

Dear Colleagues,

On August 31, a new case of wild polio was reported from Karachi, Pakistan – the first case detected in the city since January 2016. While the news was sobering, the discovery illustrated once again the critical role of disease surveillance in our work to stop the virus. I'd like to use this letter to explain how a technology as simple as text messaging could help Pakistan detect and respond to its final cases of polio.

Monitoring for and investigating cases of acute flaccid paralysis (AFP), which can be caused by polio or a number of other diseases, is key to quickly identifying any spread of the disease. Earlier this year, the Emergency Operations Centre (EOC) in Pakistan's Sindh Province began testing a new SMS-based system that aims to make it easier to report cases of AFP.

The Challenge

Health workers in endemic countries are required to report all AFP cases to surveillance officers, who then collect stool samples from the affected child to test for the poliovirus. While this strategy has improved program operations, it has also posed some challenges. In particular, private providers – typically the first to see affected children – are sometimes unfamiliar with the national AFP surveillance system, lack the contact information of district surveillance personnel or worry that the reporting process would require too much time. Finding innovations to reduce surveillance shortcomings is critical to achieving eradication, as missing a child with polio (or not detecting them quickly enough) allows the virus to circulate and affect others as well.

A New Initiative

To address some of these issues, the Sindh EOC is piloting a province-wide number that enables practitioners to report AFP cases using their phones in less than one minute. Health workers can send a text message with the name and contact information of an affected child, and the message is automatically forwarded to a computer application. Relevant data from the message is added to an EOC-controlled spreadsheet, and program staff are notified. The EOC is then able to dispatch surveillance officers to locate the child and collect stool samples, and officers can add subsequent updates to the EOC spreadsheet based on information from the samples collected.

This new tool could make it easier for private clinics to report AFP cases, filling an important gap as Pakistan aims to capture every last case of polio. While the majority of cases will continue to be reported through the national AFP surveillance system, this innovation could eventually serve as a model in other locations, and even for other diseases, around the world.

With only 10 polio cases globally so far this year, support for innovations like this SMS-based system in Pakistan will help us to detect remaining reservoirs of polio and end the disease once and for all. As



In Pakistan, new mobile phone technologies are helping surveillance officers detect polio cases. WHO Pakistan / Anam Khan

Fayaz Jatoi, coordinator of the Sindh EOC, [said](#) earlier this month, “Despite the progress made, we have still not reached the finish line.”

Thank you,

A handwritten signature in black ink, consisting of several overlapping, sweeping strokes that form a cursive, somewhat abstract shape.

Chris Elias
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Chairman, Polio Oversight Board