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Do we have the reliable data? An exploration of data quality for AIDS information system in China

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Do we have the reliable data? An exploration of data quality for AIDS information system in China

Abstract

A national AIDS program evaluation system has been applied to the ranking of the performance of involved public health organizations in China since 2007. The system provides quantitative performance comparison information based on automatic mining of the data stored in a unified web-based national information system, China AIDS Comprehensive Response Information Management System (the CRIMS). Hence, the quality of the AIDS program evaluation system is directly related to the data quality in the CRIMS. This study aims to evaluate the performance of the AIDS program evaluation system. The research method is qualitative interview of public health practitioners in Jiangxi Province. The public health practitioners believed that the introduction and ongoing usage of the CRIMS has significantly transformed the practice of AIDS prevention and control. They believed that the AIDS program evaluation system has brought in increased accountability of public health. They suggested that the accuracy and completeness of AIDS program evaluation needs to go beyond the data from the CRIMS. Further research will continue to identify the unknown factors that undermine the performance of AIDS programs in China.

Keywords

system, information, aids, exploration, quality, do, data, china, reliable, have, we

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Do We Have the Reliable Data? An Exploration of Data Quality for AIDS Information System in China

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Abstract and Objective

A national AIDS program evaluation system has been applied to the ranking of the performance of involved public health organizations in China since 2007. The system provides quantitative performance comparison information based on automatic mining of the data stored in a unified web-based national information system, China AIDS Comprehensive Response Information Management System (the CRIMS). Hence, the quality of the AIDS program evaluation system is directly related to the data quality in the CRIMS. This study aims to evaluate the performance of the AIDS program evaluation system. The research method is qualitative interview of public health practitioners in Jiangxi Province. The public health practitioners believed that the introduction and ongoing usage of the CRIMS has significantly transformed the practice of AIDS prevention and control. They believed that the AIDS program evaluation system has brought in increased accountability of public health. They suggested that the accuracy and completeness of AIDS program evaluation needs to go beyond the data from the CRIMS. Further research will continue to identify the unknown factors that undermine the performance of AIDS programs in China.

Keywords:

Data quality; Information system; Performance evaluation; AIDS; Public Health; China.

Introduction

The data quality of public health information systems is critical to public health decision making and service assessment. Therefore, this study evaluates the performance of the AIDS program evaluation system to explore the data quality of the national AIDS information system in China. This study will contribute to better management of data quality in public health information systems.

Methods

A semi-structured interview was conducted in Jiangxi Province, China with 9 interviewees, who were involved in certain process of AIDS data collection, entry and utilization in their job role. They included public health practitioners for AIDS prevention and control at provincial (2 persons), city (2 persons) and district levels (5 persons). They worked at the Centre for Disease Control and Prevention (CDC) (5 persons), health departments (2 persons) and hospitals (2 persons).

The questions asked include their perception about the success of the CRIMS, the quality of data from the system and which indicators should best be used for data quality evaluation. Consent was obtained orally before interviews started.

Results

Most interviewees were very satisfied with the CRIMS and believed the introduction and ongoing usage of the system has transformed the practice of AIDS prevention and control in China. This is achieved by rapid data processing, easy access and friendly assistance from the local or upper level CDC.

A discrepancy in perception of the data quality of the CRIMS was identified; the healthcare workers in the hospitals placed the highest trust in the data, whereas the public health practitioners in the CDC were lack of confidence with this.

The health administrators believed the performance evaluation system for AIDS programs is an essential and useful tool to assess public health organizations' performance, because the data-driven performance evaluation method has brought in increased accountability of public health by ranking the involved public health organizations based on quantitative performance comparison information. They claimed deficiencies or errors caused by unreliable data needs to be corrected, because the emerged bias to the evaluation results may demoralize public health practitioners.

The major complaint was that the current evaluation system does not take into consideration the local context; the indicators of the system reflect only some efforts of AIDS prevention and control activities. The annual ranking results of the new performance evaluation system have become the driving engine for AIDS prevention and control, instead of the ultimate goal of ending the AIDS epidemic. Field verification may need to be considered to supplement the data from the CRIMS.

Conclusion

Although performance evaluation of AIDS programs in China has been significantly improved through the implementation of a data-driven performance evaluation information system, additional methods of data collection and verification may need to be concurrently implemented to reduce the bias of the results of performance evaluation. Further research will continue to investigate the other contribution factors to the quality of public health program performance evaluation.