



# Determinants of nutritional status and dietary diversity among children below two years in Kasungu and Mzimba, Malawi

**Judith Kuchenbecker**, Irmgard Jordan, Leonie Höber,  
Beatrice Mtimuni, Michael Krawinkel



# Methodology

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- Cross sectional nutrition baseline survey
- **6 selected extension planning areas (EPA)** of Kasungu and Mzimba District (FAO/FICA Food security project area)
- **24 selected sections, 3 villages per section**  
(proportional to population size)
- **15 farm households** with children below two years of age per village



# Indicators at baseline

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- Socioeconomic Status
- Household infrastructure
- Anthropometric data (parents and child)
- Infant and young child feeding practices (according to WHO)
- Mothers knowledge about „nutrition“ and infant and young child feeding
- Household Hunger Scale (according to FAO)
- Household Dietary Diversity (according to FAO)
- Motor milestones (child)

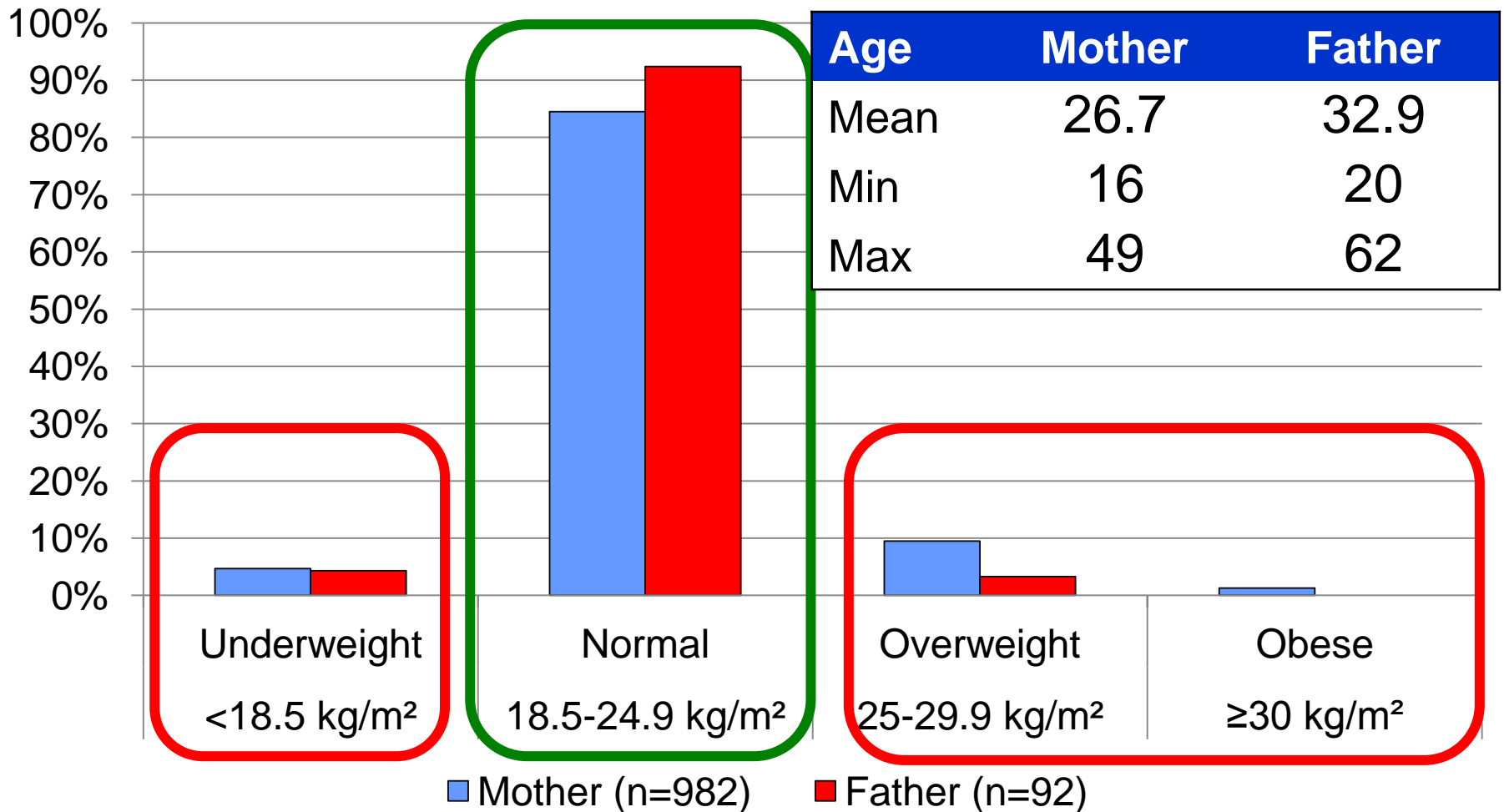
# Household Characteristics (n=1,041)

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Household size	5.7
Male headed HH	93.0%
Main occupation farming	80.0%
Education of mother	
ever attended school	89.5%
can read	71.6%
completed primary	34.1%
Water and Sanitation	
improved drinking water source	76.3%
improved latrine facility	30.2%
Nearest health facility	
walking distance > 2hrs	50.3%

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# Parents



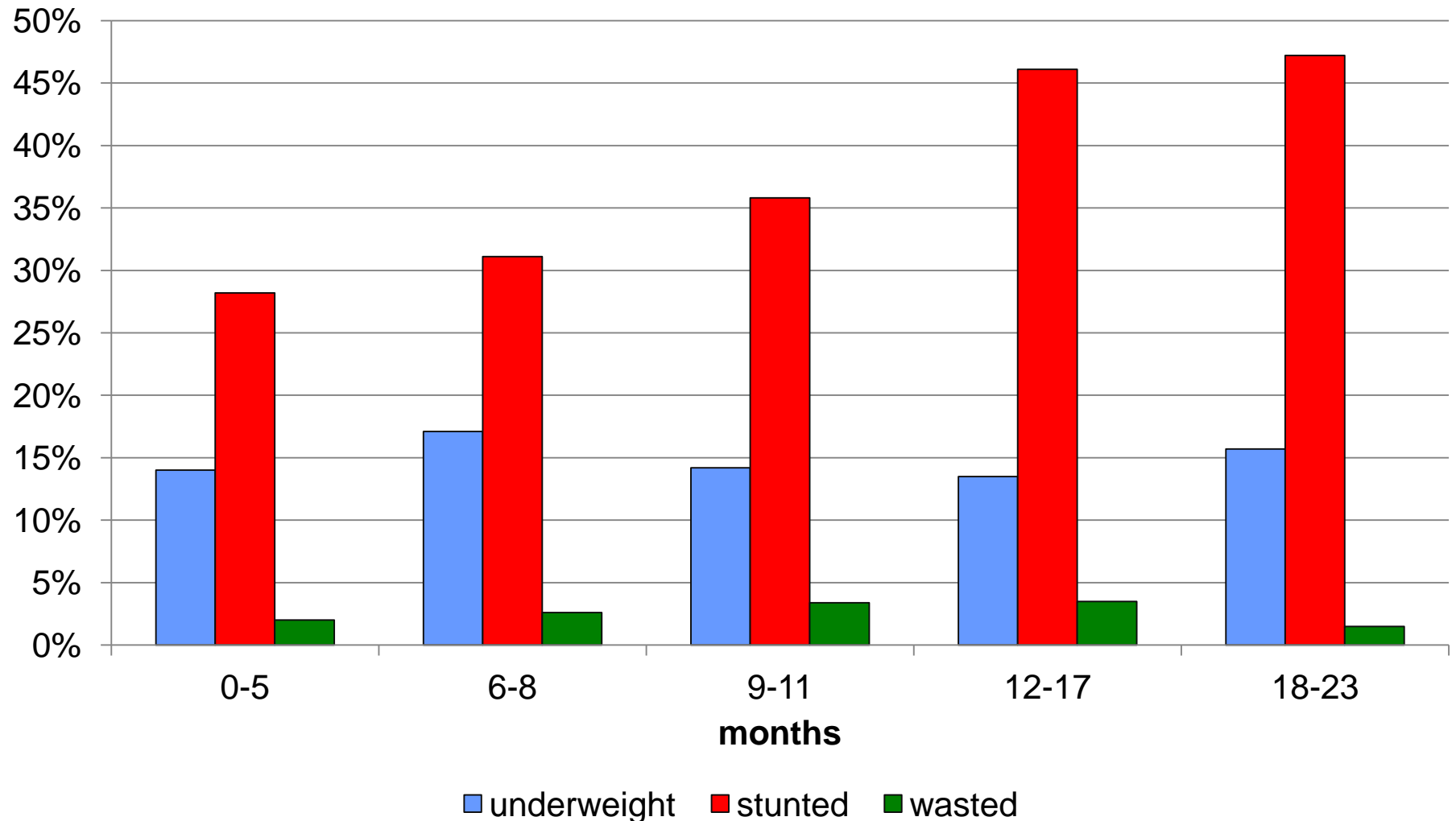
# Nutritional status of children below 2 years

Variable	n	Mean $\pm$ SD	Prevalence of < -2 Z-Score	Prevalence of < -3 Z-Score
WAZ *	1037	-0.87 $\pm$ 1.09	14.7 %	2.4 %
HAZ *	1032	-1.70 $\pm$ 1.13	39.2 %	10.2 %
WHZ *†	1031	0.12 $\pm$ 1.04	2.5 %	0.1 %

\*Z-scores: weight for age, height for age, weight for height, WHO Standard 2006

† >2 z-score = 2.6%

# Nutritional status of children below 2 years



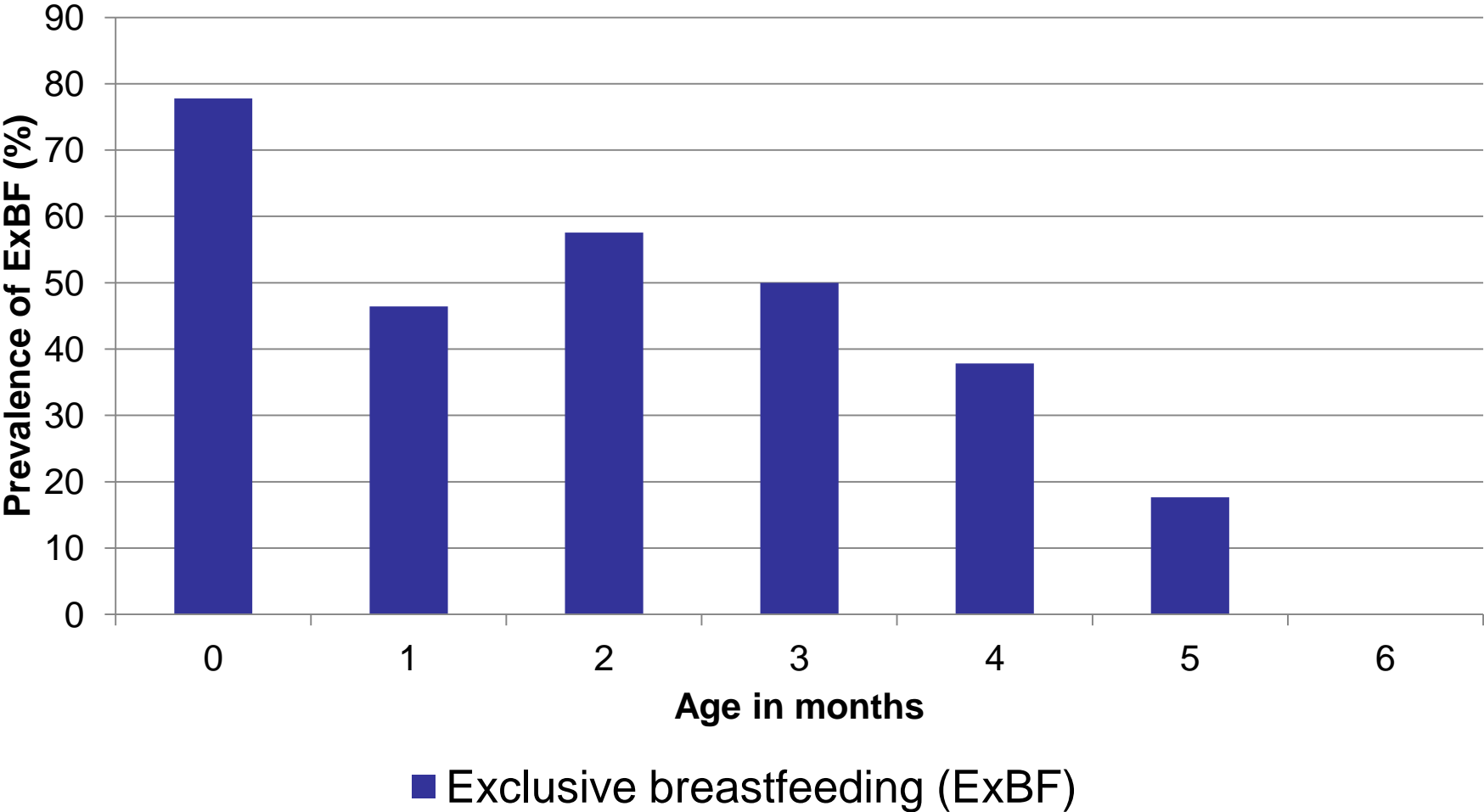
# Basic determinants of stunting

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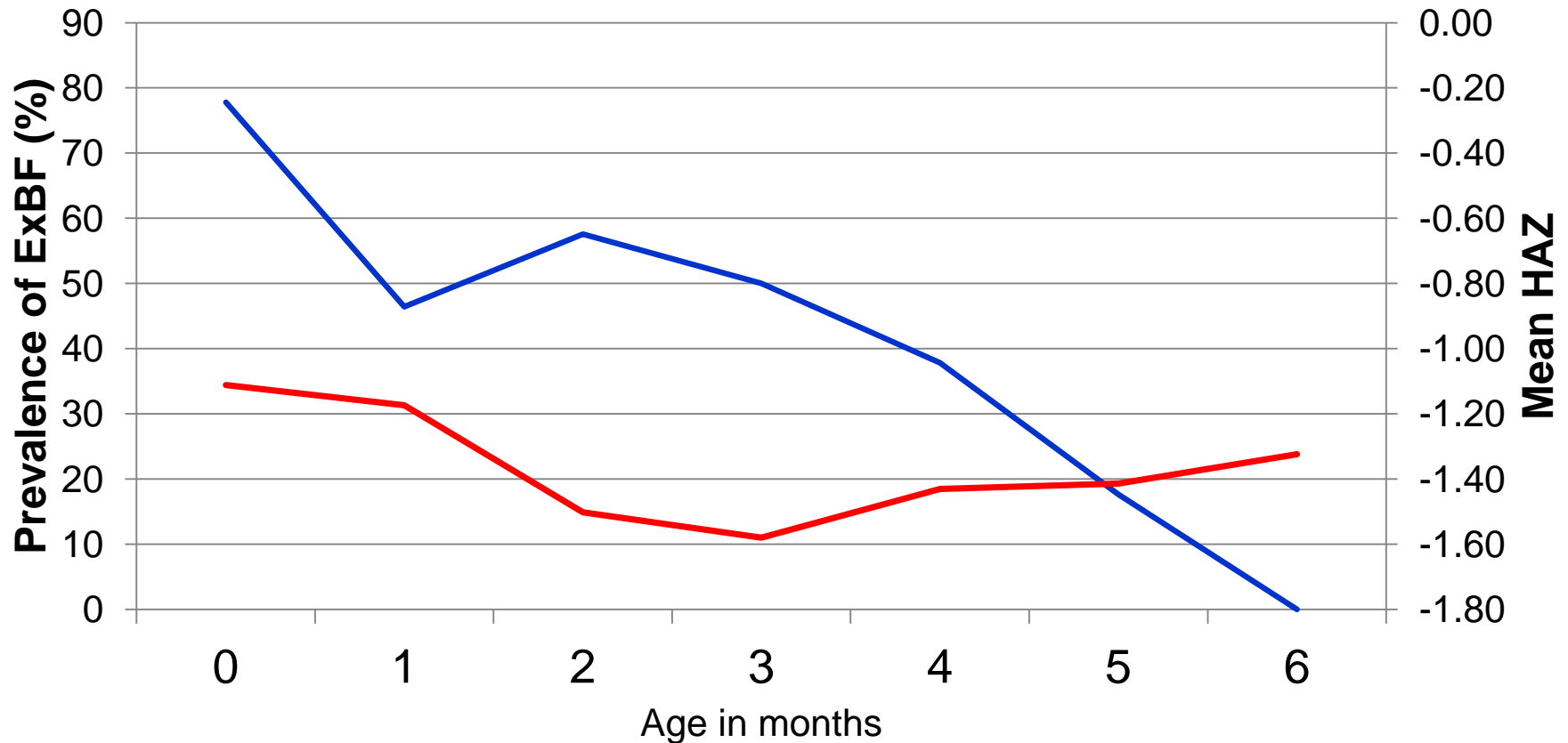
Variable	Regression-coefficient	Standard-error	<i>p</i>
Wealth Index	0.527	0.321	ns
Sex of Child (boys)	0.285	0.074	<0.01
Height of Mother	0.061	0.007	<0.01



# Exclusive breastfeeding

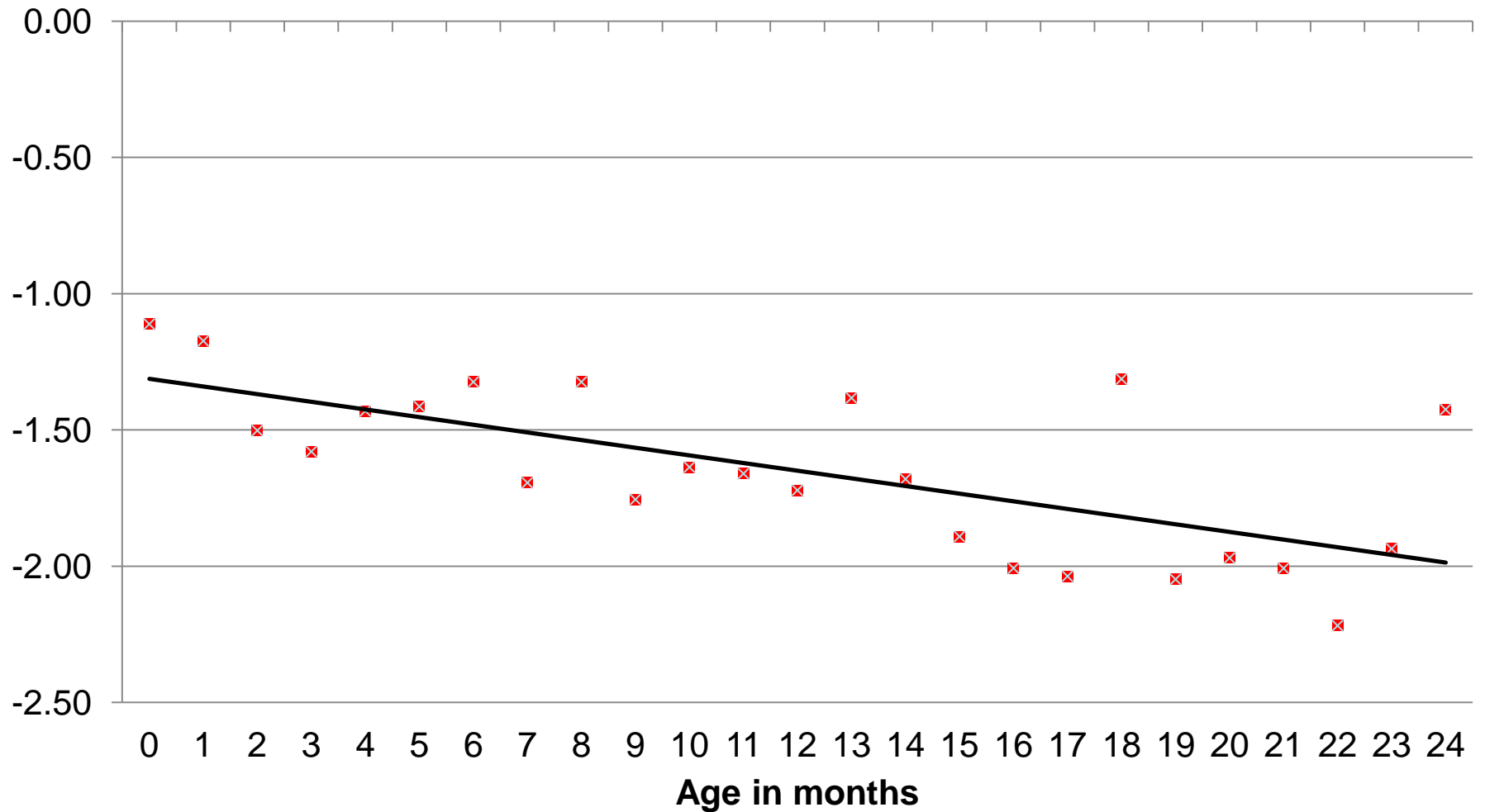


# Exclusive breastfeeding and HAZ (n=208)



- Exclusive breastfeeding (ExBF)
- Mean height for age z-score (WHO 2006)

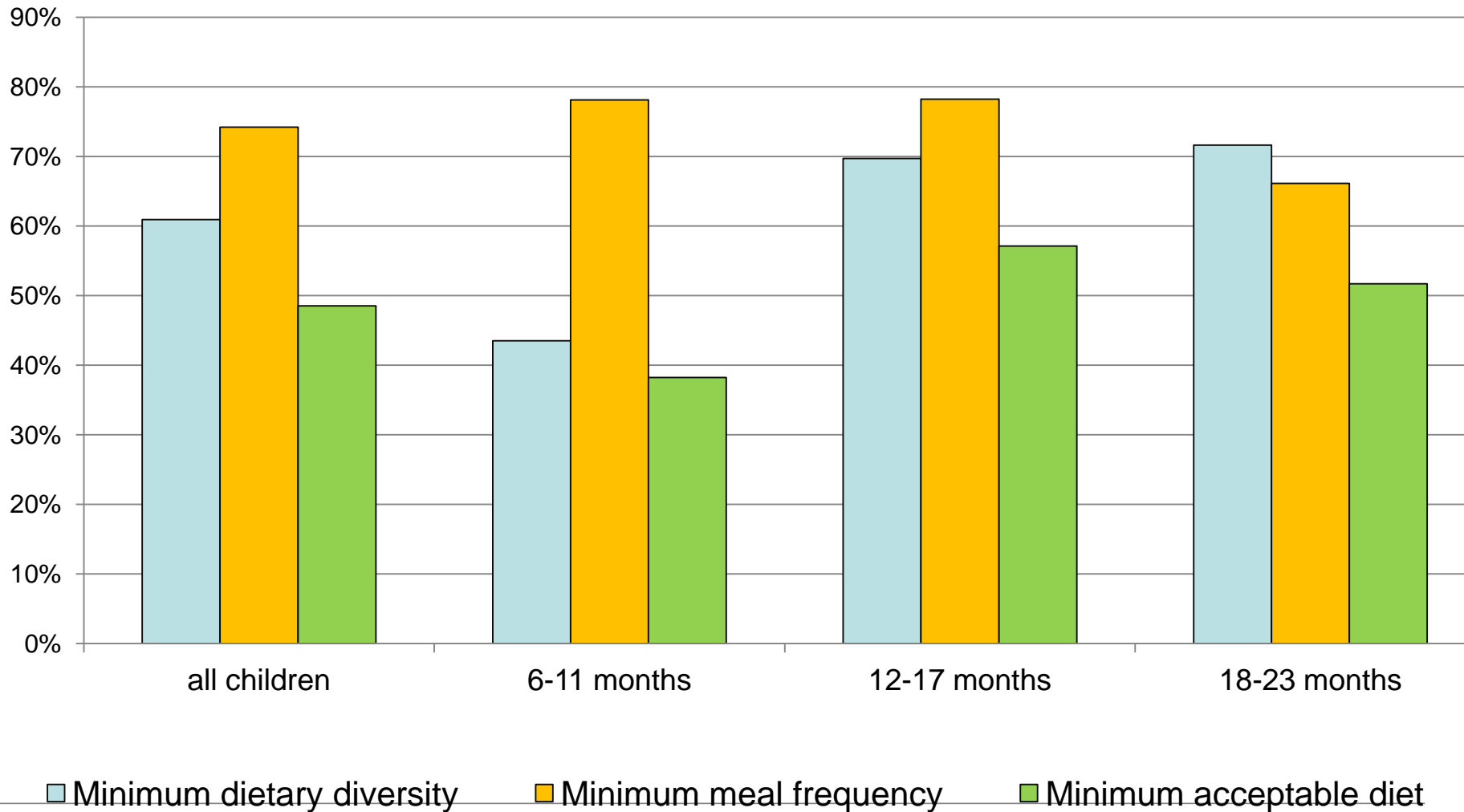
# Mean height for age z-score per month (n=1,041)



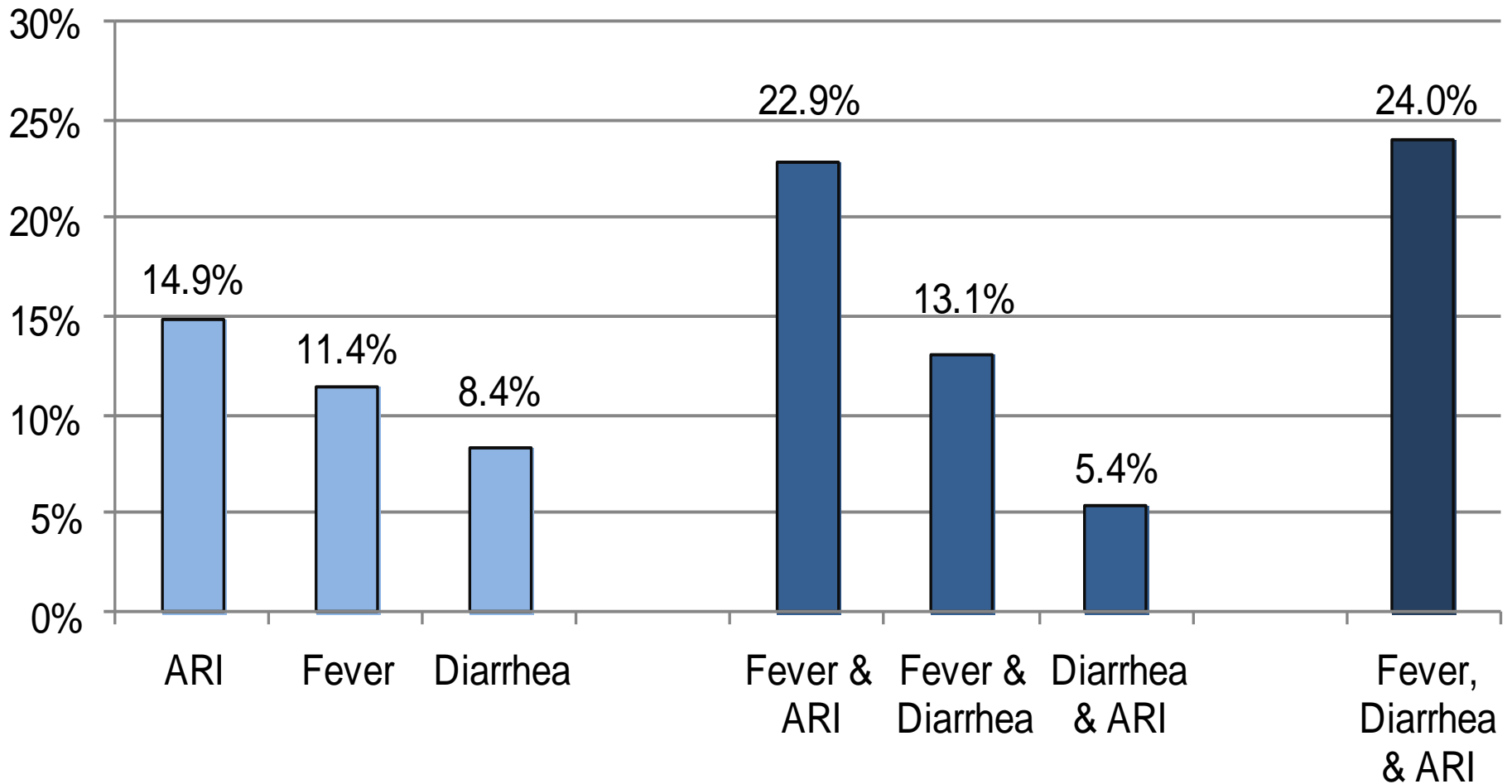
# Selected infant & young child feeding indicators

Indicator	Percent	N
exclusive breastfeeding (0 - 6 months)	40.9	205
predominant breastfeeding (0 - 6 months)	55.3	205
early initiation of breastfeeding (0 – 23 months)	65.5	1041
Minimum dietary diversity (MDD) (6 - 23 months)	60.9	507
Minimum meal frequency (MMF) (6 – 23 months)	74.2	618
Minimum acceptable diet (MAD) (6-23 months)	48.5	404

# Children achieving MDD, MMF, and MAD



# Prevalence of ARI, fever and diarrhoea, within two weeks before the survey



# Role of messages on child feeding practices

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The children of mothers

- who received nutrition education messages in the month before the survey
  - and those who did not have diarrhoea within the two weeks before the survey
- were more likely to have a higher child dietary diversity score
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# Conclusion

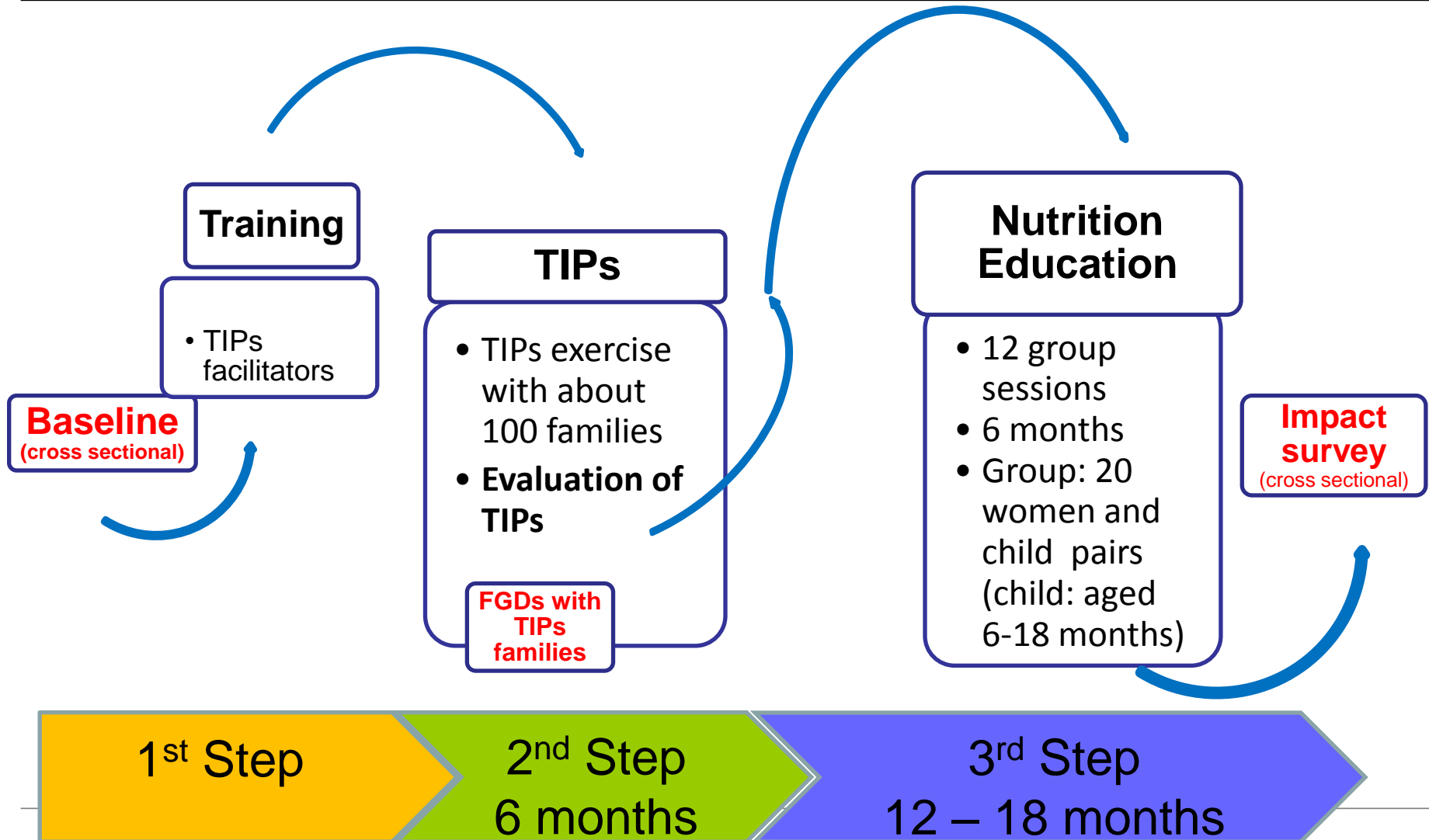
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Need for affordable ways to improve

- exclusive breastfeeding  
(increase support to the mothers)
- young children's dietary diversity
- meal frequency especially for children  
above 1 year



# FAO food security projects & IMCF research



# Registration and funding

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Federal Ministry  
of Food, Agriculture and  
Consumer Protection

# Thank you

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