
Abstract

The Immunization Data Quality Assessment, Sana'a Capital, 2021

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Abstract

Background: The Expanded Program of Immunization (EPI) aims to increase immunization coverage. However, this cannot be achieved without an efficient data management system and without ensuring data quality.

Objective: We aimed to assess the quality of immunization data at Sana'a capital.

Methods: The World Health Organization data quality self-assessment tools were used. Three random urban districts and the only rural district (Bani-Al Hairth) at Sana'a capital were selected. From each district, one-third of the public health facilities (HFs) that were providing EPI services were randomly selected. Accuracy ratios (ARs), discrepancy levels (DLs), completeness, and timeliness were calculated from tally sheets and reports for Bacillus Calmette-Guerin (BCG) vaccines, third doses of pentavalent-3 (Penta-3) vaccines, and first doses of measles and rubella (MR-1) vaccines. The quality index was assessed for the five components (ie, recording and reporting, archiving, demographic information, core output/analysis, and using data for action) through a prestructured questionnaire.

Results: While the overall ARs and DLs for BCG, Penta-3, and MR-1 indicated overreporting at the HF level, there was overreporting for BCG and Penta-3 and underreporting for MR-1 at the district level. With regard to the overall quality index, recording and reporting achieved the highest score (90% and 96%, respectively), while using data for action had the lowest score (61% and 78%, respectively) at the HF and district levels. While completeness and timeliness were scored 100% at all HFs, both were inadequate at the Al-Sabain (93% and 99%, respectively) and Bani-Al Hairth (75% and 83%, respectively) districts.

Conclusions: The findings showed that the quality of immunization data in Sana'a capital's HFs and districts was inadequate, with weaknesses in using data for action. Furthermore, completeness and timeliness were found to be unsatisfactory at the rural district and one of the urban districts. Ensuring data quality through strengthening the EPI data management system should be prioritized. Larger-scale and regular assessments of the EPI data management system are recommended.

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KEYWORDS

accuracy ratio; data quality self-assessment; quality index; health facilities; Yemen

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