

## 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.

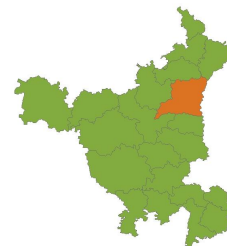


Figure 1: Map highlights district Karnal in the state/UT of Haryana



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

Karnal

**970/1,000**  
Sex ratio (females per 1,000 males) of the total population

**513,857**  
Number of women of reproductive age (15–49 yrs)

**31,243**  
Total number of pregnant women registered for ANC

**27,608**  
Number of live births

**27,433**  
Number of institutional births

**151,127**  
Total number of children under 5 yrs

**Source:**

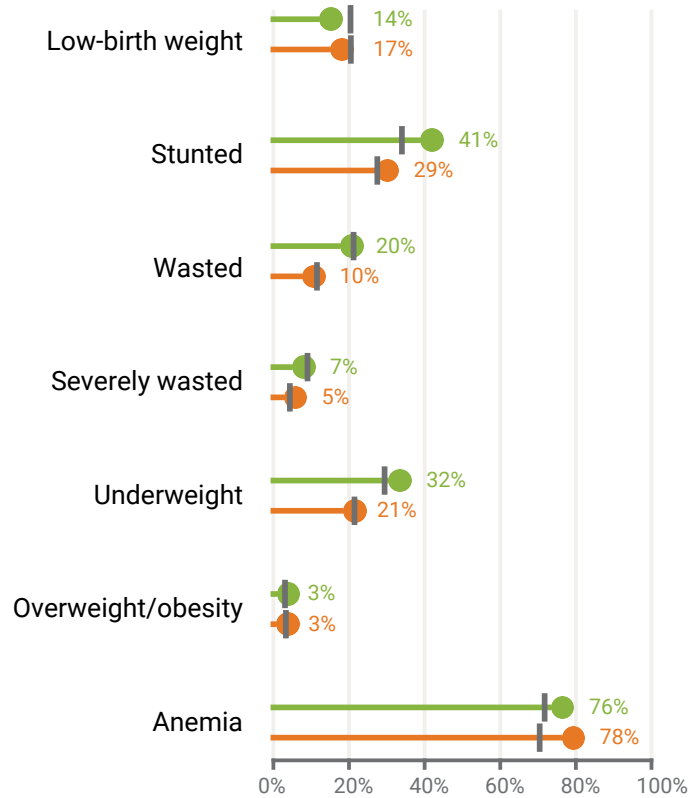
IFPRI estimates - Headcount = Prevalence x Eligible projected population for each district in 2019. Prevalence estimates: NFHS-4 (2015-16) & NFHS-5 (2019-21) state/district factsheets, national/state reports and IFPRI estimates using unit-level data. Projected population for 2019 (children <5 yrs and 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: Karnal, Haryana. New Delhi, India: International Food Policy Research Institute.

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

Karnal



Haryana

2016

2020

Burden of nutrition outcomes (2020)

Indicators	No. of children (<5 yrs)
Low-birth weight	25,947
Stunted	44,069
Wasted	14,780
Severely wasted	7,315
Underweight	31,026
Overweight/obesity	4,428
Anemia	106,339
<b>Total children</b>	<b>151,127</b>

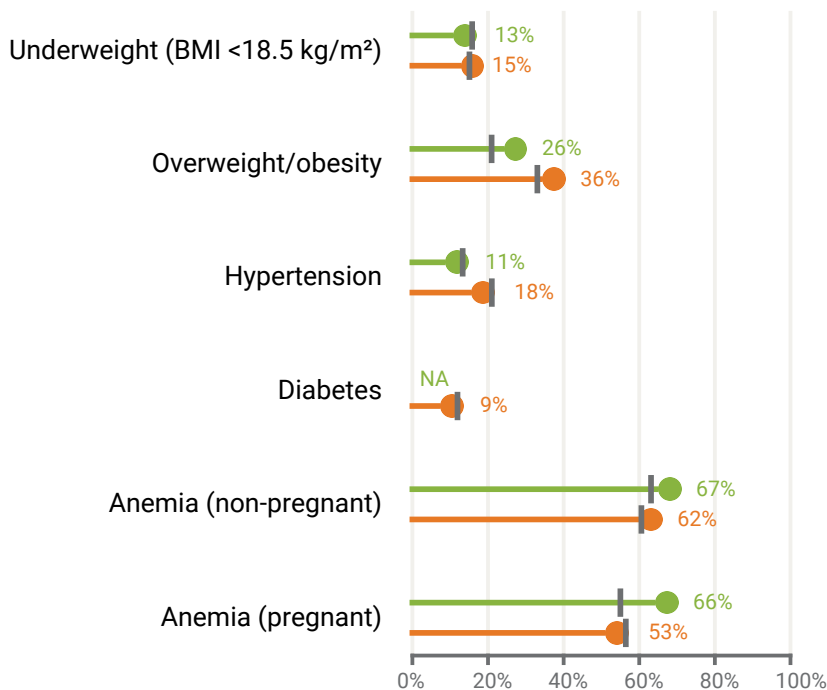
Note: NA refers to data unavailable for a given round of NFHS/Census.

### 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)

Karnal



Haryana

2016

2020

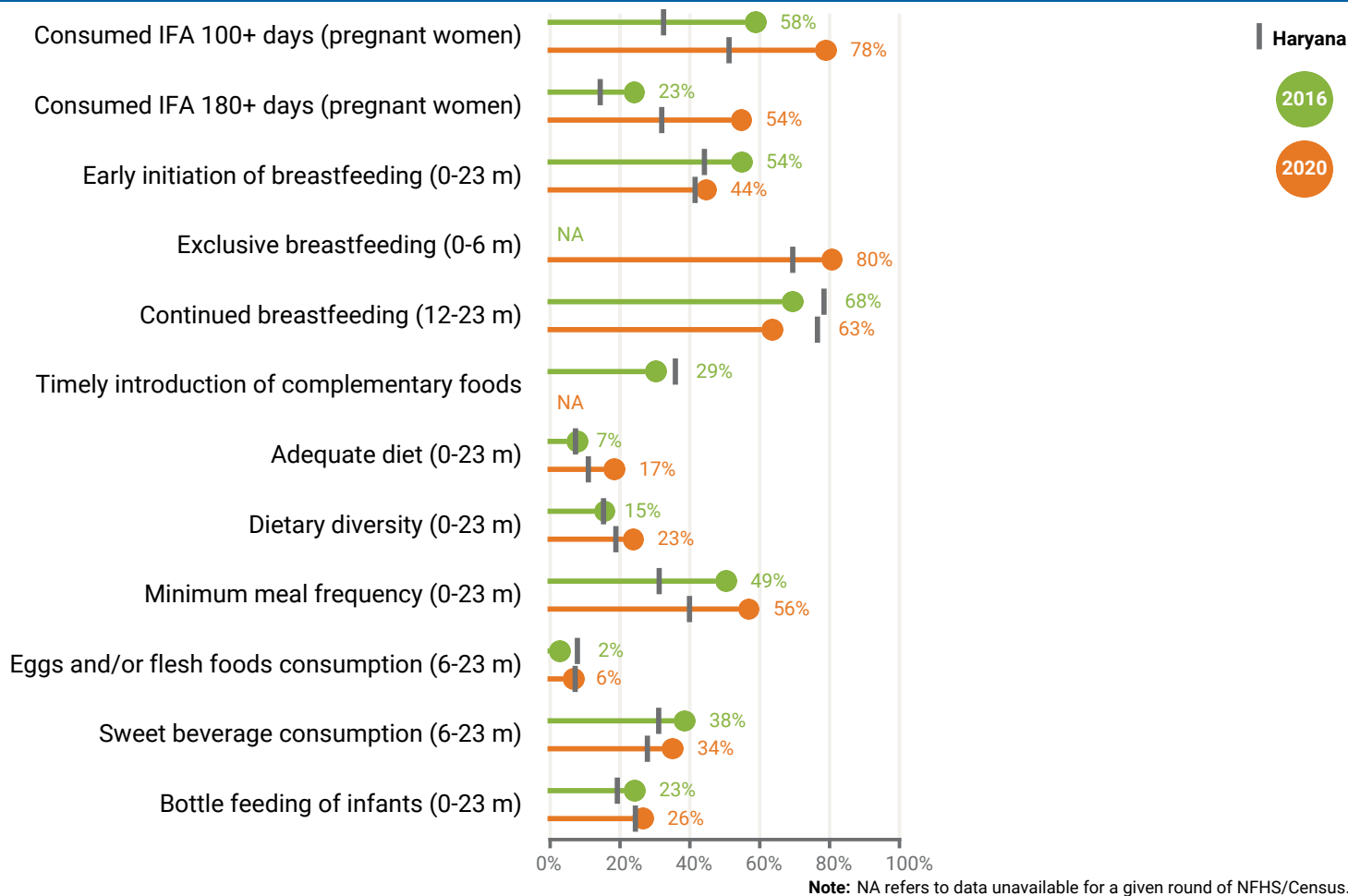
Burden of nutrition outcomes (2020)

Indicators	No. of women (15-49 yrs)
Underweight	76,462
Overweight/obesity	187,506
Hypertension	90,644
Diabetes	48,457
Anemia (non-preg)	319,156
Anemia (preg)	16,621
<b>Total women (preg)</b>	<b>31,243</b>
<b>Total women</b>	<b>513,857</b>

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

### Points of discussion:

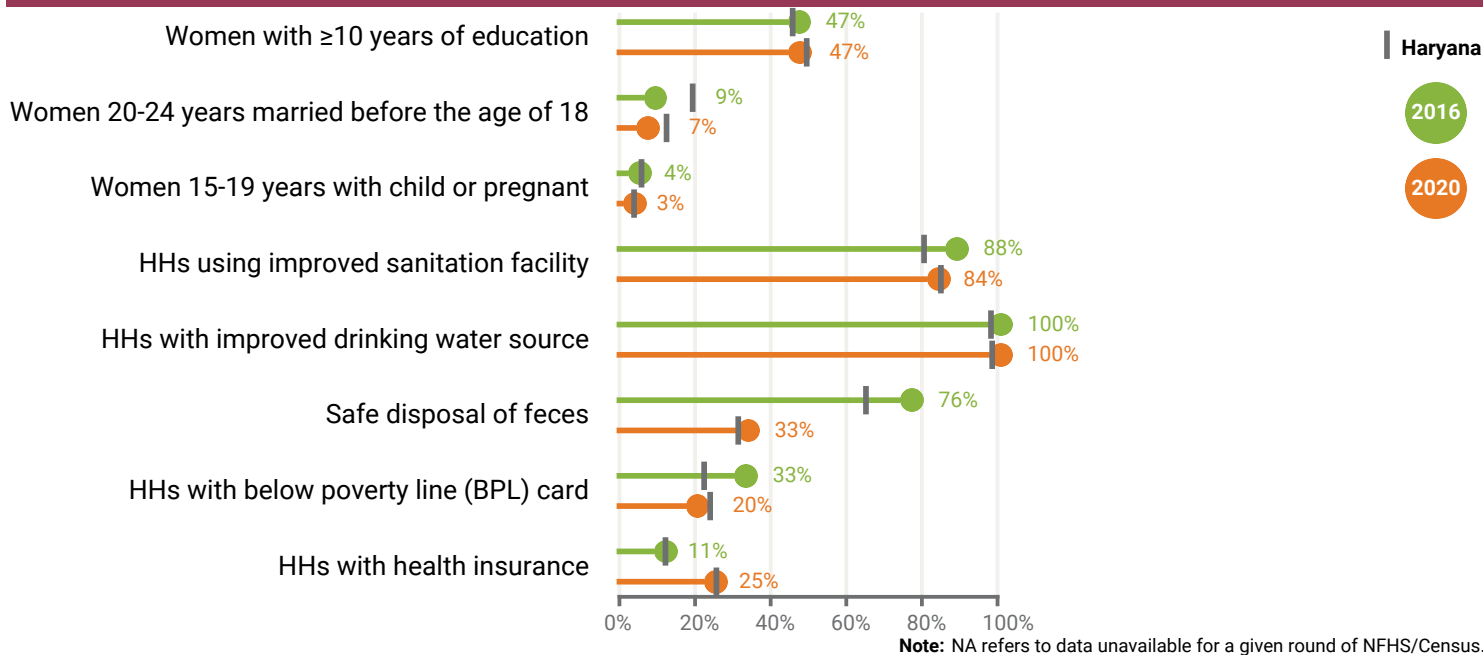
- What are the trends in underweight and anemia among women (15-49 yrs) in the district?
- What are the trends in overweight/obesity and other nutrition-related non-communicable diseases in the district?



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



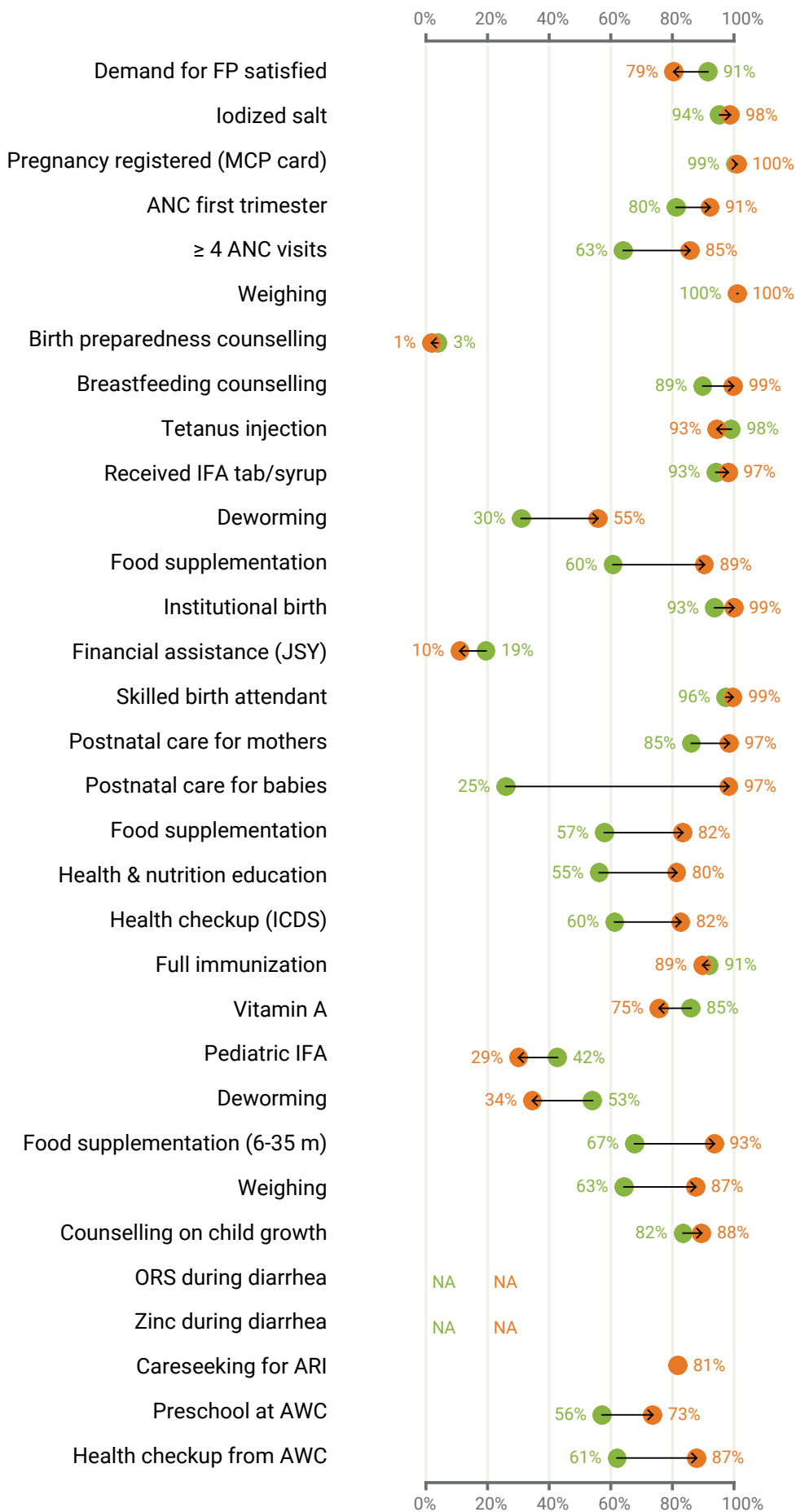
Points of discussion:

- 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



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)?