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Data for Decisions in Nutrition

Strengthening Household Survey Measures of Nutrition-Sensitive Social Protection Coverage:
Learnings from Bangladesh and Ethiopia

BRIEF

What we learned

- **Ask about type of transfers received, not program names**. Respondents understood and could report receipt of cash, food, and in-kind transfers, whereas use and understanding of program names varied widely. Formal and informal program names can be mentioned to aid recall.
- **Targeting to "nutritionally vulnerable" is feasible to measure.** Respondents could report which household members received a transfer, although women and household heads did not always agree.
- **Direct recall of linked interventions is challenging.** Respondents did not consistently understand interventions as being linked to transfers.
- **Optimal respondent is not yet established.** Women of reproductive age are usually the intended NSSP beneficiaries and may be the most appropriate respondents, but further validation is needed.
- **Use simple, locally tested terms and invest in enumerator training.** Technical terms for interventions and response options about frequency of transfers produced cognitive errors; cognitive testing in each context before fielding can reduce measurement error. Enumerators needs to be carefully trained to ensure comprehension.
- **Co-coverage analysis** is an alternative approach for measuring NSSP program coverage in surveys that collect social protection and health and nutrition coverage in separate modules. It may overestimate coverage.

Background

Nutrition-sensitive social protection (NSSP) refers to poverty-reduction programs designed to address the underlying determinants of malnutrition by incorporating explicit nutrition objectives and actions into social protection platforms. These programs target nutritionally vulnerable groups such as pregnant women and young children and go beyond income support to include components such as nutrition counselling, behavior change communication, provision of fortified or nutritious food, and/or linkages to health services.[1]

Despite increased investment in NSSP, there is little population-level information on who NSSP programs reach.[2] There are standard indicators for coverage of social protection programs[3], but there is no standard NSSP coverage measure. Large-scale surveys such as the Living Standards Measurement Study (LSMS) and the Multiple Indicator Cluster Surveys (MICS) measure receipt of social protection transfers at household or individual level, but do not consistently measure receipt of health or nutrition interventions. When posing questions about social protection, these surveys use a mix of official program names and more general transfer types.

Measuring NSSP coverage raises several challenges, starting with agreeing on the defining features of an NSSP program that are relevant to coverage measurement **(Box 1). Figure 1** summarizes the three measurement questions that our formative research aimed to address.

Box 1. What defines an NSSP program for coverage measurement?

Through technical consultations with practitioners and researchers, the following minimum defining features of an NSSP program were agreed to for measurement purposes:

1. provides a conditional or unconditional **cash, food, or in-kind transfer**, may include school meals;
2. is **targeted to nutritionally vulnerable** household members such as pregnant and lactating women, children under 2 years, preschool-aged children or adolescents; and
3. is **linked by design to one or more health or nutrition interventions** such as nutrition counselling, referral to antenatal care, micronutrient supplementation or fortified food, which may or may not be delivered concurrently with transfer

Proposed indicator: the proportion of households with a nutritionally vulnerable member in which that member received both a targeted transfer and a linked health or nutrition intervention.

Figure 1. Measurement challenges for NSSP coverage in household surveys

Who should be asked? (Respondent)

Do household heads (male or female) and other women in household report the same transfers?

Social protection modules are often included in the household questionnaire and answered by the household head. Health and nutrition interventions are included in women and/or children's questionnaire. It's not clear who is best positioned to answer questions that link transfers and interventions.

How should questions be asked? (Cognitive issues)

Do respondents recognize programs by name and/or by the type of transfer (food, cash, in-kind)?

Do they understand terms for health and nutrition interventions?

Do they understand the concept of intervention linkage?

Can they identify the target beneficiary?

Can they recall the timing and frequency of receipt?

How are interventions linked? (Direct recall vs. during analysis)

Direct recall: the same respondent answers questions about the transfer and the interventions received in the NSSP program; all questions are asked in a single survey module.

Co-coverage: transfer receipt is linked analytically to intervention coverage; they may be measured in different survey modules with different respondents.



Research design

From June-August 2024, we conducted formative research in urban and rural sites in two countries[4]: Ethiopia (Addis Ketema and Hawassa) and Bangladesh (Dhaka and Sylhet). In-country partners selected sites to reflect areas with ongoing social protection programs, including NSSP. In Ethiopia, the flagship NSSP is the Productive Safety Net Program – Temporary Direct Support (PSNP-TDS), which targets pregnant and lactating women. In Bangladesh, the Mother and Child Benefit Program (MCBP) targets the first 1,000 days. All sites had other social programs that targeted households by income alone. In Bangladesh only, we further refined and tested questions in a large household survey.[5] The research involved four stages **(Figure 2)**.

Figure 2. Overview of formative research and One Nutrition Coverage Survey

1. Desk review

Policy and program documents reviewed to identify programs, targeting, transfers, and linked services

~9 programs (ET); ~20 programs (BD)

2. Key informant interviews

To understand how programs operate and are recognized

Program officers: 12 (ET), 16 (BD)

Women beneficiaries: 14 (ET), 11 (BD)

3a. Cognitive interviews Round 1

Test 15 draft survey items (questions & responses)

Women 15–49y pregnant or with a child <10y and HH heads

Pairs over two rounds: 29 (ET), 25 (BD)

3b. Revise Round 2

Survey items with cognitive errors revised and retested

4. One Nutrition Coverage Survey (ONCS)

In Bangladesh revised questions were fielded in a district-representative HH survey

Feb–Jun 2025: (n≈3,300 households)

Acronymns: Ethiopia (ET); Bangladesh (BD), household (HH)

The first draft of the NSSP coverage questionnaire was modeled after LSMS and MICS social protection questions and response items. It included five stem questions to measure receipt of food, cash and/or other in-kind transfers, targeting, receipt of interventions linked to the transfer, timing and frequency. The questionnaire was refined across two rounds of cognitive testing in each country and further refined during ONCS piloting in Bangladesh.

Interviews were translated, transcribed, and analyzed thematically; cognitive interview responses were coded for comprehension, retrieval, response, and judgment errors, and answers compared between women and their respective household heads.

Findings: How to formulate NSSP coverage questions

Survey respondent

In Ethiopia, all 29 household heads were men while in Bangladesh 4 of 25 were women. In key informant interviews, most women identified themselves as the household member who knew most about transfers given their participation in program activities and meetings, information from their social networks, and/or their role as household head.

In cognitive interviews, we asked women and their respective household heads the same questions about transfers received. Agreement between the paired respondents ranged from 76% to 92% depending on the transfer type and country **(Table 1)**. Notably, the total number of women and household heads who reported receiving each transfer type was nearly identical despite differences in intra-household responses. This suggests that population-level estimates could appear similar regardless of respondent.

Table 1. Agreement between women and household heads on receipt of transfers during cognitive interviews

Country	Transfer Type	Respondent pairs (n)	Pairs in agreement, n (%)	Women reporting receipt (n)	Household heads reporting receipt (n)
Ethiopia	Cash	29	22 (76%)	17	17
	Food	29	26 (90%)	24	25
Bangladesh	Cash	25	23 (92%)	23	23
	Food	25	20 (80%)	14	14

Notes: Cash = "monetary assistance or cash"; Food = "free food or subsidized food". Responses refer to receipt by any household member in the past 12 months. "Don't know" responses are counted as disagreement. Respondents were purposively sampled; results are not population estimates.

We cannot say which respondent type reported more accurately because we could not verify reported receipt against program records. Because NSSP programs typically target pregnant and lactating women, young children, and adolescents, women of reproductive age may be the most appropriate respondents. More evidence is needed to make a firm recommendation.

Cognitive issues

Program names. Program officers used official names for NSSP and other social programs, but women used a range of informal or outdated names. In Bangladesh, women called the MCBP the "Maternity Allowance" or "Pregnancy Allowance," and few respondents used its official name. Women used at least four different names for the Old Age Allowance. Bangladeshi program officers noted that programs had been officially renamed over time. In Ethiopia, apart from the PSNP (widely called "Safety Net"), women described programs with non-descript names or referred to the organization providing support. Asking about programs by name is likely to produce errors specifically for NSSP measurement but also in general social protection question modules.

Transfer types and response options. Terms for the transfers themselves ("free food," "cash or monetary assistance," "in-kind assistance") were well understood. The list of providers in the original question ("community, religious, international, or other non-government organizations/groups") caused comprehension errors and was shortened. In Ethiopia, a few male household heads objected to the term "free food," associating it with failing to provide for their families. In such cases, potential stigma or negative association may result in underreporting.

Target beneficiary. Program officers sometimes described program eligibility differently; for example, some said MCBP benefits were limited to pregnancy, while others said they extend through lactation. Women could respond to questions about which household member received a benefit; responses did not always agree with household heads.

Linked interventions. Questions asking whether a health or nutrition intervention was received *together with* a transfer were the most difficult for respondents. Many thought about the transfer and the intervention separately *("I thought them separately because I did not get them together")*, and even respondents who answered confidently did not always interpret the question as intended. Technical terms produced comprehension errors that were only partly resolved by simpler wording **(Table 2)**. More women than household heads reported receiving any linked intervention.

Timing and frequency. Response options for how often a transfer was received (e.g.“a few times a week but not daily”) confused some respondents. These options are recorded by enumerators rather than read aloud, so we revised enumerator training rather than changing the survey items.

Table 2. Terms that caused comprehension errors and alternatives tested

Original wording	Alternative tested in Round 2
Subsidized food	“Discounted food” (ET)
Micronutrient supplements	“Vitamin or mineral tablets”* (ET); “Nutrition supplements”* (BD); improved comprehension in BD
Fortified food	“Food with extra nutrients added to it to benefit health”* (ET|BD)
Deworming tablets	“Medicine for intestinal worms” (ET|BD)
Nutrition or health counselling	“Nutrition or health information or education”* (ET); translate “counselling” with a commonly understood term meaning advice or information
Referral to a health facility for any health or nutrition service	Split into “asked to go to a health clinic or hospital,” “asked to get health services,”* and “asked to get nutrition services”* (ET); “told to go to a health center or hospital”* (BD)

*Notes: *Some comprehension errors remained after revision.*

Limitations: These findings come from purposively sampled respondents. Only some were beneficiaries of NSSP programs, which may have limited their exposure to linked interventions. Some terms remained difficult after two rounds of revisions and could not be tested further. We could not validate responses against program records.

Revised survey questions (direct recall)

Table 3 presents the revised NSSP survey module. It asks about transfer types, refers to the household roster to identify which household members received each transfer, and Question 3 uses simplified terms for linked interventions. Questions 1–5 are repeated for each assistance type: (1) free food or subsidized food; (2) cash or monetary assistance; and (3) other in-kind assistance.

Table 3. NSSP survey questions fielded in the Bangladesh ONCS 2025

Question	Response options / skip	Remarks
Interviewer: I would like to ask you about various external economic or food assistance programs provided to households and their members. By external assistance, I mean support that comes from government or non-governmental organizations such as community, religious, international or other organizations. This excludes support from family, other relatives, friends, or neighbors.		
1. In the past 12 months, has any member of your household received any [ASSISTANCE TYPE] from the government or any other organizations (such as [CONTEXT-SPECIFIC PROGRAM EXAMPLES])?	No = 01 → next item Yes = 02 Don’t know = 99 → next item	*Ask Q1 for all assistance types first. In Bangladesh, the MCBP was given as an example. Translation notes: “subsidized” means reduced cost; “in-kind” means a commodity, not cash.*
2. In the past 12 months, who in your household received [ASSISTANCE TYPE] from the government or any other organizations?	Record member ID of each member named Don’t know = 99 → next assistance type	*Links the transfer to household members listed in roster so receipt by nutritionally vulnerable members can be identified.*
3. With the [ASSISTANCE TYPE] that [NAME] received, did they also receive [INTERVENTION TYPE]? Read each aloud: nutrition or health counselling; told to go to a health facility to receive health or nutrition services; deworming tablets; iron tablets or other nutrient supplements; food with extra nutrients added to it to benefit health; other (specify).	No = 01 Yes = 02 Don’t know = 99	*List of interventions may be adapted to context.* *Ask each intervention for each member who received a transfer. Cognitive difficulties persisted for this question; interpret with caution.*
4. When was the last time [NAME] received [ASSISTANCE TYPE] from the government or any other organizations?	Month and year	
5. How often did [NAME] receive [ASSISTANCE TYPE] from the government or any other organizations?	Once = 1; Daily = 2; Few times a week but not daily = 3; Weekly = 4; Monthly = 5; Other (specify) = 8; Don’t know = 9	*Response options are not read aloud; train enumerators on definition of each category.*

Notes: [ASSISTANCE TYPE] and program examples should be adapted to each country context and pre-tested.

Direct-recall estimates (Bangladesh ONCS 2025)

Table 4 presents estimates from the Bangladesh ONCS for sampled households with a nutritionally vulnerable member across 4 districts. It compares estimates based on reports by household heads to reports by women of reproductive age. It also presents coverage among the poorest quintile of households, consistent with standard social protection coverage indicators. A transfer was considered if any nutritionally vulnerable (NV) household member received it. **(Table 3)**

Table 4. Direct-recall estimates of NSSP coverage, by respondent and wealth, Bangladesh ONCS (2025)

NSSP coverage indicator	Households with nutritionally vulnerable member(s) (n = 2,702)		Poorest households with nutritionally vulnerable member(s) (n = 502)	
	HH head % (n)	Woman % (n)	HH head % (n)	Woman % (n)
Cash transfer + linked interventions				
Cash transfer (received by ≥1 NV member)	**14.9 (402)**	**18.9 (512)**	**23.7 (119)**	**27.1 (136)**
+ any of 5 linked health or nutrition interventions	**2.5 (67)**	**1.8 (49)**	**4.2 (21)**	**3.4 (17)**
+ nutrition or health counselling	0.7 (18)	0.6 (16)	1.4 (7)	1.0 (5)
+ referral to a health facility	0.5 (14)	0.5 (13)	0.6 (3)	0.6 (3)
+ deworming tablets	2.1 (57)	1.5 (41)	3.6 (18)	2.8 (14)
+ micronutrient supplements	0.3 (9)	0.4 (10)	0.0 (0)	0.0 (0)
+ fortified food	0.4 (10)	0.4 (11)	0.8 (4)	0.6 (3)
Food transfer + linked interventions				
Food transfer (received by ≥1 NV member)	**2.3 (62)**	**15.5 (419)**	**2.0 (10)**	**18.3 (92)**
+ any of 5 linked health or nutrition interventions	**0.3 (7)**	**0.2 (5)**	**0.4 (2)**	**0.4 (2)**
+ nutrition or health counselling	0.1 (2)	<0.1 (1)	0.0 (0)	0.0 (0)
+ referral to a health facility	<0.1 (1)	0.1 (3)	0.0 (0)	0.0 (0)
+ deworming tablets	0.1 (3)	0.1 (2)	0.2 (1)	0.0 (0)
+ micronutrient supplements	<0.1 (1)	0.0 (0)	0.2 (1)	0.0 (0)
+ fortified food	<0.1 (1)	0.0 (0)	0.2 (1)	0.0 (0)

Overall, NSSP coverage across the four districts in Bangladesh was low. Among households with a nutritionally vulnerable member, 14.9% (household head report) and 18.9% (woman's report) received a targeted cash transfer, but only 2.5% and 1.8%, respectively, reported a linked health or nutrition intervention most often deworming tablets. Fewer than 1% of households reported a food transfer with a linked intervention.

Population-level estimates depended on answered the question. Responses differed most for targeted food transfers. Women named a nutritionally-vulnerable member as the recipient of nearly all transfers they reported, whereas household heads did so for 62% of cash and 11% of food transfers. It is not possible to validate which respondent's estimate is more accurate with the available data.

Among the poorest households with nutritionally-vulnerable members, coverage of targeted cash transfers was higher (23.7% and 27.1%) as was cash with any linked intervention (4.2% and 3.4%). Coverage differed

significantly across quintiles ($p<0.01$) and was lowest in wealthiest. Among the poorest quintile, targeted food transfers were reported by 2.0% of household heads and 18.3% of women.

Because few households reported linked interventions, these estimates are imprecise. We cannot confirm whether the reported transfer and interventions were delivered by design as part of the same MNSSP program. In the Bangladesh ONCS, reporting on receipt of nutrition or health interventions was confirmed as cognitively challenging.

Direct recall or co-coverage analysis?

Because respondents reported that direct recall of whether interventions were linked to transfers was challenging **(Table 3, Question 3)**, we explored an alternative method for estimating NSSP coverage. Co-coverage analytically links responses to questions about receipt of social protection transfers with responses to questions about receipt of health or nutrition interventions that may be in a separate module.[5,6] Ideally the recall periods for the transfer and intervention questions are aligned. Co-coverage is a proxy; it cannot confirm that the two components were delivered together to the target group "by design".

Table 5 compares direct recall and co-coverage approaches using data from the Bangladesh ONCS. For both approaches, the woman or child had to be named as the recipient for both the transfer and nutrition or health counseling, the linked intervention. Co-coverage estimates were equal to or slightly higher than direct-recall estimates. However reported coverage of targeted transfers in the overall sample was low, so the differences are imprecise. Neither direct recall or co-coverage identify whether programs deliver transfers and counseling together by design.

Table 5. Direct coverage and co-coverage of transfers with health or nutrition counseling among currently pregnant women and children under 2 years, Bangladesh ONCS (2025)

NSSP coverage indicator	Direct recall* % (n)	Co-coverage** % (n)
Currently pregnant women (n = 313)		
Targeted cash transfer received by currently pregnant woman	1.0 (3)	—
Targeted food transfer received by currently pregnant woman	2.9 (9)	—
ANY health/nutrition counseling received by currently pregnant woman	68.1 (213)	—
Cash transfer received by currently pregnant woman + counseling	0.3 (1)	0.6 (2)
Food transfer received by currently pregnant woman + counseling	0.0 (0)	2.2 (7)
Children under 2 years (n = 470)		
Targeted cash transfer received for child <2 years	0.9 (4)	—
Targeted food transfer received for child <2 years	0.4 (2)	—
Any health/nutrition counseling received for child <2 years	11.2 (56)	—
Cash transfer received for child <2 years + counseling	0.2 (1)	0.2 (1)
Food transfer received for child <2 years + counseling	0.0 (0)	0.0 (0)

Notes: *Direct coverage = the woman or child was named as recipient of the transfer, and the respondent reported nutrition or health counseling received with it, both in the social protection module (Table 3, Questions 2–3). **Co-coverage = the woman or child was named as recipient of the transfer in the social protection module, and counseling for the same woman or child was reported in the pregnancy module (pregnant women) or the early childhood module (children under 2), linked during analysis; recall periods may differ across modules. Percentages are unweighted, consistent with other estimates in this brief; n = number of cases. Children < 2y: denominator is 470 children with social protection data (465 with both social protection and early childhood data for co-coverage). — = not applicable.

Conclusions

Measuring NSSP coverage in household surveys is complex. Our research in Bangladesh and Ethiopia shows that respondents can report receipt of transfers and, to an extent, who in the household received them. Direct questions about interventions linked to transfers are cognitively difficult. Poorly understood questions can introduce measurement error and bias, which underscores the value of cognitive testing before large-scale implementation.

Further research is needed to determine whether a direct NSSP coverage module or a co-coverage approach is better approach to capture NSSP coverage. Research should include validation against program records, testing in settings with higher NSSP coverage, and identification of the most appropriate respondent.

A manuscript with detailed findings is available on the DataDENT website HERE.

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Project Note

DataDENT (Data for Decisions in Nutrition, www.datadent.org) aims to transform the availability and use of nutrition data by addressing gaps in nutrition measurement and advocating for stronger nutrition data systems.

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