ASSESSING THE PERFORMANCE OF NATIONALLY ADAPTED DIET QUALITY QUESTIONNAIRE (DQQ) SENTINEL FOOD LISTS AT THE SUBNATIONAL LEVEL IN SIX COUNTRIES

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METHODS

KEY TAKE-AWAY

Nationally adapted DQQ sentinel food lists can provide accurate diet quality data for women and children at the subnational level for most food groups.

BACKGROUND AND OBJECTIVES

• Poor quality diets are a major contributor to the global burden of disease,1 yet measuring diet quality at a population level can be expensive and burdensome.

• National-level sentinel food lists from Diet Quality Questionnaires (DQQs) can provide a low-burden, rapid tool for dietary data collection in large-scale surveys to understand population-level dietary patterns.2

• Given variability in diets within countries, it is important to understand whether national-level country-specific sentinel food lists can accurately measure food group consumption by applying them at the subnational level.

METHODS

• We first identified seven sub-nationally representative open quantitative 24-hour dietary recalls in six countries (figure 1).

• Using data collected from the open 24-hour dietary recalls, we aimed to determine if subnational-level sentinel food lists can capture sentinel foods (consumed by 90 percent of the population) at the subnational level.

• We also identified whether the national-level sentinel food lists more accurately capture specific food groups for women aged 15–49 years and for children 6–23 months. In cases where differences in food group consumption exist, we determine if those differences affect the estimates for Minimum Dietary Diversity (MDD)-Women and MDD for children in the studied areas.

Figure 1. Map of Open 24-hour Dietary Recall Datasets Used in This Analysis, Including Demographics, Sub-National Regions, and Sample Sizes

RESULTS

• We found that DQQ national-level sentinel food lists, on average, captured approximately 84 percent of foods consumed at the subnational level for women (78.1 percent in the Bangladesh zone of influence [ZOI], 93.3 percent in Malawi), and 86 percent for children (79.5 percent in the Bangladesh ZOI, 97.3 percent in Benin), with considerable variability among regions.

• The magnitude of difference when estimating MDD-W was largest in the Bangladesh ZOI (8.1 percentage points) and smallest in the Bangladesh zone of resilience (1.9 percentage points).

• Across all countries for women and children, the fruit and vegetable food groups consistently had higher proportions of foods not captured by the national-level sentinel food lists when compared to the open 24-hour dietary recalls.

• Results suggest that depending on the use and purpose, nationally adapted DQQ sentinel food lists can provide accurate diet quality data at the subnational level for most food groups.

CONCLUSIONS

Program implementers, policymakers, and researchers considering the use of sentinel food lists should weigh the benefits against possible inaccuracies. There may be benefits in using national-level DQQ food lists to measure and monitor diet quality and diversity at the subnational level (e.g., low cost and level of effort); however, if the purpose of data collection relates to fruit and vegetable consumption, then further adaptation of the national list may be required.