

Review of: "Knowledge, Attitudes, and Practice (KAP) Study for Reducing Invalid Vaccine Doses in Routine Immunization: A Cross-Sectional Study in Urban Slums of Bangladesh"

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Potential competing interests: No potential competing interests to declare.

The paper aims to assess the parental attitude, knowledge and practice regarding valid vaccination schedules and identify the reason for providing invalid vaccine doses. The topic is interesting, however I have some comments and suggestions.

Overall, I think the writing needs to be improved and reorganized. In the introduction put together paragraphs that convey similar information (For instance, those regarding invalid doses). I also suggest that the authors make difference between numbers and percentages (Paragraph 3). The definition of invalid doses should be before methodology section and needs citation.

The authors should give more details and explanations about the data and methodology.

- With regard to the definition of invalid dose, why the choice of mothers of children 2-3 years? If I am not mistaken, All the EPI vaccines in the study must be taken way before the age of 2. Note that some mothers may vaccinate their children way behind schedule (at the age of 2 or later). Are these considered invalid?
- How slums are selected and How many? How many respondents in each slum?
- How many service providers are interviewed?

The authors stated that they have collected data from the mothers who can show their child's immunization cards to the study personnel. Why they did not mention the percentage of invalid dose in the study or did I miss something? I think this important for the relevance of this study.

Reasons for Providing Invalid Vaccine Doses: Service Providers' Perspective.

- Figure1 shows 4 main reasons: What is the percentage for each?
- The authors stated that "The service charge was one of the important factors, playing for providing invalid doses in an urban area. Business competition regarding service charge collection was another important factor in urban areas." However, "The Expanded Programme on Immunization (EPI) vaccines are supplied free of cost by the Government of Bangladesh. We provide these free vaccines at the hospital maintaining the cold chain with due care and caution", (<https://www.icddr.org/services/epi-vaccinations>).

