expensive and requires several doses and even then protection is not guaranteed. Protection against smallpox for 10 years or more is possible with a single vaccination. The smallpox vaccine could be kept at 37 °C for a month, whereas the polio vaccine has to be kept cold up until it is actually administered in the field. This is difficult to do in developing countries. We knew exactly where smallpox was because each infected individual had a distinctive rash. With polio, there are 200 infected children for one paralytic case, so the other 199 are perfectly able to transmit it to others. And they could spread it, undetected, to many different parts of the country. You could not do what we did with smallpox in terms of focusing specifically on an outbreak and on vaccinating the people around that to prevent spread.

Q: If we hadn't eradicated smallpox at that time, would it still have been possible to vaccinate so many people given the emergence of HIV/AIDS?

A: The question is raised because complications of vaccination can be more serious among those with advanced HIV infection. However, we now give live vaccines, such as those against measles, polio and yellow fever, to people with AIDS and they seem to handle those vaccine infections quite well. This is undoubtedly true for many of those who are given smallpox vaccine. In Africa, for example, where health conditions are challenging, individuals with severe immunodeficiency disease, don't live very long. I think that even with AIDS – and evidence indicates that by as early as 1970 some areas had already been infected with HIV – smallpox still could have been stopped.

> "If we could defeat the disease in India, we could defeat it in Bangladesh, Pakistan and Ethiopia."

Q: Was there any turning point in the smallpox campaign when you knew you were going to succeed?

A: Yes. During 1973 and early 1974 we were doing really well: Latin America was free, Indonesia was free and Africa seemed pretty much free, except for Ethiopia. The problem was in India, where we were simply not succeeding. So in late 1973, WHO and Indian government staff worked out a plan to visit every house in India in the space of 7–10 days. The concept was that if we could discover the cases more quickly than before, the containment teams could interrupt the chains of transmission. The results were astounding. One state had been reporting about 500 cases a week, but the search teams found 10 000 cases. This was really a black day. We had no idea it was this bad. But in January and February, searches were steadily improving. India reported the largest number of cases in about 20 years. However, we sensed that we were successfully implementing the right strategy and, if we could defeat the disease in India, we could defeat it in Bangladesh, Pakistan and Ethiopia. And indeed the last case in India occurred little more than a year later.

Q: Is there anything you would like to add?

A: The most important legacy of smallpox eradication was its demonstration of how many people could be protected through vaccination, so rapidly and inexpensively with a well planned programme and quality-control monitoring. This is what led us to organize the first meeting that would propose an Expanded Programme on Immunization and which, in turn, led to the polio eradication campaign and a rapidly growing global interest in immunization as a highly cost-effective programme worthy of investment by every country. ■

Recent news from WHO

- WHO said, on 13 November, that it was launching an intensive operation with its health partners to prevent and control a **cholera outbreak** in the eastern part of the Democratic Republic of the Congo. Insecurity, massive population displacement – at least 250 000 people since early August – weak health services and a lack of safe water and proper sanitation facilities have caused a marked increase in the number of people with cholera in North and South Kivu. As yet, no data are available on the number of deaths linked to the current outbreak, but in complex emergencies the case fatality rate can surpass 30%. WHO sent 60 tonnes of medical supplies to the Democratic Republic of the Congo in collaboration with the Italian and Norwegian governments.
- WHO's Regional Office for Africa said, on 6 November, that it had provided training to 46 laboratory staff from across Africa, in collaboration with WHO headquarters and the Kenyan Medical Research Institute, to **build capacity to identify dangerous pathogens**.
- WHO welcomed the decision of the United Nations General Assembly on 3 November to **ban smoking and tobacco sales** at United Nations headquarters in New York.
- A WHO study that provides a comprehensive picture of people's health around the world, including the top 10 causes of death, was published on 27 October. ***The global burden of disease: 2004 update*** is available at: http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html
- On 31 October, WHO's Office for the European Region published a manual for young public health students on planning, conducting and publishing the findings of **epidemiological research in environmental health**. The manual, a collaborative effort with the United Nations Development Programme and the United Nations Office for Programme Support, draws on the experience of the Sumgayit Cancer Study in Azerbaijan.
- WHO sent medicines and other **supplies to eastern Yemen** to treat over 50 000 people for diarrhoeal diseases, malaria and other conditions after floods on 3 October.

For more about these and other WHO news items please see: http://www.who.int/mediacentre