Abstract

Abstract Title:
Retrospective Analysis of a newly implemented Web-Based, Mobile-Friendly Infectious Disease Notification System for the Infectious Diseases Prevention Control Unit

First author:
Dr Stefan Buttigieg

Other Authors:
Dr. Tanya Melillo
Dr. Maria-Louise Borg
Mr. Alastair Donachie
Mr. Klein Debono

Abstract

Introduction:
Infectious Disease surveillance is the ongoing and systematic collection, analysis, and interpretation of health data in the process of describing and monitoring a health event. This information is used for planning, implementing, and evaluating public health interventions and programs. Surveillance data are used both to determine the need for public health action and to assess the effectiveness of programs. At the Infectious Disease Prevention and Control Unit, statutory reporting of notifiable infectious diseases takes place through Snail Mail, Unstructured E-mail (via the email address: disease.surveillance@gov.mt), Phone, COGNOS(iSOFT Clinical Manager Querying Tool) and a Structured Web-Based, Mobile-Friendly Electronic Form accessible through the URL: http://notifyinfectiousdisease.gov.mt. The latest form of reporting was introduced in December 2016.

Method:
This research analysed the infectious disease notifications received over a ten year period (from 2007 to 2017). All notifications stored and managed through a Microsoft Access-based System entitled 'Disease Surveillance Manager' and the notifications are stored in a web-based Microsoft SharePoint List were analysed.

Results:
The analysis shows an increased usage of electronic forms of infectious disease reporting over a period of 10 years and a slow, yet significant decrease of paper-based notification forms received through the mail. Other notable findings were the increase in notifications received via e-mails and shift towards relying more on Laboratory Result Querying Tools such as IBM COGNOS. Furthermore, there were some reporting methods which have been phased out, such as fax, the IDCU received the last notification via Fax in 2015.
Since its inception, in December 2016, the Web-Based, Structured Infectious Disease Notification Form got 156 notifications as of 30th June 2017, which was filtered to 151 individual cases, taking into consideration duplicates and repeat submissions.

Conclusion:

The hope of the Infectious Disease Prevention and Control Unit is that, with increased cooperation with the Information Management Unit of the Ministry for Health, Genitourinary Clinic and the Department of Infectious Diseases at Mater Dei Hospital could result in the further development of a fully digitised Public Health Surveillance System which will improve comprehensiveness and timeliness.