

Polio returns to Tajikistan

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A polio outbreak in once polio-free Tajikistan is serving as a reminder to the rest of the world that the deadly illness is only a plane trip away.

“As poliovirus is highly infectious travelling long distances, the key lessons learned are that all countries need to maintain high quality surveillance to detect a potential importation of wild poliovirus until global poliomyelitis eradication is declared, and all children should be vaccinated against poliovirus,” Cristina Salvi, a spokeswoman for the World Health Organization’s (WHO) regional office for Europe, writes in an email. “Countries should have preparedness plans to respond to a possible importation which identify the target group and vaccine to be used in mounting a response.”

The outbreak began last April, when the WHO confirmed that seven children in Tajikistan had contracted the wild poliovirus type 1 and were suffering from acute flaccid paralysis. An international team of experts from the WHO has been in the country since Apr. 16.

By June, more than 560 cases of acute flaccid paralysis had been reported. As of June 9, there were 210 laboratory-confirmed cases of poliomyelitis and nine reported deaths. India and Nigeria had been the regions hardest hit by polio, but the Tajikistan outbreak now accounts for about three-quarters of cases of polio in the world so far this year.

Tajikistan, which has a population of 6.6 million, is in the WHO’s European Region, an area that had been polio-free since 2002. The country itself saw its last confirmed case of polio 13 years ago.

“Routine immunization was effective in eradicating polio in the country, with the last clinically confirmed polio case in 1997,” writes Salvi. “However, an existing immunity gap in some children



Reuters/Raj Patidar

A child receives polio drops at a polio booth. A global effort to eradicate polio succeeded in slashing the number of cases by 99% over two decades but the disease is still endemic in India, Pakistan, Afghanistan and Nigeria, and has recently resurfaced in Tajikistan.

that had not been routinely immunized can be at the origin of the current spread of an imported new wild polio virus.”

Health experts speculate the virus entered Tajikistan via a traveller, possibly from India. There is now the potential for the virus to spread to other countries from people who have departed Tajikistan by air. To prevent outbreaks, a country needs a poliovirus immunization rate of 90%. Some European countries, such as Ukraine and Georgia, do not meet this target. Even in Canada, there are areas where rates are below 90%.

Since 1988, when various governments and health agencies launched the Global Polio Eradication Initiative, the number of worldwide cases of polio has dropped by 99%. When the initiative started, polio was endemic in 125 countries, paralyzing some 350 000 children a year. Now, the disease is

endemic in only four countries: Nigeria, India, Pakistan and Afghanistan.

In March, the Red Cross and the United Nations launched a campaign to provide oral polio vaccine to 85 million children in 19 African countries. More than 400 000 volunteers signed up for the campaign, which was intended to stop an outbreak that began in 2008, when the virus spread from Nigeria into neighbouring countries and then into other areas of west and central Africa. Vaccinations campaigns have traditionally been met with resistance in Nigeria, where some religious leaders claimed the purpose was to spread sterility and HIV.

In Tajikistan, three of four planned rounds of vaccination have been completed using monovalent oral polio type 1 vaccine. In the first round, about 1.1 million children age six and under were immunized, which was 99.4% of the

target group. The third round, which began June 1, expanded coverage to include all children up to age 15. The fourth and final round was to be conducted June 15–19.

“These rounds are occurring two weeks apart in a new strategy called short-interval additional immunization which are meant to increase immunity in a population over a short period to prevent further spread and stop the outbreak,” writes Salvi.

Since the vaccination campaign began, the number of cases of acute flaccid paralysis has declined, says Salvi. However, since the incubation period for poliomyelitis can be as long as 35 days, more cases are expected. When the outbreak is over, Tajikistan will have to ensure all children are fully immunized, while maintaining high-quality surveillance in case the virus returns, says Salvi.

“With no cure for polio, immuniza-

tion with polio vaccine is the only protection against polio,” writes Salvi. “Children should be routinely immunized from birth with multiple doses of vaccine to ensure protection against poliovirus, including those living in remote, isolated and under-served communities. Until a child is fully immunized they are still at risk from polio.”
— Roger Collier, *CMAJ*

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