

# Effects of women’s empowerment, WaSH and food consumption on stunting of under-five children in South Asia- a DHS analysis



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## BACKGROUND

- Stunting among under-5 children is still prevalent in South Asia
- Evidence shows that Women’s empowerment reduces stunting and strengthens key determinants, including household WaSH and child feeding.
- We examined how different domains of women’s empowerment, along with WaSH and age-appropriate food consumption, are associated with childhood stunting.

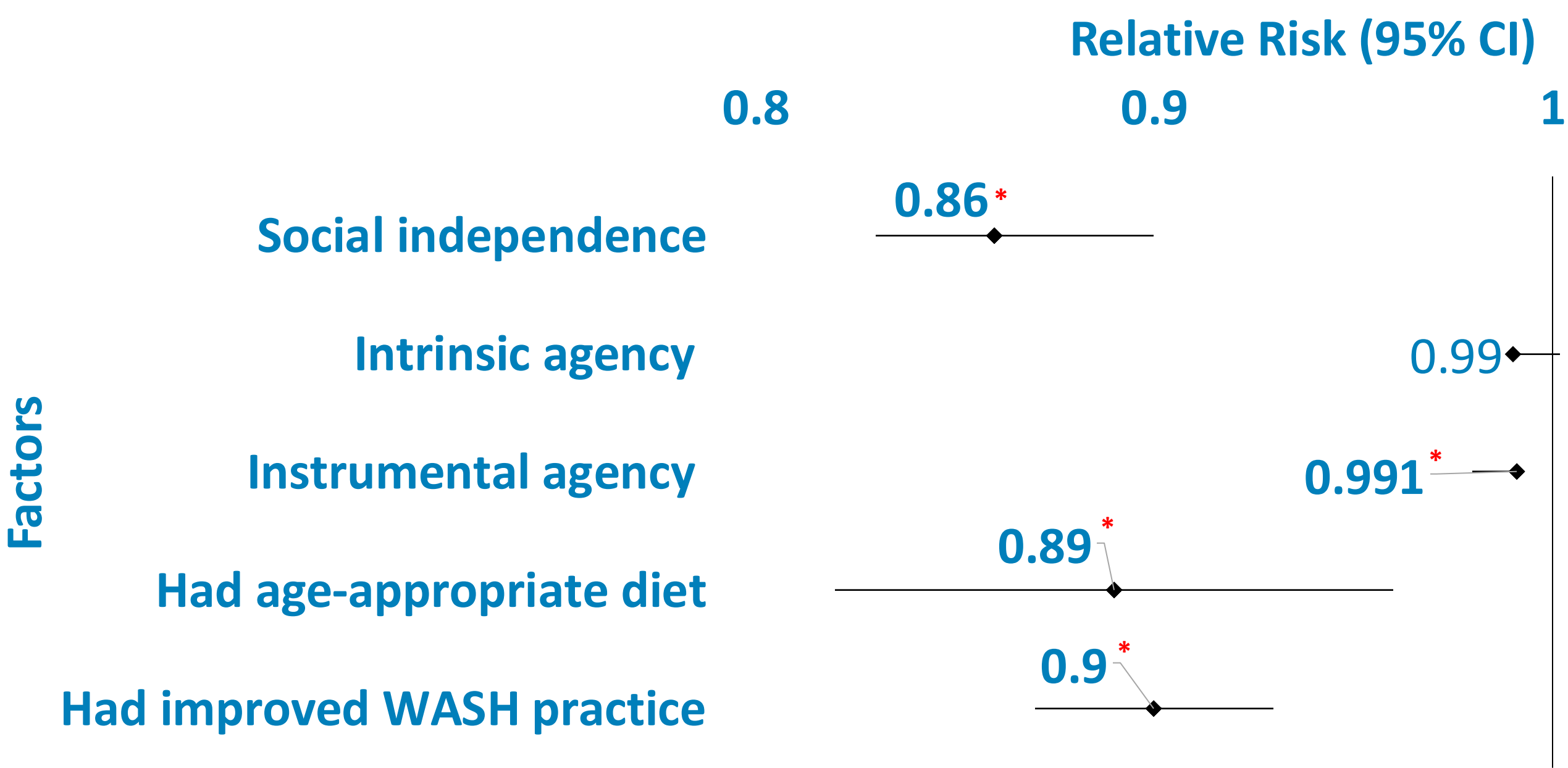
## METHODS

- Pooled recent DHS data from Bangladesh, India, Nepal, and Pakistan, including 37,620 married women with a u-5 child was analyzed.
- Three domains of women’s empowerment- social independence, intrinsic agency, and instrumental agency, were measured by using survey-based women’s empowerment index.
- Generalized linear mixed-effects models were applied to estimate relative risk (RR) of stunting with 95% confidence interval (CI).

## RESULTS

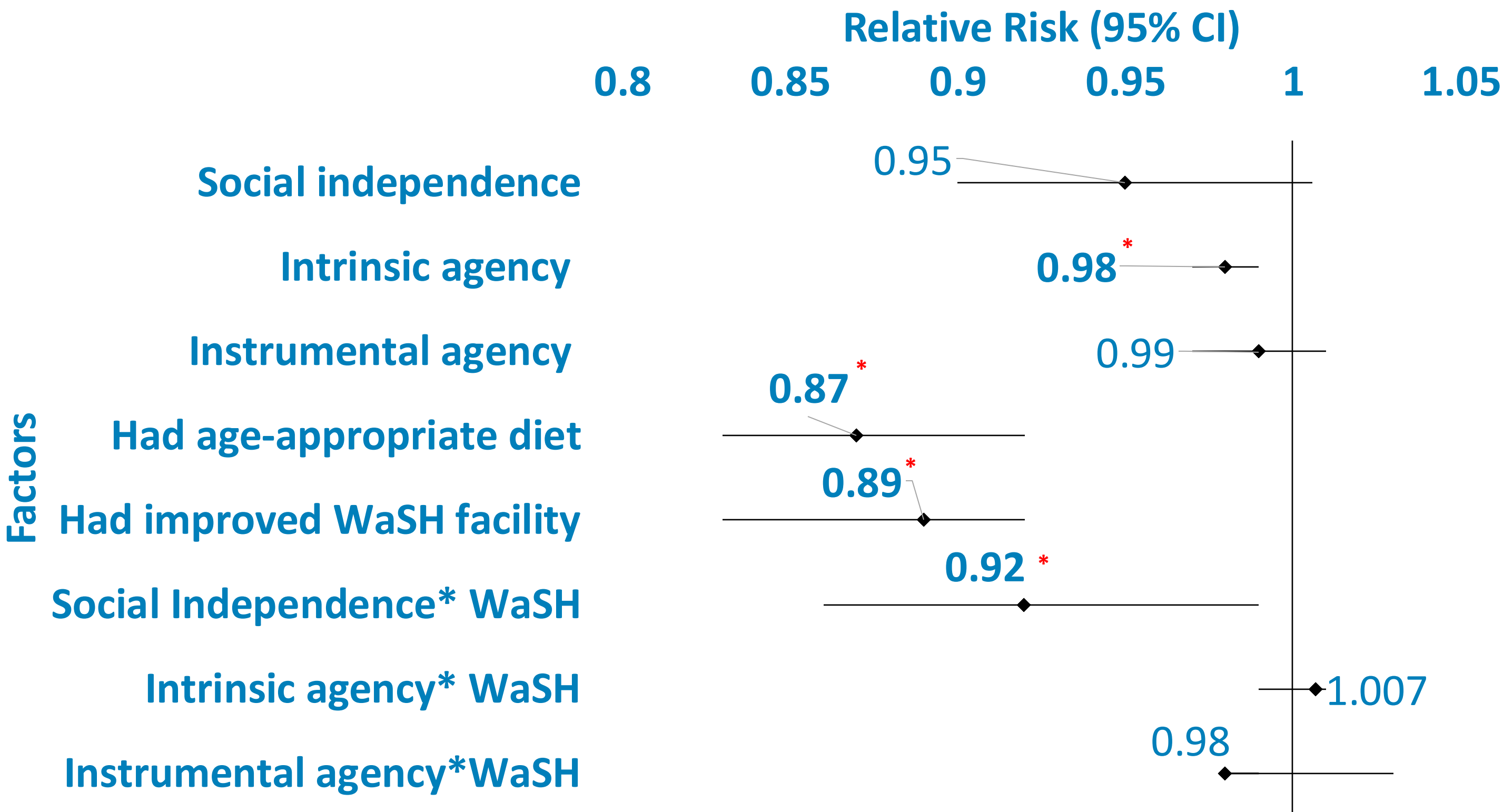
- Women’s empowerment independently reduced the risk of childhood stunting (Fig 1,2,3).
- Interaction between women’s social independence and household WaSH further decreased this risk (Fig 2).
- Conversely, interactions of social independence and instrumental agency with age-appropriate food intake were associated with increased stunting risk (Fig3).

FIGURE 1 : Association between women’s empowerment and stunting



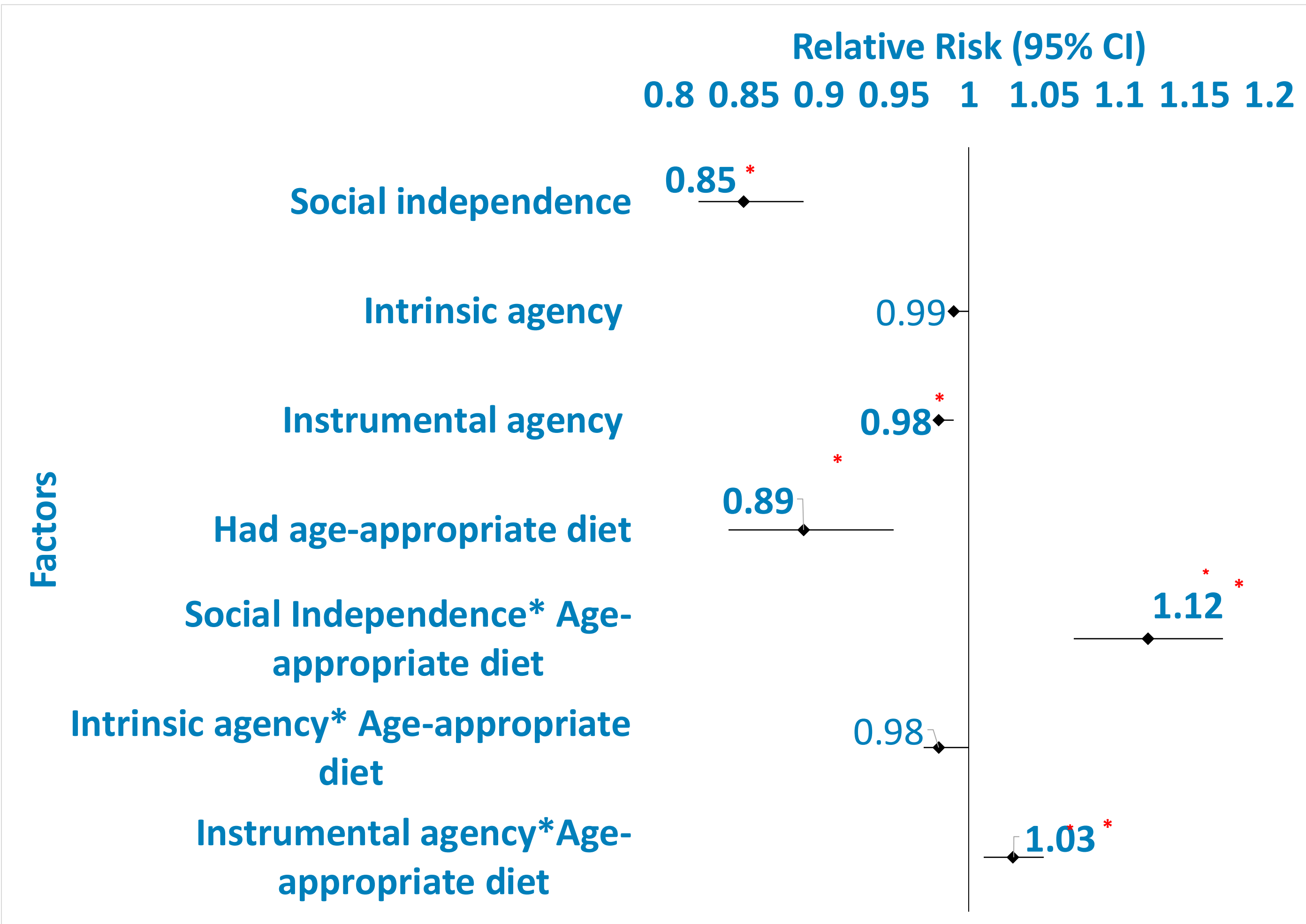
Model 1: HAZ= Social independence+ Intrinsic agency+ Instrumental agency+ Food intake+ WaSH+ Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

FIGURE 2: Association with interaction of women’s empowerment & WaSH and stunting



Model 2: HAZ= social independence+ intrinsic agency+ instrumental agency+ food intake+ WaSH+ social independence\* WaSH+ intrinsic Agency\* WaSH+ Instrumental Agency\*WaSH+ Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

FIGURE 3: Association with interaction of women’s empowerment & age-appropriate food intake and stunting



Model 3: HAZ= social independence+ intrinsic agency+ instrumental agency+ food intake+ social independence\* food intake+ intrinsic Agency\* food intake+ Instrumental Agency\*food intake+ WaSH+ + Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

## CONCLUSION

- Interactions between women’s empowerment and WaSH and food consumption reveal complex effects including both synergy and trade-offs.
- This study is highlighting the need for integrated strategies combining women’s empowerment, WaSH improvements, and targeted nutrition specific interventions.

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