

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.

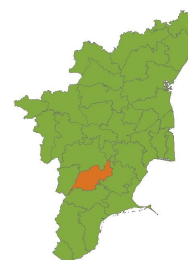


Figure 1: Map highlights district Madurai in the state/UT of Tamil Nadu



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

Madurai

1,079/1,000 Sex ratio (females per 1,000 males) of the total population	891,660 Number of women of reproductive age (15–49 yrs)	49,755 Total number of pregnant women registered for ANC
47,401 Number of live births	NA Number of institutional births	224,815 Total number of children under 5 yrs

Source:

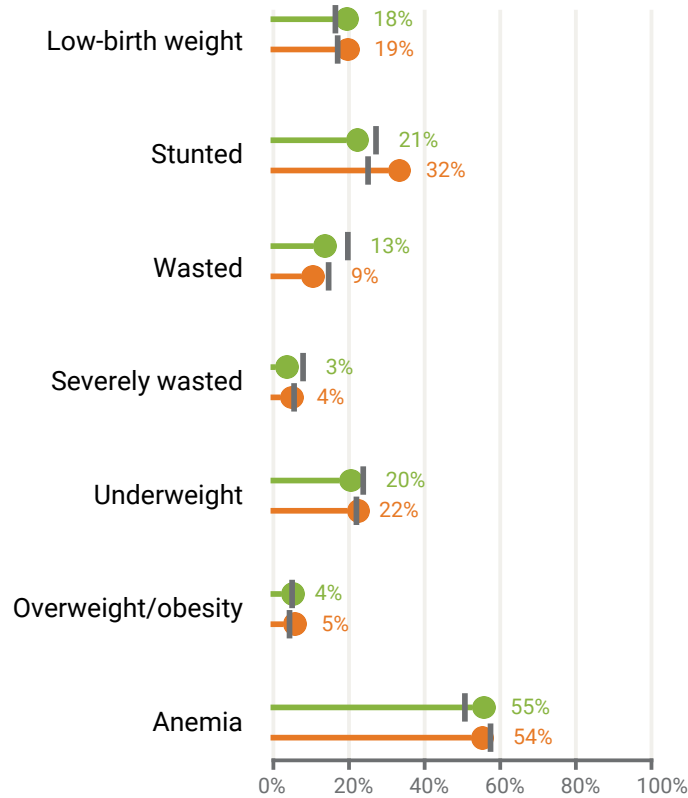
IFPRI estimates - Headcount = Prevalence x Eligible projected population for each district in 2019. Prevalence estimates: NFHS-4 (2015-16) & NFHS-5 (2019-21) state/district factsheets, national/state reports and IFPRI estimates using unit-level data. Projected population for 2019 (children <5 yrs and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

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

Madurai



Tamil Nadu

2016

2020

Burden of nutrition outcomes (2020)

Indicators	No. of children (<5 yrs)
Low-birth weight	42,194
Stunted	72,818
Wasted	21,335
Severely wasted	8,700
Underweight	48,358
Overweight/obesity	10,566
Anemia	109,701
Total children	224,815

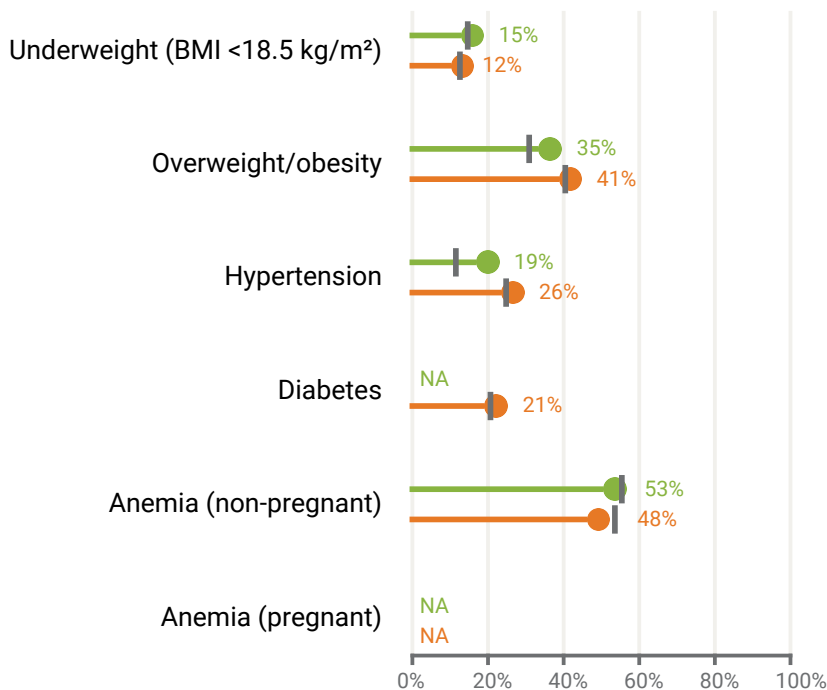
Note: NA refers to data unavailable for a given round of NFHS/Census.

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)

Madurai



Tamil Nadu

2016

2020

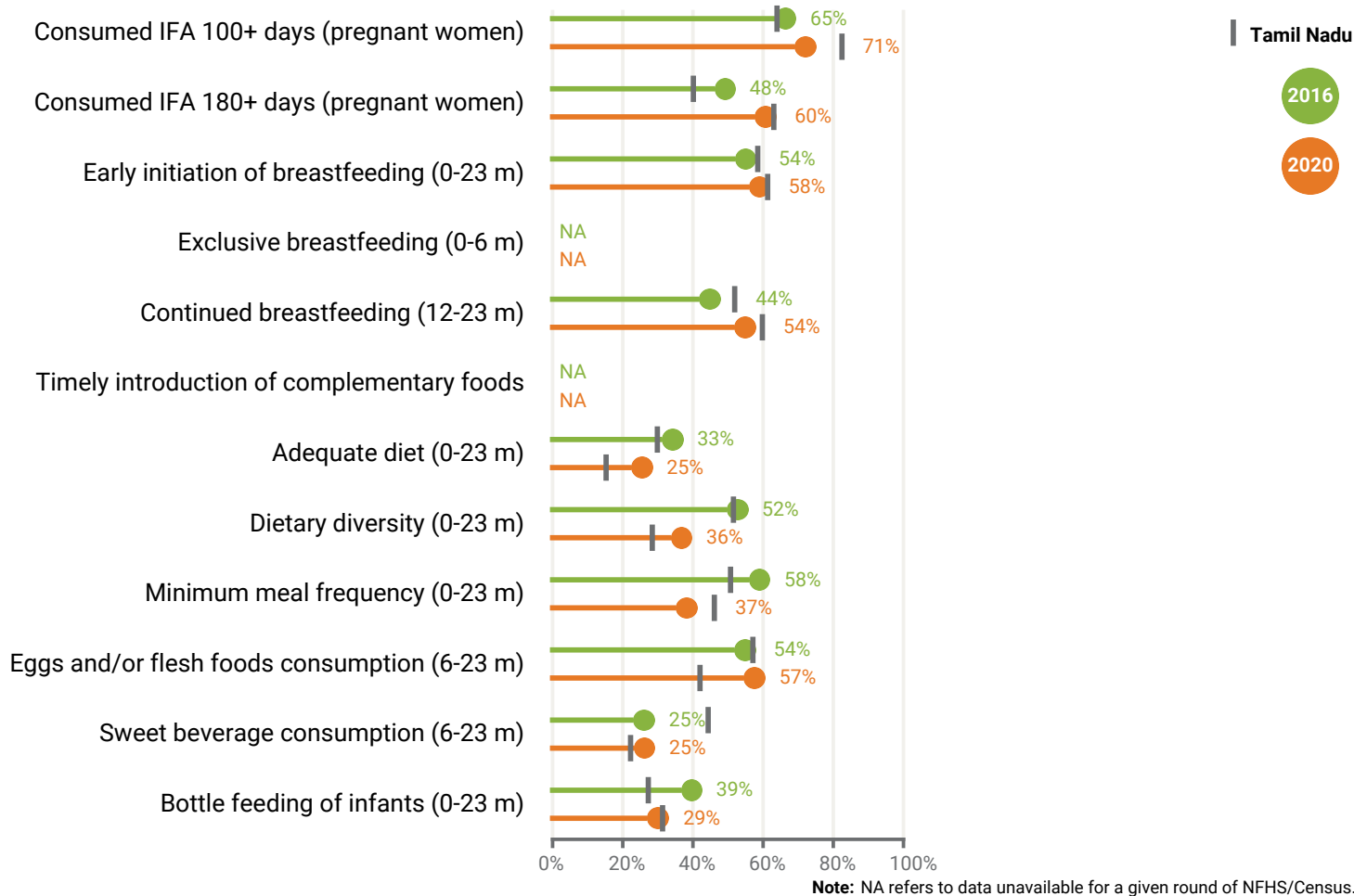
Burden of nutrition outcomes (2020)

Indicators	No. of women (15-49 yrs)
Underweight	108,961
Overweight/obesity	363,976
Hypertension	227,819
Diabetes	188,943
Anemia (non-preg)	430,226
Anemia (preg)	NA
Total women (preg)	49,755
Total women	891,660

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

Points of discussion:

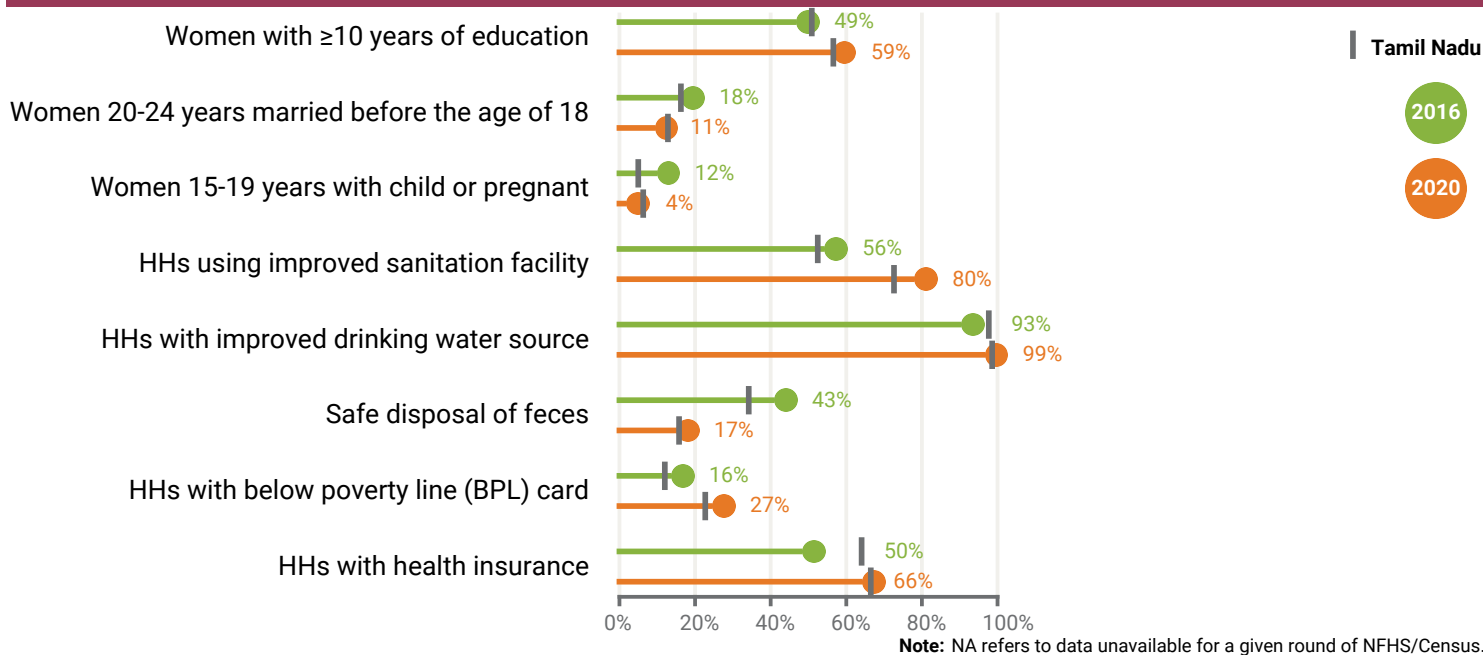
- What are the trends in underweight and anemia among women (15-49 yrs) in the district?
- What are the trends in overweight/obesity and other nutrition-related non-communicable diseases in the district?



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



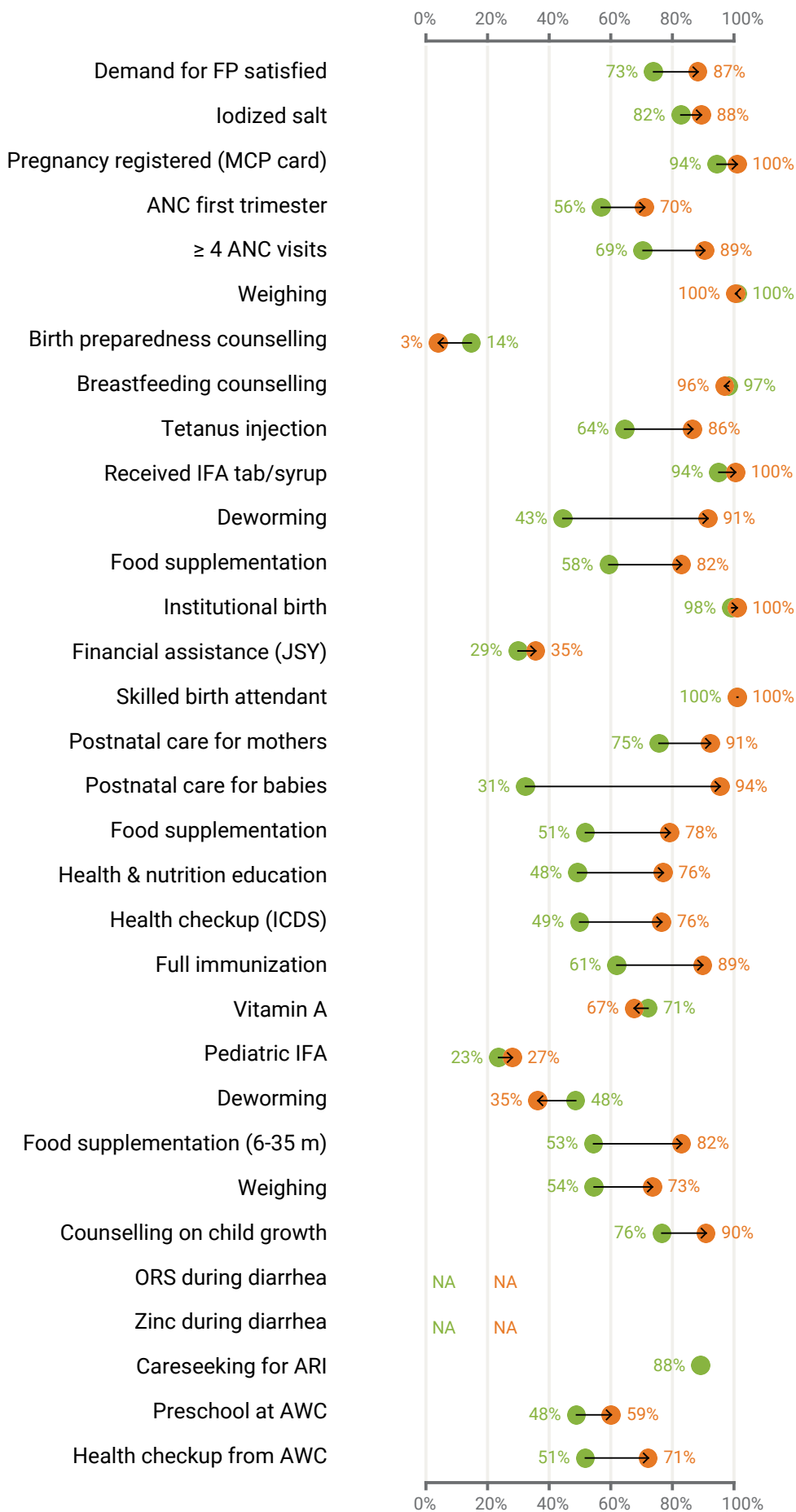
Points of discussion:

- 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)?