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Background

- Child malnutrition is still a significant global public health concern. There are still roughly 155 million preschool children recorded in 2016 as being stunted which represents growth failure at some point in their lives (1). DHS 2016 estimates show that in Nepal, 36% of children under the age of 5 are stunted, 10% are wasted, and 27% are underweight.
- To address these challenges, the international community has formulated interventions such as accelerating the promotion of exclusive breastfeeding, greater coverage of antenatal services and increasing access to fortified foods.
- However, to be successful, these interventions need to be carried out in a conducive policy environment, which underscores the need for good governance in fighting malnutrition.
- Defining "governance" is a challenge thus attempts at obtaining a singular measure that encompasses the policy dynamics on a large scale and also a more granular level (e.g institutional level) have been futile so far.
- Similar indicators that have been widely used such as WHO's Governance Indicator and The Hunger and Nutrition Commitment Index (HANCI) suffer the problem of lack of granularity below the national level.

Objectives and Methods

- To create an empirical measure of nutrition governance at the sub-national level using self-assessments of Nepal officials who translate pertinent policies into action
- We purposively selected 520 government and non-government officials from 21 districts in the three agro-ecological zones of Nepal and selected 24 Likert-scale questionnaire items from six pre-determined domains. Using PCA, we retained a single factor per domain. Factor scores were calculated for each domain and summed into an aggregate score that ranges from 0 to 100 (Figure 01). A confirmatory factor analysis was conducted to check for construct validity.

Results

Fig 01: Distribution of the Nutrition Governance Indicator

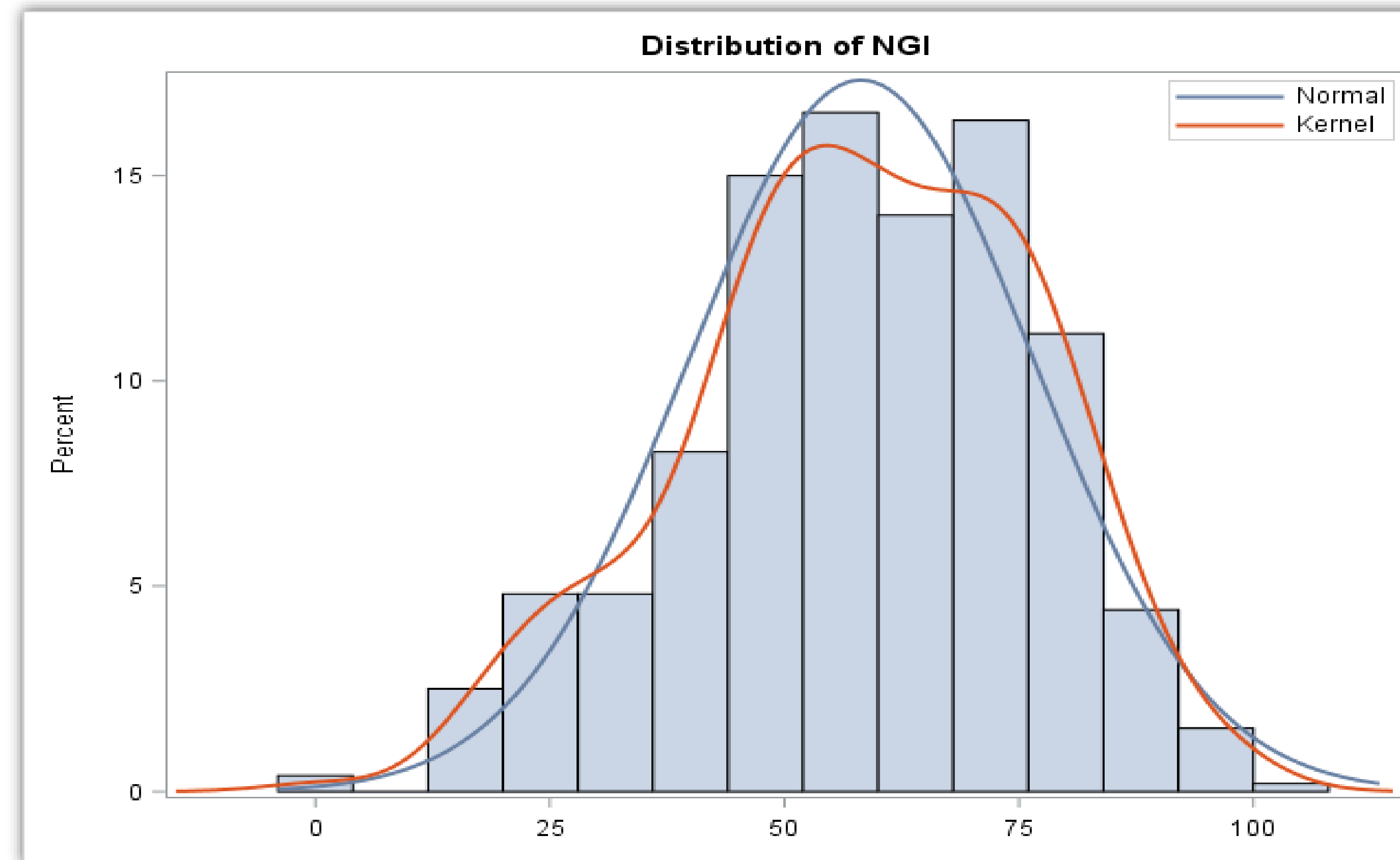
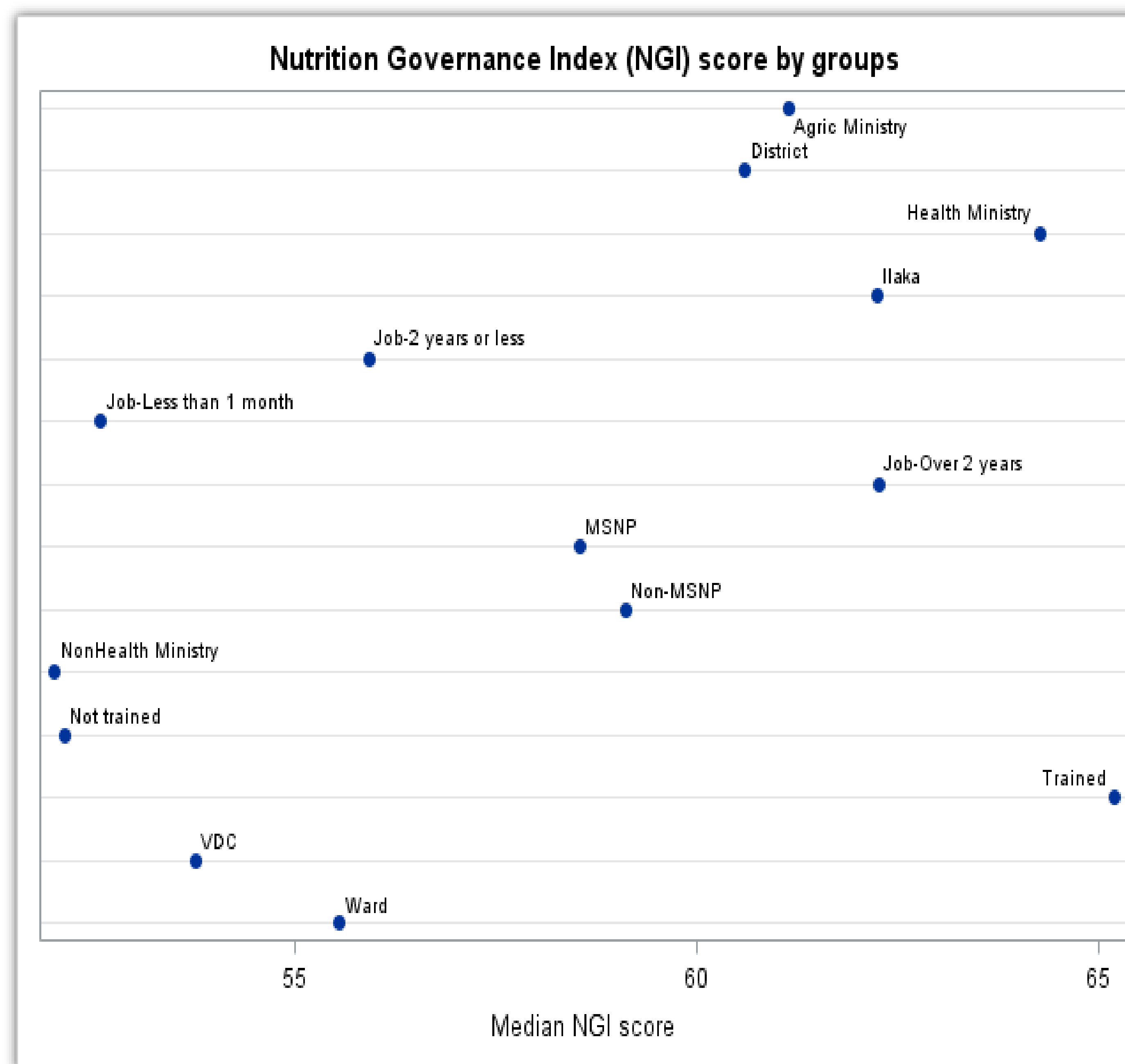


Fig 02: NGI Score for various groups



Validation

Table 01: Cronbach's alpha coefficients for the six domains

| Domain | Cronbach's alpha |
|--|------------------|
| Understanding nutrition and responsibilities | 0.83 |
| Collaboration within and across offices | 0.83 |
| Financial resources | 0.68 |
| Nutrition leadership | 0.65 |
| Capacity building | 0.60 |
| Support | 0.51 |

Table 02: Goodness of fit statistics for Confirmatory Factor Analysis

| Fit Summary | Goodness of fit measure | Fit estimate | Cut-off limit | Pass or Fail |
|-------------------|-------------------------------|--------------|---------------|--------------|
| Absolute Index | Fit Function | 1.0866 | | |
| | Chi-Square | 488.958 | | |
| | Pr > Chi-Square | <.0001 | | Fail |
| | Standardized RMR (SRMR) | 0.0463 | <0.08 | Pass |
| | Goodness of fit index(GFI) | 0.9165 | >0.90 | Pass |
| Parsimony index | Adjusted GFI(AGFI) | 0.8943 | >0.90 | Pass |
| | RMSEA Estimate | 0.0486 | <0.06 | Pass |
| Incremental index | Bentler Comparative Fit Index | 0.9246 | >=0.95 | Fail |

Conclusion

The Nutrition Governance Indicator is a valid, evidence-based tool to measure nutrition governance at a granular management level (individual and institutional) in Nepal. It can be used, more importantly, to assess the effect of governance on nutritional outcomes.

Further tests to assess its suitability in cross-cultural settings and its generalizability to other countries are highly recommended.

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References

- WHO | UNICEF-WHO-The World Bank: Joint child malnutrition estimates - Levels and trends [Internet]. WHO. [cited 2018 May 16]. Available from: <http://www.who.int/nutgrowthdb/estimates/en/>