

Applying a Standard Market Assessment Method For Fortification Monitoring – Tracking Iodized Salt and Fortified Oil Across Time and States in India

D4N 2025

Svenja Jungjohann^{1,2,4}, Advait Deshpande³, Garima Singh³, Frank Wieringa^{2,4}

¹ Global Alliance for Improved Nutrition (GAIN), Genève, Switzerland, ² UMR QualiSud, Institut de Recherche pour le Développement (IRD), Montpellier, France,

³ Global Alliance for Improved Nutrition (GAIN), New Delhi, India, ⁴ Université Montpellier; CIRAD; SupAgro; IRD; Université d'Avignon; Université de La Réunion, Montpellier, France

BACKGROUND

In India, the fortification of salt with iodine is mandatory, whereas the fortification of edible oil with vitamins A and D is voluntary. The retail market is an ideal supply chain node to monitor large-scale food fortification (LSFF) program performance. Market assessments conducted in 6 states between 2019 and 2023 assessed food vehicle product availability and retail penetration (product shop count and market share proxy) of fortification labelling and fortification quality to inform LSFF stakeholders.

METHODS

Assessments included 6 states (Madhya Pradesh (MP), Andhra Pradesh (AP), Telangana (TL), Gujarat (GJ), Rajasthan (RJ) and Tamil Nadu (TN)) on at least one timepoint, including 3 timepoints for MP, and recorded oil and salt products available in retail shops and their characteristics such as fortification labelling as well as fortification status (if sample collection and analysis for micronutrient content was part of the scope). We assessed trends in MP in fortification of available salt and oil products and retail penetration, as well as geographic comparisons of retail penetration of oil and salt labelled as fortified, confirmed fortified and adequately fortified to standard across states.

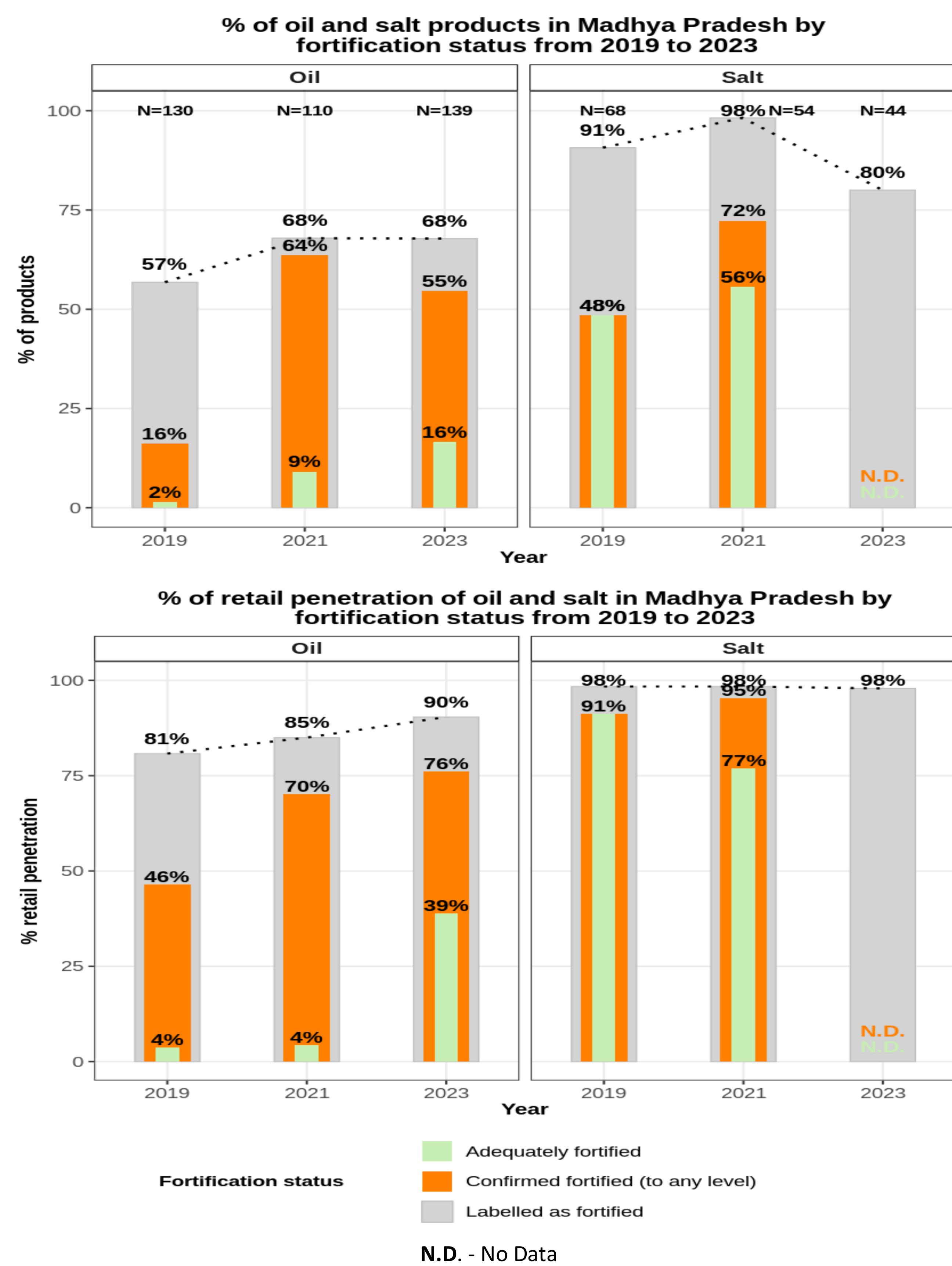
RESULTS

In MP, the share of salt products labelled as iodized was 91% (2020), 98% (2021) and 80% (2023), retail penetration of labelled salt remained consistently high at 98–99%; confirmed fortification improved over time, though the retail penetration of adequately fortified salt declined slightly in 2021. The proportion of oil products labelled as fortified hovered around 57–68% between 2020 and 2023, while retail penetration rose from 81% to 90%, alongside increases in both confirmed fortified and adequately fortified oil. Across the six states, the retail penetration of labelled oil ranged from 59% in TL to 96% in RJ and TN; TN showed the highest retail penetration of confirmed fortified oil (90%) and adequately fortified oil (~17%), while MP had the lowest retail penetration of confirmed fortified oil (70%) and TL the lowest adequately fortified oil (~1%). For salt, labelled iodization ranged from 75% to 100% across states, with retail penetration of labelled iodized salt above 90% everywhere; RJ recorded the highest retail penetration of confirmed fortified salt (98%) and adequately fortified salt (96%).

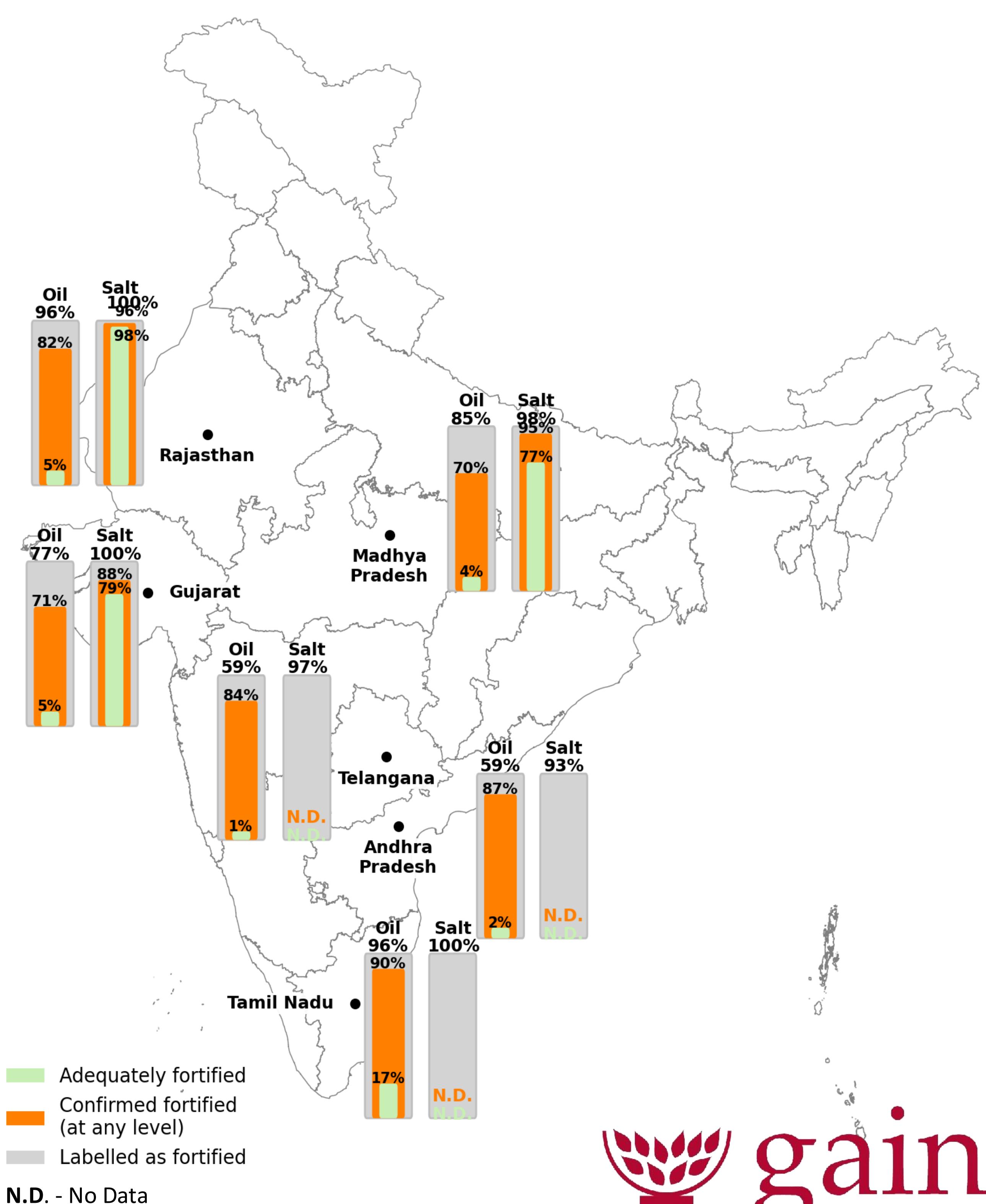
CONCLUSION

Mandatory iodized salt availability is consistently high across states and over time. Fortified edible oil is also widely available and increasing over time, despite fortification being voluntary. Adequate fortification levels still need to be ensured through continuous monitoring and follow-up with producers, particularly for oil. Using a consistent assessment method allows reliable tracking of fortification performance across time and geographies, supporting data-driven programming decisions. It offers food fortification stakeholders including government regulators and public health agencies, academic institutions, or market research agencies a robust monitoring tool that can be applied across food vehicles and food characteristics.

FIGURES



Retail penetration of oil and salt across the states by fortification status



Acknowledgement: This analysis was made possible through the financial support of the Gates Foundation