventures with the Boy Scouts and later the Putney Summer Work Camp. The most decisive turn in my intellectual history came in the fall of 1957, when I entered Amherst College intending to prepare for medical school. The evident intensity and pleasure of academic life there challenged my presumptions about my future as a physician, and my course of study drifted from science to philosophy and finally to English literature. At the same time, I became active in politics and journalism, ultimately serving as the editor of the college newspaper. Following graduation from Amherst, a Woodrow Wilson Fellowship enabled me to test the depth of my interest

in literary scholarship by beginning graduate studies at Harvard University. Within the year, I again felt the lure of medicine and entered Columbia College of Physicians and Surgeons. Although I began medical school with strong interests in psychiatry and international health, I was influenced towards basic medical sciences by the lectures of (among others) Elvin Kabat, Harry Rose, Herbert Rosenkrantz, Erwin Chargaff and Paul Marks. My desires to practice medicine abroad were also tempered by an apprenticeship in a mission hospital in Bareilly, India.

In preparation for a career in academic medicine, I worked as a medical house officer at Columbia-Presbyterian Hospital from 1966 to 1968, and then joined Ira Pastan's laboratory at the National Institutes of Health as a Clinical Associate. This provided me with my first serious exposure to laboratory science and to

the excitement of experimental success. Our studies of bacterial gene regulation by cyclic AMP (in collaboration with Bob Perlman and Benoit de Crombrugge) and the evening courses offered to incipient physician — scientists at NIH stimulated me to seek further post doctoral training in molecular biology, specifically in tumor virology. This decision, combined with an interest in trying life in the San Francisco area, led me to Mike Bishop's door in 1969. I joined him as a postdoctoral fellow at UC San Francisco in 1970, was appointed Lecturer shortly thereafter, and in 1972 became a regular member of the faculty in the Department of Microbiology and Immunology (led initially by Ernest Jawetz, later by Leon Levintow), ascending to the rank of Professor by 1979. Throughout the nearly two decades I have been associated with UCSF, most of my research interests have been focused upon the behavior of retroviruses: various aspects of their unusual life cycle, the nature and origin of their transforming genes, and their potential to cause genetic change. Much of this work has been performed in collaboration with Mike Bishop, particularly in the years before 1984 when we shared facilities, personnel, and funds. Other faculty interactions during the 1970's stimulated work on hemoglobinopathies (with Y.W. Kan) and on glucocorticoid action (with Gordon Tomkins and Keith Yamamoto). During the 1980's, I also worked extensively on hepatitis B viruses in collaboration with Don Ganem (who was initially a post — doctoral fellow and later a faculty colleague). My career at UCSF has been greatly enhanced by the extraordinary collegiality of the faculty, the excellence of our graduate and medical students, an unremitting stream of first-rate post doctoral fellows, and the loyalty of our staff research associates, especially Suzanne Ortiz, Nancy Quintrell, and Jean Jackson.

In 1969 I married Constance Louise Casey, then a reporter for Congressional Quarterly in Washington, D.C., her home town, and now the Book Critic for the San Jose Mercury News. Shortly after we moved to California, my parents died, my mother of breast cancer in 1971, my father of coronary artery disease in 1972. Our lives have been made more interesting by the births

of Jacob Carey in 1973 and Christopher Isaac in 1978; the boys attend public schools in San Francisco, root for the Giants, and are musically inclined (Jacob, especially, is a talented trumpeter). California weather has promoted my love of outdoor sports, particularly bicycling, running, backpacking, skiing, and fishing, but I also maintain strong interests in the arts literature, theatre, music, and film. We have lived almost continuously since 1971 in a Victorian house in the Haight-Ashbury district of San Francisco, with the exception of 1978-79, when I was a sabbatic visitor in Mike Fried's laboratory at the Imperial Cancer Research Fund in London, and 1988-89, when the award of a Nieman Fellowship to Connie brought her to Harvard and me to the laboratories of Bob Weinberg and David Baltimore at the Whitehead Institute.

Most of the significant honors I have received have been awarded jointly to Mike Bishop, with whom I also share the Nobel Prize. The earlier awards include California Scientist of the Year (1982), the Albert Lasker Basic Medical Research Award (1982), the Passano Foundation Award (1983), the Armand Hammer Cancer Prize (1984), the Alfred P. Sloan Prize from the General Motors Cancer Foundation (1984), the Gairdner Foundation International Award (1984), and the American College of Physicians Award (1987). In addition, I was elected to the National Academy of Science (1984) and the American Academy of Arts and Sciences (1988). I received an honorary degree from Amherst College (1985) and the Alumni Gold Medal from the College of Physicians and Surgeons (1989), and I have been the American Cancer Society Professor of Molecular Virology since 1984. □

This autobiography/biography was written at the time of the award and later published in the book series Les Prix Nobel/Nobel Lectures. The information is sometimes updated with an addendum submitted by the Laureate.

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2002年10月20日数名中国的癌症患者身着红装，参加北京马拉松比赛。该马拉松比赛吸引了来自30个国家的大约1000名国外选手和19000名中国选手参赛。(美联社供图/Ng Han Guan)
Chinese cancer patients dressed in red take part in the Beijing Marathon in Beijing, China, Oct. 20, 2002. About 1,000 marathon runners from 30 countries joined 19,000 Chinese runners in the marathon. (AP Photo/Ng Han Guan)



2010年9月11日，在北京一家诊所，一名婴儿正在接种麻疹疫苗。中国要在一次为期十天的全国性疫苗接种行动中给近1亿名儿童注射疫苗，以彻底消除麻疹。（美联社供图 Alexander E. Yuan）

A baby cries while receiving a vaccination injection against measles at a clinic in Beijing, China, on Sept. 11, 2010. China wanted to vaccinate nearly 100 million children in a 10-day nationwide campaign to eradicate measles. (AP Photo/Alexander E. Yuan)