

China Medical Board

100 Years of Philanthropy for Health: 1914-2014



BANGKOK, THAILAND

27 JANUARY 2014

A Century of Health Progress: 1914–2014



• 1914 •

THE MISSION OF CHINA MEDICAL BOARD is to advance health, equity, and the quality of care in China and Southeast Asia. Working in a spirit of partnership at the forefront of strategic philanthropy, CMB strives to build capacity in an interdependent world that fosters innovation in professional education, policy research, and global health.

This mission traces its roots to the early years of the 20th century, when breakthroughs in science were opening a new era of science-based medicine and Abraham Flexner's path-breaking report was beginning to transform modern medical education. John D. Rockefeller, Sr., the richest man of his generation, was channeling his vast wealth toward philanthropic endeavors through the newly created

Rockefeller Foundation. The China Medical Board was the second and perhaps largest-ever program of the Rockefeller Foundation, becoming independently endowed in 1928. Those early decades found China at a crossroads, as the collapse of the Qing Dynasty gave way to the beginning of the New Republic and major efforts at modernization were poised to improve the health of the country called "the sick man of Asia."

Rockefeller's Golden Era of Philanthropy



John D. Rockefeller, Sr., the wealthiest man of his times, pioneered a new era of philanthropy following the advice of his long-time advisor, Frederick Gates, who urged JDR Sr. to direct a portion of his vast wealth to a

permanent philanthropy "for the good of mankind." The Rockefeller Foundation was formally chartered in May 1913, and from the very beginning promoted the transformation of philanthropy from charitable hand-outs to trying to address "root causes" of social problems by adopting a corporate foundation structure, full-time professional staff, and long-term strategic plans that adopted a global outlook.

JDR Sr. donated \$100 million to the Rockefeller Foundation in its first year and, by the time of his death in 1937, had given additional resources in excess of \$260 million. Yet it was his son, John D. Rockefeller, Jr., who devoted his entire life to philanthropy that included the Rockefeller Foundation, serving as its first president and, subsequently, its chairman. JDR Jr. also personally became engaged in the Rockefeller Foundation's second major program (and perhaps largest ever financially), China Medical Board, which was founded in 1914 and endowed as an independent foundation in 1928.

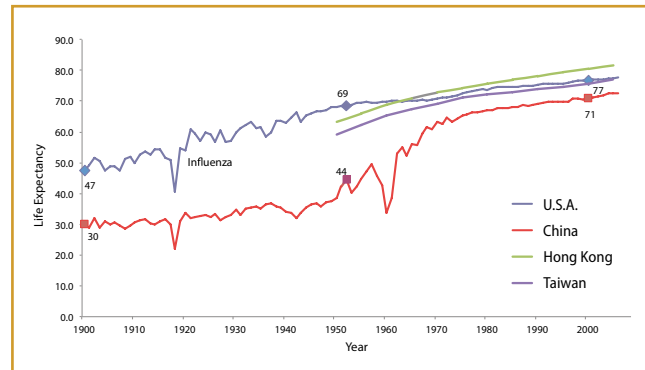
The charge to China Medical Board was to advance health in China and the Far East, beginning with establishing Peking Union Medical College. Plans for PUMC combined the Rockefeller commitment to the highest standards of medical science and Abraham Flexner's new vision for science-based medical education. Through PUMC, CMB sought to advance the health of the Chinese people through introducing Western medicine into China, connecting a modern medical school with its teaching hospital, and linking Chinese medical professionals to a growing international scientific community.

The Rockefeller philanthropic vision took concrete form in its establishment of a world-class medical school and hospital in China. In 1914, the Rockefeller Foundation established CMB to operate Peking Union Medical College and facilitate the introduction of Western medical science into China. The knowledge generated through PUMC helped usher in a revolution in the understanding and practice of medicine in China, which catalyzed dramatic health progress over the course of a century. The people of China experienced a doubling of life expectancy in the 20th century, an unprecedented human achievement.

Political change in China interrupted CMB's work for three decades and prompted CMB expansion to other Asian countries—first to Japan and Korea, and ultimately 16 countries in Asia. CMB aimed to meet Asia's need for trained medical personnel by creating centers of excellence in China in 1981, and since then it has continued its work primarily in the Mekong region of Southeast Asia. In China, CMB broadened its work from a single medical college to partnerships with universities throughout the country.

Over the course of a century, CMB has provided US\$1.5 billion to more than 100 medical universities,

Life Expectancy: China and USA, 1900–2000



Gains in life expectancy — from 30 years in 1900 to 71 in 2000 — represent one of China's greatest successes in the 20th century.

(Source: Lincoln Chen and Chen Ling, "China's Exceptional Health Transitions" in Bridie Andrews and Mary Brown Bullock, eds. *Medical Transitions in Twentieth Century China*. Indiana University, Forthcoming.)

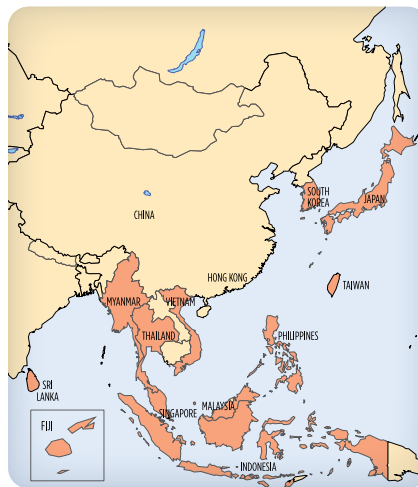
supporting young and senior fellows and funding innovations in research and education. Virtually all of the premier medical universities in Asia have been funded in some way by CMB, including many schools focusing on rural health in remote regions. Innovation has been a hallmark of CMB's work in Asia, extending from research innovations such as the

A Century of Philanthropy



1914–1950

CMB supports the development of Peking Union Medical College



1951–1980

CMB leaves mainland China and extends its work throughout Asia



1981–2014

CMB returns to China and continues its work in neighboring Asian countries



Faculty, staff, and students of Peking Union Medical College.

isolation of ephedrine, discovery of Peking Man, and the first model of rural primary health care deploying “barefoot doctors” to educational innovations like the introduction and dissemination of science-based education in universities, problem-based and standardized patient learning, global minimal educational requirements, and IT-accelerated learning.

CMB confronts a new set of challenges as it embarks on its second century of harnessing knowledge for good health: How well are health professionals in China and Asia preparing for a new set of threats, like aging, non-communicable diseases, and disability? How will decisions made in one country affect the health of its neighbors? How can much-needed reforms in delivery of health services and health professional education support each other? Can new technologies provide the tools and momentum that place learners at the center of education?

History informs CMB as it sets a second-century strategy to help health professionals craft relevant, effective, and cutting-edge responses to these questions. Long-standing relationships with medical universities in China and Southeast Asia provide partners to develop new tools that support faculty and teaching. Its convening power enables it to engage health and education leaders in interdisciplinary discussions and evidence-based approaches to finding solutions. Its links to global health networks facilitate a flow of

China Medical Commission of 1914



In 1914, the newly created Rockefeller Foundation commissioned a group of four specialists to undertake “a careful, first-hand study of the public health and of medical practice in China.” The China Medical Commission of 1914 surveyed

17 medical schools and 97 hospitals in China, yielding a substantive profile of health conditions and health care infrastructure. In their report, Commission members identified diseases, sanitation conditions, and occupational hazards to health; took stock of hospital design and practices; and gave close attention to the training of foreign and Chinese medical personnel.

The Rockefeller Foundation was eager to expand Western medicine in China, but through the Commission’s work it recognized that “before hospitals can be established in larger numbers, and before extensive work in public health and preventive medicine can be done, a large body of well-trained doctors qualified to man hospitals and to administer public health measures, must be secured.” The Commission recommended cooperating with existing medical missionary institutions, supporting fellowships for Chinese graduates to study abroad, and recruiting foreign doctors to strengthen clinical training at existing hospitals.

The Commission also advised “that the first medical education work organized should be in the city of Peking and that it be in connection with the Union Medical College if suitable arrangements can be made.” Peking Union Medical College ultimately became the primary vehicle for the Rockefeller Foundation to realize its goal of expanding Western medical science into China.

information into China and Southeast Asia and bring international attention to the knowledge that Chinese and Southeast Asian researchers are producing.

The field of philanthropy has demonstrated, through many examples, that much innovative work can be accomplished when small yet agile resources are applied wisely and opportunistically. CMB underscores that spirit as it reflects on the lessons of a century of health progress and opens the door to its new strategy, *Networking Innovations of Health Professional Education for a Second Century*.



CMB Trustees at PUMC in 2010.

CMB — 100 Years in Numbers

100 YEARS OF WORK
70 YEARS CHINA 64 YEARS ASIA

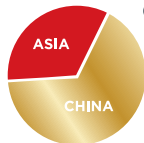
1914-2014

LIFE EXPECTANCY IN CHINA
1914 2014



APPROXIMATE EXPENDITURES ON CMB PROGRAMS

\$1.5 BILLION
(IN 2011 US\$)



NUMBER OF MEDICAL UNIVERSITIES SUPPORTED



NUMBER OF COUNTRIES WITH CMB PROJECTS



17

APPROXIMATE NUMBER OF CMB FELLOWS

3,000



NUMBER OF GRANTS
(SINCE 1951)

1,130



CMB LEADERS



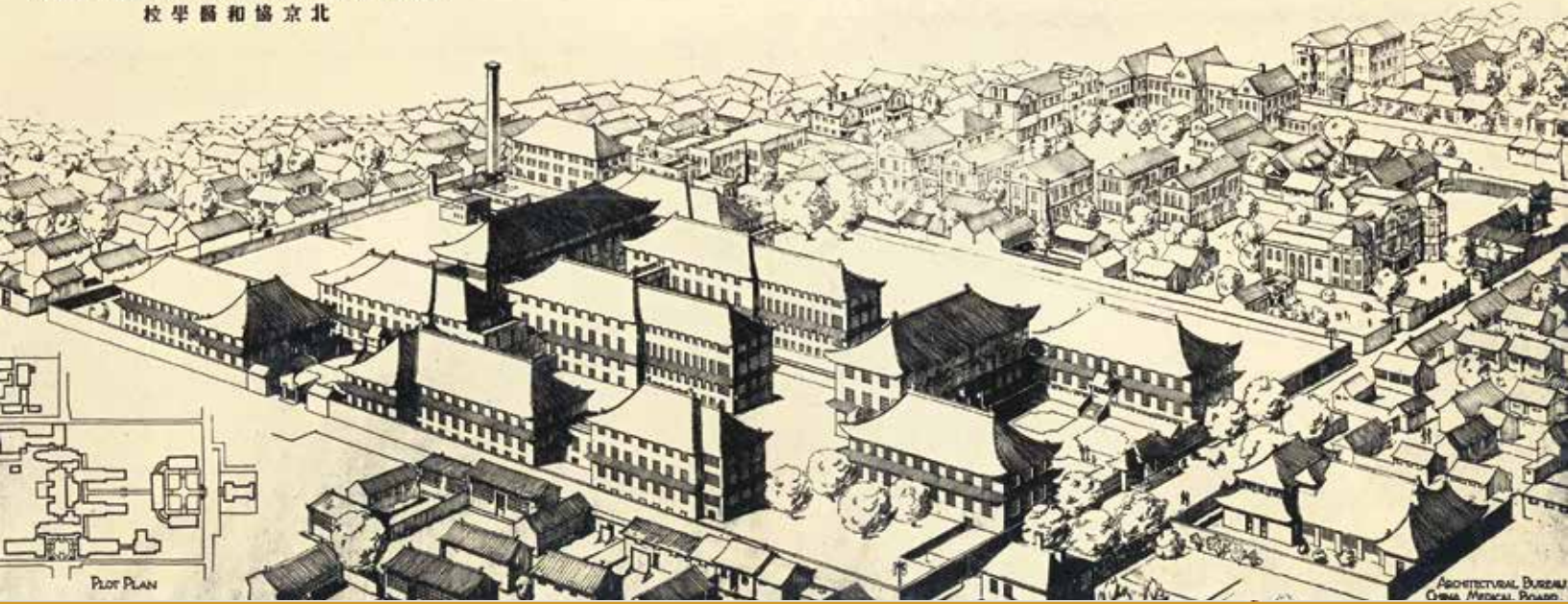
PRESIDENTS TRUSTEES

8

69

China and Asia: 1914-1980

PEKING UNION MEDICAL COLLEGE
校學醫和協京北



Life expectancy in China was only 35 years in 1914 when the Rockefeller Foundation created China Medical Board to introduce modern scientific medicine to benefit the Chinese people by establishing the Peking Union Medical College.

CMB embraced the intellectual revolutions of that period: new approaches to medical education

BIOGRAPHY

First Model of Primary Health Care: John B. Grant and C.C. Chen



Dr. John B. Grant brought two key assets when he joined the PUMC faculty in 1921: firsthand familiarity with China and a keen interest in advancing public health. Born in China to Canadian

medical missionaries, he absorbed new concepts in the practice of public health at the University of Michigan and Johns Hopkins University. In 1925 he persuaded Chinese officials to open the Beijing Health Demonstration Station, testing the feasibility of placing preventive and curative care in a community setting. He also linked this urban health center to PUMC's Department of Hygiene and Public Health, so that students' practical training in public health could be integrated into clinical training in the hospital.

Dr. Grant and his student, PUMC graduate C.C. Chen, were attracted to the Mass Education Movement (MEM) initiated by Dr. James Yen. The MEM's emphasis on increasing literacy and rural reconstruction dovetailed with Drs. Grant and Chen's views that public health should be embedded in a country's socioeconomic conditions. In 1927, the two doctors joined the MEM campaign in Dingxian, a county in Hebei Province, and set up a rural health clinic system. Grant and Chen's tactic was to engage local residents in their efforts, training them to provide basic health care services. This model for expanding access to basic health care was later adopted by Mao Zedong's barefoot doctors and was cited as a model practical demonstration in the 1978 WHO-UNICEF Alma Ata conference on primary health care.

The PUMC Campus: Preserving the Ancient but Modernizing the New



Rockefeller Foundation via the CMB was clear in its goal for Peking Union Medical College: to introduce modern, Western medical

science to Chinese medical students and professionals. That blend of Chinese and Western interests, and of intellectual, cultural, and physical goals, became an integral part of the planning and design of the PUMC campus. As Rockefeller Foundation Trustee Simon Flexner said, "All the buildings—hospital, dispensary, laboratories, dormitories, and residences—should bear relation to the country in which they are located, as well as to uses to which they are to be put." The goals his brother Abraham articulated for medical education also would find their place in the physical design, employing the campus to creatively engage the intellect in teaching, learning, practice, and even residential life.

The Rockefeller Foundation envisioned refurbishing traditional buildings, like the Prince Yu Palace, and constructing new ones. Charles Coolidge, the architect who designed buildings at Harvard Medical School and the Rockefeller University, provided ideas during an early consultation, though the Foundation ultimately chose the firm of Shattuck & Hussey, which had offices in both the United States and Beijing. On September 24, 1917, the cornerstone of the anatomy building was laid and construction was officially underway.

The Foundation's 1917 Annual Report described its plans: "While the buildings will embody all the approved features of a modern medical center, the external forms have been planned in harmony with the best tradition of Chinese architecture. Thus they symbolize the purpose to make the College not something foreign to China's best ideals and aspirations, but an organism which will become part of a developing Chinese civilization."

Today, surrounded by the skyscrapers of modern Beijing, PUMC continues to manifest those early goals of blending Chinese and global influences. In September 2014, the China Medical Board will conduct part of its centennial celebration in the PUMC campus that has blended both the old and new.

CHINA AND ASIA: 1914–1980

and public health, as promulgated by the Flexner Report of 1910 and the Welch-Rose Report of 1915, respectively, and the creation of great universities and medical institutions like the University of Chicago and the Rockefeller University. In 1915 CMB secured a physical base to introduce these streams of thought and practice into China when it purchased the property of Union Medical College from the London Missionary Society. For the next 35 years, CMB invested its energy and resources into making Peking Union Medical College an elite institution to train Chinese medical leaders.

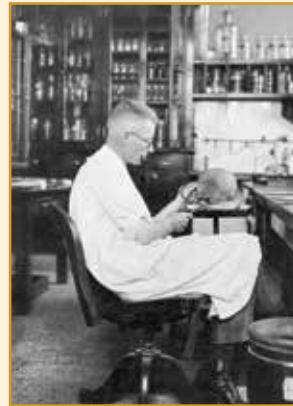
PUMC delivered early results. It graduated its first class—three doctors and one nurse—in 1924. Its hospital and outpatient clinic were filled to capacity. Its faculty pioneered a study of Chinese pharmacopeia, which led to research into the Chinese medicinal plant *mahuang* and, subsequently, isolation of the alkaloid ephedrine. Dr. John B. Grant, a professor of health, piloted a health station to experiment with new ways of delivering health services to Beijing residents. PUMC's laboratories were used by Drs. Davidson Black, C.C. Young, and W.C. Pei for study of Peking Man, which was excavated in 1926 from a site west of Beijing.

Although political conditions were turbulent, CMB's commitment to its mission was steadfast.



Health care in a community setting: Beijing Health Demonstration Station, 1926.

Discovery of Peking Man: Davidson Black



PUMC recruited Dr. Davidson Black to join its Department of Anatomy and it was the physician's interest in human evolution that led him to accept the offer in 1919. Some paleontologists were hypothesizing that human life had its roots in Central Asia, and Dr. Black saw the

PUMC appointment as an opportunity to be in closer proximity to fossil excavations.

While Dr. Black was planning a trip to Central Asia in 1926, he found a promising opportunity much closer to home. Johan Gunnar Andersson, a Swedish geologist, shared with him two molars he had excavated at the Zhoukoudian site near Beijing. Dr. Black became convinced these specimens represented a new genus and species, which he named *Sinanthropus pekinensis*, popularly known as Peking Man.

Dr. Black facilitated a Chinese partnership agreement between PUMC and the Geological Survey of China and in 1927 he helped secure Rockefeller Foundation support for excavation work; two years later, he and Dr. Weng Wenhao, head of the Geological Survey, set up the Cenozoic Laboratory on the PUMC campus. Subsequent Zhoukoudian excavations, undertaken between 1927 and 1929 with noted Chinese paleontologist Dr. C.C. Young and young geologist Pei Wenzhong, yielded more teeth, part of a jaw, and two skulls.

The Peking Man specimens were later reclassified as *Homo erectus pekinensis*, part of the *Homo erectus* species of pre-human hominids. Unfortunately, the specimens, still unrecovered, were lost in December 1941 as they awaited shipment to the United States for safekeeping during the war. They were not of a new species, as Dr. Black had hoped, but nonetheless formed a significant piece of evidence linking the evolution of man—*Homo sapiens*—from apes.

Sun Yat-sen, founding father of the Republic of China, died at PUMC Hospital in 1925. China's civil war began in earnest in 1927 when tensions between China's Nationalists and Communists burst into open conflict. A year later, the Nationalists moved the capital to Nanjing. When the Sino-Japanese War began in 1937, PUMC's hospital and clinic became flooded with patients seeking health care. On December 8, 1941, the day after the attack on Pearl Harbor, Japanese soldiers took CMB director Henry Houghton into custody and assumed control of PUMC.

As stated in its Charter, CMB's original intent was to eventually transfer PUMC to Chinese ownership and management. By 1929, Chinese nationals constituted the majority of PUMC Board of Trustees members, as the board held its first meeting in Beijing. When World War II ended, CMB reinvigorated these plans, and noted Chinese educator Hu Shih became Chairman of PUMC's Board of Trustees and Dr. C.U. Lee became director of PUMC when it reopened. In 1950, when the Korean War broke out, all remaining American CMB staff left China and, a year later, PUMC was nationalized.

Exodus from China prompted CMB to broaden its horizons to East and Southeast Asian countries. The lessons CMB learned at PUMC were extended through grants to medical institutions in 16 countries and regions: Japan, Taiwan, Myanmar, Ceylon (Sri



In 1957, CMB convened scholars from Asia and other regions to share experiences in medical education.

Lanka), Hong Kong, Indonesia, South Korea, the Philippines, Singapore, Thailand, Vietnam, Fiji, Malaysia, U.S. Trust Territory, Mongolia, and Nepal. CMB directed its support to research and teaching programs, medical libraries, fellowships and visiting professorships, construction, supplies and equipment, and endowment funds.

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BIOGRAPHY

CMB Wartime Prisoner: Henry S. Houghton



Rockefeller Foundation originally recruited Henry S. Houghton to be the dean of its anticipated Shanghai medical college. But as those plans were eventually shelved, trustees observed that they had a highly qualified medical professional ready to shoulder the responsibility of transforming PUMC plans into concrete reality. In 1921, Houghton became Director of PUMC, a post he held until his return to the United States in 1928. With "cheerful readiness" he oversaw construction, modified the curriculum, recruited faculty, and managed the expanding budget.

But these duties paled in comparison to the challenges he confronted during his second phase as PUMC Director from 1937 to 1946. When the Sino-Japanese War began in 1937, Dr. Houghton resisted plans to close PUMC or move it to unoccupied western China. His view was that "it would be appalling to have its work falter at this time," so classes continued and the hospital and clinics remained open until 1941.

On December 8, 1941, Japanese soldiers took Dr. Houghton and the PUMC Controller, Trevor Bowen, into custody. They would remain prisoners of war until August 17, 1945. A month after the Japanese defeat, Dr. Houghton traveled to New York and on September 27 reported to CMB trustees on plans to rehabilitate the campus and reopen its doors to students.

CMB Philanthropy for Health in Asia

Over the course of 100 years, CMB philanthropy has provided catalytic inputs to accelerate educational transformation.



1914–1951

China Medical Board establishes and manages Peking Union Medical College to expand Western medical education into China.



1951

CMB shifts its program to Asia including fellowships and visiting professorships. CMB funds 784 Asian fellows over the next 20 years.

1994

With CMB support, the → Program in Higher Education in Nursing Development (POHNED) enables Chinese nursing educators to earn advanced degrees at Chiang Mai University in Thailand and builds cross-border cooperation in health professional education.



1952

CMB extends support to medical schools in Hong Kong, Indonesia, Japan, Malaysia, Myanmar, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam. Initial investments are in construction, libraries, supplies, and equipment—in an era when grantees did not have those basics—and U.S.-based fellowships.





1956

CMB makes a grant to the Faculty of Medicine, Siriraj Hospital to convene the first conference on medical education in Thailand.



1981

CMB accepts the Chinese government's invitation to return to China. Continuing its Asia programs enables CMB to better engage Chinese health professionals with their peers in Asia.



1988

Mekong countries of Myanmar, Cambodia, Laos, and Vietnam become CMB grantees.



2013

CMB explores the potential of MOOCs (massive, open online courses) to innovate medical education as it supports a U.S. study tour for representatives of four Chinese medical universities.



2010

Commission on Health Professional Education for the 21st Century issues its recommendations. In early 2011, China, Thailand, Vietnam, Bangladesh, and India form the 5-C Network to promote regional exchange on health professional education reform.



2011

Scientists from 10 countries in Southeast Asia map the health conditions of their region in a special Lancet series, Health in Southeast Asia.

BIOGRAPHY

**Two Great Chinese PUMC Leaders:
Hu Shih and C.U. Lee**



Hu Shih (left) and C.U. Lee (right)

At the September 1921 PUMC dedication ceremony, John D. Rockefeller, Jr. called for a time “when most, if not all, of the positions on the Faculty” would be held by Chinese and its Board of Trustees would include leading Chinese. The new college initially stocked its faculty with foreign faculty and Chinese graduates of North American and European medical schools. In 1929, six Chinese were invited to join the Board of Trustees; this select group included Hu Shih, a noted philosopher who earned his Ph.D. under the tutelage of John Dewey at Columbia University.

Hu Shih was a leading intellectual, an educational reformer who advocated for mass literacy, and a cultural critic who argued that vernacular Chinese, rather than classical styles, should be used in Chinese literature. He also became a diplomat, serving as the Republic of China’s Ambassador to the United States (1938-1942). In 1946, he became the first Chinese Chairman of PUMC’s Board of Trustees, a post he held until 1949.

Dr. C.U. Lee was a professor in the Department of Medicine from 1923 to 1937, when he left to join the anti-Japanese resistance in southwest China. When World War II ended, he returned to PUMC as director, charged with restoring the college so that it could receive students in the fall of 1947. He met that objective and, despite the political turmoil of the next several years, tried to keep the focus of administrators and faculty on medical education. But by the end of 1950, all remaining American staff had left China. On January 23, 1951, Dr. Lee cabled New York that PUMC had been nationalized.

China had remained closed to CMB for three decades, but Deng Xiaoping’s reform and opening policies, launched in 1978, and normalization of Sino-American relations in 1979 opened the door to a new phase for CMB. In 1980, CMB accepted an invitation to return to China, where it soon initiated support for medical education and research at eight leading Chinese medical universities.

At its core, CMB remained constant to its mission of enhancing the health of the people of Asia, even as changing circumstances gave new shape to its programming. Despite the twists and turns imposed by war and political change, CMB could find real cause for optimism as it returned to China: life expectancy in that country stood at 74 years in 2010, a remarkable doubling since 1914.



CMB grant-making in Asia extended from Mongolia to Myanmar, with support for research and teaching programs, medical libraries, and fellowships.



CMB support helps medical universities build institutional strength for research.

CMB PRIORITY: RESEARCH

From its earliest days in China to its present program in Asia, CMB has emphasized modern scientific research in support of medicine and health. Asia in its ascendancy seeks world-class quality, and CMB creates pathways that connect Asia's researchers to excellence and their international counterparts, bringing knowledge of Asian health conditions to a global audience and new perspectives on responding to health challenges to Asia. During his tenure (1988-1997), CMB President Bill Sawyer recognized the importance of building institutional strength for research and directed CMB grant-making toward building the scientific research capacity of eight Chinese national medical schools. More recently, CMB's Open Competition helps build the expertise of a new generation of Asian researchers through small grants that enable junior faculty to implement research projects of their own design. CMB support also helps create connections among researchers, within Asia and globally, through special focus issues of *The Lancet* and the annual Westlake Forum, its signature event for HPS researchers.

Partner and Pioneer: Faculty of Medicine, Siriraj Hospital



In many respects, the Faculty of Medicine at Siriraj Hospital in Bangkok has been a "twin" to CMB's experience with PUMC in China. The

medical school, established in 1890, two years after King Rama V opened Siriraj Hospital, was designed to introduce modern medicine into Thailand. Like PUMC, it pioneered the Flexner curriculum, which set new, higher standards for medical education based on scientific knowledge, research training, and clinical instruction.

A 1956 grant to Siriraj marked the opening of a new chapter in CMB's efforts to strengthen the health of Asian people. CMB found itself at a crossroads in the 1950s as its exit from China prompted consideration of a broader Asia strategy and new tools to achieve its goals. Dr. Harold Loucks, its director, believed CMB had the potential to strengthen the research culture in Asian medical schools and advocated that research grants be directed to select institutions. The Faculty of Medicine at Siriraj Hospital in Thailand became the first recipient of a CMB research program grant. Control of *Opithorchis Viverrini*, a parasite of the liver, was of paramount importance to Thailand, and the \$5,000 grant would enable Siriraj researchers to study its life cycle and pathogenesis.

CMB support for Thailand's first medical education conference, held at Siriraj in 1956, marked another milestone. With only 280 medical graduates per year, conference participants recognized an urgent need for more medical schools in the country. Siriraj continues to be an innovative partner to CMB. It serves as the secretariat for the 5-C Network, a five-country regional collaboration to share ideas on the future of health professional education. It hosts the annual Prince Mahidol Award Conference, an international forum for sharing evidence for health-related policies. And it readily shares its academic strengths with others: CMB's most recent grant to Siriraj supports master's degree training in biomedicine and public health for 15 faculty members from Myanmar medical universities.

Completing an Old and Opening a New Century: 1981–Present



When it returned to China in 1980, CMB encountered not only a changed landscape but also a strong Chinese desire to expand the breadth and depth of its support for medical universities. Thus, in response to a request from the Ministry of Health, rather than resourcing a single, elite institution—as it had with PUMC—CMB focused on strengthening a network of eight leading medical schools, which increased to 13 institutions and, today, includes more than 20.

CMB's three decades of work in other parts of Asia was also continued, albeit focused geographically in the Mekong region of Southeast Asia. Alongside its new programming in China, CMB explored opportunities to network and link Asians together in common endeavors. All these countries faced demographic transition; changing disease burdens; and shifting economic and social structures, educational models, and medical science development. CMB crafted its grant-making to strengthen evidence-gathering for health care



CMB President Patrick Ongley (second from left) and trustees worked to rebuild relationships in China.

reforms, meet new demands for health professionals, and connect Asian educators and scientists to global communities.

The imprints of CMB Presidents during this period reflect these themes. Patrick Ongley

CMB's Second-Century Strategy



The field of philanthropy has demonstrated, through many examples, that much innovative work can be accomplished when small yet agile

resources are applied wisely and opportunistically. CMB endorses that spirit as it prepares to launch its strategy: "Networking Innovations of Health Professional Education for a Second Century."

In the first half of the 20th century, CMB established PUMC to introduce modern medical sciences to China. Now, in the digital age, CMB will catalyze the transformation of health professional education in 21st-century China. CMB marks the start of its second century by embarking on a ten-year strategy that focuses on *innovations in health professional education (iHPE)* in the digital age.

What does *iHPE* mean? How can health professional education in China and Asia be transformed? Digital tools create a new interactive learning tool, as exemplified by the MOOCs (massive, open online courses) that may be characterized by the ABC's: Accelerated learning; Blended learning (IT and flipped classrooms), Competence-driven; Distance outreach; Evidence-based, and Faculty renewal. CMB plans to strengthen Chinese and Asian educational transformation by catalyzing, convening, and networking—providing catalytic inputs to accelerate educational transformation.

The early history of CMB and PUMC recalls the way that one medical institution—built of bricks and mortar in early 20th-century Beijing—gave birth to a new generation of modern medical leaders. In the next century, CMB will work with its partners in China and Asia to mobilize the most promising tools in our digital age to transform medical education for health, equity, and quality of care.

changed CMB into a grant-making foundation that experimented with endowment and matching grants to support Asian ownership, control, and management. William Sawyer prioritized rural and primary care in Tibet, Mongolia, Cambodia, and Laos, most notably with grant support to develop a provincial training school in Lhasa into Tibet Medical College. Roy Schwarz emphasized medical education, changing the focus to competency-based outcomes of education rather than inputs; grant-making during his presidency ushered into China the Global Minimum Education Requirements developed by the Institute for International Medical Education.

Current president Lincoln Chen launched a fresh initiative in health policy and systems sciences (HPS) to strengthen the intelligence, monitoring, and

CMB PRIORITY: EDUCATION

Educating the first generation of China's modern medical leaders at PUMC has been one of CMB's most enduring contributions. CMB built on that legacy in subsequent decades as it worked alongside new partners, helping them to prepare students to meet the health challenges of their times and communities. CMB President Roy Schwarz (1997-2006), for example, encouraged CMB partners to adopt problem-based learning, explore innovations like distance learning, and ensure that their graduates had mastered essential competencies; through his advocacy, many Chinese medical universities adopted the Institute for International Medical Education's global minimum essential requirements (GMER). To meet recent changes in the demand for health professionals in China and Asia, CMB emphasizes transformational learning that seeks to develop core competencies, analyze and synthesize information for leadership and decision-making, creatively adapting global resources to solve local problems, as recommended by the Lancet Commission on Health Professionals for the 21st Century.

Building Evidence for Strengthening Health Policy and Systems Sciences

In 2007, CMB launched a program to build capacity in key Chinese medical universities in the Health Policy and Systems Sciences (HPS)—a term that describes innovative approaches to studying health problems and the societal response of national health policies and systems. CMB's HPS grant-making promotes multidisciplinary, academic engagement among the fields of medicine, nursing, public health, business, and the social sciences.

The strength of HPS is its integrative framework; its challenge is to build bridges among practitioners of diverse specialties. The nature of China's 21st-century health concerns—whether non-communicable disease, maternal health, obesity, mental health, among others—underscores the importance of this capacity. No single discipline can identify all the causes and dynamics of these concerns, chart the best courses of action, or evaluate impacts. How can health system be improved? What is working? What needs to be improved? HPS integrates the wealth of knowledge and experience that health professionals generate in clinics, laboratories, classrooms, communities, policy centers, and government agencies.

CMB has partnered with ten collaborating programs (CMB-CPs) at top-tier universities, building a network for excellence and mutual learning. Each CMB-CP is led by an outstanding academic in a specific HPS subfield, such as health economics, medical ethics, policy translation, pharmaceutical policy, mental health policy, chronic diseases, and migrant health policy.



Discussions at an April 2013 conference focused on China's transitions in disease, disability, and demography.



HealthSpace Asia facilitates sharing experiences in health policy and research in Southeast Asia.

tracking of the health care reforms that China began in 2009. CMB grant-making in this field promotes multidisciplinary, academic engagement across the fields of medicine, nursing, public health, business, and the social sciences. Medical universities formed the backbone of the HPS program, as CMB support helped establish a dozen collaborating centers and programs at partner institutions and supported the development of faculty and next generation fellows.

In medical education, the *Lancet* global Commission on Health Professional Education for the 21st Century, co-chaired by CMB President Lincoln Chen, called for comprehensive reforms in the training of health care professionals to advance equity in health. CMB and its partners in China and Southeast Asia have jointly initiated actions to adapt these recommendations and translate them into actionable reforms in their own countries.

In an increasingly interconnected world, Asia's health concerns are global health concerns. In 2008, CMB convened Chinese and international specialists to develop a special series in *The Lancet* that brought China's health progress and challenges to the attention of a global audience. This success sparked a series of CMB-*Lancet* issues on China—with another planned for September 2014—and a series on health in Southeast Asia, published in 2010. More

CMB PRIORITY: HEALTH POLICY

CMB's earliest priority was to improve the health of Chinese people by training Chinese doctors in Western medicine. Public health pioneers like PUMC's John B. Grant tied the health of communities to socioeconomic conditions, and this link remains evident in Asia's urban and rural settings. CMB now engages policymakers as well as medical and education professionals, and through new grant-making in health policy and systems sciences, CMB President Lincoln Chen has given these three constituencies new tools to strengthen the intelligence they need to respond to new health threats, ensure equitable access to health care, and advance health care reforms. CMB also is engaging its longstanding institutional partners in an expanded public health agenda, which puts their efforts to improve the health of their respective communities into the broader context of global health. For instance, PUMC and CMB were among the hosts of the April 2013 China Global Burden of Disease Policy Dialogue, only one example of the ways in which China has joined its international peers in evidence-based analysis of health concerns and potential responses.

recently, CMB has been seeding the start of global health studies in key Chinese medical universities in China, as a means to strengthen China's global health engagement, with benefits to countries throughout the world.



Lincoln Chen presents HRH Princess Maha Chakri Sirindhorn with copy of Lancet Commission report.

COMPLETING AN OLD AND OPENING A NEW CENTURY: 1981–2014

On the eve of its 100th anniversary, CMB finds the environment for its work transformed. Economic development, technological changes, and, above all, the production of new knowledge bring new tools to health challenges. CMB's strategy for the next decade of its work capitalizes on these, as well as the strength of its relationships with outstanding medical universities and professionals in China and Southeast Asia. In the first half of the 20th century, CMB established PUMC to introduce modern medical sciences to China. In the digital age, CMB seeks to catalyze the transformation of health professional education in 21st-century China.

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CMB GRANTEES



Locations of current CMB grantee countries and institutions: Cambodia, China, Laos, Myanmar, Thailand, and Vietnam.

Data Sources:

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Page 3: CMB expenditures on programs drawn from CMB Annual Reports 1914–2012. Does not include all Rockefeller Foundation expenditures on CMB programs.

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Page 8 (1951): <http://www.nature.com/jid/journal/v122/n2/full/5602149a.html>; and (1952): istockphoto.com.

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