Evaluation of the Meningitis Surveillance System in Meknes, Morocco

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Abstract

Background: Meknes is a big city of Morocco with 860,972 population in 2016. It includes 47 health centers, 5 hospitals and 2 laboratories which one is implicate in meningitis surveillance. The Meningitis Surveillance System (MSS) was implemented in Meknes in 1995.

Objective: The objective is to evaluate the MSS and to identify its strengths and its potential gaps for its improvement.

Methods: The evaluation was based on the CDC guidelines, 2001 for evaluating surveillance systems. A questionnaire was structured and tested to evaluate simplicity and acceptability. Twenty health professionals at the prefectural epidemiology unit, the hospitals and the laboratory were interviewed. MSS Data across 2012-2016 were analyzed to evaluate the representativeness, reactivity and quality of the data.

Results: 207 cases were reported with an incidence ranged from 4 per 100,000 population in 2012 to 5 per 100,000 in 2016. 172 (88%) of the cases reside in urban areas and 183 (88%) were from the public sector. The Completeness of selected variables was 89% (184/207). The system was simple regarding structure and all interviewed staff considered the system acceptable. Of 32 confirmed meningococcal meningitis cases, 15 had a serotype confirmation result. The epidemiological investigation of the case after declaration was carried out on average on the day of the declaration.

Conclusions: The evaluation of the MSS has demonstrated its strengths, namely good data quality, acceptability and responsiveness. However, these weaknesses reside in the low proportion of the serotype of meningitis agents. These results suggest the need to consolidate achievements and reinforce the importance of routine meningococcal serotype according to clinical and laboratory best practices.

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