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EUROPE CALLING

Eradication of poliomyelitis: where do we stand in Europe?

In 1988, the World Health Assembly adopted the goal of global eradication of poliomyelitis by immunisation, a target which was to originally be achieved by the end of the year 2000. Eradication of polio is now also one of three top priorities of the World Health Organisation, along with reduction of smoking and control of malaria. Since 1988, substantial progress has been made. Mass immunisation campaigns and national immunisation days have been performed repeatedly in many countries with remarkable success—for example, the last case of polio in the Americas occurred in 1991 and the last case occurred in the Western Pacific region in 1997.

In the meantime, the date for eradication of the disease has been moved to the end of 2002 and intensified activities are needed if this goal is to be achieved in the remaining endemic countries of Africa (>2800 cases in 1999) and Asia (>3300 cases in 1999).

In the WHO European region, which comprises 51 countries in Europe and the former Soviet Union, no cases of polio have been reported since November 1998. This is very promising and has led to a change in immunisation policy in many European countries: where live attenuated oral vaccine (OPV) has been used predominantly, vaccine associated paralytic poliomyelitis—though very rare—occurs more frequently than wild type virus infection. Consequently, immunisation with OPV has been widely replaced by injectable inactivated polio vaccine.

However, given that 99 asymptomatic infections stand behind each notified “case” (acute flaccid paralysis caused by one of the three poliomyelitis viruses), great care is needed before a region can be declared free of poliomyelitis. Sensitive surveillance programmes need to be in place

to ascertain that all cases of acute flaccid paralysis are reported and that a diagnosis of poliomyelitis is ruled out by appropriate tests. This is the basis for certifying that a region is free of polio, the goal expressed by the WHO for the European region by the year 2001.

What remains to be done? The gold standard is to monitor all cases of non-traumatic acute flaccid paralysis in children and adolescents under 15 years of age. Two stool samples, separated by 24–48 hours and collected within 14 days of onset, need to be shown to be free of poliomyelitis virus. A country’s surveillance system is considered sensitive enough if at least one case of acute flaccid paralysis per 100 000 children under 15 years of age is detected each year. For example, Finland has accomplished this with exactly one report in 1998, while Germany (with 0.47 cases), like many other European countries, is still struggling although the reported rates are gradually increasing.

The ultimate goal is to stop immunisation after poliomyelitis has been eliminated, as was done after the eradication of smallpox. If all countries are certified free of polio by 2005, WHO hopes to stop immunisation by 2010. Is this realistic? Probably not, as too many open questions remain. The most difficult issue is the likelihood that many countries will keep stocks of poliomyelitis virus strains that could be used as weapons in a biological warfare. By definition, this is not compatible with the term “eradication”. It is very possible that immunisation against poliomyelitis will stay with us for a long period of time.

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