

Abstract

Evaluation of Acute Flaccid Paralysis Surveillance System in Polio-Free Jordan, 2012-2016

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Abstract

Background: As part of polio eradication strategy, World Health Organization (WHO) has established a global Acute Flaccid Paralysis (AFP) surveillance. In Jordan, AFP surveillance has succeeded to achieve the polio-free certification. However, there is a substantial risk of polio importation from neighboring countries including Syria and Iraq.

Objective: This study aimed to evaluate the AFP surveillance in Jordan to ensure that the system operates effectively in order to maintain the polio free status.

Methods: This retrospective study was based on secondary analysis of data routinely collected between 2012 and 2016 by the Jordan Expanded Program on Immunization (EPI). All AFP cases reported to the EPI during this period were included. The WHO minimum performance indicators were used to evaluate the quality of AFP surveillance. Data were analyzed using the data management system for AFP surveillance data and excel 2010.

Results: Cumulatively, 328 AFP cases had been reported during the study period. Almost half (51.3%) of cases aged between one and five years and 55.8% were males. All cases had been discarded. The most common cause of AFP was Guillain-Barre Syndrome (35.1%). Annualized non-polio AFP rate increased from 1.4/100,000 population under 15 years in 2012 to 4.3 in 2016. National and subnational sensitivity was not met in 2012 and 2013. Adequacy of stool specimens and timeliness of specimens arriving and processing in the laboratory were constantly above the WHO minimum target. Timeliness of investigation met the expected target but with a decreasing trend. The proportions of stool specimens where non-polio enterovirus (NPEV) was isolated were below the WHO minimum target except in 2016.

Conclusions: AFP surveillance system in Jordan is performing well, however additional efforts are needed to strengthen the subnational sensitivity. Moreover, laboratories are required to increase the NPEV isolation rate. Providing feedback to the reporters is recommended to maintain the reporting and investigation above the target.

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