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IMPORTANCE OF EVALUATION OF THE QUALITY OF EIDSS' DATA AND MAINTAINING A HIGH LEVEL OF ELECTRONIC REPORTING IN AZERBAIJAN

Z Rasulzade¹, N Ustun¹, R Ismailova¹, N Mursalova², O Salimov² and V Qasimov²¹Republican Anti-Plague Station, Azerbaijan²Ministry of Health, Azerbaijan

Introduction: Electronic reporting was officially implemented in Azerbaijan in 2010 through electronic integrated disease surveillance system (EIDSS), which allows storage and tracking of surveillance data for 67 notifiable diseases. The aim of this work was to explain the importance of maintaining a high level of electronic reporting in the country.

Methods: A chi-square trend test was conducted by using of Epi-Info software to assess significant changes in data quality indicators for brucellosis: timeliness of data entry and completeness of laboratory and epidemiological data over the period 2010-2017.

Results: A total of 2824 cases of human brucellosis were reported to the EIDSS during the study period. Timeliness of data entry into EIDSS significantly increased from 25.7% (2010) up to 92.6% (2017) ($p < 0.001$). The proportion of completed fields for sample collection data increased from 88.3% in 2010 to 98.2% in 2017. The laboratory data entry into EIDSS was not completed in 2010, and completeness of laboratory data (conducting of test, test name, test result) has increased since 2013 (84.5%, 84.5% and 82.2% respectively) and have significantly improved by years reaching a maximum value for all indicators – 95.9% in 2017 in average ($p < 0.001$). Possible measures for increasing of data quality might be entering of information directly by medical institutions; conducting of remote online trainings on user's workplaces; simplification of laboratory module's interface and continued implementation of data quality indicators, developed by Ministry of Health and ongoing monitoring by EIDSS working group.

Conclusion: Timeliness of data entry, completeness of laboratory and epidemiological data for brucellosis has significantly improved over the years after introducing of EIDSS. Ongoing evaluation of EIDSS data quality indicators for all notifiable diseases should be conducted in order to ensure data quality and timely identification of data reporting issues.

Recent Publications

1. Abdullaev R. Ismailova R., Rasulzade Z., et al. (2013) Epidemiological Features of Brucellosis among Human

in Azerbaijan / Journal "The modern achievements of Azerbaijan medicine", 2013, N4, Baku, Azerbaijan

2. Rasulzade Z., Malakmadze N., Maes Ed (2015) Improvement of surveillance indicators after implementation of electronic reporting in Azerbaijan, 2010-2013 / European Scientific Conference on Applied Infectious Disease Epidemiology ESCAIDE-2016, Stockholm, Sweden, 11-13 November 2015.
3. Rasulzade Z., Tsilosani M., Maes Ed, Tongren Eric (2016) Prerequisite of standardization of data collection parameters for data exchange between countries, Azerbaijan and Georgia, 2011-2015 / 5th Annual International Scientific-Practical Conference «Medicine pressing questions» 29-30-April, 2016, Baku, Azerbaijan
4. Jabanov M., Eristavi E., Rasulzade R. et al. (2016) Differences in data collection parameters distorts of comparative analyses of morbidity data between countries, Azerbaijan and Georgia, 2012-2014 / ESCAIDE-2016, Stockholm, Sweden, 28-30 November 2016
5. Rasulzade Z. (2017) The Impact of implementation of electronic reporting of EDP on strengthening of biosafety and biosecurity in Azerbaijan / 20th Annual Conference of the European Biosafety Association, Spain, Madrid, 2017, 27-29, April, abstract book, page 132.

Biography

Z Rasulzade works as a Data Manager in Republican Anti-Plague Station since 2012. Currently, she is a member of EIDSS administrative working group at the Ministry of Health. She worked as a Scientist in National Research Institute of Medical Prophylaxis (Baku, Azerbaijan) during 1997-2006. She defended her PhD from Azerbaijan National Academy of Sciences on Microbiology and Hygiene in 2011. She successfully graduated from South Caucasus Field Epidemiology and Laboratory training two-year program (SC/FELTP) in 2014. Since 2017, she is a Member of Azerbaijan Science Diplomacy Support Center's working group. She is an author of 11 published articles.

zla.eidss@gmail.com