Trends and Inequities in Animal-Source Protein Consumption Among Children in Nepal

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BACKGROUND

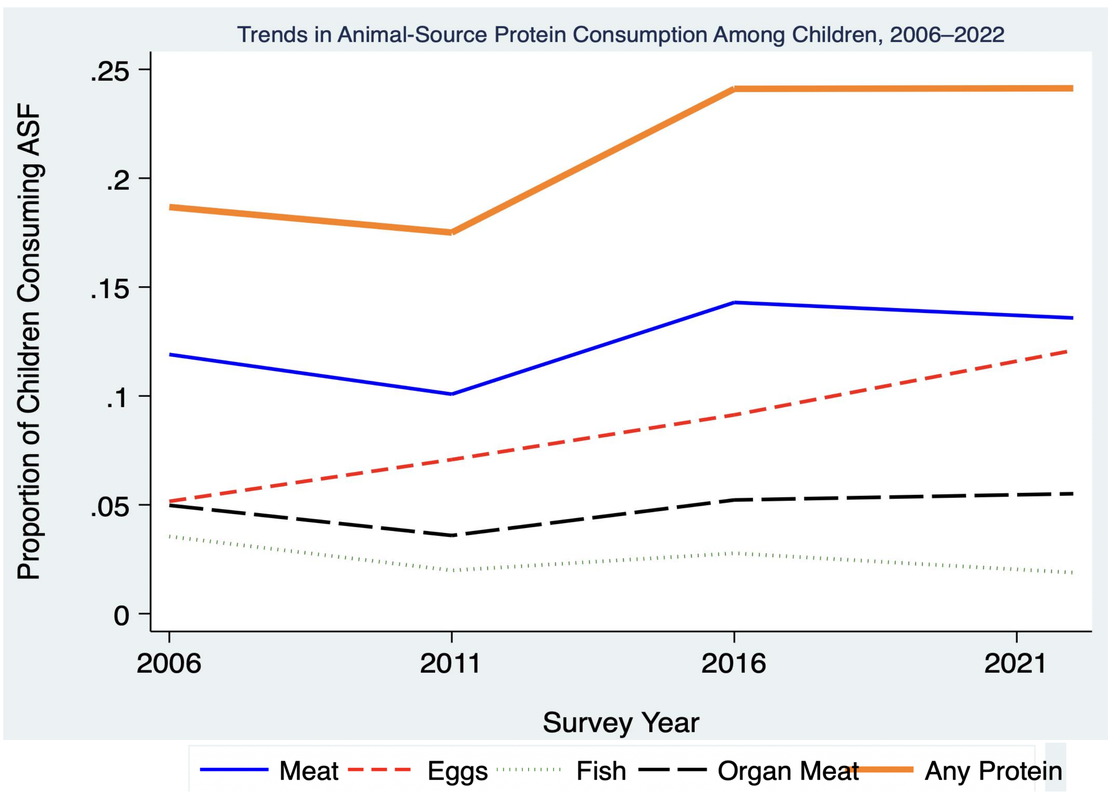
- Animal-source foods provide essential protein and nutrients critical for children's growth and development.
- In Nepal and similar low- and middle-income countries, children's intake of animal-source protein remains low and unevenly distributed.
- Socioeconomic disparities in consumption contribute to persistent malnutrition and stunting among children.
- Objective: Examine trends, inequities, and key determinants of protein intake among children in Nepal.

METHODS

- Data source: Nepal Demographic and Health Surveys of 2006, 2011, 2016 and 2022.
- Sample: N= 21,499 children ages 6-59 months.
- Key Outcome: 'whether the child was given a protein-source item in the past 24 hours' (binary).
- Analysis: Multivariable linear regression with wealth index, material education, residence, age, sex, religion, region and ethnicity as covariates.

RESULTS

- Proportion of children who had protein intake rose from 11% in 2006 to 19% in 2022.
- Wealth was a strong predictor in 2006 (β = 0.109, p < 0.001), but not in 2022 (β = 0.031, p = 0.445).
- Maternal education and urban residence became stronger predictors of protein intake (b=0.17, p<0.001 & b=-0.9, p=0.004, respectively).
- Ethnic differences persisted, with advantaged caste groups more likely to consume protein.



Determinant	2006	2011	2016	2022
Wealth (poorest vs richest)	●●●	—	—	—
Maternal education (none vs secondary)	—	—	●●●	●●●
Residence (urban vs rural)	●	—	●●	●●●
Ethnicity (Brahmin/Chhetri vs Madhesi)	●●	●●●	●●●	●

●●● = p < 0.01, ●● = 0.01 ≤ p < 0.05, ● = 0.05 ≤ p < 0.10, – = p ≥ 0.10

CONCLUSION

- Overall protein consumption among Nepali children has improved, but social and geographic disparities persist.
- Economic inequality is less influential, while maternal education, residence, and ethnicity are now key drivers of dietary inequities.
- Addressing these persistent barriers is critical to ensure equitable nutrition gains for children.

AI-generated image

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