Measuring Inequalities in Co-Coverage of Multi-Sector Nutrition Interventions: Findings from the One Nutrition Coverage Survey- Bangladesh

Swetha Manohar
Nutrition, Diets, and Health
International Food Policy Research Institute

Reducing malnutrition in key populations requires receipt of multiple interventions, often delivered by different sectors

To prevent or reduce vitamin A deficiency in young children

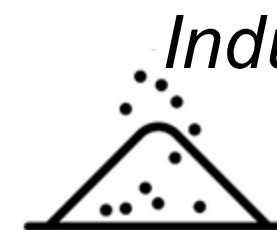*Health*

Industry

To improve pregnancy and birth outcomes

Health

Social protection

Industry

To reduce anemia in women of reproductive age

Health

Industry

Monitoring coverage is critical to support the scaling process.

How do we measure coverage of multisectoral interventions & evaluate whether target populations are being reached with ***multiple interventions****?*

One Nutrition Coverage Survey Objectives

- Generate district-level coverage and co-coverage estimates for multi-sectoral nutrition interventions

- Demonstrate assessment of equity in coverage by highlighting approaches to produce disaggregated estimates

- Develop guidance for implementation considerations (design, indicators/ analysis, costs) for integrating questions/modules into large-scale household surveys.

Survey methods

- **Cross-sectional** population-based survey (4 districts)

- **Data collection period**: February – June 2025

- **Multi-stage cluster sampling (background):**
  - Step 1: Randomly sampled (PPS): 164 Enumeration Areas (EA)
  - Step 2: Simple random sampling of 20 HH/ EA

- **Sample size**: 3251 households

- **Target population of interest:**
  - women of reproductive age (15-49y)
  - women of reproductive age (15-49y) w/ birth (live & still) in past 2y
  - children (0-9y)
  - adolescents (10-19y)*

Data collection: Household interviews

Household modules

- HH Roster
- Demographics
- Asset ownership
- Access to amenities
- WASH
- Nutr-sensitive ag
- Social protection
- Access to fortifiable food vehicles

Women (15-49y) modules

- Birth history
- Micronutrient supp
- Food supp
- Antenatal care services
- Postnatal care services
- Nutrition counseling
- Deworming

Child (0-9y) modules

- Breastfeeding & IYCF counseling
- Micronutrient supp
- Food supp
- Growth monitoring
- Nutrition counseling & education
- Screening SAM + referral
- Immunization
- Deworming
- ORS
- School feeding

Adolescent (10-19y) modules

- Micronutrient supp
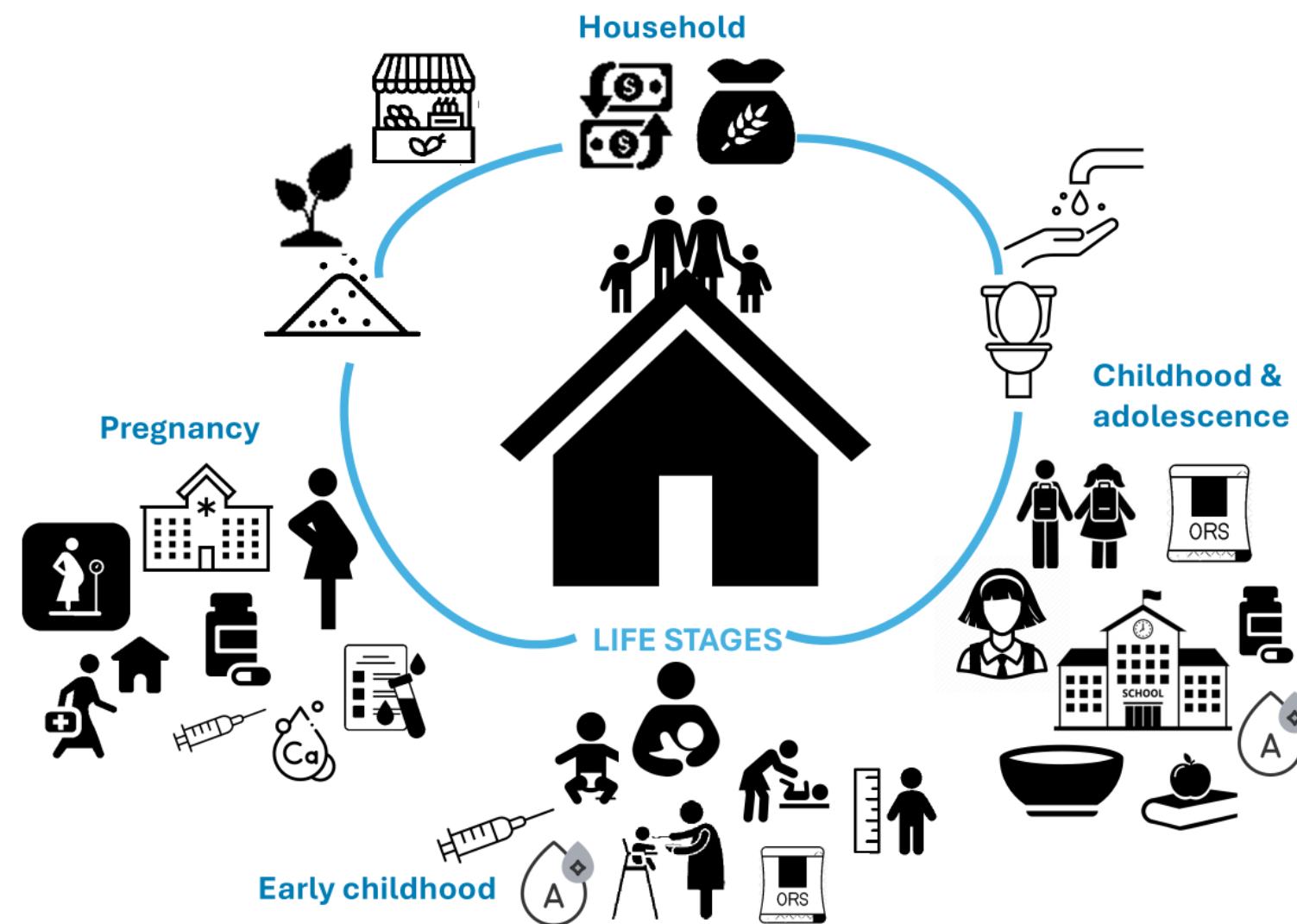- Nutrition counseling & education
- Deworming
- School feeding

Measures:
- From or adapted from DHS/MICS/LSMS
- Piloted

HH-level multi-sectoral nutrition interventions mapped to national policies & programs

Analysis: Coverage and co-coverage (clustering)

'**Co-coverage**' measures clustering of interventions

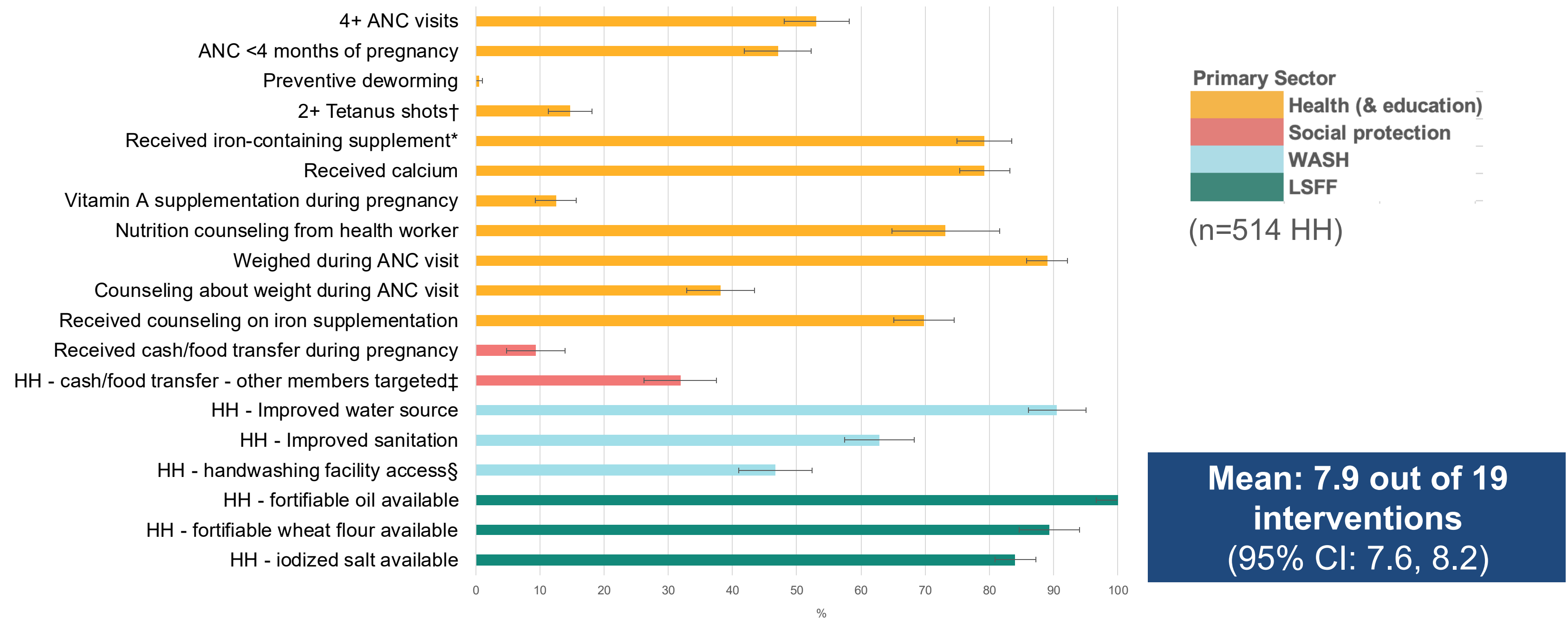| By life stage |
| --- |
| Interventions recommended for:

• **Pregnancy**
• Adolescence
• Early childhood <2y
• Preconception (women of reproductive age) |

By public health program/problem
Interventions to address: • Stunting reduction (first 1000 days) • Anemia control • Vitamin A deficiency control

Pregnancy: On average, women received less than half of interventions during pregnancy; several critical services during ANC (timing & frequency) remain low.

Primary Sector
- Health (& education)
- Social protection
- WASH
- LSFF

(n=514 HH)

Mean: 7.9 out of 19 interventions (95% CI: 7.6, 8.2)

Chart categories (top to bottom):
- 4+ ANC visits
- ANC <4 months of pregnancy
- Preventive deworming
- 2+ Tetanus shots†
- Received iron-containing supplement*
- Received calcium
- Vitamin A supplementation during pregnancy
- Nutrition counseling from health worker
- Weighed during ANC visit
- Counseling about weight during ANC visit
- Received counseling on iron supplementation
- Received cash/food transfer during pregnancy
- HH - cash/food transfer - other members targeted‡
- HH - Improved water source
- HH - Improved sanitation
- HH - handwashing facility access§
- HH - fortifiable oil available
- HH - fortifiable wheat flour available
- HH - iodized salt available

X-axis: % (0 to 100)

Note: Target population includes WRA with live & stillbirth in the past 2 years. ANC: antenatal care; HH: household; MSN: multisectoral nutrition
† % women (aged 15-49 years) with a live birth in the last 2 years preceding the survey who received 2 or more tetanus shots during their pregnancy that led to a live birth
* includes iron supplement, iron-folic acid, multiple-micronutrient supplement
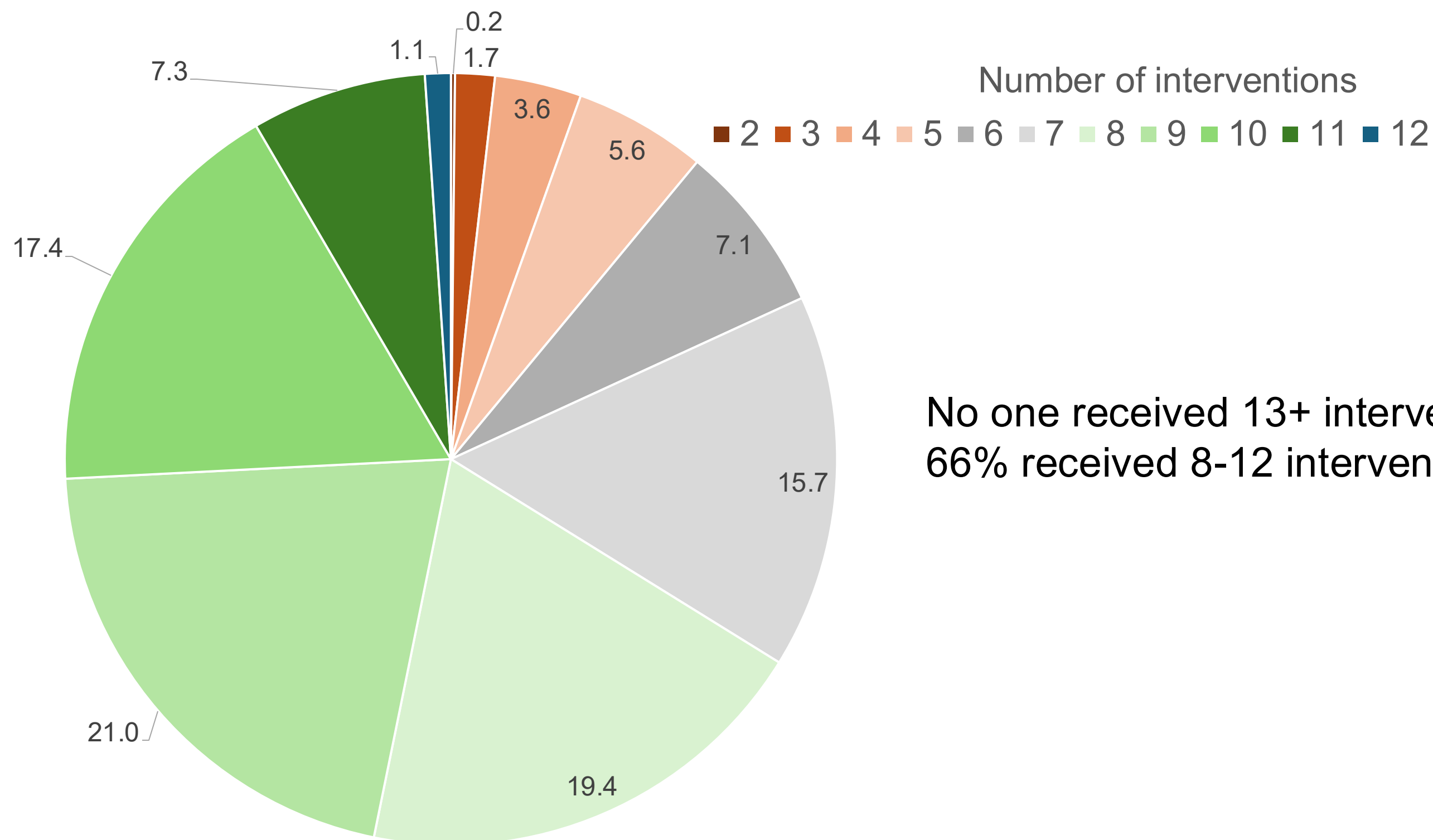‡ pregnancy women are excluded from this coverage estimation
§ Includes running water & soap

Co-coverage: Number of multisectoral nutrition interventions during pregnancy
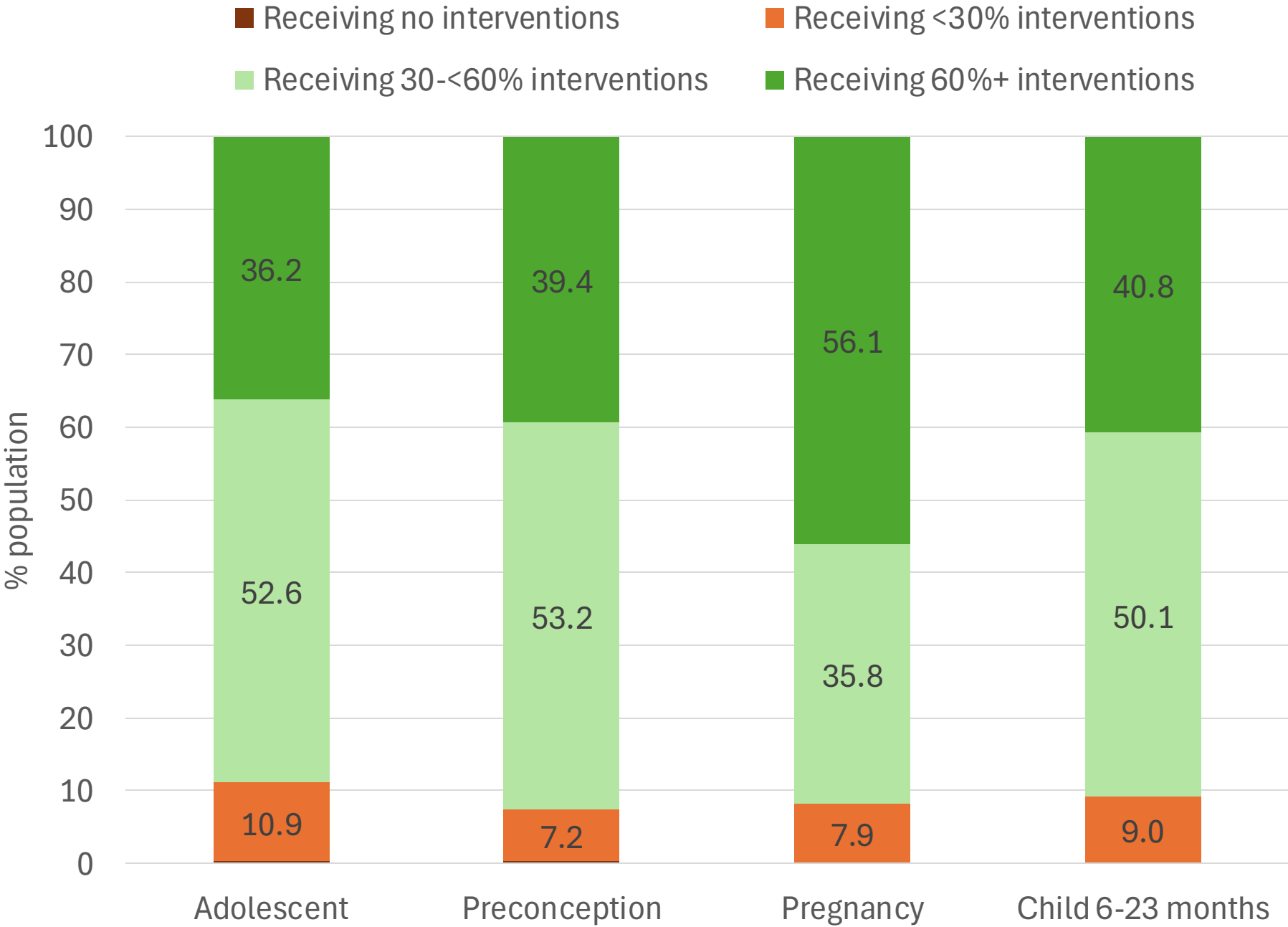
Using standardized % of interventions

% population by co-coverage levels, by life stage

Legend:
- ■ Receiving no interventions
- ■ Receiving <30% interventions
- ■ Receiving 30-<60% interventions
- ■ Receiving 60%+ interventions

% population

Life stage	60%+	30-<60%	<30%
Adolescent	36.2	52.6	10.9
Preconception	39.4	53.2	7.2
Pregnancy	56.1	35.8	7.9
Child 6-23 months	40.8	50.1	9.0

% population by co-coverage levels, by public health program

Legend:
- ■ Receiving no interventions
- ■ Receiving <30% interventions
- ■ Receiving 30-<60% interventions
- ■ Receiving 60%+ interventions

% population

Program	60%+	30-<60%	<30%
Stunting control	38.3	52.4	9.1
Anemia control	45.4	46.5	7.5
Vitamin A deficiency control	39.6	50.2	10.0
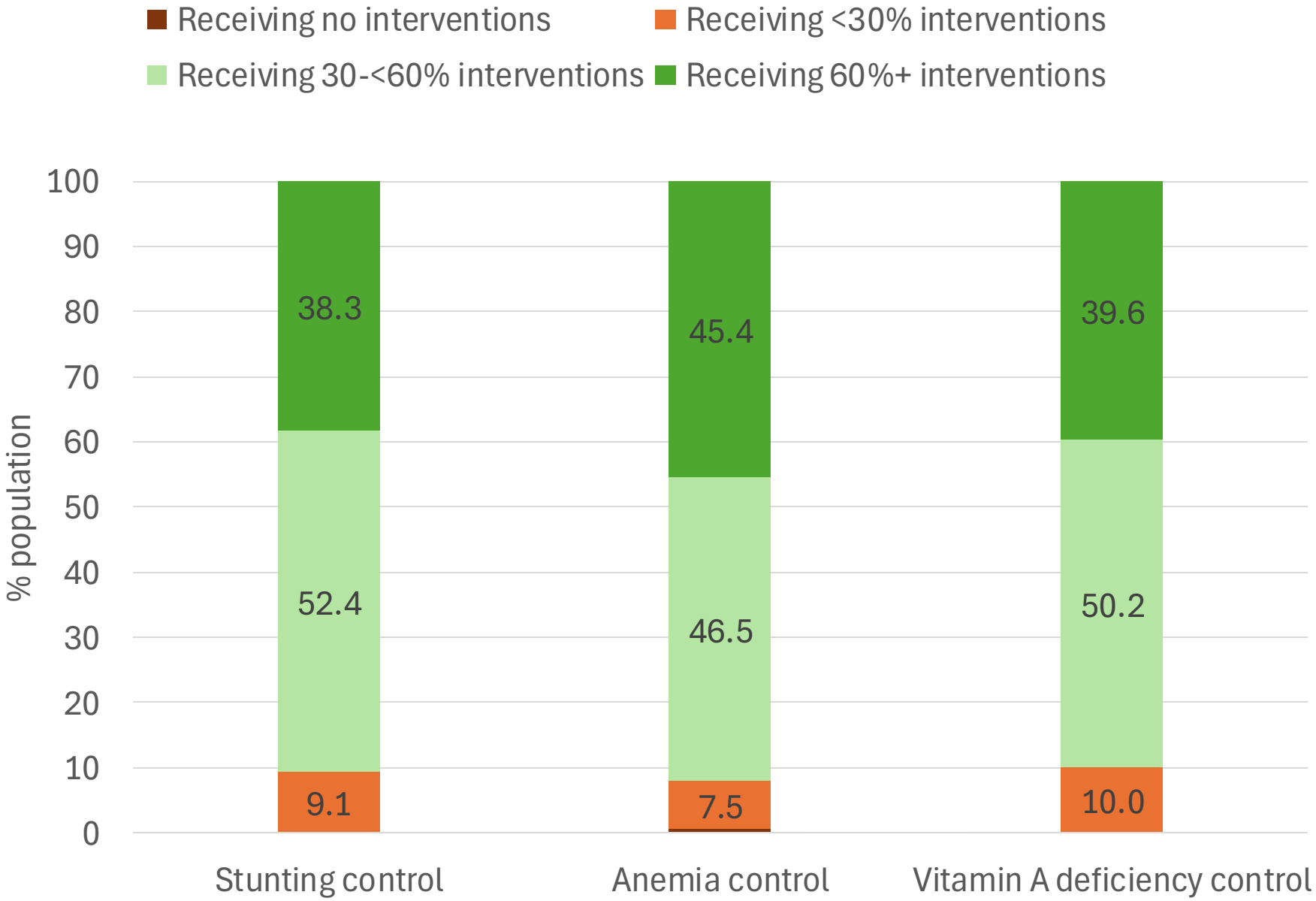
Inequalities in co-coverage among HHs receiving >60% of multisectoral nutrition interventions exist by wealth

By life stage
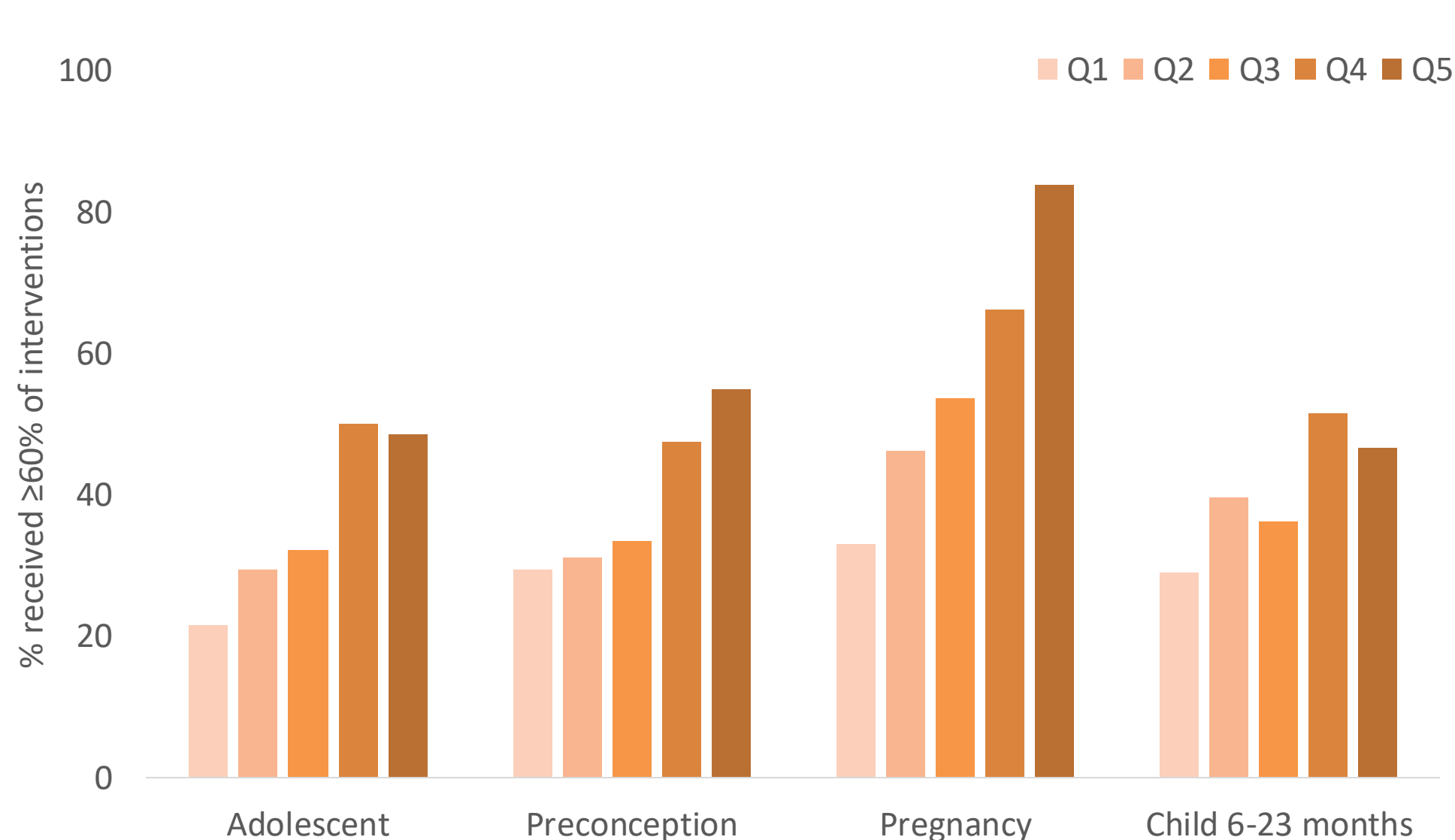
By public health program

Co-coverage using standardized % of interventions
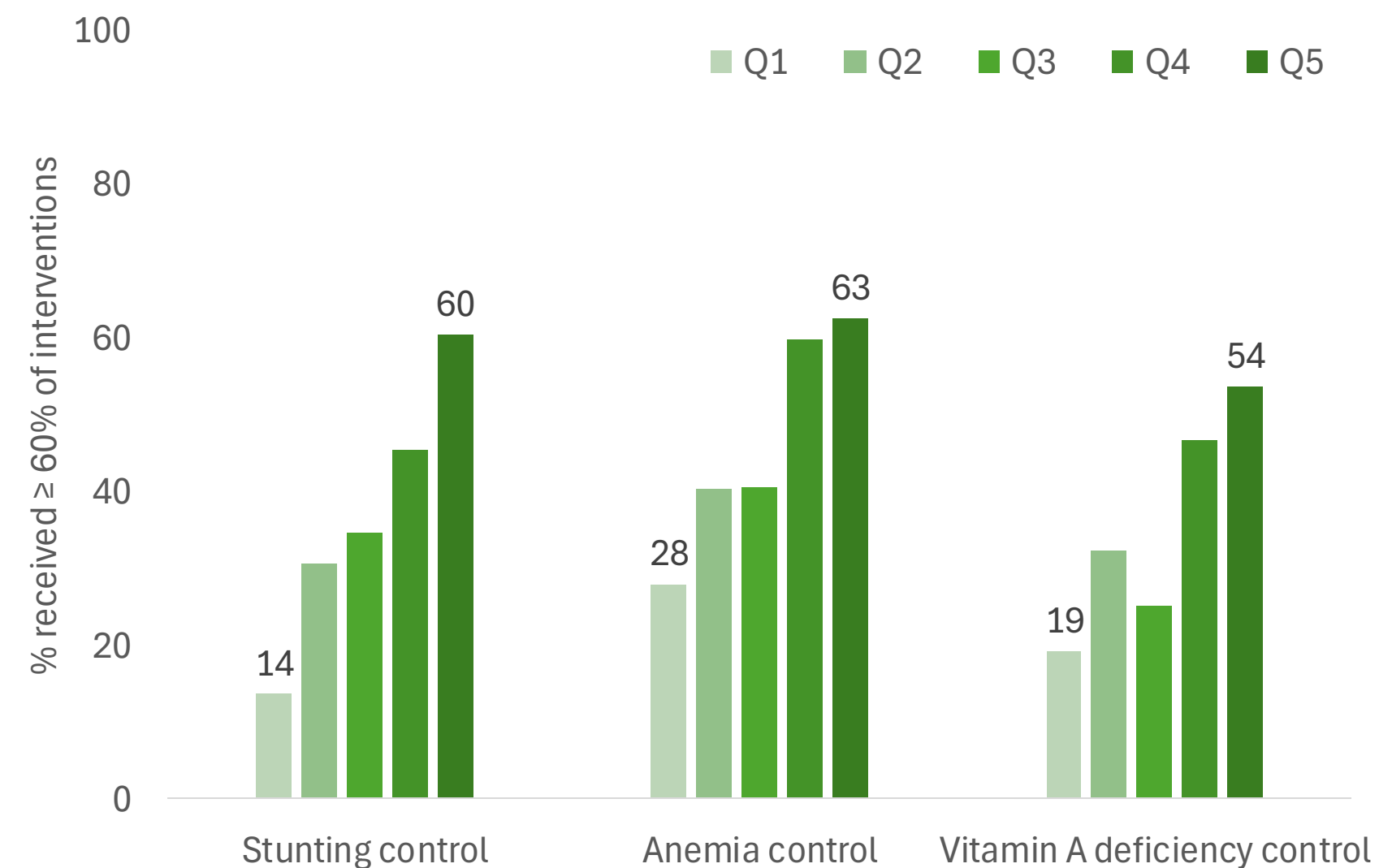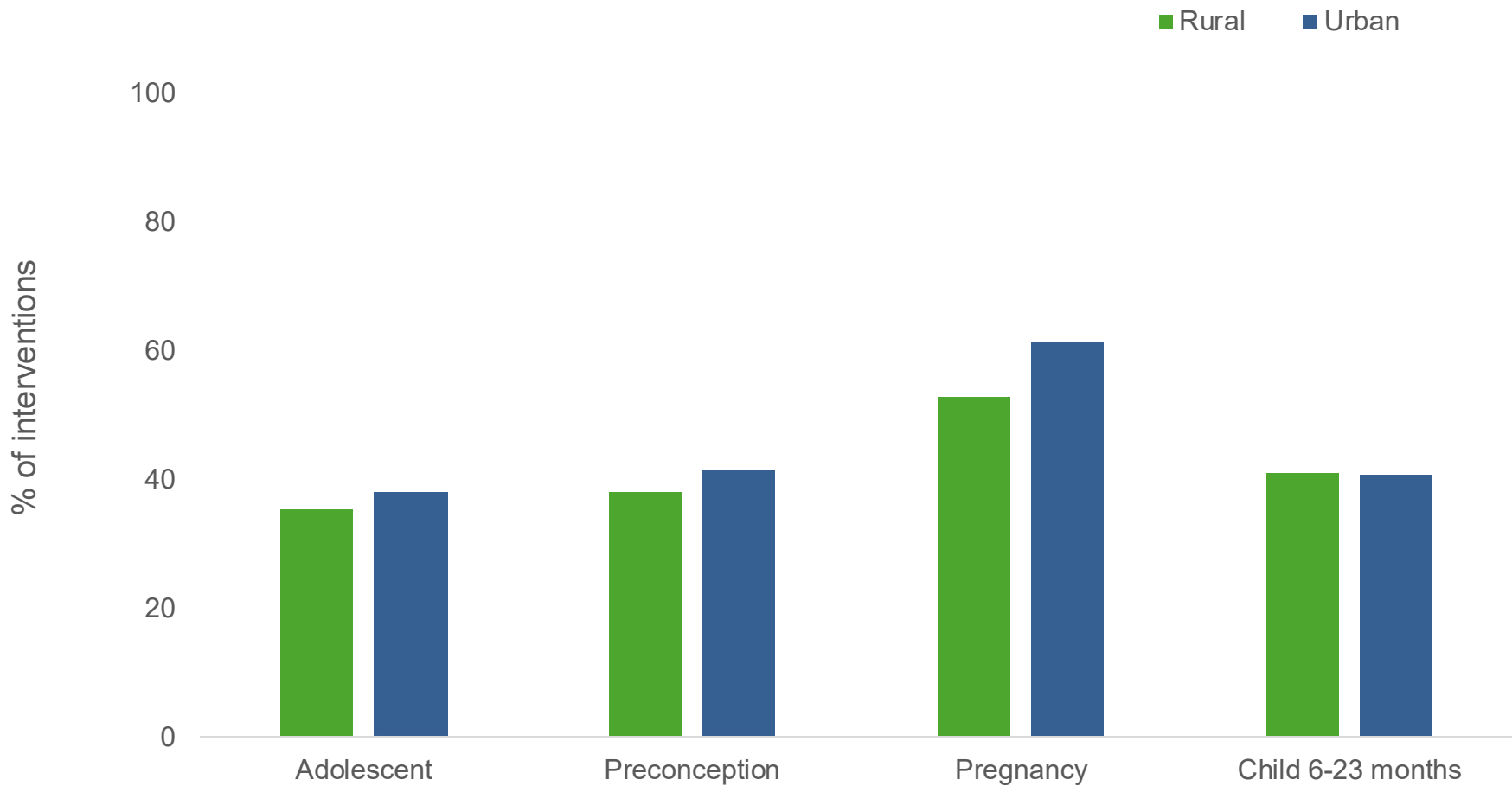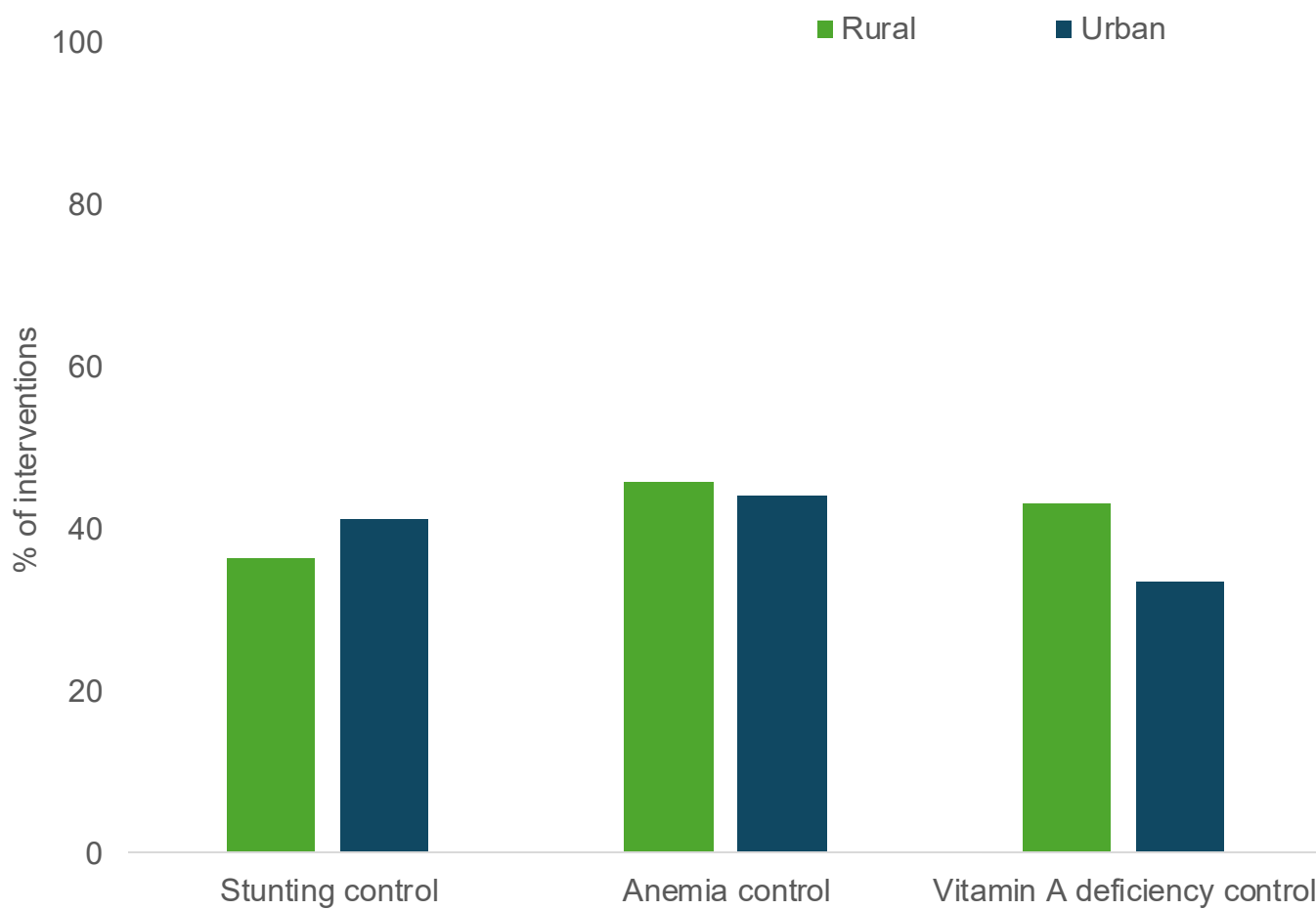
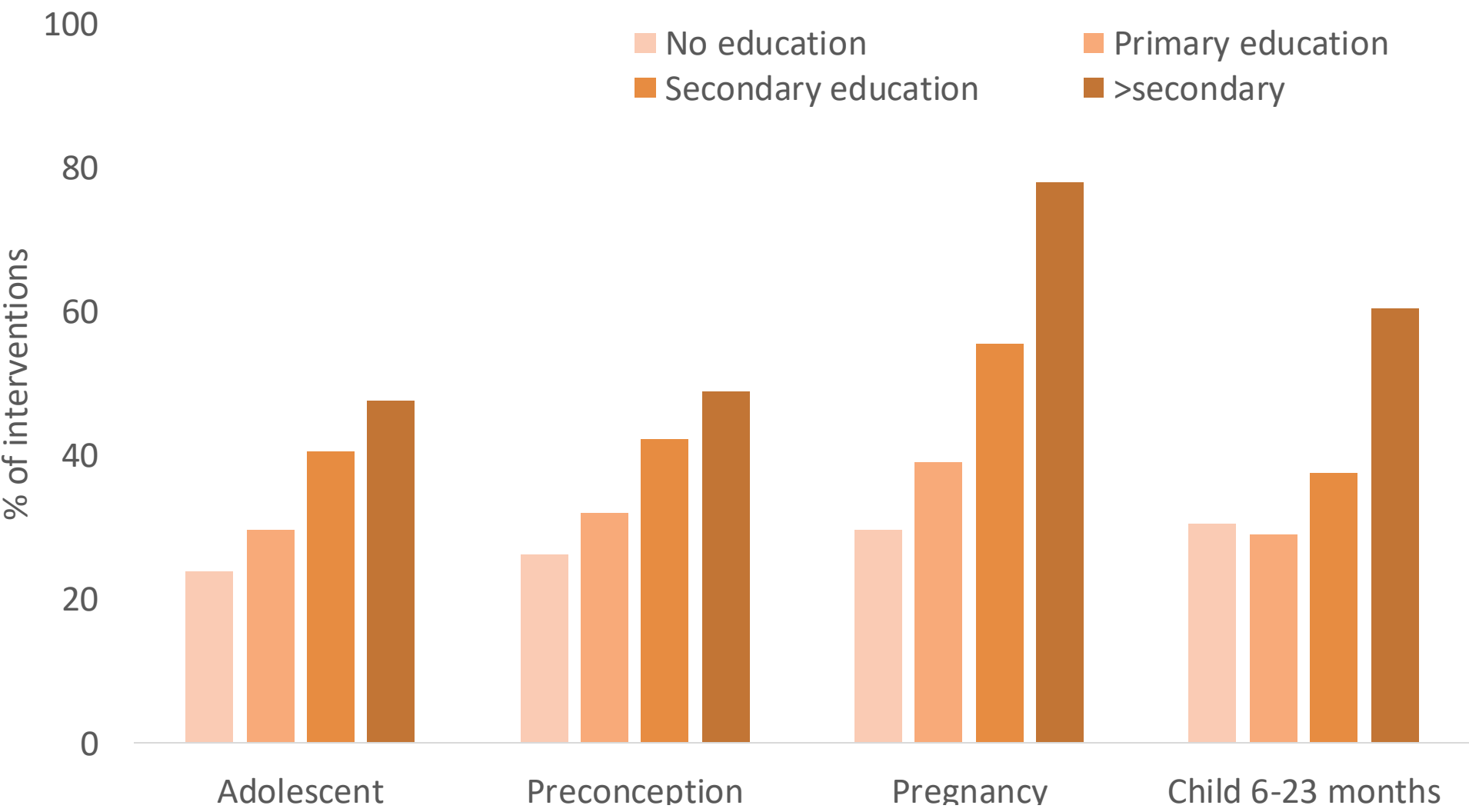## No urban-rural differences in co-coverage of interventions

By life stage
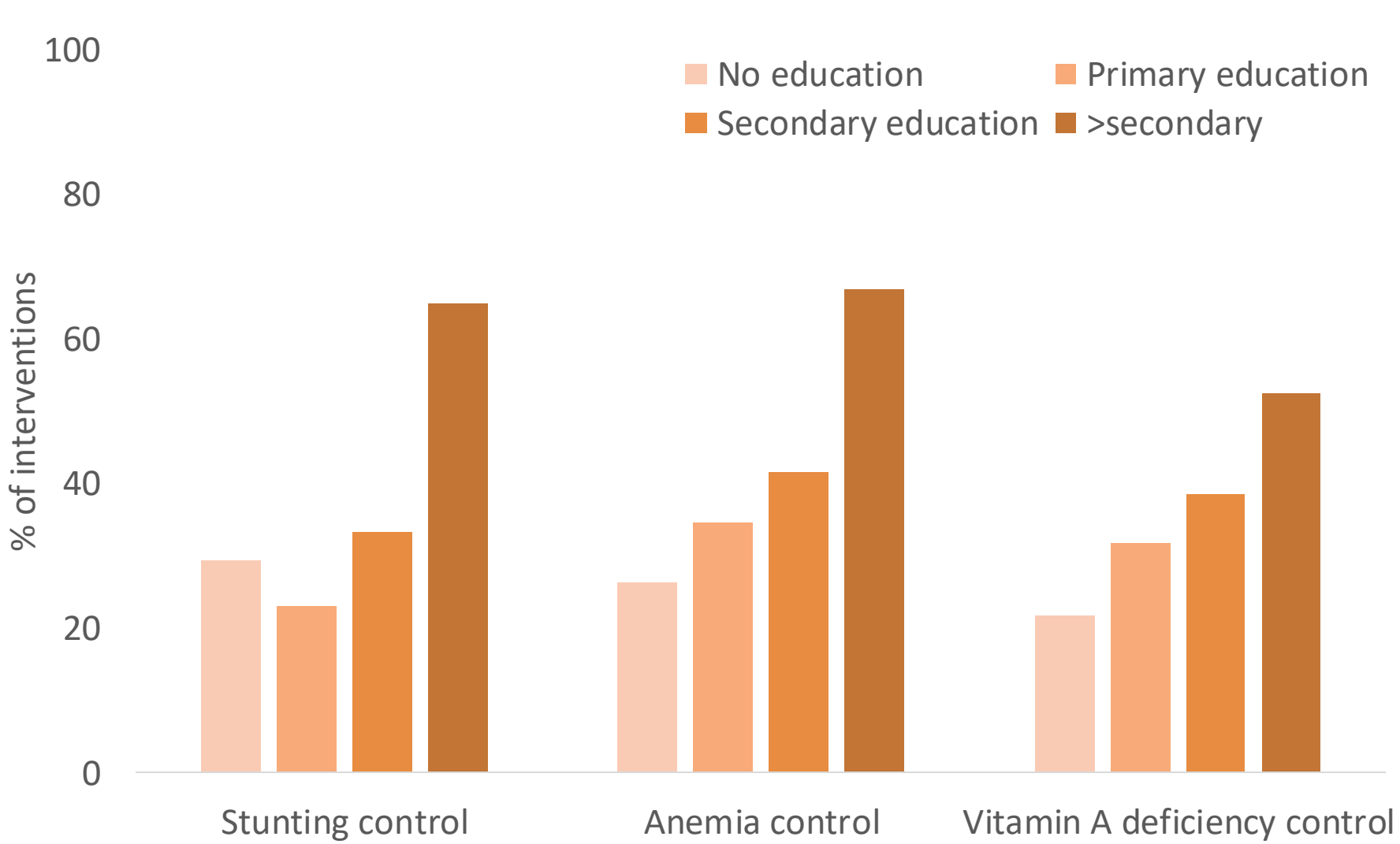
By public health program

Inequalities in co-coverage of households receiving >60% of multisectoral nutrition interventions exist by mother's education level

By life stage

By public health program

Key takeaways

- **Co-coverage method is transparent**. If common indicators are used, estimates may be comparable across time and countries.

- **Measuring coverage of key multi-sectoral interventions** and assessing coverage using a sectoral lens and co-coverage can help policymakers identify which target populations are receiving sets of recommended interventions across sectors.

- Co-coverage indices are country-specific and survey-specific

ONCS Toolkit

- Brings together the **tools, materials, and guidance** used to implement and analyze ONCS data in Bangladesh.

- **Provides reference** tools (e.g.: survey modules, costing methods) that can be adapted or replicated in other contexts.

- Designed to **guide** design and implementation of a nutrition intervention coverage survey.

- Facilitates the collection of **multisectoral nutrition intervention coverage** through **household surveys**.

- **Audience**: Groups/individuals involved in the development of household surveys related to multisectoral nutrition

Available end of 2025: www.datadent.org

This work was funded by the **Gates Foundation**

Gates Foundation

Find all DataDENT tools & resources related to intervention coverage on our website:

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- ❑ **Intervention Coverage**
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  - ○ MIYCN Counseling
  - ○ Nutrition Sensitive Social Protection
  - ○ School Feeding

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