Making technology serve public health

WHO

Dr Howard Zucker

Dr Howard Zucker received his MD from George Washington University School of Medicine in his native United States of America. He trained in paediatrics at Johns Hopkins Hospital, anaesthesiology at University of Pennsylvania hospital, paediatric critical care medicine and paediatric anaesthesiology at the Children's Hospital of Philadelphia, and paediatric cardiology at Children's Hospital Boston at Harvard Medical School. He has held several academic posts in the USA, including at Yale University and Columbia University College of Physicians. Zucker, who is also an attorney, served as a White House Fellow and was Deputy Assistant Secretary of Health at the US Department of Health and Human Services. In 2006, he was appointed Assistant Director-General for WHO's Health Technology and Pharmaceuticals cluster of departments.

Since his arrival at WHO in January this year, Dr Howard Zucker has been pursuing several key goals: to compile a list of essential medicines for children; to step up the fight against counterfeit medicines; and identify new technologies — such as global positioning systems and cell phones — that can be deployed to solve public health problems. Later this year, the Health Technology and Pharmaceuticals cluster of departments plans to launch a WHO task force to combat counterfeit medicines. To improve access to drugs in developing countries, the cluster is developing a web site providing information on patents for essential medicines in a number of countries, starting with antiretrovirals. The web site is due to be launched in 2007.

Q: How do you see your mission at WHO?

A: We sit in a branch of WHO that deals with two of the most critical areas: technology and pharmaceuticals. All diseases and all health problems ultimately translate back to the issues of diagnosis and treatment: where drug therapies and technological transfers are instrumental. My responsibility is to identify ways to have those two areas significantly improve the health of nations across the world.

Q: Will the Essential Medicines List change in terms of concept and contents?

A: The Essential Medicines List is going to celebrate its 30th anniversary in October 2007. Thirty years ago we didn't have the health problems we have today. The two areas I plan to focus on, regarding the Essential Medicines List, are paediatrics and therapies for chronic diseases, such as cancer.

Q: What is WHO doing to promote development of paediatric medicines?

A: Children are not little adults. Their metabolism is different and varies by age. Our next expert committee meeting on essential medicines early next year is to revise the Essential Medicines List. A big component of that meeting will be adding essential medicines for children to the list. We are now gathering the information. When it meets, the committee will look at the evidence on a number of high priority medicines for children and examine their safety, efficacy and public health relevance. On the basis of those criteria, the committee will decide which medicines to include in the list.

Q: What are you doing to fight the growing threat of counterfeit medicines?

A: In February, representatives from 56 countries and a number of intergovernmental organizations agreed to set up a global task force to combat counterfeit medicines in a collaborative, international and intersectoral way. This will be launched later this year. The occurrence of counterfeit medicines is on the rise everywhere, but they are particularly present in developing countries and they are slowing our efforts to control disease. There are some countries in the world where the vast majority of specific medications are not genuine. Counterfeiters are becoming more sophisticated. They go where the market is big: HIV/AIDS medicines, bird flu or other major threats. The task force will have five components: legal, regulatory, technological, law enforcement and risk communication. We are setting up a secretariat here in the Health Technology and Pharmaceuticals cluster. As well as hosting the secretariat, WHO will play the facilitator role of pulling together all the groups involved.

Q: Is there any evidence that WHO's International Clinical Trials Registry Platform initiative will change the way biotech research is reported?

A: This initiative has not come from my cluster. On our side, we do a significant amount of work on the way governments regulate and monitor clinical trials, and on how we evaluate the safety, quality and efficacy of manufactured pharmaceuticals. Specifically on clinical trials, in March we published the latest edition of the *Handbook for good clinical research practice*, which provides practical guidance on implementing research.

Q: The report by the Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH) showed clearly that there are alternatives to patent protection and that governments and others can provide incentives for R&D to address the need for new, effective drugs

for diseases, such as tuberculosis, and vaccines for HIV/AIDS and malaria needed in developing countries? How do you see WHO's role in terms of promoting these alternatives? What are the next steps?

A: Much of that will depend on the way WHO Member States react to the CIPIH report during the World Health Assembly. Countries clearly must use all the available legal instruments at their disposal to ensure their populations have access to enough quality medicines. We must provide the technical assistance so that countries know what the options are. Then it's up to countries to choose from those options.

Q: What is WHO doing to improve access to patented and generic drugs for developing countries?

A: We have a number of programmes that assist countries or other organizations to ensure that they are selecting and buying cost-effective, safe medicines for major public health threats, such as HIV/AIDS and malaria. We're also looking at creating a database on the status of patents for antiretrovirals in different countries. Many researchers would find it useful to be aware of which medicines are under patent and which ones are not. This information is out there, but you must scavenge for it through web sites. My vision is to create some transparency. We need to come up with a web-based system to help countries streamline this process of patent identification. We can start with HIV/AIDS pharmaceuticals given the severity of this problem. The web site could function as follows: you have a map, you put the cursor on a country, click, and the country window opens, then you click on pharmaceuticals information, and then you have details about patents in that country.

Q: How can traditional knowledge and traditional medicines based on this knowledge be recognized?

A: The main issues with traditional medicines are safety and efficacy. The best way to solve the problem is to utilize the framework we use for other kinds of pharmaceuticals, while respecting traditional and local knowledge that have accumulated over centuries. People are either blindly enthusiastic about traditional and alternative medicines or hesitant to embrace them because they have misgivings about their effectiveness. Many developing countries use traditional medicines for primary health care, therefore quality and safety must be assured. We have also to find a way to monitor the composition of herbal preparations, which are subject to climate variations.

Q: The patent system was originally established to encourage researchers to share their findings for the public good. Today, research results can be accessed worldwide using the internet and open-access journals, why do we need the patent system?

A: Discussion about what kind of information should be published has evolved partly because of the internet, 15 years ago this was not even a discussion. The patent system is there to give people the incentive to create new ideas, there has to be some way someone is inspired. People need some personal reward. Not that I think patents are the only system, there is benefit in making information available on the internet.

For more information please see: www.who.int/medicines_technologies. ■

Recent news from WHO

- Dr LEE Jong-wook, Director-General of the World Health Organization, 61, died on 22 May, two days after surgeons at Geneva Cantonal Hospital removed a blood clot from his brain. "The sudden loss of our leader, colleague and friend, is devastating," WHO said in a statement. Dr Lee was the first WHO Director-General to die in office. Dr Anders Nordström, Assistant Director-General for General Management, took over as Acting Director-General. News of Dr Lee's death came as representatives from WHO's 192 Member States gathered for the first day of the World Health Assembly (WHA). Delegates paid tribute to Dr Lee and his achievements and staff sent messages of condolence to his family.


WHO/C.Black
The late Dr Lee Jong-wook.

- At the WHA, the annual meeting of WHO's top decision-making body, from 22 to 27 May, delegates discussed topics, including: pandemic-influenza preparedness and response; child nutrition; HIV/AIDS; polio eradication; sickle-cell anaemia; destruction of variola virus stocks; prevention of blindness; international trade and health; tobacco control; and intellectual property rights. The keynote speaker was His Royal Highness, The Prince of Wales.
- WHO called on all research institutions and companies on 19 May to register all medical studies that test treatments on human beings, including initial studies, whether they involve patients or healthy volunteers, as part of the International Clinical Trials Registry Platform initiative. (See stories on pp. 429–431)
- WHO launched an interactive Flash feature on 19 May describing its work, priorities, Member States, staff, funding, partners, history and achievements. http://www.who.int/about/brochure_en.pdf
- WHO announced on 11 May that a group of 13 pharmaceutical companies had agreed to comply with WHO's recommendation to phase out single-drug artemisinin medicines for oral treatment of malaria.
- A new WHO report, *Fuel for life: Household energy and healt*h, released on 4 May showed that halving by 2015 the number of people worldwide who cook with solid fuels by providing them with access to liquefied petroleum gas would cost a total of US$ 13 billion per year and would provide an economic benefit of US$ 91 billion per year. http://www.who.int/indoorair/publications/fuelforlife.pdf

For more about these and other WHO news items please see: http://www.who.int/mediacentre/events/2006/en/index.html