

SALT CONSUMPTION STORY IN 40+ ADULTS: RESULTS FROM A WHOLE-OF-GOVERNMENT AND WHOLE-OF-SOCIETY APPROACH BASED COMMUNITY INTERVENTION

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BACKGROUND AND AIM

- Hypertension and cardiovascular disease (CVD) are major global causes of illness and death .
- Each 1 g increase in daily sodium intake raises CVD risk by about 6%.¹ In Bangladesh, average salt consumption (9.7 g/day) far exceeds WHO recommendations.²
- We aimed to evaluate the effect of a whole-of-government and whole-of-society (WG-WS) approach-based intervention model in changing salt consumption practices among adults aged ≥40 years.

METHODS

Study design: Quasi experimental study

Study site: Birganj, Dinajpur

Target population: Adult aged 40 years and above

Sampling method: Multi-stage cluster sampling

Outcome variable: salt intake practice score, knowledge related to salt intake and health hazards

Data collection tools: Structured questionnaire containing questions related to demographic information, behavioural and clinical risk factors, health seeking behaviour, Knowledge related to risk factors of NCD

Analysis: Descriptive, paired t-test

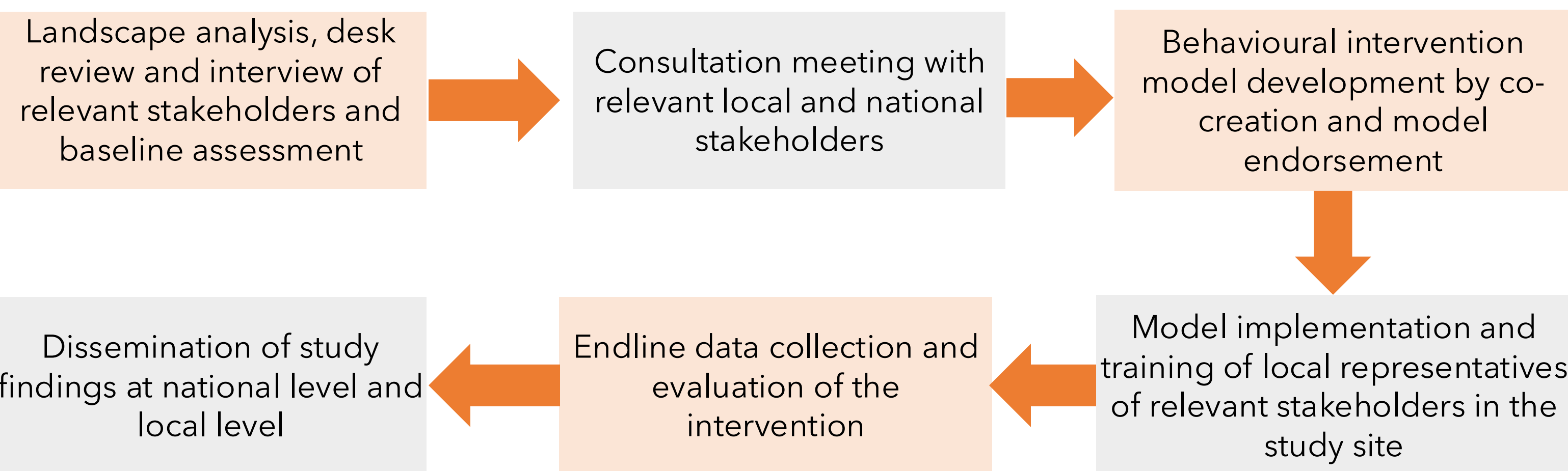


Figure-1: Co-creation and implementation process of behavioral intervention model using a WG-WS approach.

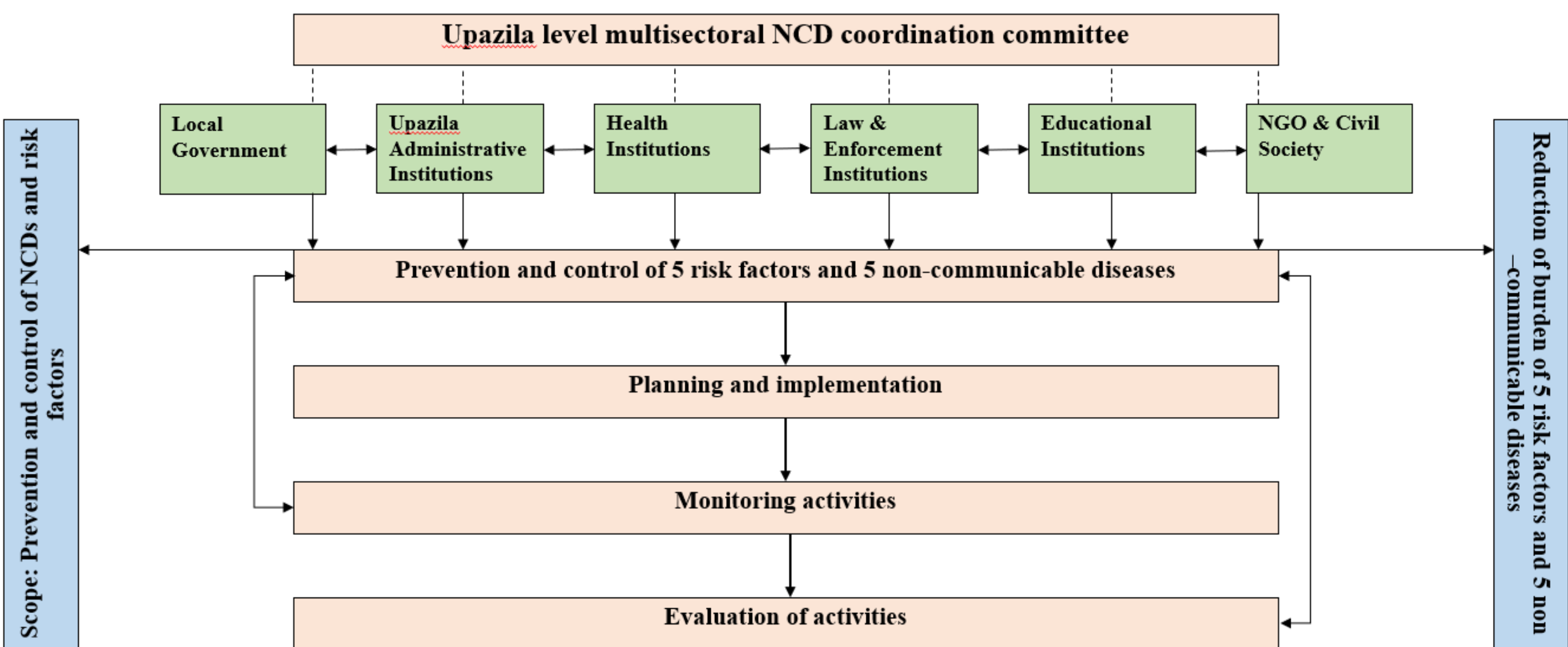


Figure-2: Model development framework





Figure-3: Community awareness raising campaign by relevant stakeholders

CONCLUSION

- Knowledge of recommended salt intake improved among adults aged ≥40 years, but behavior did not change accordingly.
- Good salt practice scores declined in both men and women despite the WG-WS intervention.
- Decreases in adding extra salt were offset by increased intake of salty processed foods.
- The intervention did not effectively modify salt consumption habits.
- Sustainable impact will require stronger policy actions, food reformulation, front-of-pack labeling, and culturally tailored approaches.

Acknowledgement: Representatives from Directorate of Health services, Bangladesh; Local administration; all stakeholders; BRAC JPG SPH implementation team and study participants

RESULTS

	 Men n= 1336	 Women n=1364		
	Baseline (2023)	Endline (2024)	Baseline (2023)	Endline (2024)
Mean age (SD)*	56.3 (10.6)	57.8 (10.6)	53.5 (9.8)	55.0 (9.8)
No education	374 (56.8)	233 (58.2)	814 (59.7)	794 (58.2)
Employed	1,053 (78.8)	1,014 (75.9)	119 (8.7)	171 (12.5)
Mean practice score (SD)*	14.2 (2.5)	13.2 (2.2)	14.2 (2.5)	13.1 (2.2)

* p-value:<0.01

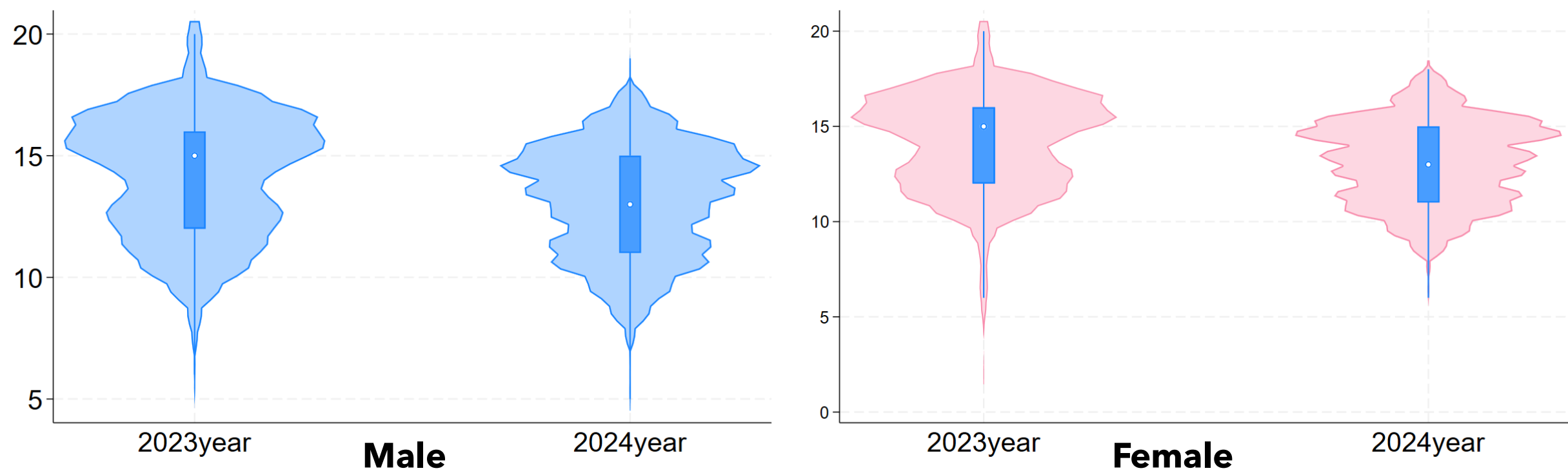


Figure-4: Change in salt intake practice score distribution from baseline to endline, by sex

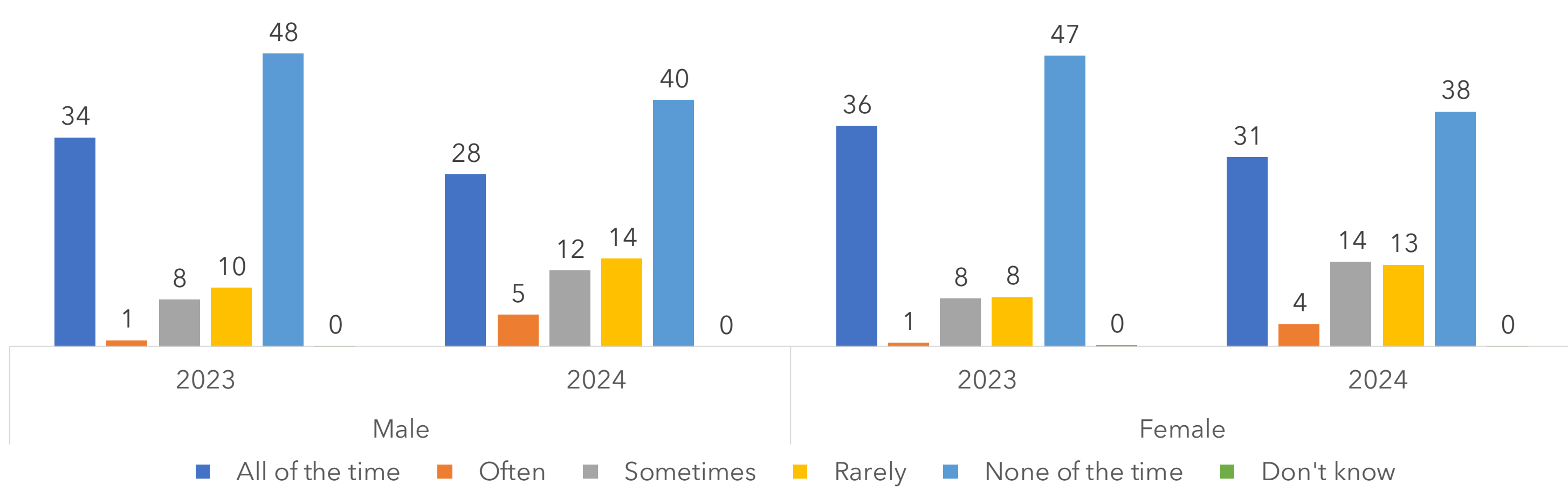


Figure-5: Change in the proportion of participants using salt or extra salt during meals from baseline to endline, by sex

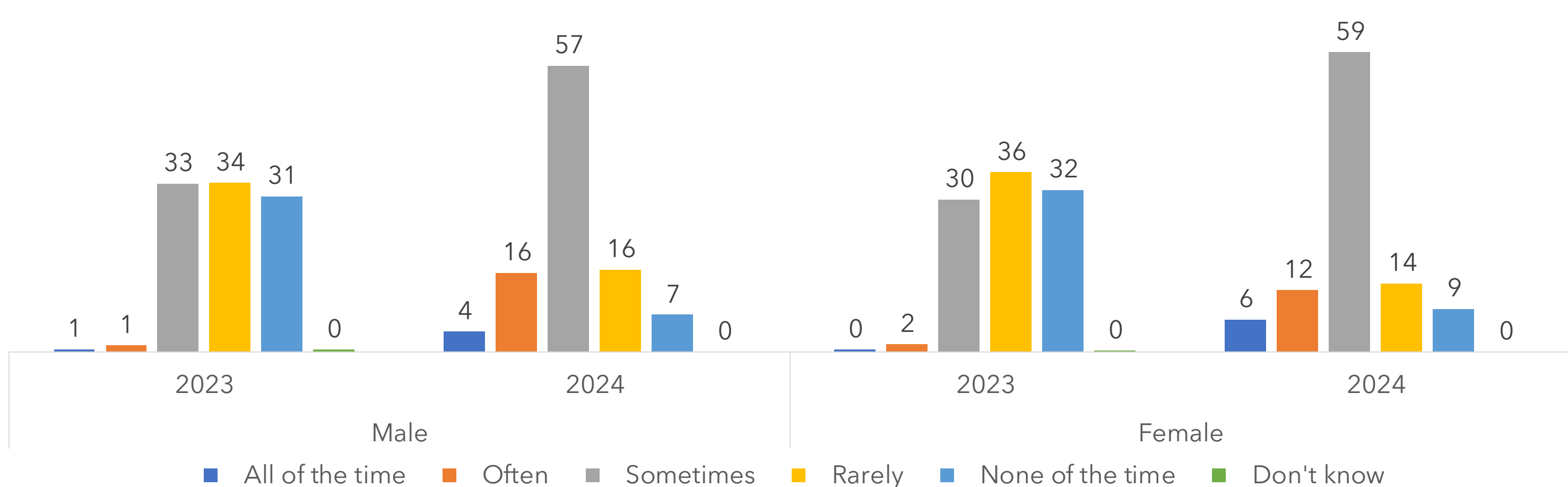


Figure-5: Change in the proportion of participants consuming extra salt through processed foods from baseline to endline, by sex

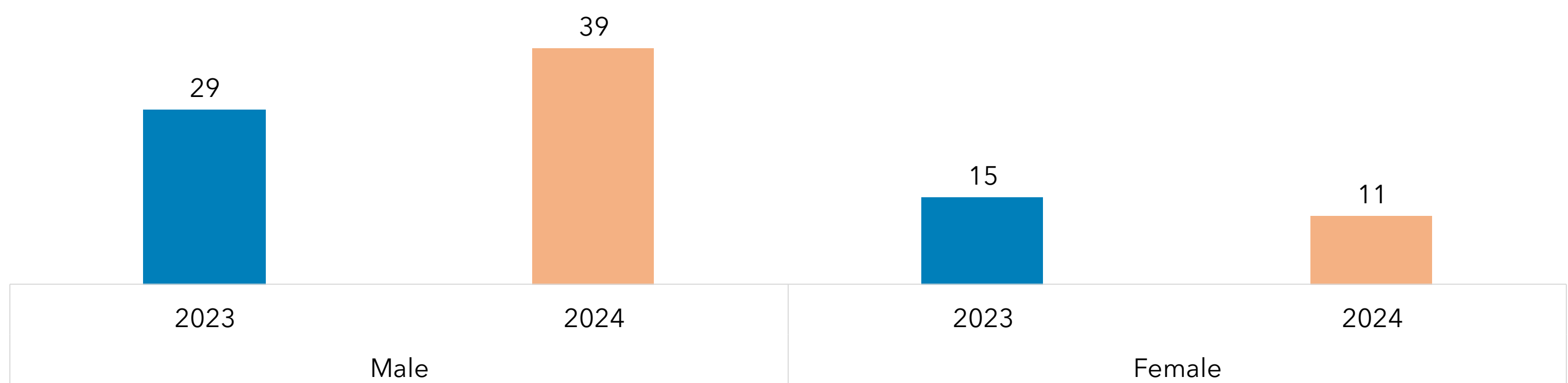


Figure-5: Change in knowledge about the harmful effects of excessive salt consumption from baseline to endline, by sex

Reference

- Wang, Y.-J., Yeh, T.-L., Shih, M.-C., Tu, Y.-K., & Chien, K.-L. (2020). Dietary Sodium Intake and Risk of Cardiovascular Disease: A Systematic Review and Dose-Response Meta-Analysis. *Nutrients*, 12(10), 2934. <https://doi.org/10.3390/nu12102934>
- Akhtar, J., Al-Mamun, M.A., Sayem, M.N.-N., Ahmed, M.J., Bhuiyan, M.R., Jubayer, S., Amin, M.R., Karim, M.R., Henry, M.E., Marklund, M., Cobb, L., Neupane, D., Appel, L.J. and Choudhury, S.R. (2025) 'Urinary Sodium and Potassium Excretion in Bangladeshi Adults: Results from a Population-Based Survey with 24-Hour Urine Collections', <i>Global Heart</i>, 20(1), p. 62. Available at: <https://doi.org/10.5334/gh.1447>.

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