

Abstract

Use of District Health Information System (DHIS-2) for Real Time Surveillance: Lebanon 2017

Dalal Youssef; C Khoury; G Allouch; K Haydar; A Jouny; H Zreik; F Ghossaini; A Yaghi

Corresponding Author:

Dalal Youssef

Abstract

Background: The Ministry of Health in Lebanon is in the process of migrating surveillance reporting from a cumbersome paper-based system to a web-based electronic platform (DHIS-2).

Objective: The aim of the project is to have real-time information flows in order to timely detect alerts and outbreaks in order to take quickest action.

Methods: DHIS-2 tool was initially piloted in Lebanon in 2014 for school-based surveillance. In May 2017, the tool was extended progressively for other surveillance programs collecting aggregate data from hospitals, medical centers, dispensaries and laboratories. As part of the roll-out process, the online application was developed: customized aggregated-based datasets, organization units, accounts users and generic dashboards. 80 training sessions targeting 1290 users were conducted throughout the country. Those trained included 35 district and province health officers, 150 focal persons working in all public and private hospitals, 140 focal persons in laboratories and 800 in medical centers and dispensaries. To assess improvements in surveillance reporting, we compare completeness and timeliness for reporting for the period before and after the implementation of DHIS2. Challenges and lessons learned during the roll-out process are documented.

Results: For laboratory-based surveillance, completeness of reporting increased from 70.8% in May to 89.6% in October. Timeliness has improved from 25% to 74%. For medical centers an improvement of 8.1% in the reporting and 9.4% in the timeliness is recorded before and after training sessions. For zero reporting, completeness remains the same (88%) and timeliness has improved from 74% to 87%. There was also increase in the reporting of communicable diseases. Implementation challenges included limited access to internet (29%) and limited workforce (21%).

Conclusions: Implementation of DHIS2 resulted improvement in timeliness and completeness for aggregated data reporting. Continued onsite support, monitoring and system enhancement included internet connectivity are needed to enhance the performance of DHIS2.

(*iproc* 2018;4(1):e10547) doi:[10.2196/10547](https://doi.org/10.2196/10547)

Edited by Y Khader; This is a non-peer-reviewed article. submitted 29.03.18; accepted 29.03.18; published 29. 03.18

Please cite as:

Youssef D, Khoury C, Allouch G, Haydar K, Jouny A, Zreik H, Ghossaini F, Yaghi A

Use of District Health Information System (DHIS-2) for Real Time Surveillance: Lebanon 2017

iproc 2018;4(1):e10547

URL: <http://www.iproc.org/2018/1/e10547/>

doi: [10.2196/10547](https://doi.org/10.2196/10547)

PMID:

©Dalal Youssef, C Khoury, G Allouch, K Haydar, A Jouny, H Zreik, F Ghossaini, A Yaghi. Originally published in *Iproceedings* (<http://www.iproc.org>), 29.03.2018. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in *Iproceedings*, is properly cited. The complete bibliographic information, a link to the original publication on <http://www.iproc.org/>, as well as this copyright and license information must be included.