23.013
Evaluation of the Existing Diarrhoea Surveillance System in Children Under 5 in District Peshawar, NWFP Pakistan
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Background: Diarrhoea globally causes an estimated 3.3 million deaths per year with a median infant mortality of 8.37 deaths per 1000 live births. In Pakistan it is responsible for 43.3% of all post-neonatal deaths. In North Western Frontier Province (NWFP) its prevalence in children under 5 is 15% &16% in rural & urban areas respectively.

Objectives: To assess the performance of the existing diarrhoea surveillance system to identify strengths and weakness to make recommendation for improvement.

Methods: CDC Guidelines for Evaluating Public Health Surveillance Systems were followed. A questionnaire was developed, pretested & used for collecting data from identified stakeholders. A scoring system was evolved to compare the three existing surveillance system as poor, average, and good.

Results: Existing surveillance systems are a) Health Management Information system (HMIS), b) National Programme for Family Planning & Primary Health Care (FP & PHC), c) Active surveillance (to PH section) during Monsoon. Active surveillance during monsoon is found to be better than the other two arrangements as it is simple, having good quality of data, acceptability & representative-ness with an average flexibility, sensitivity, positive predictive value (PPV) & timeliness. NP for FP & PHC was ranked second owing to its good score in simplicity, data quality & timeliness with an average sensitivity & stability. According to flexibility, data quality, PPV, representativeness & timeliness HMIS was labelled as the weakest.

Conclusion: HMIS although labelled as the weakest remains the main information system for the country. Review & modifications of the existing system including adding information from secondary & tertiary level health care facilities, vertical programs’ MIS e.g. NP for FP & PHC will improve the HMIS substantially.

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23.015
Evaluation of Internet-Based Informal Surveillance for Global Infectious Disease Intelligence
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Background: While traditional means of surveillance by governments, multi-national agencies, and institutional networks assist in reporting and confirming infectious disease outbreaks, these formal sources of information are limited in their geographic coverage and timeliness of information flow. In contrast, Internet-based resources such as discussion sites and online news sources have become invaluable sources for a new wave of surveillance systems. Despite widespread use of unstructured information, there has been little, if any, data evaluation.

Methods: Our analysis is informed by evaluation of HealthMap.org, an automated system for real-time monitoring of online information about emerging diseases. In our evaluation, we used officially confirmed outbreaks obtained from WHO Outbreak News, available in the public domain, as a “gold standard” as well as ProMED mail reports. We measured detection characteristics of Google News reports for outbreaks over the 12-month period (October 1 2006—September 30 2007) in both English and Spanish. We apply standard evaluation metrics (volume, geography covered, diseases captured, timeliness, sensitivity and specificity). In a second evaluation, we compared timing of official WHO reports of human avian influenza cases in 2007 with the corresponding reports in both ProMED and news aggregator sources.

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23.014
Epidemiology of Travelers’ Diarrhea in Japan: Quarantine Surveillance at Narita International Airport, 2001—2005
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Background: Although travelers’ diarrhea is one of the most frequently encountered health problems in international tourism, current epidemiological findings are largely dependent upon hospital and clinic-based information. To better understand the epidemiology of this disease, an analysis of data covering most travelers is needed.

Methods: We conducted a questionnaire survey of all travelers at the quarantine station at Narita International Airport and retrospectively reviewed records for the period January 2001 to December 2005. The Immigration Bureau database was used to estimate the number of travelers during the same period. To elucidate the risks of acquiring diarrhea, we estimated incidence according to age, sex, month of travel and travel destination.

Results: 60,765,529 passengers entered Japan via Narita Airport, and 7,937,654 people voluntarily submitted questionnaires. 9,836 met the criteria of travelers’ diarrhea. Tourists in 20 to 29 year-old of both sexes most reported the disease. Men aged 20 to 24 had the highest estimated incidence compared to any other age- and sex-group. The incidence was higher in March, August and September than other months, mainly due to the influx of young adult tourists. Travel to south-central Asia, Southeast Asia and North Africa was associated with higher risks than that to other regions of the world.

Conclusion: Risks of acquiring diarrhea are dependent on age, sex, season and destination of travel. To reduce travelers’ diarrhea, adequate preventive measures should be administered to specific subpopulations.