



Diets and stunting in Ethiopia

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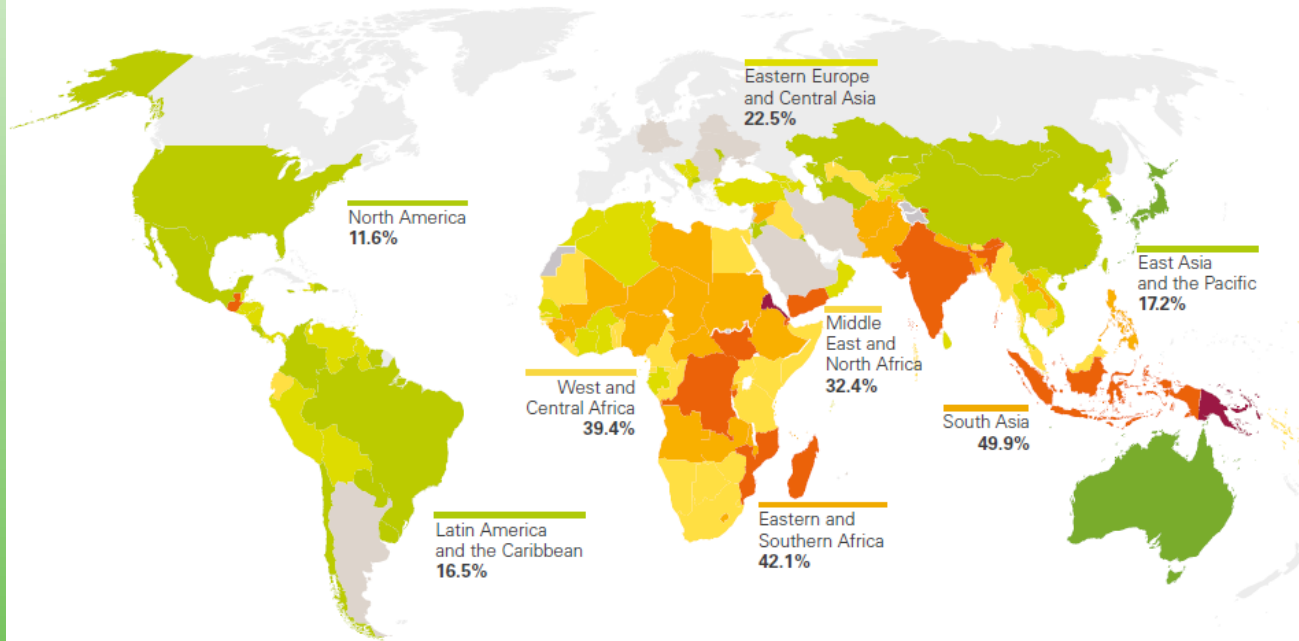
Diets, Affordability and Policy in Ethiopia: From Evidence to Action

Addis Ababa | December 12, 2019



Background

Stunting- failure to grow to an expected height for age



SOWC, 2019

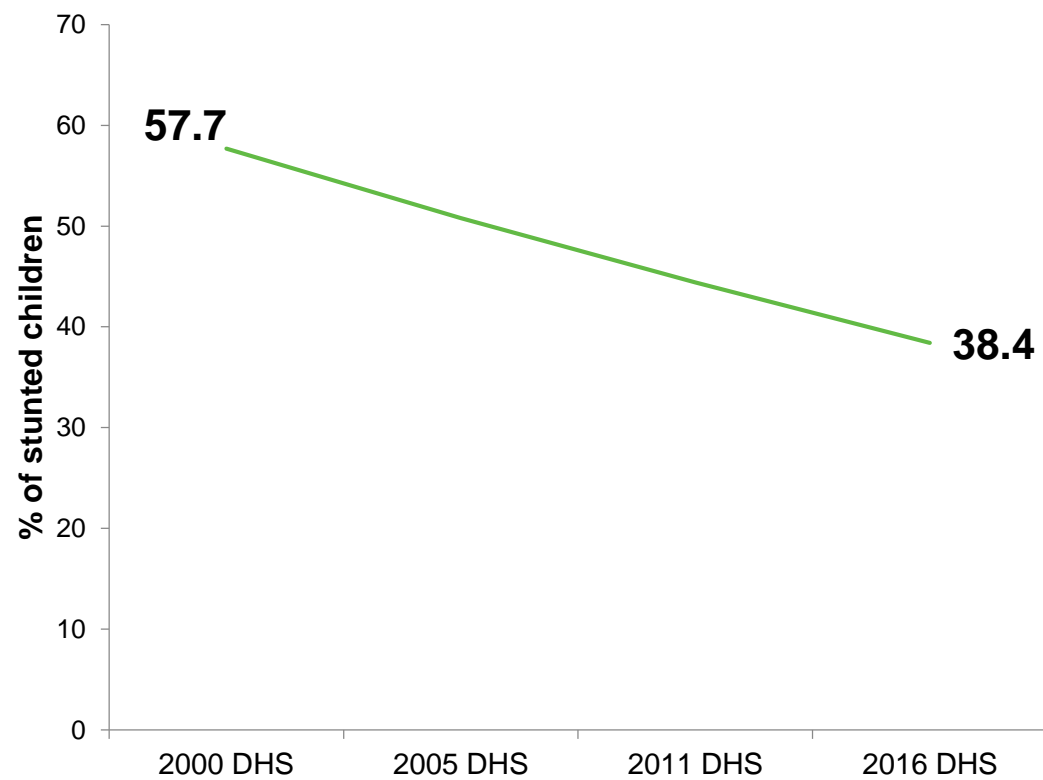
1 in 3 children
worldwide under
the age of 5 is not
growing well



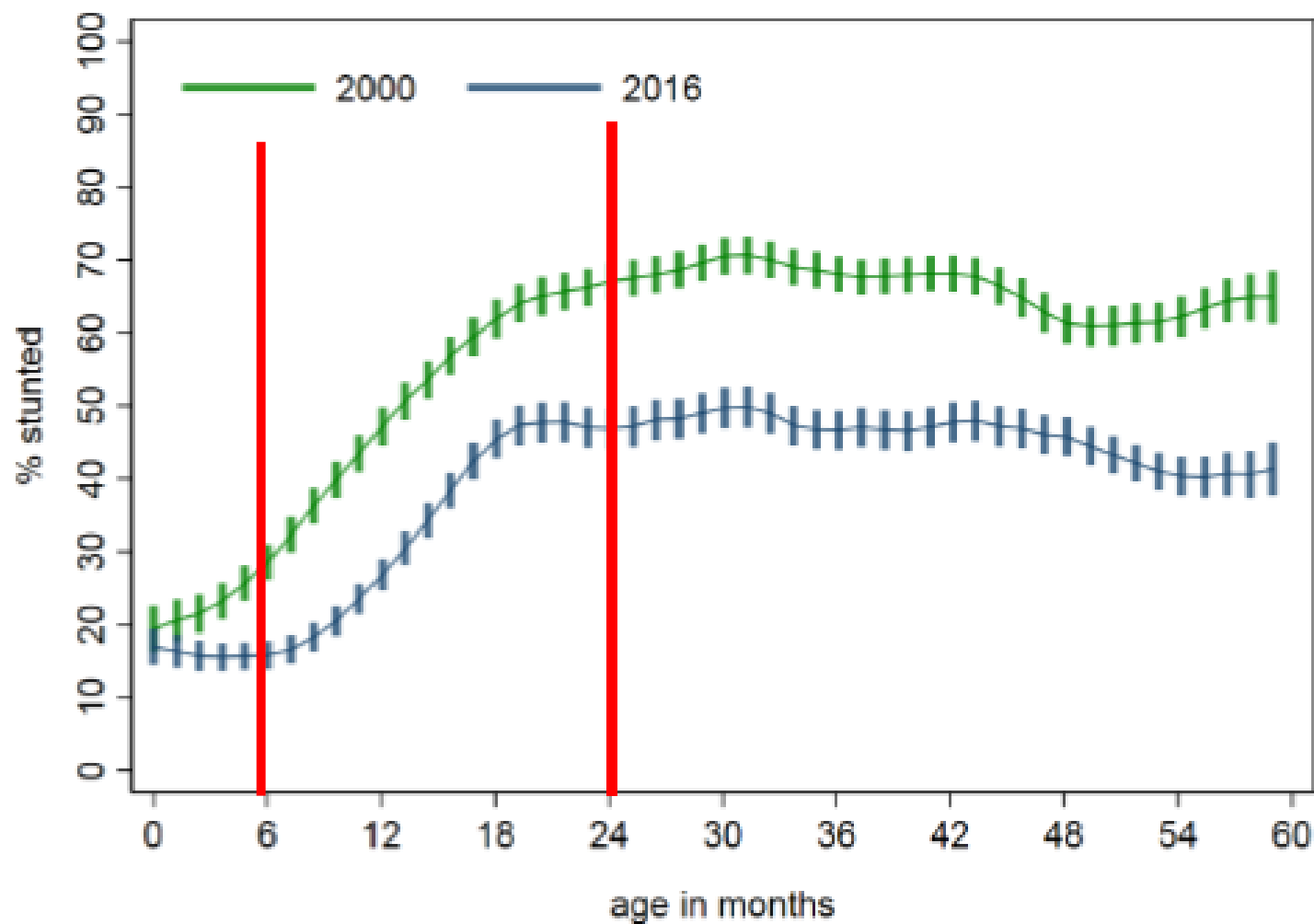
Consequences of stunting

- higher risk of mortality,
 - poor cognitive performance,
 - low productivity and earnings in later life
(Black et al., 2008/2013)
-
- Higher risk of chronic diseases in later-life
(Uauy et al., 2008)

Stunting trends



Timing of stunting in Ethiopia



Framing “healthy” complementary diets


- Healthy diets are defined in various ways, but they generally need to be adequate in:
 1. **Quantity:** adequate energy intake for healthy growth
 2. **Diversity:** a variety of food groups providing varying levels and types of nutrients
 3. **Quality:** contains needed macro-and micro-nutrients without unhealthy additives, trans-fats, added sugar, etc.
 4. **Safety:** microbial/chemically safe to consume

→ What do we know about children's diet in Ethiopia?

1. Quantity

- **Energy and nutrient intake** is relatively low in rural areas
- Amount of food consumed/meal is low
 - **10-30 % of the theoretical gastric capacity**
- % of children (6-23 months) that meet the **MMF is 45%** (DHS, 2016)
 - 59% urban
 - 43% rural
 - Lowest quintile 38%
 - Highest quintile 55%

2. Dietary diversity (min. 5 out of 8)

-  from 4.4 % (2011) to 12.5% (2016)
- MDDS is consistently associated with stunting



Food consumption patterns

Legumes



Cereals

Legume-based stews



injera

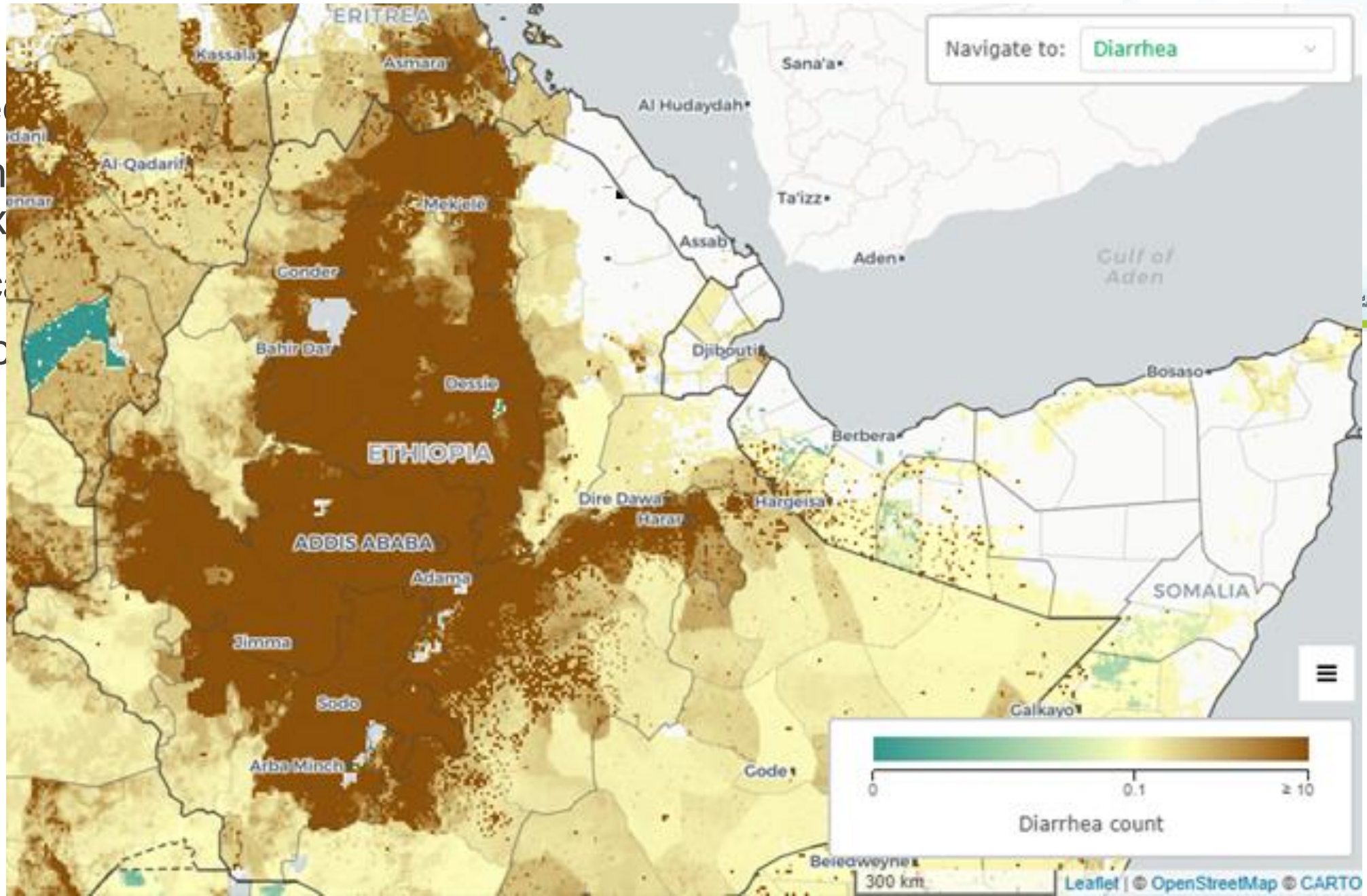


3. Quality

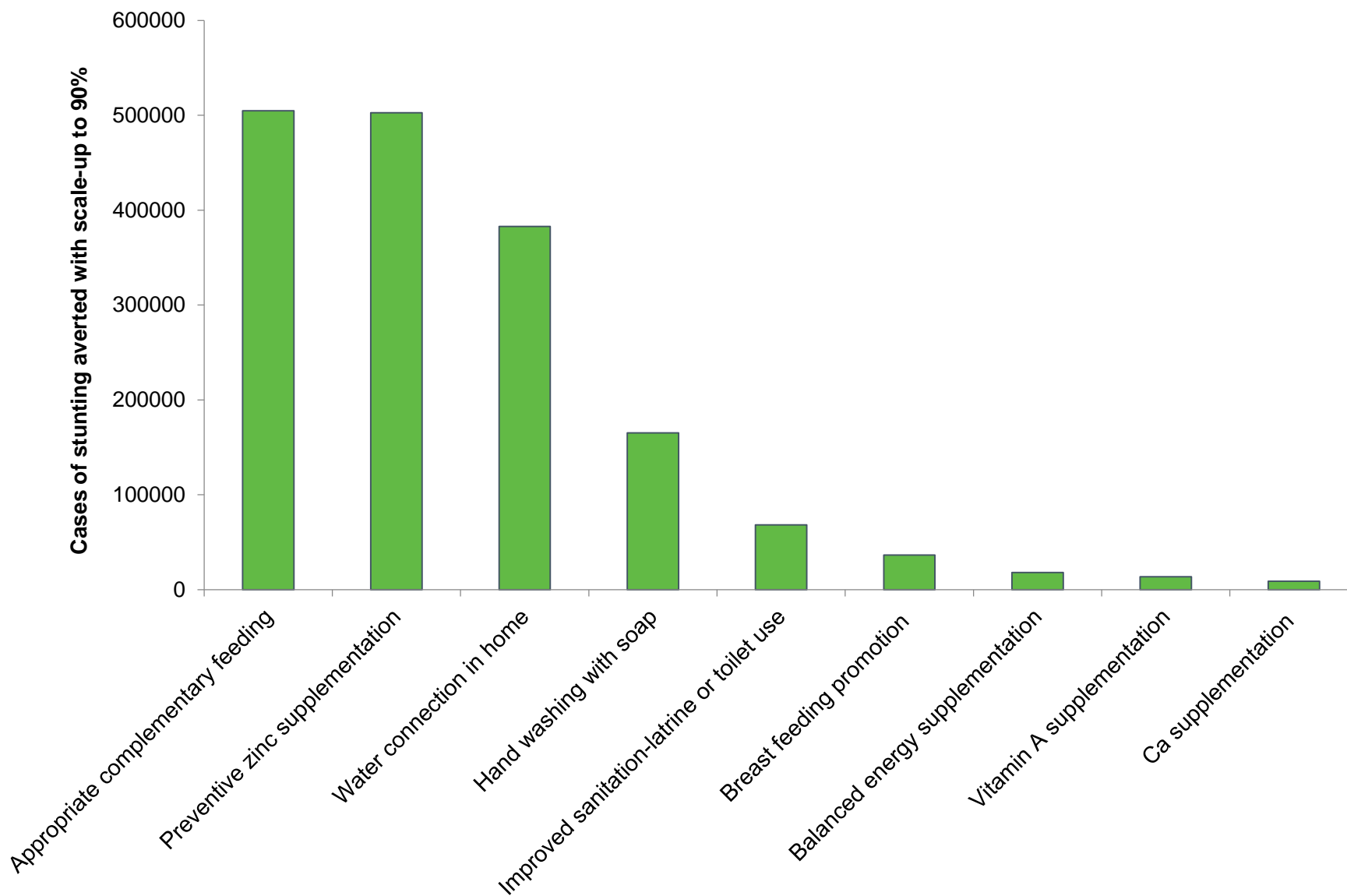
- Studies on the proportion of unhealthy food in the diets of infants and young children in Ethiopia are scant (focus remains on undernutrition)
- Growing consumption of sweets and cookies are appearing in the diets of the rural poor, high sugar intake with tea, etc.
- Ultra-processed (high-sugar/salt) foods were consumed by 14 % of infants and young children in rural Wollo (FFV, 2017)
- Clearly more data is needed

4. Safety

- Not captured
- Some estimates of diseases exist
→ Ethiopia case
- Diarrheal count



■ Missed opportunities in preventing stunting in 2019: LiST model



Interventions to improve complementary foods

- Most interventions are led by the MoH, but also supported by other sector ministries (e.g. MoAG)
- Consists of nutrition education, cooking demonstrations, promotion of home-gardens...
- Largely focuses on improving knowledge of caregivers about how to feed a child
- Little focus on improving maternal diet and health status
- Focus is often on what the child should eat, and little on how to

What can be done to improve diets more effectively?

Maternal nutrition/health



A WDDS of >4 food groups during pregnancy was shown to be associated with lower risk of maternal anemia, LBW, and PTB.

Zerfu, Umeta & Baye (2016). Am J Clin Nutr.

Dairy, fruits, and DGL vegetables are associated with lower risk of adverse pregnancy outcomes

Zerfu, Pinto & Baye (2018). Nutr & Diabetes

Also note that food preference starts in utero



Low breastmilk vitamin A conc. is prevalent in rural Ethiopia

Abebe, Haki, Schweigert, Henkel & Baye (2018). Eur J Clin Nutr



Maternal dietary diversity is associated with child dietary diversity

Nguyen et al (2013) J. Nutr

Important role can be played by the FBDG that is being prepared

Caregiver feeding style

Poor caregiver-child feeding interactions are associated with:

- Sub-optimal food/energy intake

Baye, Tariku & Mouquet (2017). *Maternal Child Nutr.*

- Stunting

Abebe, Desse & Baye (2017). *Appetite*

Culturally adapted responsive feeding messages improve food intake

(Kassay, Mouquet & Baye- manuscript under preparation)

Only few HEWs are knowledgeable about what responsive feeding means

Abebe, Desse & Baye (2016). *Food & Nutr Bull.*

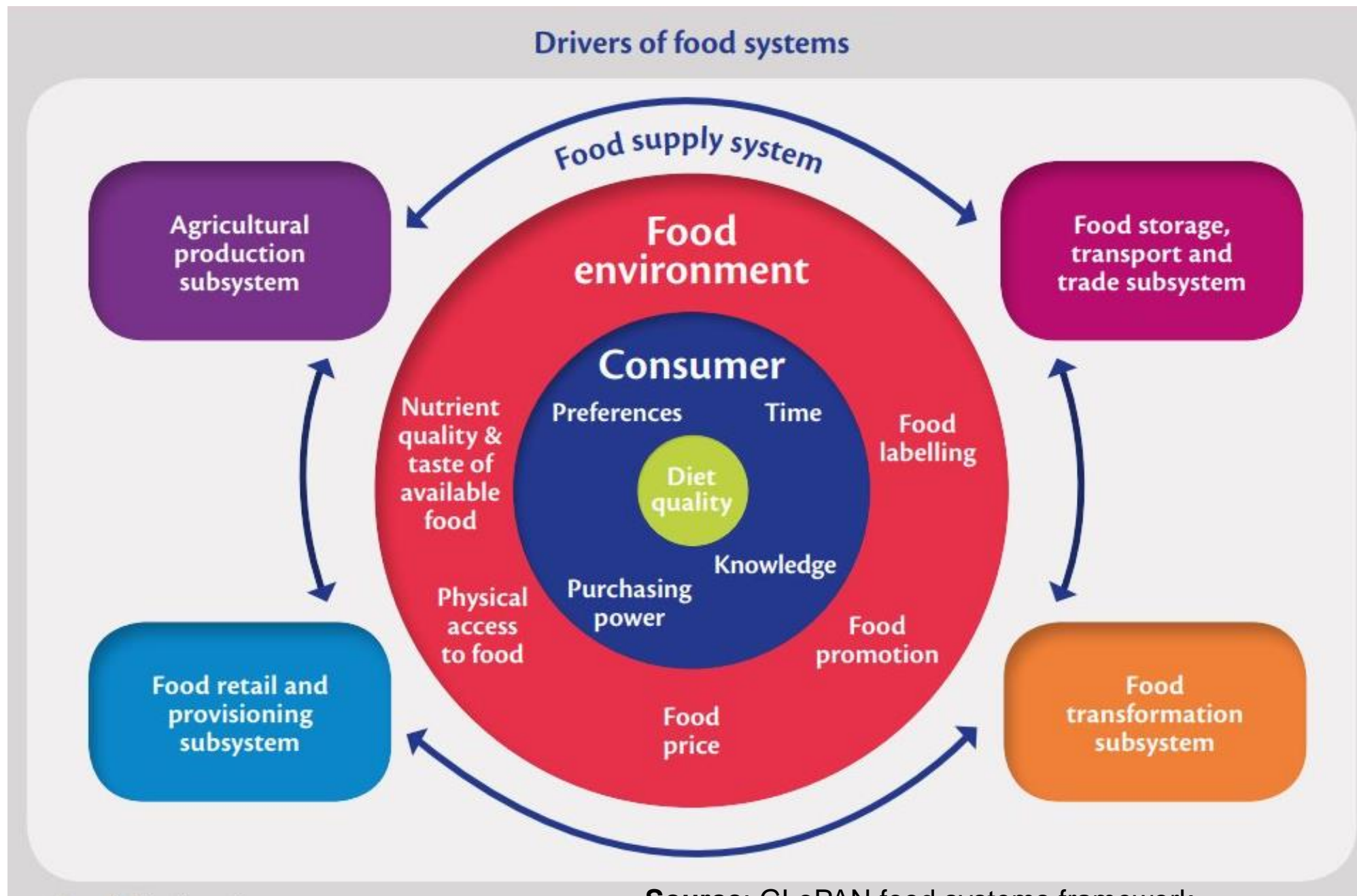
Implications: increased attention to how the child is fed in BCC materials



Maternal depression

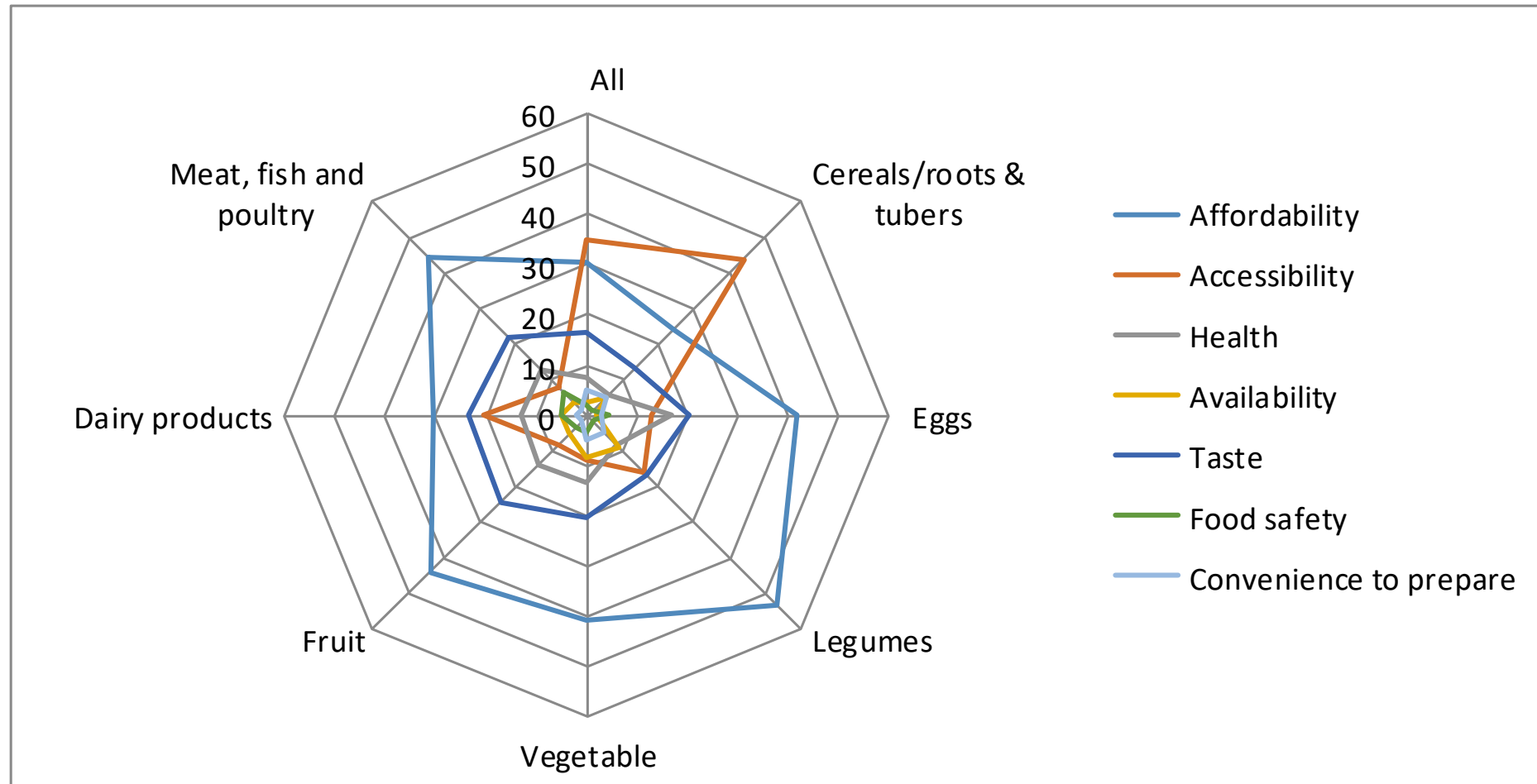
- In PSNP households in Wollo, maternal post-partum depression (EPDS \geq 13) was prevalent (22.8 %) and was significantly associated with:
 - inappropriate complementary feeding
 - stunting ($P < 0.05$)

Anato, Baye, Stoecker (in press) *Matern Child Nutr*



Source: GLoPAN food systems framework

Drivers of food choice

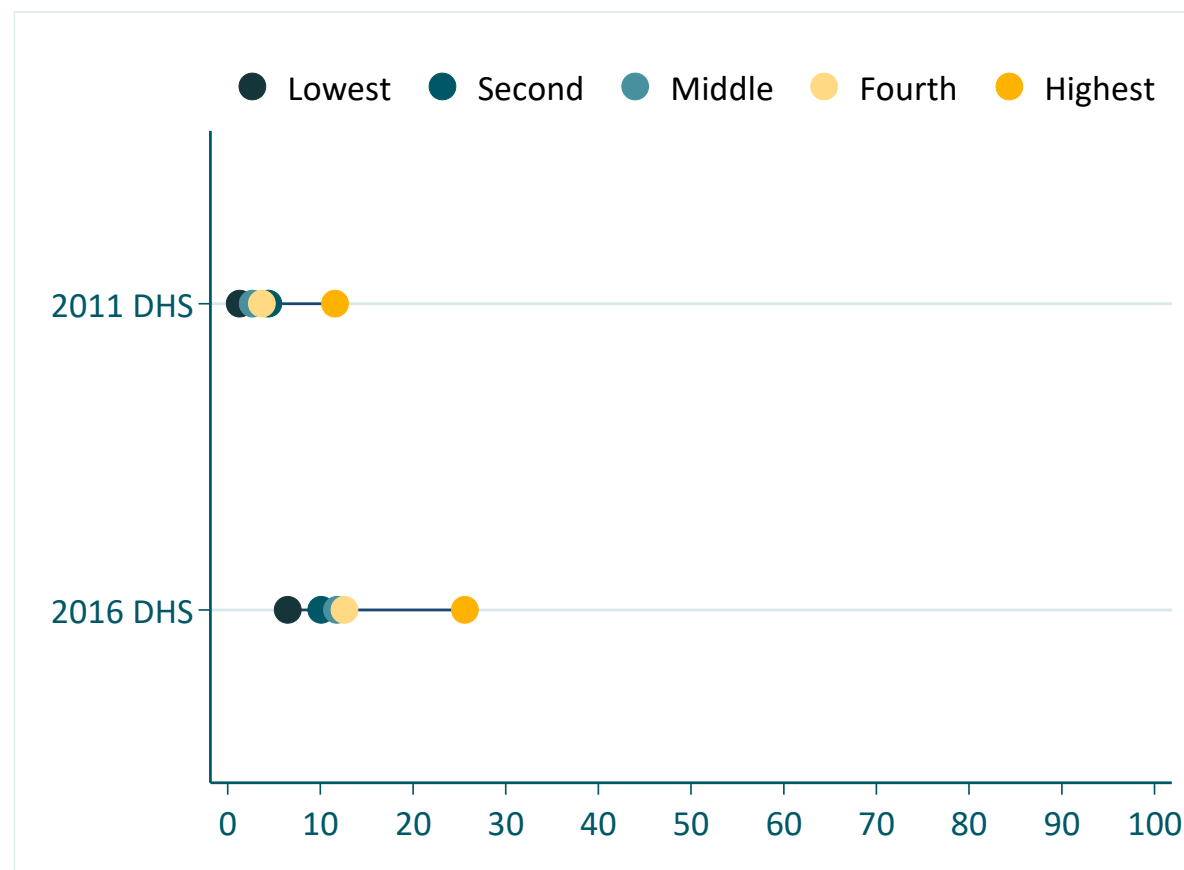
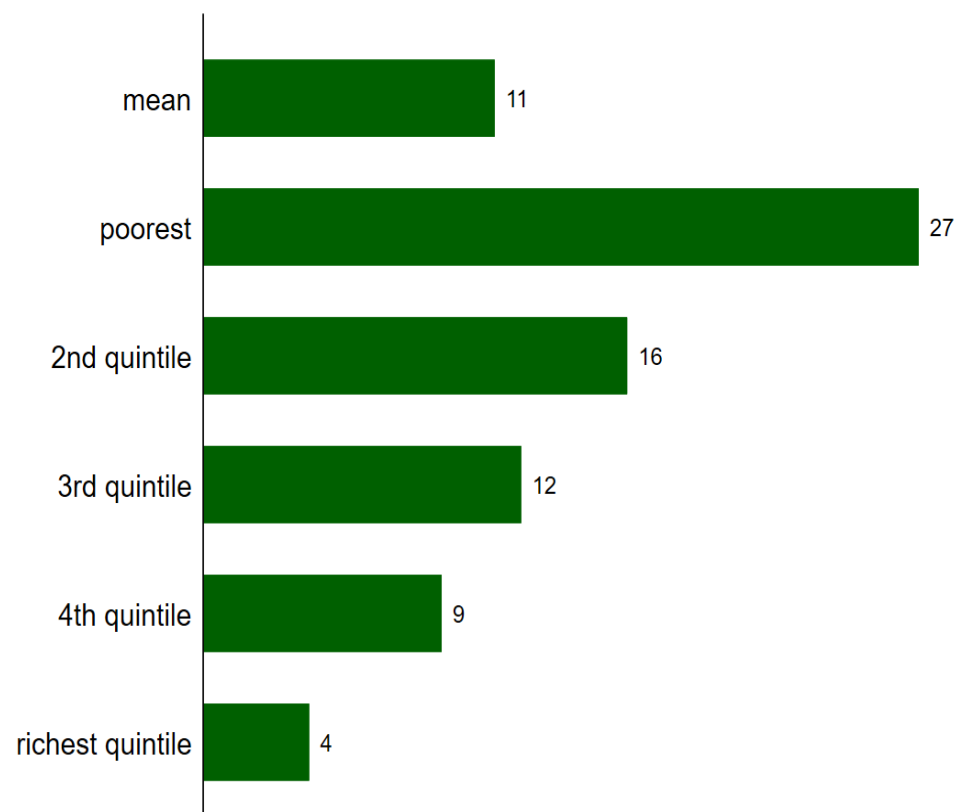


FFV baseline survey, caregivers of children 6-18 months (N= 524)

Tizazu, Hirvonen & Baye (manuscript under preparation)

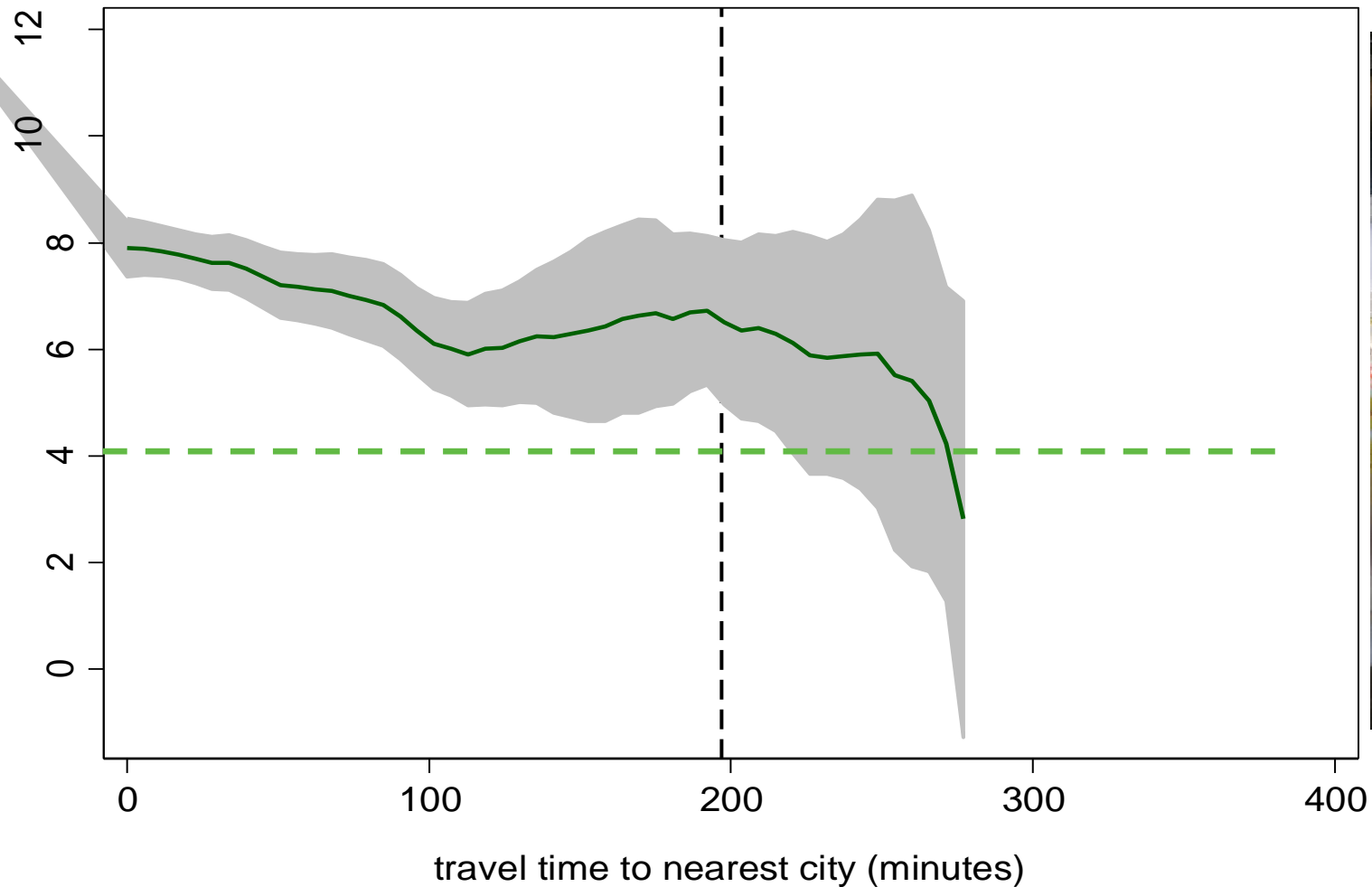
Affordability

The share of income needed to meet the recommended intake of fruits and vegetables, by income quintile



Hirvonen, Wolle & Minten (2018)

Penetration of processed (unhealthy) foods

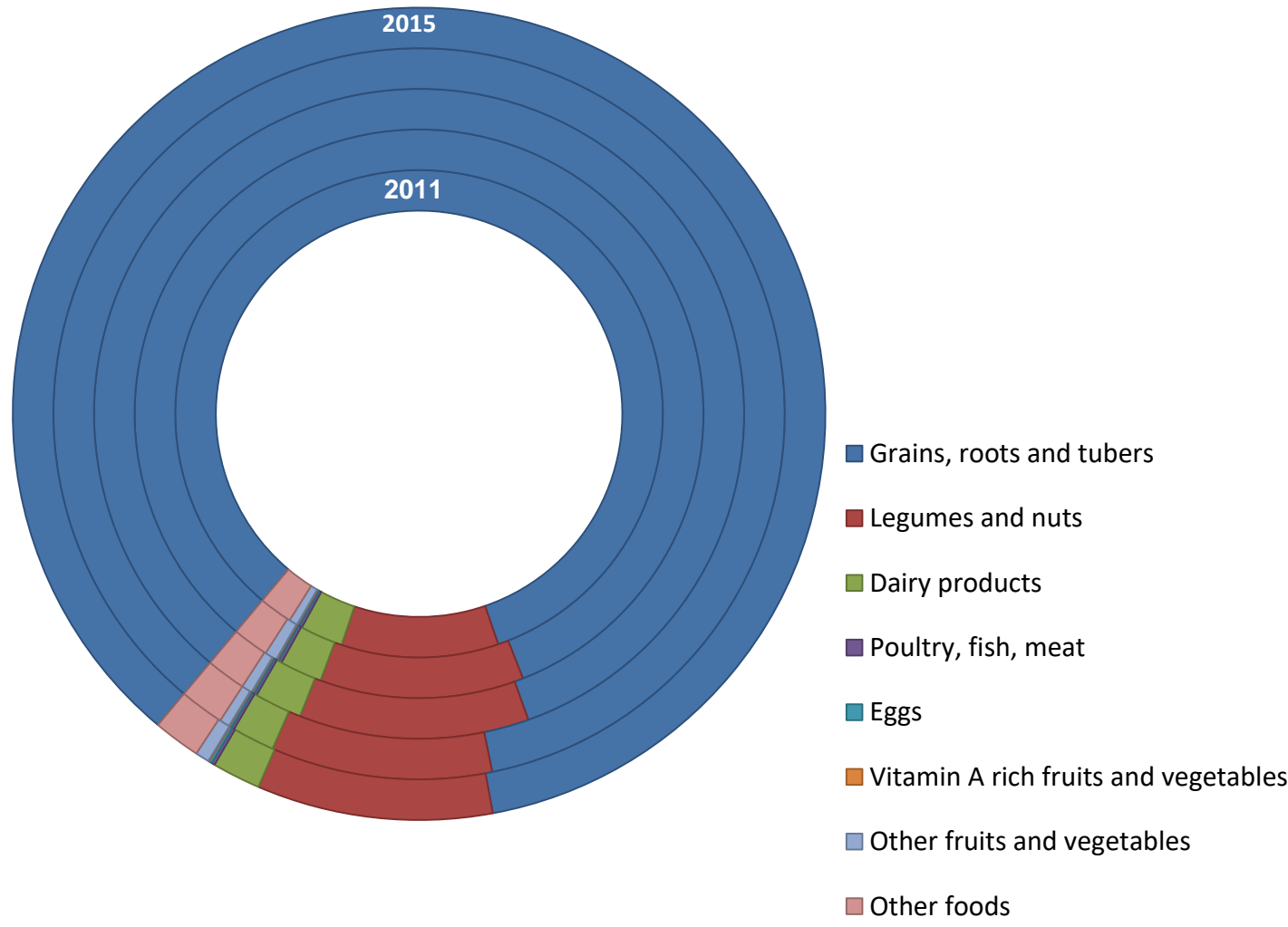
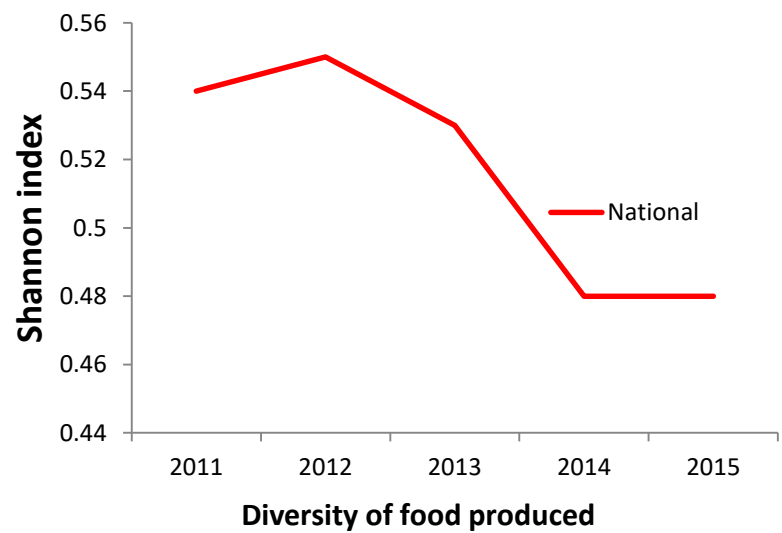
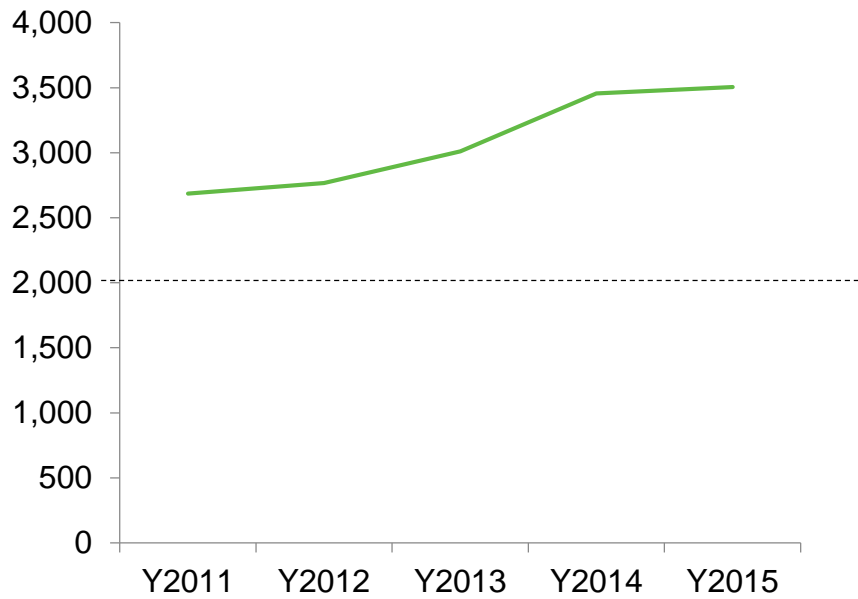


Feed the future (FTF 2018) and the Productive Safety net Program (PSNP 2019) surveys



Food supply (quantity and diversity)

Energy (kcal)



Baye, Hirvonen, Dereje & Remans. 2019 Energy and nutrient production in Ethiopia, 2011-2015: Implications to supporting healthy diets and food systems. *Plos One* 14 (3), e0213182



Key messages

- Improving quality of children's diet is a top priority- not just for meeting nutrients→a triple-duty action
- Improving diets should not be a long-term goal- urgently needed!
- Improving diet quality is possible, but interventions across the food systems are needed to make nutrient-dense foods available, accessible, and affordable
- Narrowing inequalities (e.g. through nutrition-sensitive social protections)
- More comprehensive diet quality measures are needed and clearly data on “unhealthy” food consumption and safety of CFs are needed

Thank you!