**INTRODUCTION**

Dahod aspirational district of Gujarat, with a predominately tribal population, has a high prevalence of stunting (55.3%), wasting (27.8%) and underweight (53%) according to NFHS 5 data, and each form of undernutrition has shown an increase of 10%, 3%, and 3% respectively during the last 5 years. Large regional variations exist that get masked due to the pooling of data. There is a need to provide tailored solutions specific to each geographical region and community. (Figure 1)

**OBJECTIVE**

Spatial analysis of undernutrition of children <5 years of age in selected villages of Dahod District, Gujarat, India.

**METHODS**

Geographic Locations, Sociodemographic and Anthropometric measurements

- Spatial analysis in ArcGIS 10.5
- Primary data of 524 children
- Secondary data-NFHS 4, and DLHS 4
- Epicollect software used to record data

**RESULTS**

The spatial analysis of stunting and underweight of 524 children (<5 years) with Moran I (0.492, 0.248) showed a high degree of clustering in the villages of the Dahod district. (Figure 2)

The hot spot analysis of underweight identifies the hot spot in villages like Bhular, Parpata, Antela, and Degawada. (Figure 4)

**CONCLUSION**

Using geospatial data to improve the understanding of how a nutrition situation varies across a region and provides enlightenment towards its underlying causes. To bring about improvement in nutritional status a more disaggregated picture of undernutrition is required, especially at the local and household level.

**ABBREVIATIONS USED:** NFHS- National family health survey DLHS-District level household survey

Digital elevation model is a representation of elevation data made by using Indian Geoportal-Bhuvan to represent terrain. The interpolated maps showed undernutrition clusters present in hilly terrain which experiences less rainfall with less vegetation in the villages of Bhular, Antela, and Parpata. (Figure 3)

The model we predict using geographically weighted regression with R square value (0.579) for underweight using drinking water source and women education status have chances to improve as other determinants also need to consider.