

Active Fever Surveillance During Malaria Outbreak In Western Jamaica

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OBJECTIVE

This paper evaluates the effectiveness of “active fever surveillance” during malaria outbreak (from December 2006 to June 2007) in western Jamaica.

INTRODUCTION

Malaria, major leading cause of morbidity and mortality in third world countries has been successfully eliminated from Jamaica since 1965. This, however, is being constantly challenged by (1) lack of sustained vector control activities (2) increased movement of global travellers to and from endemic countries to Jamaica given that the presence of vector “anopheles mosquitoes” that transmit malaria parasites. On December 2006 the first **locally transmitted** case of malaria was identified in Kingston, the capital city of Jamaica. Due to the impending threat to the country’s economy, such as travel advisory as Jamaica’s main foreign income comes from tourism especially in the western Jamaica, and to health care system. The Ministry of Health (MoH) stepped up the prevention and control of malaria program. The objectives of the program are (a) early detection of cases and (b) prompt treatment of cases identified.

METHODS

Active fever surveillance is being used to screen malaria (a) at all sentinel sites (b) official ports (air and sea) and (c) private hospitals in the western Jamaica as fever is the most common presentation in all laboratory confirmed malaria cases identified in Jamaica. In western Jamaica there are a total of four health departments with twenty (20) sentinel sites including four government hospitals and fourteen (14) primary health care health centers with a total population of 452,724. The data of daily line listing on fever cases which are fitted into the fever case definition (fever is being defined as a person presenting with acute onset of fever with temperature 38C or 100.4F) are collected from all sites and analysed at local health departments and reported to Ministry of Health. The screening of visitors and returning residents from malarious endemic countries is also carried out at all officials’ ports including one major international airport and selected seaports. In addition, once a confirmed case of malaria is identified, house to house visits were also made to the area where the case came from and active fever surveillance was done and these activities were led by a multidisciplinary health team.

RESULTS

Active Fever Surveillance - Approximately more than (350) fever cases were line listed and (278) of (350) are being diagnosed as suspected malaria during the period. All were tested negative for malaria parasites.

Port Health (Airport and Seaport) - A total of 2759 visitors were listed to have come from malarious endemic countries during the period (Dec 06 - June 07). Of 2570 visitors only 2 persons were found to have fever and tested for malaria and came back negative for malaria parasites in their blood.

House to house active fever surveillance - A total of approximately (1205) homes were visited by health teams and (65) fever cases were identified and tested and all came back negative for malaria parasites.

CONCLUSION

Case detection (quality) - There is major shortcoming on the collection of “fever” cases, as the exact temperature reading is not documented on the patients’ record. Moreover some patients took anti pyrexia medication prior to visiting health institutions thus their exact temperature reading could not be ascertain and could not be counted as “fever case” as they did not fit in fever case definition.

Frequency of data reporting - At the beginning of outbreak all sentinel sites, especially government facilities reported their data to local health departments daily. However as time progressed, frequency became less and less and at some point some sites stopped reporting. Data from all private physicians’ offices were not collected.

House to house active fever surveillance - Although this task took a great deal of human and material resources it helped the health team to carry out multiple activities such as environmental health assessment and mass health education at the community level.

Port Health - The strengthening of existing port health surveillance at major international airport and sea port was of a great success as majority of visitors were screened and interviewed at the point of entry to prevent importation of malaria.

REFERENCES

(1) Report on Prevention and Control of malaria program, by Western Regional health Authority, Daily report number 8,9; unpublished paper