

# Breastfeeding – A strategy to prevent and reverse early childhood malnutrition

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WABA | WORLD BREASTFEEDING WEEK 2024

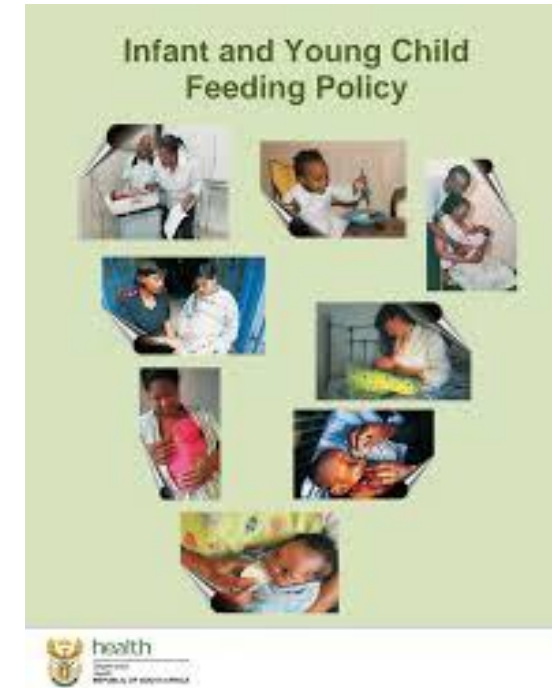
# Declaration

- I have no conflict of interest to declare. I have received no incentive to participate in this event.
- This presentation draws on national data, the collective experience of colleagues in child health and nutrition
- And the global evidence base for breastfeeding and strategies to prevent and reverse childhood malnutrition

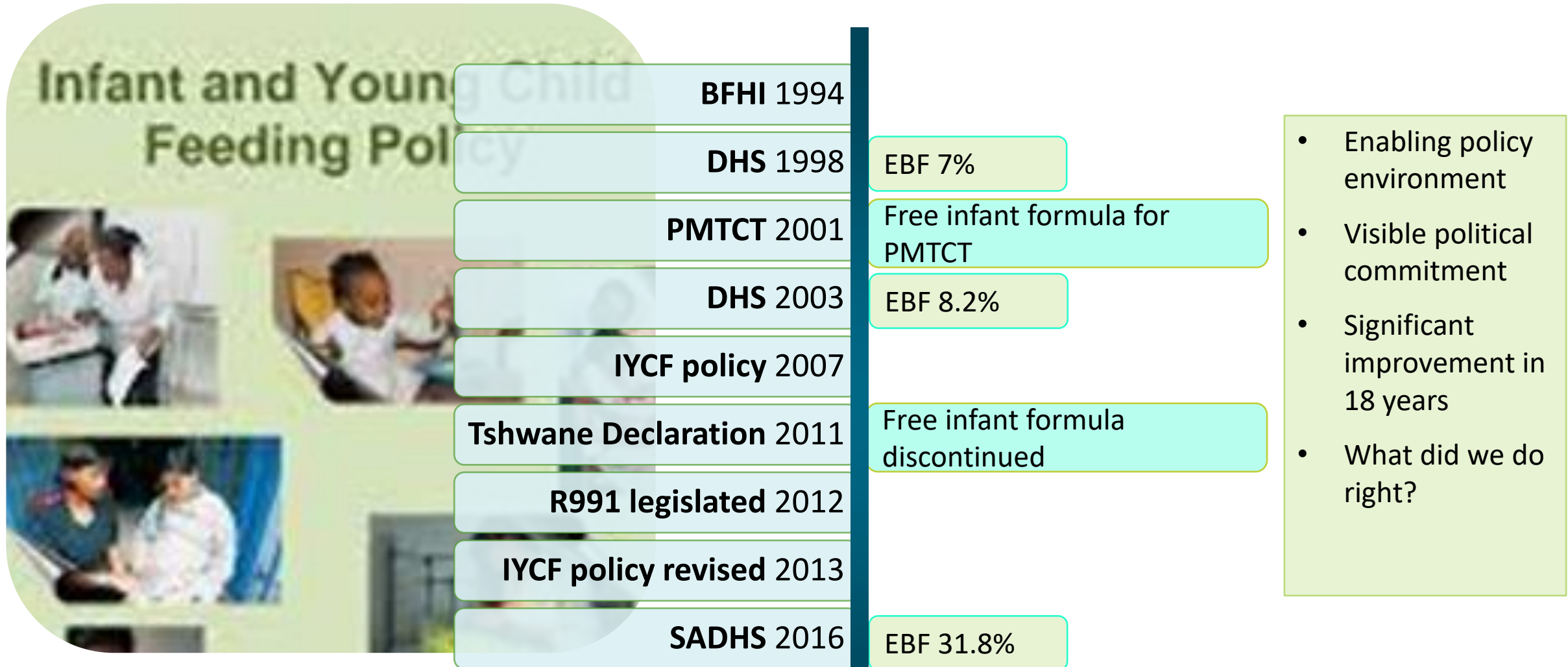


# Outline of the presentation

- Infant feeding landscape in South Africa
- Key drivers of poor infant feeding practices
- Counteracting industry influence and strengthening health service delivery
- Building a breastfeeding culture and environment in all settings



# Breastfeeding trends for infants 0-6 months in South Africa, 1998 - 2016

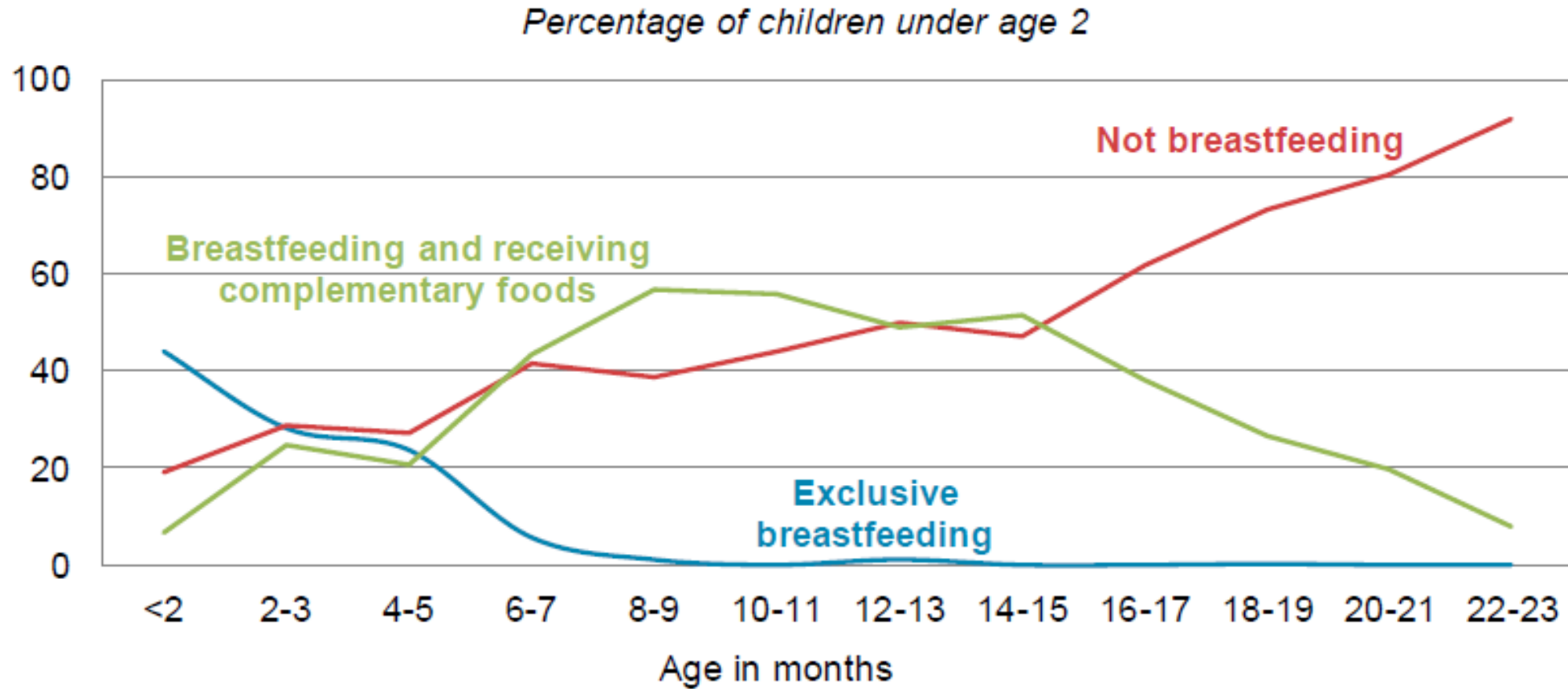


# National BF rates 1998 - 2016

Breastfeeding Practices	SADHS 1998	SADHS <sup>15</sup> 2003	HSRC 2008	SANHANES <sup>16</sup> 2012	SADHS 2016
Exclusive breastfeeding:					
0 – 3 months	10,4%	11,9%			36%
4 – 6- months	1%	1,5%	8%	7,4%	
0 – 6 months			25.7%		32%
Initiation of Breastfeeding		80%		92,6%	94%
Never Breastfed	16,6%	20,1%	22,5%	17,5%	Not reported*
Average duration of breastfeeding		16,6 months		5,9 months	Not reported
<b>Mixed Feeding*</b>	70%	Not reported	51.3%	75,1%	17.6%
*Breastfeeding and introducing inappropriate complementary foods at <6 months					

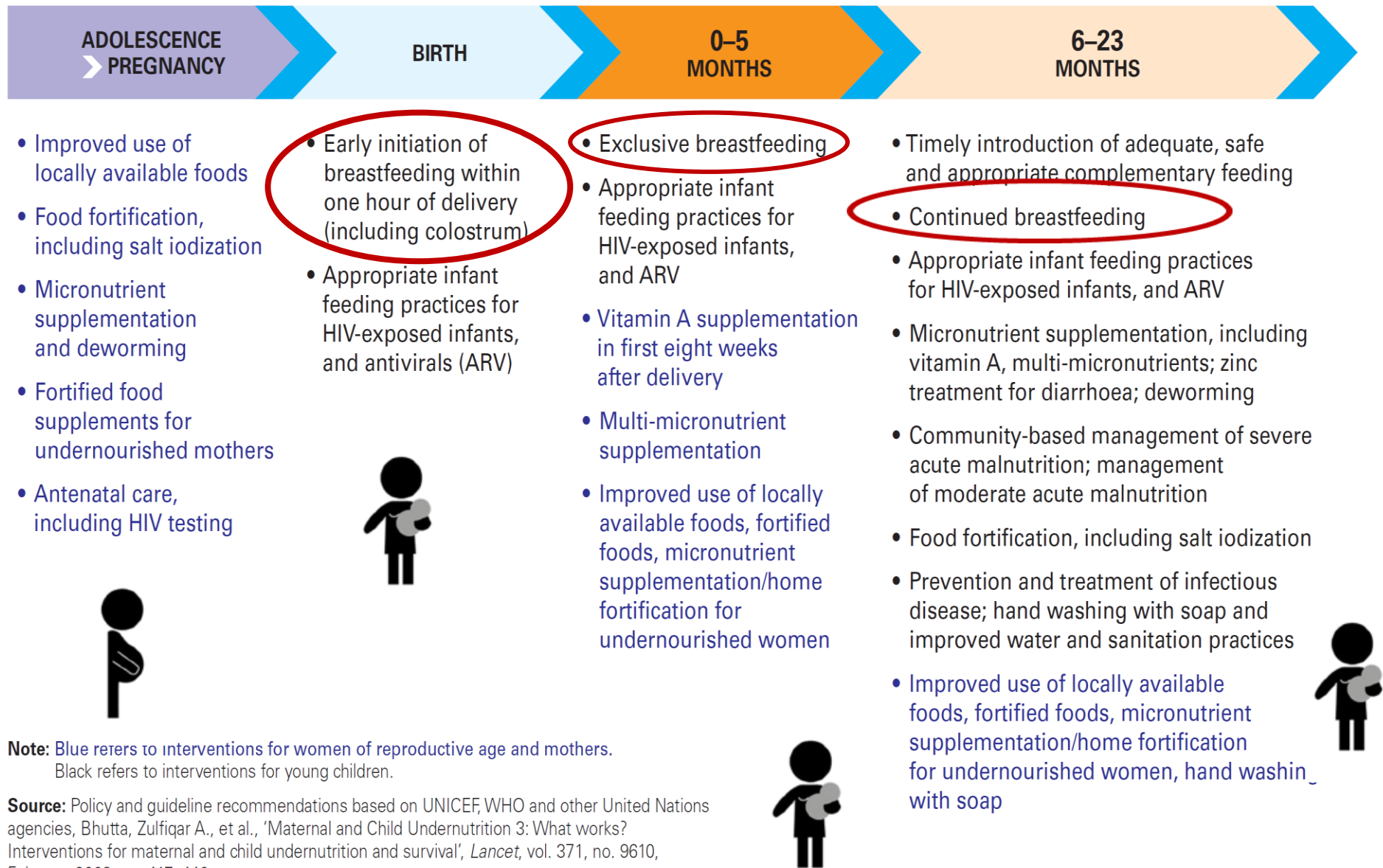
**\*0-5 months -25% Not breastfeeding at all and 68% inappropriately feeding infants <6 months of age**

# Infant feeding landscape for children under 24 months in South Africa (DHS, 2016)





**FIGURE 18** Key proven practices, services and policy interventions for the prevention and treatment of stunting and other forms of undernutrition throughout the life cycle



# Health and Economic costs of NOT breastfeeding to a country



## FREQUENTLY ASKED QUESTIONS ABOUT... The Cost of Not Breastfeeding Tool

NOT BREASTFEEDING LEADS TO MORE THAN HALF A MILLION CHILD DEATHS ANNUALLY AND COSTS THE WORLD'S ECONOMY UP TO US\$1 BILLION A DAY. In 2019, the Cost of Not Breastfeeding Tool was published in *Health Policy and Planning*, quantifying the impacts of not breastfeeding on human lives and the economies of 130 countries. Below are answers to some of the frequently asked questions about the tool.

### Q How were the indicators calculated?

A The tables below provide calculations for each indicator.

Child and maternal morbidity and mortality	
Child morbidity and mortality	$[\% \text{ of households in each breastfeeding behavior category at risk for diarrhea or pneumonia infections caused by not breastfeeding}] \times [\text{morbidity or mortality for each behavior}]$
Maternal morbidity and mortality from breast cancer and type II diabetes	$[\text{incidence of type II diabetes in women}] \times [\text{published current level of breastfeeding in each country}]$ $[\text{incidence of mortality due to breast cancer in women}] \times [\text{current level of breastfeeding in each country}]$ $[\text{incidence of mortality due to breast cancer in women who have not breastfed}] \times [\text{current level of breastfeeding in each country}]$

Health system and household formula costs	
Medical costs for treatment of cases of childhood diarrhea and pneumonia	$[\# \text{ of cases of childhood disease due to not breastfeeding}] \times [\% \text{ of cases receiving care at a health facility}] \times [\% \text{ of patients that seek care at each tertiary hospital}] \times [\text{unit cost of treatment}] \times [\text{sum of cases at each level of care}]$
Health expenditure for type II diabetes	$[\# \text{ annual cases of type II diabetes attributed to not breastfeeding}] \times [\text{health expenditure per case}]$
Cost of feeding a child with formula for the first 2 years	$[\text{total estimated quantity of formula suggested by manufacturers}] \times [\text{unit cost of formula}]$

The future economic cost of mortality and cognitive losses	
Potential future income lost due to child mortality	$[\# \text{ child deaths attributable to not breastfeeding}] \times [\text{country's labour share of income}] \times [\text{discounted sum of total future income lost}]$
Potential future income lost due to maternal mortality	$[\# \text{ maternal deaths attributable to not breastfeeding}] \times [\text{country's labour share of income}] \times [\text{discounted sum of total future income lost}]$
Potential future income lost due to cognitive losses	$[\# \text{ children not breastfed}] \times [\text{GNI per capita}] \times [\text{discounted sum of total future income lost}]$

The total combined economic losses of not breastfeeding is equal to the sum of the economic cost of mortality, and future economic cost of cognitive losses for each country. For more details on the methodology used, please refer to the manuscript.

### Q What is the Cost of Not Breastfeeding Tool?

A The Cost of Not Breastfeeding Tool is actually two things. First, it is an analytical tool with a downloadable Excel workbook, which was presented in an [article](#) published in *Health Policy and Planning*. This version of the tool is intended for advanced technical users. It includes worksheets with open-access datasets and the calculations for indicators for approximately 130 countries.

Secondarily, the tool has been adapted into an interactive [online version](#) featuring a selection of countries (currently numbering 34). This version of the tool makes it easy for a layperson to explore the data and download corresponding advocacy briefs for the selected countries. Advocates can download and print these briefs to present and explain the costs of not breastfeeding to policymakers, legislators, the media, and other key stakeholders.

### Q Who developed the tool?

A The Cost of Not Breastfeeding Tool was developed and authored by Dylan D. Walters, Linh Thi Phan, and Roger Mathison with support from Alive & Thrive. The online version of the tool was developed by Alive & Thrive.

### Q Why was the tool developed?

A Both versions of the tool were developed to provide a clear picture of the costs—in terms of human lives lost and economic activity—attributable to suboptimal breastfeeding practices. The tool's creators hope that advocates will use this information to convince policymakers, legislators, and other stakeholders to do more to support breastfeeding. See 7 Ways to Use the Tool in Advocacy [here](#).

### Q What methodology was used to develop the tool?

A The Cost of Not Breastfeeding Tool calculates the following types of human and economic costs for mothers and babies not breastfed according to WHO recommendations for exclusive breastfeeding (0-5 months) and continued breastfeeding (up to 2 years of age):

- Child morbidity and mortality:** The number of cases and mortality due to childhood diarrhea, pneumonia, and attributable cases of childhood obesity.
- Maternal morbidity and mortality:** The number of cases and mortality related to breast and ovarian cancer and type II diabetes attributable to not breastfeeding according to recommendations.
- Health system and household formula costs:** The direct medical costs for treatment of cases of childhood diarrhea and pneumonia and type II diabetes in women attributable to not breastfeeding, as well as the cost of households using formula as a breastmilk substitute.
- The future economic cost of mortality and cognitive losses:** The potential loss of contribution to a country's economy through lost future earnings over a person's productive years due resulting from either premature mortality or cognitive losses in childhood due to not achieving gains in intelligence provided by being breastfed.

### Q What costs are not included in the tool?

A The tool does not account for child care/guardian fees, largely the responsibility of women; transportation costs; school treatment fees; and illnesses such as childhood diabetes and cancers which are preventable in part by breastfeeding. If available data for these costs does create significant gaps, future versions of the tool will, to the extent possible, address these gaps and provide a more complete estimate of the total cost.

### Q Where are the different data used for the tool?

A Data for each country is from the UNICEF Global PCF (if June 2017) where possible, data from the most recent Health Surveys (DHS) or Cluster Surveys (MICS). Sources of data include: World Population Review; Breastfeeding Appendix; World Bank; World Development Indicators; and the World Office ILOSTAT.

### Q How are estimates for maternal and child deaths in the Cost of Not Breastfeeding Tool calculated?

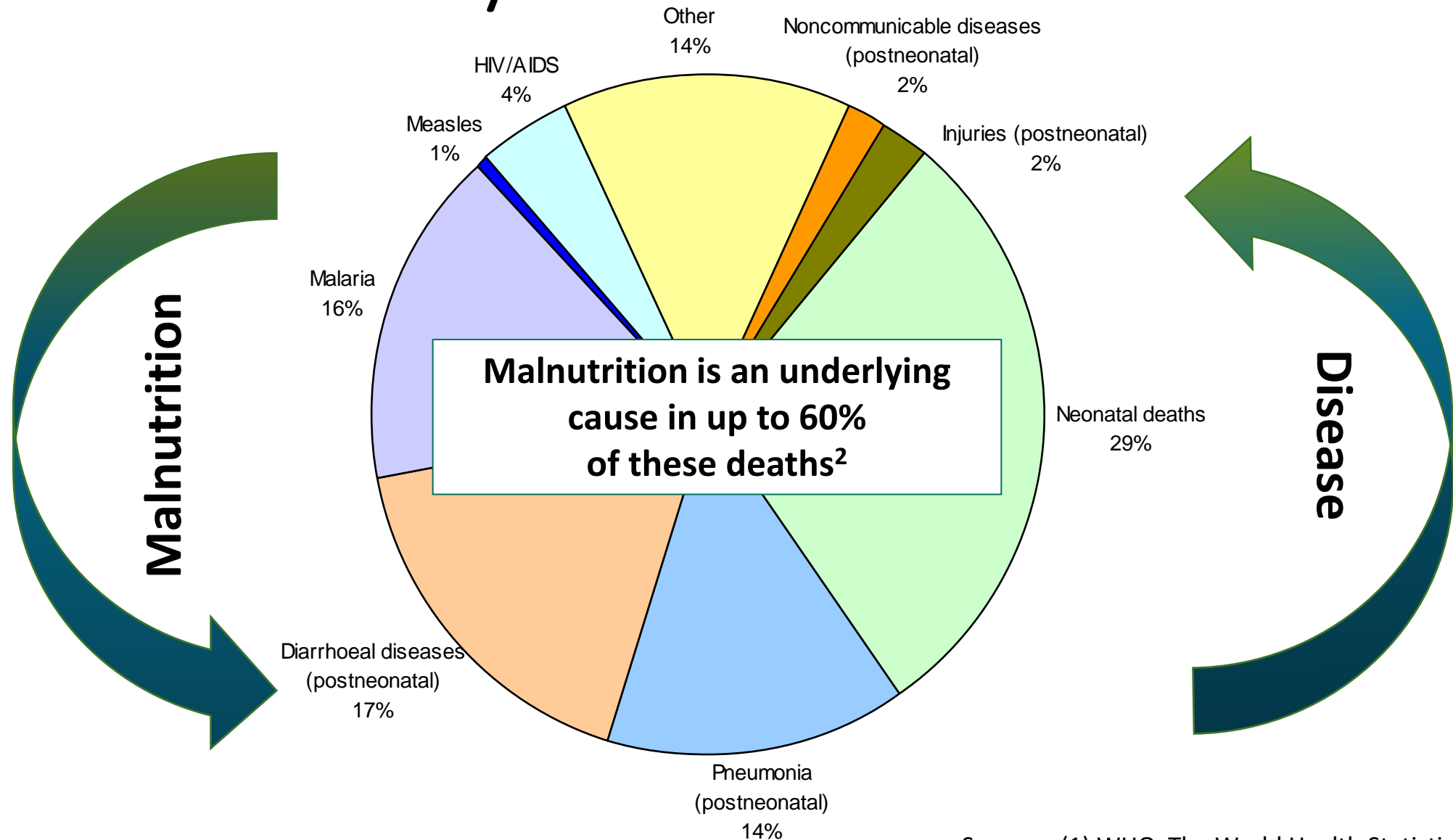
A Estimates for maternal and child deaths in the Cost of Not Breastfeeding Tool are based on data available when it was developed in 2017-2018. The tool did not model data if it was not available, nor did it extrapolate data from countries that do not have reliable and aggregated country-level results where estimates were possible to estimate. Calculating estimates for maternal deaths, the tool included potential deaths from breast cancer, and type II diabetes.

### Q The 2016 Lancet Breastfeeding Series modeled the health and economic impact of breastfeeding practice: the methodology you use is the same as the Lancet!

A The methodology and indicator definitions for the Cost of Not Breastfeeding Tool are based on the variables (early initiation, exclusive, and continued) used in the Lancet series analysis. The main difference is that the Lancet series analysis was conducted from a household perspective with certain costs (both the household and the individual) included, while the tool focuses on the costs of the health system and the economic cost of countries rather than the individual. The tool also calculated the costs based on the assumption that 100% of children were breastfed exclusively for the first six months and continued breastfeeding for one or two years.



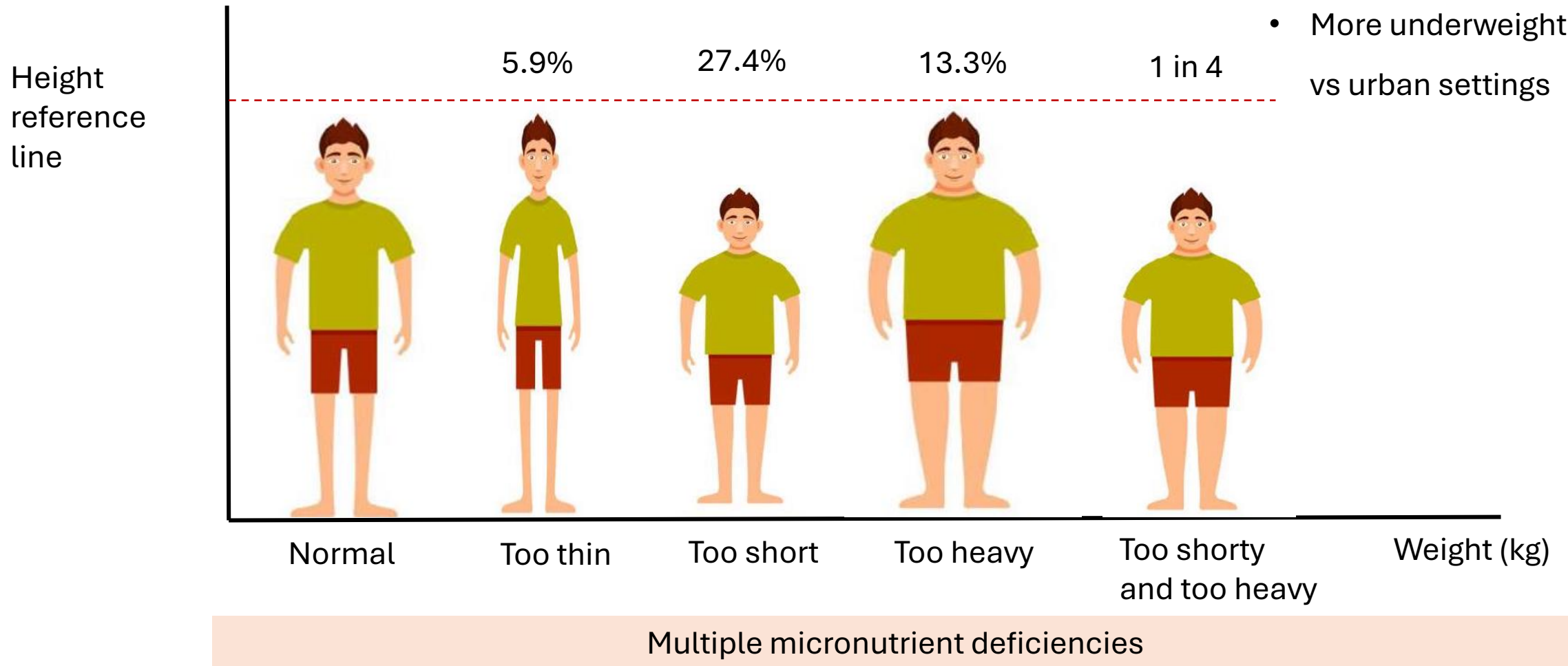
# The vicious cycle of malnutrition and disease<sup>1</sup>



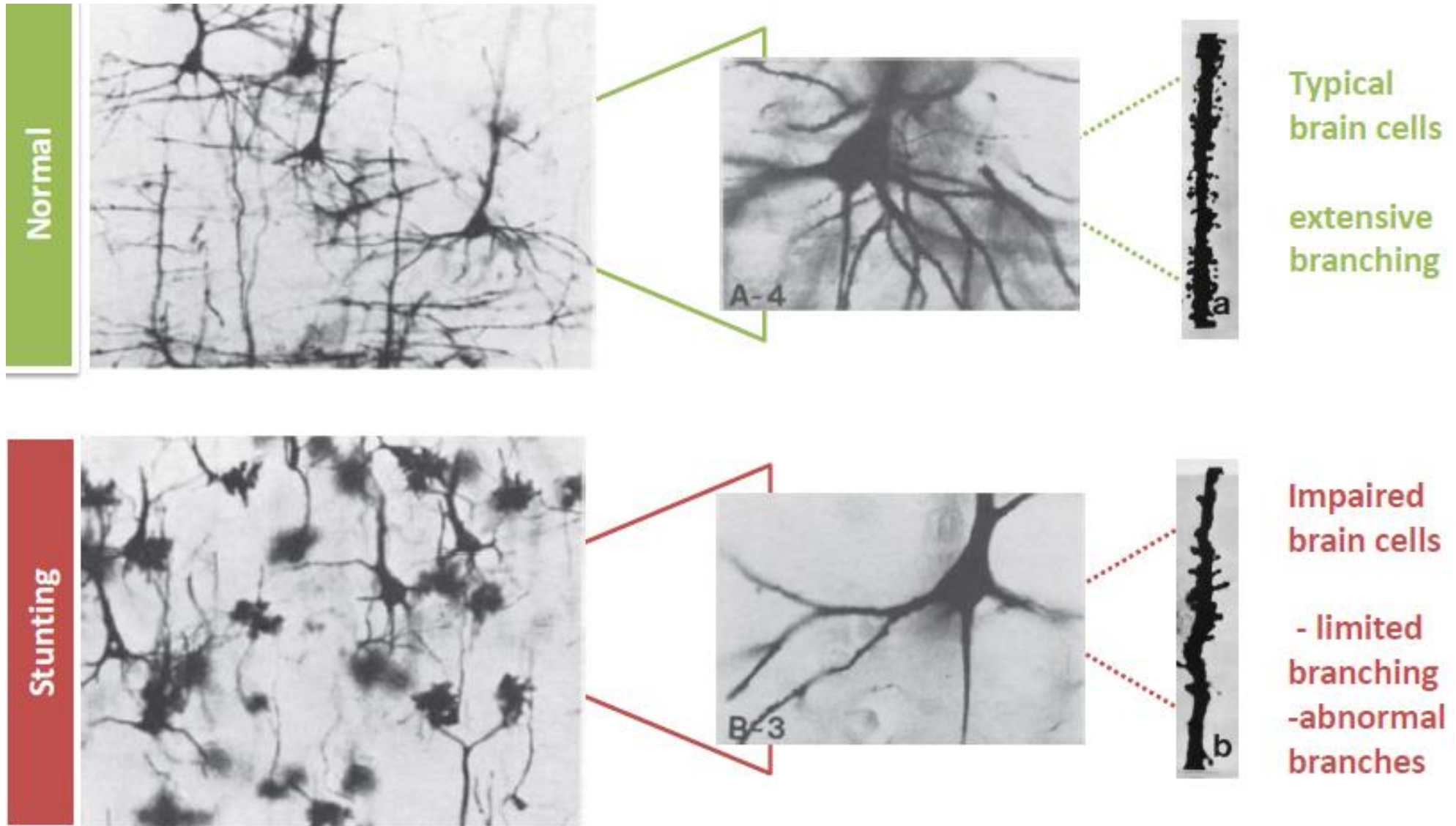
Sources: (1) WHO. The World Health Statistics 2020; (2)  
\*For undernutrition: Black et al. Lancet, 2016

# Forms of malnutrition

- W/H: poverty differential  
Higher malnutrition in poorer households
- W/A: location differential
- More underweight in rural vs urban settings

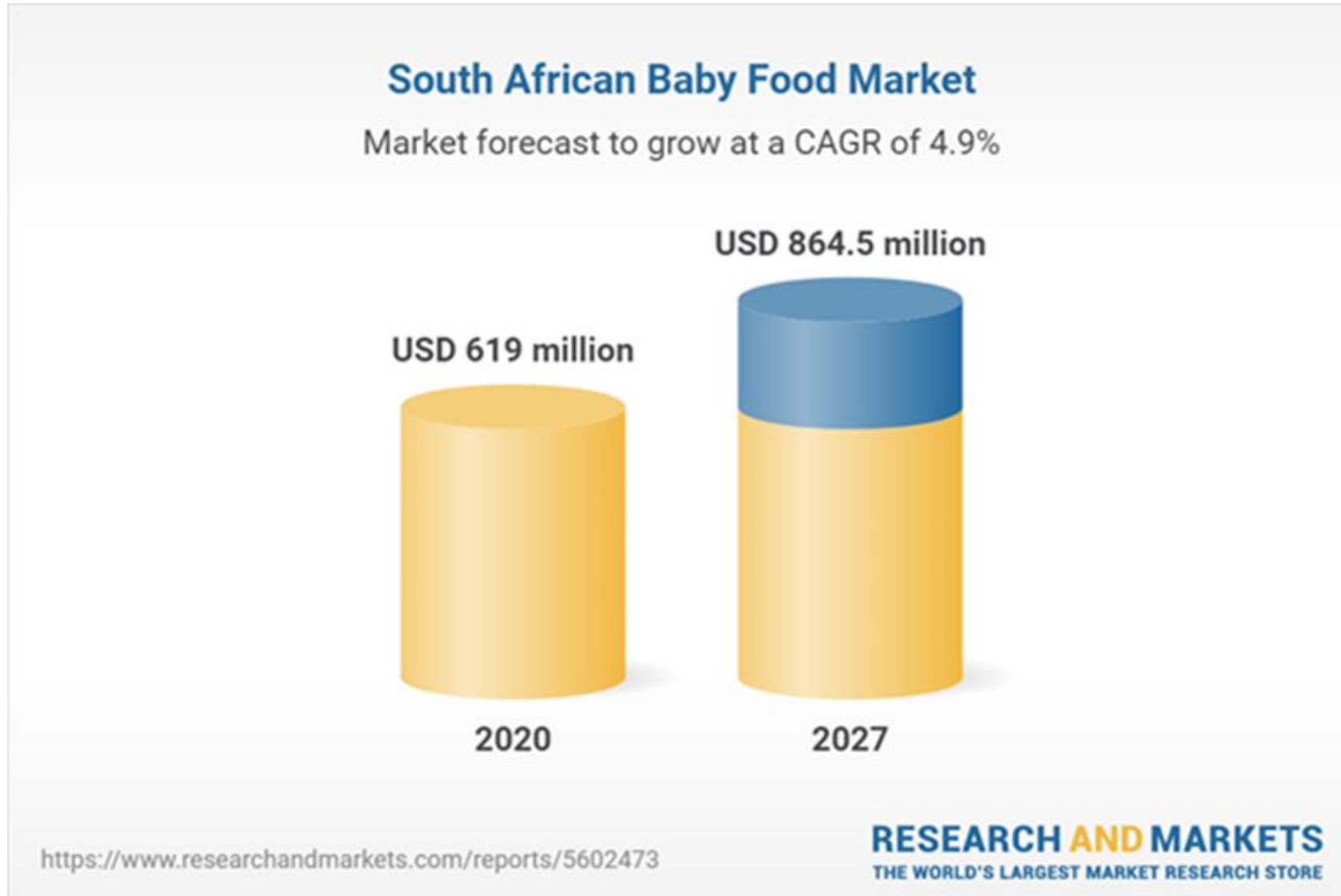


# Effects of stunting on the brain



Source: Cordero E et al, 1985 (Adapted from Figure 2 & Figure 4), Benitez-Bribiesca et al. 1999 (Adapted from Figure 4)

# Explicit intension to grow formula sales at the expense of?



\$55bn  
SPENDING  
ON  
MARKETING

Launch 2 of new WHO-UNICEF report:

How the marketing of  
**Formula Milk**  
influences our  
decisions on infant  
feeding.



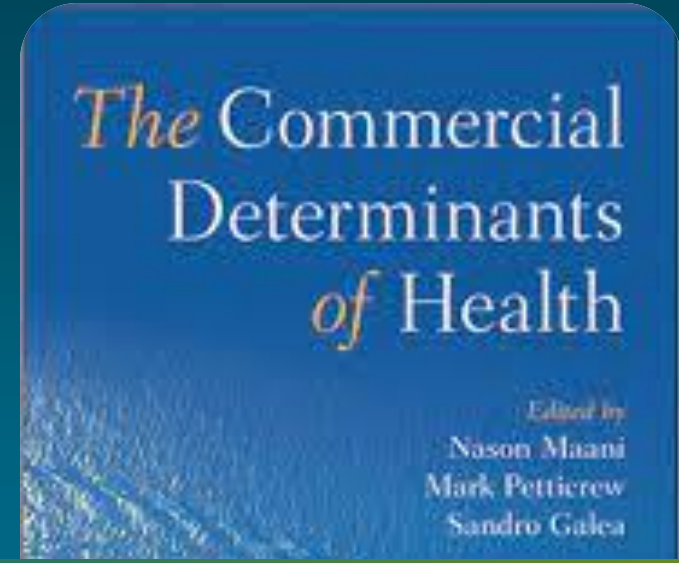
23 February 2022, 11:00 EST/New York



23 February 2022



8 February 2023



29 March 2023



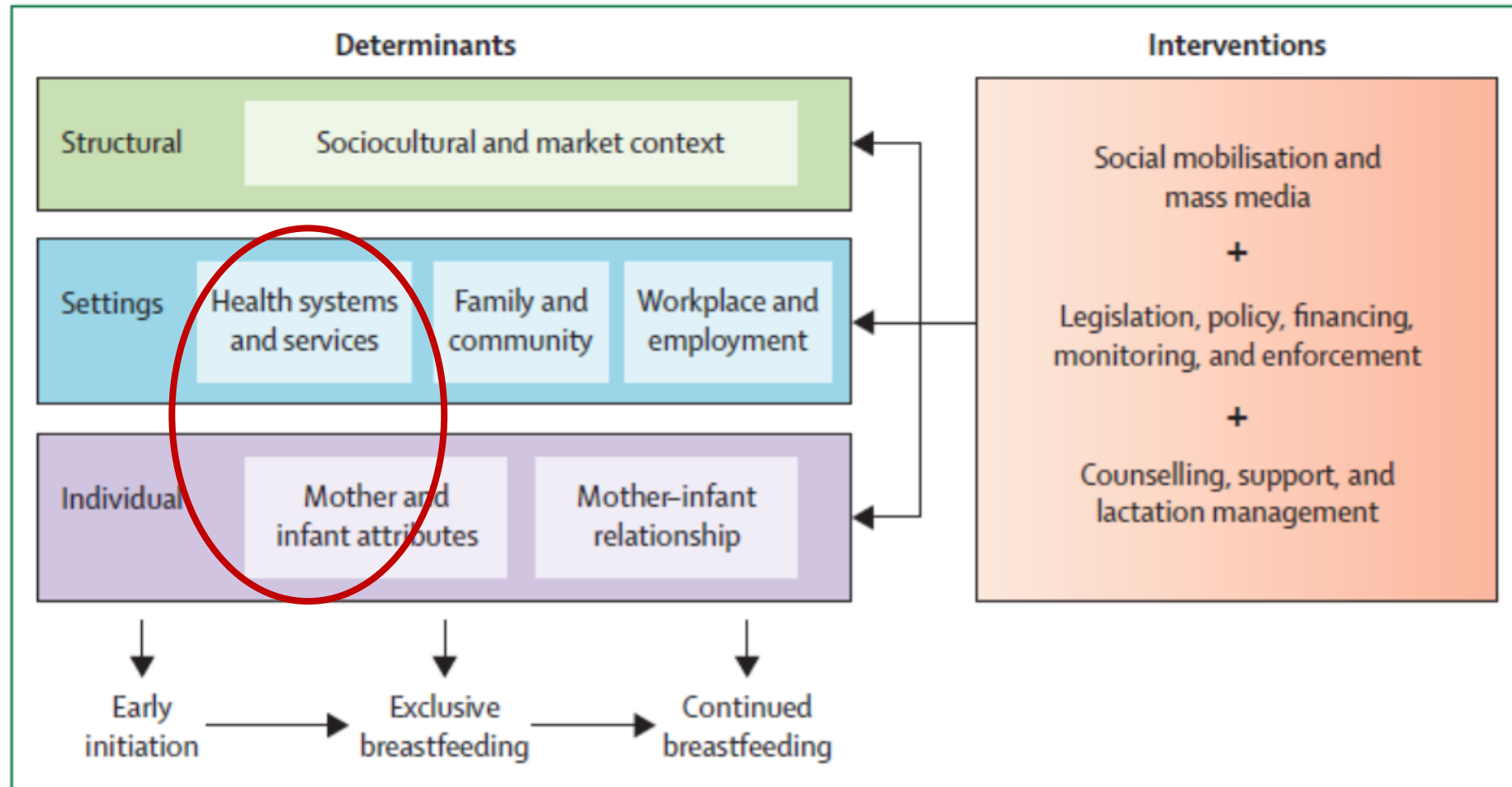
"The marketing of commercial milk formula for use in the first 3 years of life has negatively affected the infant and young child feeding ecosystem"

A Series by The Lancet





# Determinants of Breastfeeding








# Insights from private sector health professionals

Open access

Original research

## BMJ Open They push their products through me: health professionals' perspectives on and exposure to marketing of commercial milk formula in Cape Town and Johannesburg, South Africa – a qualitative study

Tanya Doherty <sup>1,2,3</sup> Catherine Jane Pereira-Kotze <sup>2</sup> Silondile Luthuli <sup>4</sup>,  
Lyn Haskins,<sup>4</sup> Gillian Kingston,<sup>5</sup> Sithembile Dlamini-Nqeketo,<sup>6</sup> Gilbert Tshitaudzi,<sup>7</sup>  
Chistiane Horwood<sup>4</sup>

RESEARCH



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## Breastfeeding intentions and behaviours of doctor mothers in Bloemfontein, South Africa

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practice. With our global footprint, our CPD activities cover global concerns, keeping you in the know.

# In conclusion

The South African Child Nutrition landscape is changing for the worse to close the gap

- We need to invest in evidence-based context-specific nutrition interventions focusing on children under 2 years (window of opportunity)
- That we apply diligence to the policy environment (legislation – R3337) and programming settings
- That nutrition professionals take on leadership roles (wherever you may find yourself) to position breastfeeding central to health and development
- Advocate for enabling environments for mothers to breastfeed successfully



THANK YOU

Q & A

