

About District Nutrition Profiles:

District Nutrition Profiles (DNPs) are available for 707 districts in India. They present trends for key nutrition and health outcomes and their cross-sectoral determinants in a district. The DNPs are based on data from the National Family Health Survey NFHS-4 (2015-2016) and NFHS-5 (2019-2021). They are aimed primarily at district administrators, state functionaries, local leaders, and development actors working at the district-level.

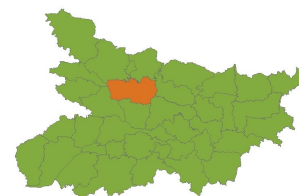


Figure 1: Map highlights district Muzaffarpur in the state/UT of Bihar



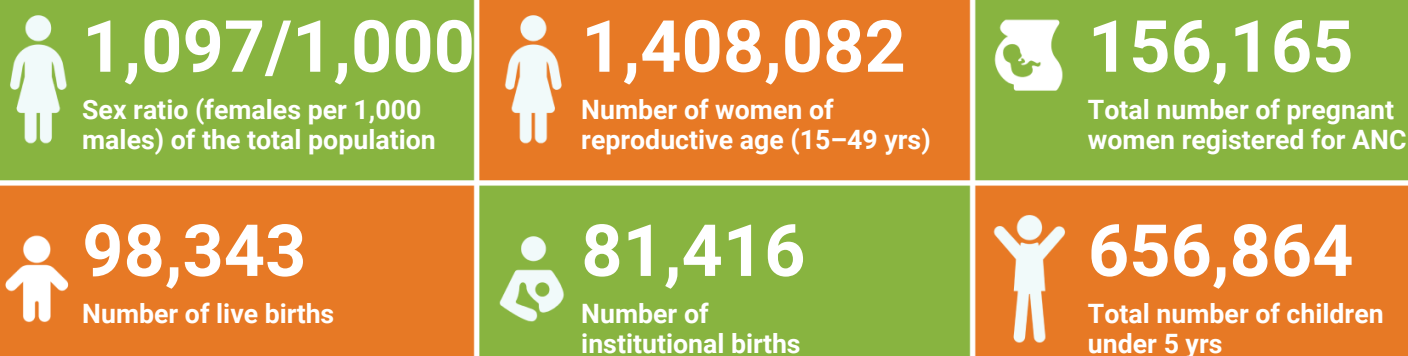
Source: Adapted from Black et al. (2008)

What factors lead to child undernutrition?

Given the focus of India's national nutrition mission on child undernutrition, the DNPs focus on the determinants of child undernutrition (Figure on the left). Multiple determinants of suboptimal child nutrition and development contribute to the outcomes seen at the district-level. Different types of interventions can influence these determinants. Immediate determinants include inadequacies in food, health, and care for infants and young children, especially in the first two years of life. Nutrition-specific interventions such as health service delivery at the right time during pregnancy and early childhood can affect immediate determinants. Underlying and basic determinants include women's status, household food security, hygiene, and socio-economic conditions. Nutrition-sensitive interventions such as social safety nets, sanitation programs, women's empowerment, and agriculture programs can affect underlying and basic determinants.

District demographic profile, 2019

Muzaffarpur



Source:

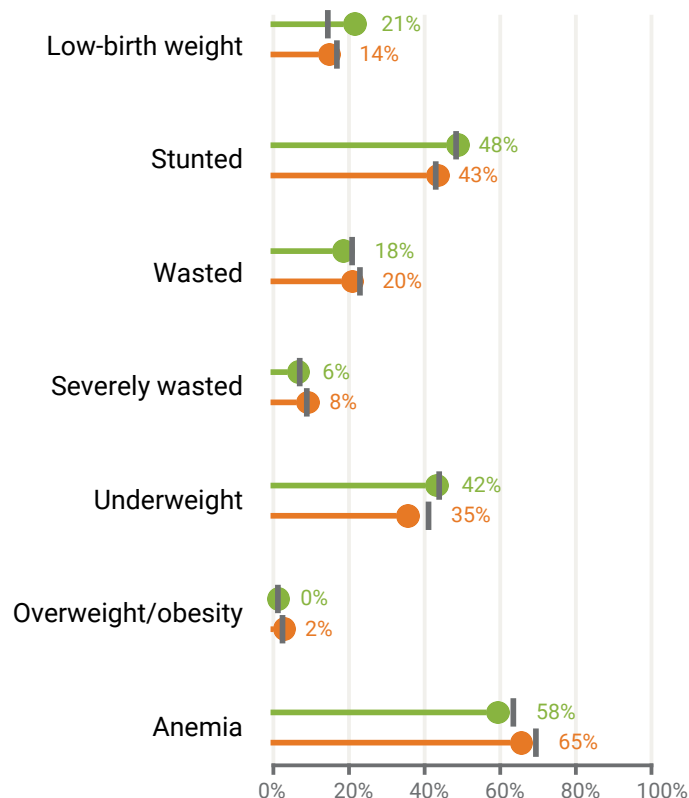
IFPRI estimates - Headcount = Prevalence x Eligible projected population for each district in 2019. Prevalence estimates: NFHS-4 (2015-16) & NFHS-5 (2019-21) state/district factsheets, national/state reports and IFPRI estimates using unit-level data. Projected population for 2019 (children <5 yrs and women 15-49 yrs) was estimated using Census 2011 Data on number of pregnant women, live births, and institutional deliveries are from HMIS. NA: unavailable/improbable data

Citation: Singh, N., P.H. Nguyen, A. Pant, A. Christopher, M. Jangid, S.K. Singh, R. Sarwal, N. Bhatia, R. Johnston, W. Joe, and P. Menon. 2022. District Nutrition Profile: Muzaffarpur, Bihar. New Delhi, India: International Food Policy Research Institute.

Acknowledgement: Financial support was provided by the Bill & Melinda Gates Foundation through POSHAN, led by the International Food Policy Research Institute. We thank Amit Jena (Independent Researcher) for design and programming support and IFPRI research analysts for cross checks.

The state of nutrition outcomes among children (<5 years)

Muzaffarpur



Bihar

2016

2020

Burden of nutrition outcomes (2020)

Indicators	No. of children (<5 yrs)
Low-birth weight	91,005
Stunted	279,824
Wasted	130,716
Severely wasted	53,206
Underweight	227,932
Overweight/obesity	12,546
Anemia	381,181
Total children	656,864

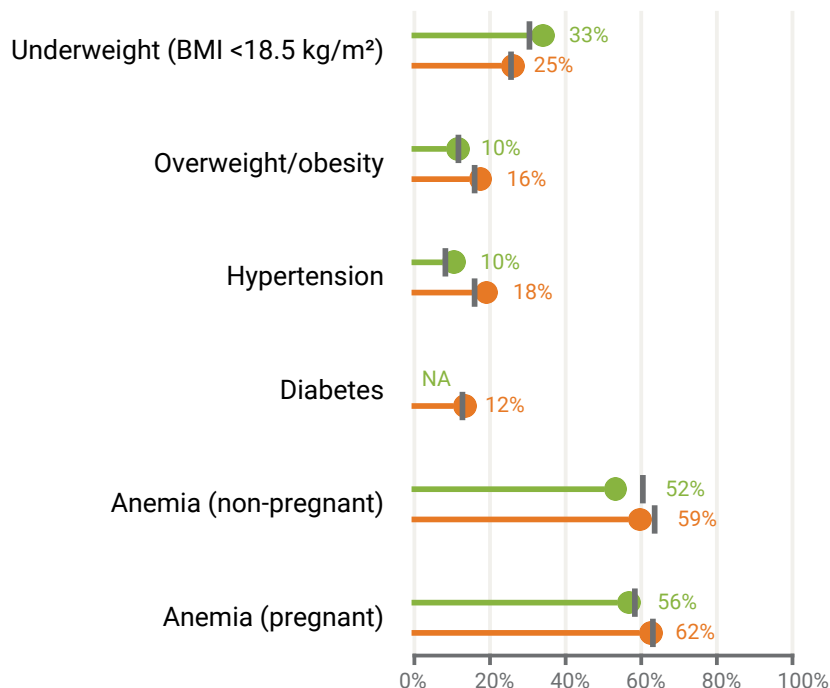
Note: NA refers to data unavailable for a given round of NFHS/Census.

Points of discussion:

- What are the trends in undernutrition among children under five years of age (stunting, wasting, underweight, and anemia)?
- What are the trends in overweight/obesity among children under five years of age in the district?

The state of nutrition outcomes among women (15-49 years)

Muzaffarpur



Bihar

2016

2020

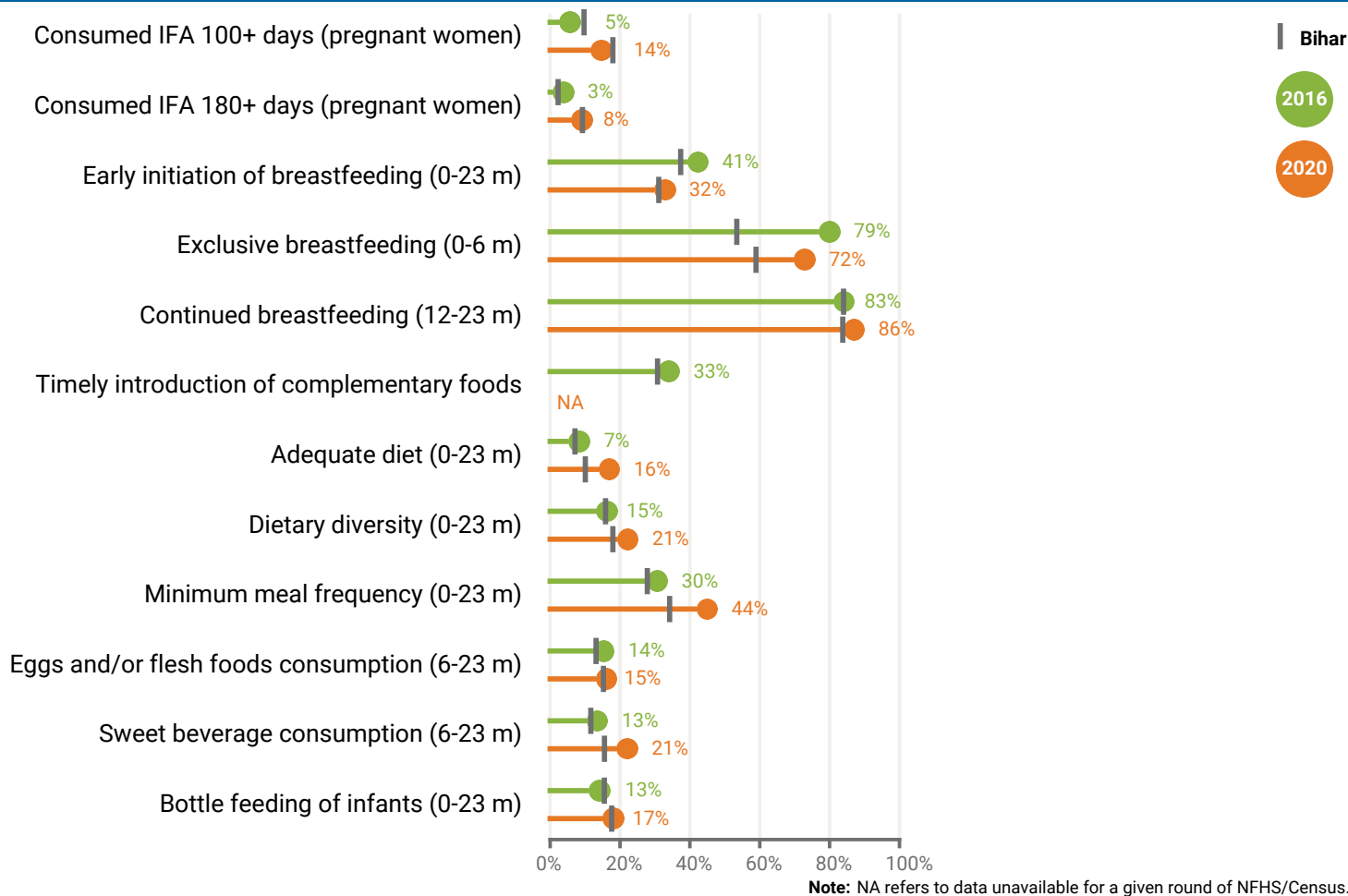
Burden of nutrition outcomes (2020)

Indicators	No. of women (15-49 yrs)
Underweight	354,837
Overweight/obesity	231,770
Hypertension	254,722
Diabetes	174,743
Anemia (non-preg)	826,544
Anemia (preg)	96,354
Total women (preg)	156,165
Total women	1,408,082

Note: NA refers to data unavailable for a given round of NFHS/Census.

Points of discussion:

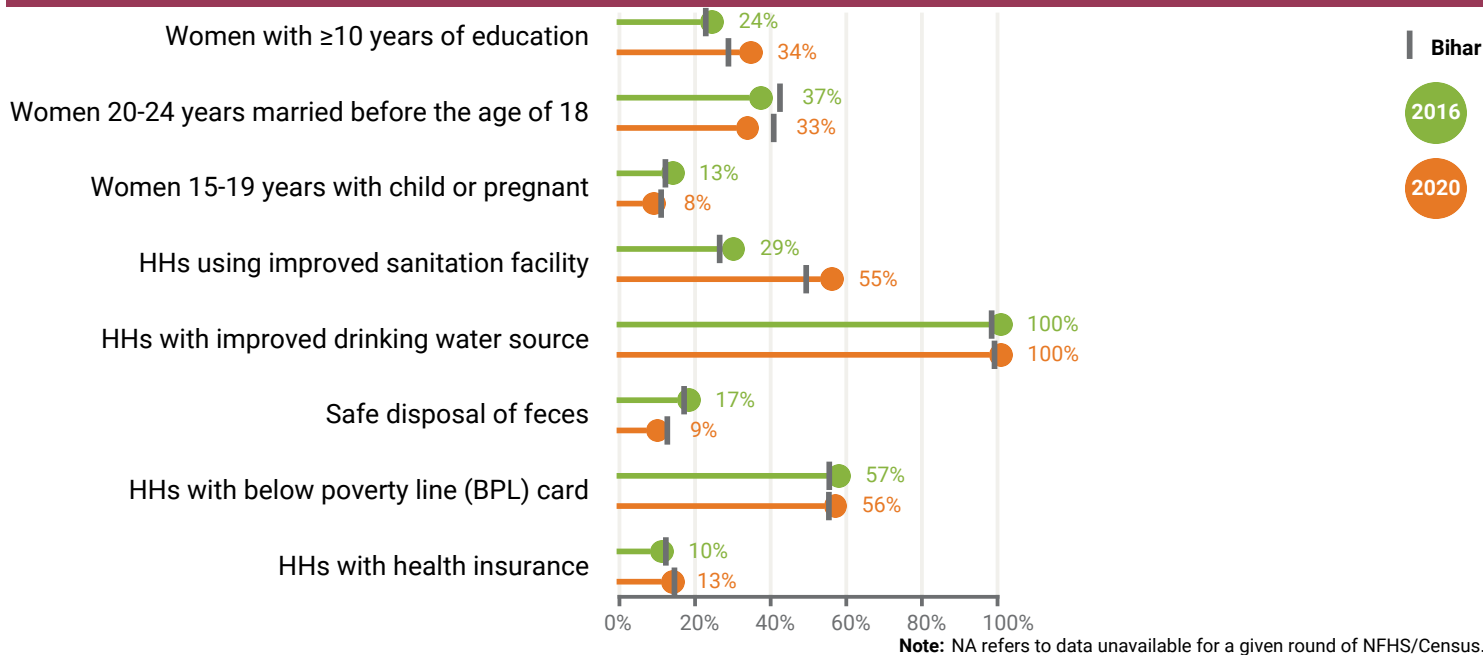
- What are the trends in underweight and anemia among women (15-49 yrs) in the district?
- What are the trends in overweight/obesity and other nutrition-related non-communicable diseases in the district?



Points of discussion:

- What are the trends in infant and young child feeding (early initiation of breastfeeding, exclusive breastfeeding, timely initiation of complementary feeding, and adequate diet)? What can be done to improve infant and young child feeding?
- What are the trends in IFA consumption among pregnant women in the district? How can the consumption be improved?
- What additional data are needed to understand diets and/or other determinants?

Underlying determinants



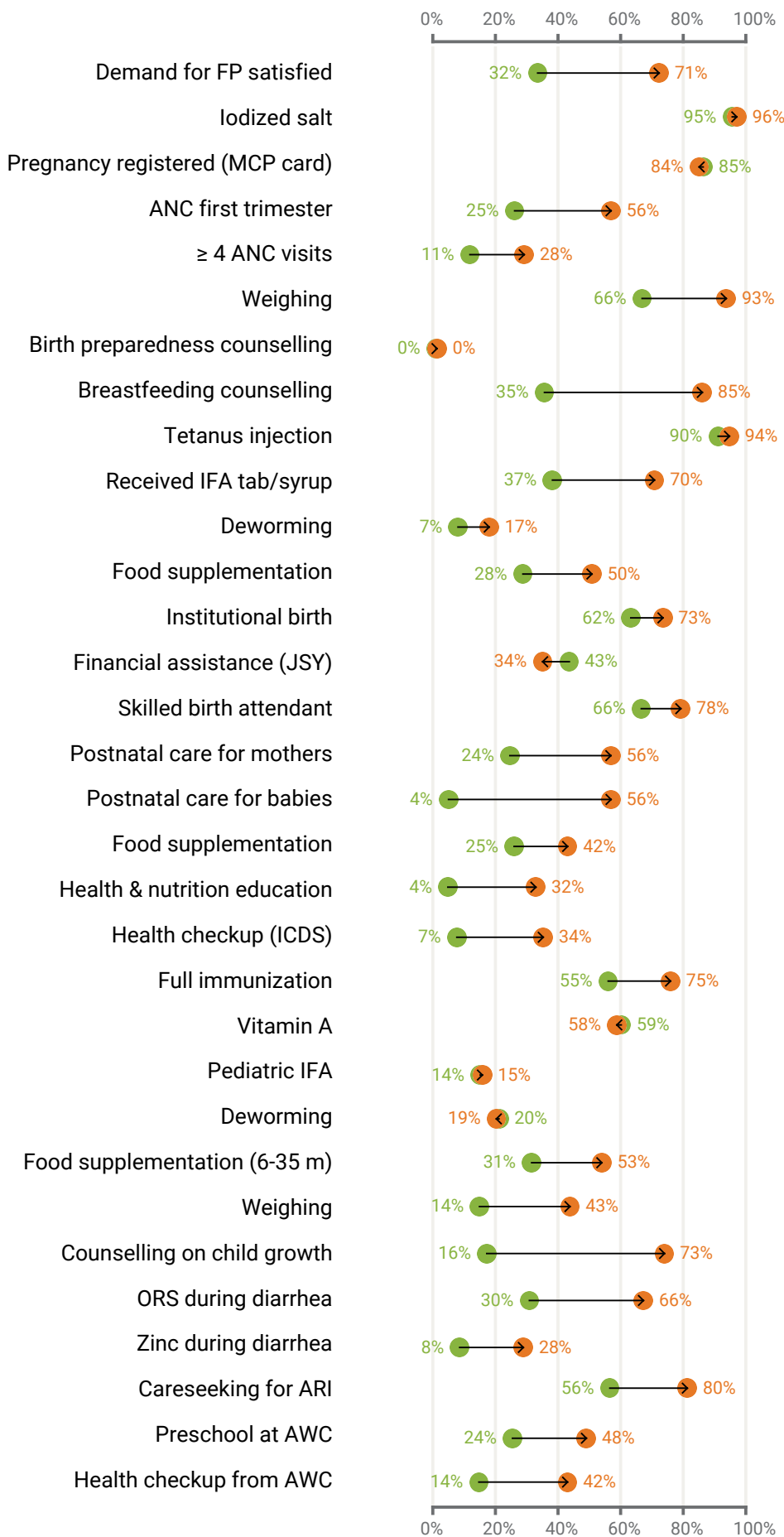
Points of discussion:

- How can the district increase women's literacy, and reduce early marriage, if needed?
- How does the district perform on providing drinking water and sanitation to its residents? Since sanitation and hygiene play an important role in improving nutrition outcomes, how can all aspects of sanitation be improved?
- How can programs that address underlying and basic determinants (education, poverty, gender) be strengthened?
- What additional data are needed on food systems, poverty or other underlying determinants?

Pre and during pregnancy

Delivery and postnatal

Early childhood



2016
2020

Note: NA refers to data unavailable for a given round of NFHS/Census.

Points of discussion:

- How does the district perform on health and nutrition interventions along the continuum of care? Does it adequately provide both prenatal and postnatal services to women of reproductive age, pregnant women, new mothers and newborns?
- How has access to health and ICDS services changed over time (food supplementation, health and nutrition education and health checkups)?