Expanding social protection coverage with humanitarian aid

Lessons on targeting and transfer values from Ethiopia

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ABSTRACT

While social protection programs have multiplied over the last two decades across sub-Saharan Africa, these co-exist alongside humanitarian assistance in many places, calling for better integration of assistance delivered through the two channels. Progress on this front is hampered by limited evidence of whether and how these historically siloed sectors can work together. Using quantitative and qualitative data from districts covered by Ethiopia's Productive Safety Net Program (PSNP) and where humanitarian food assistance (HFA) was delivered, we assess differences in targeting and transfer values. We find that PSNP and HFA were targeted to households with different characteristics. PSNP transfers did, on average, reach those households that were chronically food insecure. HFA, while delivered through PSNP systems, was targeted to households that were acutely vulnerable. These are promising findings as they suggest that social protection systems are able to effectively deliver a continuum of support in response to different types of vulnerability and risk. On transfer values, we find that the value of PSNP transfers is greater than those for HFA. One reason for this may be due to social pressure on local officials to distribute support more widely across a drought-affected population when faced with acute needs.

Keywords: social protection; humanitarian; targeting; transfers; Ethiopia

1. INTRODUCTION

In the past 15 years, social protection policies and programs have become firmly established across sub-Saharan Africa as an important route to protection against food insecurity, to prevention of extreme poverty, and for the promotion of productive livelihoods for vulnerable and poor households (Beegle et al. 2018). In 2016, Cirillo and Tebaldi (2016) mapped and profiled 127 non-contributory social protection programs from 39 African countries, with many more programs initiated since then (World Bank 2018). Yet despite the proliferation of these programs, ad hoc humanitarian assistance remains widespread. For example, of the 32 sub-Saharan African countries that the World Bank (2018) lists as having social protection programs, 13 received emergency assistance from the World Food Programme between 2018 and 2020.

There are several reasons why amalgams of social protection interventions and emergency assistance continue to co-exist in the same African countries. First, the coverage and payment levels of many of these social protection interventions is low with the median social protection spending being around one percent of gross domestic product (World Bank 2018). Thus, the reach of social protection programs is still limited, with under-coverage a problem in many places (ILO 2021).

Related, a second reason is that, while levels of humanitarian need have continued to rise over the past decade with a concomitant increase in humanitarian financing, growth of official development assistance (ODA) to the least developed countries has slowed. Social spending in sectors key for strengthening human capital – including social protection, but also health and education – are decreasing as a share of total ODA (Caio et al. 2018), while levels of humanitarian financing – though growing – are relatively static in relation to need.

Third, most social protection systems have been designed primarily for people and households with identifiable, often long-term, needs, such as insufficient food, assets, and housing, those who have been in poverty for long periods, and individuals who are identified as particularly vulnerable to poverty or destitution, such as the elderly or people with severe disabilities. Eligibility criteria based on identifiable need or vulnerability-markers is the cornerstone of targeting within social protection programs (Coady et al. 2004). But when shocks and disasters – especially those that are unanticipated – lead to sudden spikes in the number of people in need, it historically has been the remit and expertise of the humanitarian sector to react and ensure rapid provision to all those adversely affected by the shock. This siloing of responsibilities is inefficient and problematic in a world where the linkages between chronic poverty and the impacts of shocks are increasingly inextricable (Clarke and Dercon 2016). The necessity of social protection systems to flex and scale to meet acute poverty associated with shocks and stresses has become painfully apparent within the current context of COVID-19, where we see a highly uneven, and often highly inadequate, global social protection response to the impacts of the disease outbreak on employment, health, incomes, and food security (Gentilini et al. 2020).

All this has led to calls for better integrating social assistance delivered through humanitarian channels and through social protection – in effect, a 'continuum of response' agenda. However, integration into a systemwide approach also comes with its own distinct policy and programming challenges and solutions (Cherrier 2014, Ulrichs and Sabates-Wheeler 2018). For example, unified social registries are useful to obtain rich social economic and demographic data on the poorest population cohort (World Bank 2015), but the information is expensive to update, so it risks quickly becoming obsolete for addressing certain shocks. Harmonising targeting can also be a challenge, as the different sectors use distinct targeting methodologies and often have specific target populations.

Further hampering efforts at integration is a dearth of evidence of whether and how these historically siloed sectors work together. This paper seeks to contribute to redressing this evidence gap. Our study is situated in Ethiopia, a country well suited for consideration of these issues. Starting in 2017, the Government of Ethiopia committed itself to a reform of its existing rural social protection (the Productive Safety Net Programme, PSNP) and emergency food assistance operations (called Humanitarian Food Assistance, HFA) with a view to consolidating delivery systems and procedures into a single framework led by the Government. This framework supports the provision of predictable transfers to core PSNP clients while allowing the scaling up of support in times of shock through a harmonized set of procedures and the use of a common set of institutional arrangements. This required that stakeholders move towards: (i) strengthening the linkage between PSNP and HFA; and, (ii) supporting the application of a common set of operational procedures to the provision of PSNP transfers and to transfers to non PSNP households in response to drought.

Using mixed methods, we consider three entry points for systems strengthening along the social protection delivery chain – administrative coordination, targeting, and payments (Seyfert et al. 2019). We give particular analytical attention to: i) learning about the effectiveness of an integrated system when targeting households affected by different stresses and shock, i.e., with different characteristics; and ii) understanding whether transfer value equivalence across the humanitarian and social protection caseloads is an important factor when designing harmonized systems. By drawing on evidence from Ethiopia obtained in 2017 and 2018, when the system supporting the PSNP was used to deliver humanitarian support in an aftermath of a severe widespread drought that occurred in 2015/16, we provide new insights into the opportunities and challenges arising from integrating humanitarian assistance with social protection.

2. CONTEXT

Ethiopia has a long history of devastating droughts that have led to famines or more localized increases in food shortages (Webb and von Braun 1994, De Waal 2017). Major famines leading to hundreds of thousands of deaths occurred in 1974 and 1984, and throughout the 1990s there were recurrent requests for emergency food aid to address localized food shortages. Emergency assistance following a major drought in 2002 narrowly averted another mass famine, but, by that time, it was clear that more sustainable types of responses were needed. Beginning in 2005, the Government, together with a consortium of international donors, began implementing a new response to chronic food insecurity in rural Ethiopia. PSNP was established with the aim of replacing annual ad hoc emergency requests. Unlike annual emergency appeals, PSNP was conceived as a multi-year program to provide recipients with predictable and reliable transfers. The ambition was to improve food security and to prevent asset depletion at the household level, and through public works, to create assets at the community level. Between 2006 and 2014, food security improved among households that took part in the public works component of PSNP, and about 80 percent of this improvement can be attributed to the program (Berhane et al. 2016b).[1] PSNP currently operates in more than 300 chronically food insecure woredas (districts)[2] with about eight million beneficiaries.

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[1] There is also evidence that since its launch in 2006, the PSNP has increased tree cover in the highland woredas in which it operates in (Hirvonen et al. 2021).

[2] Administratively, Ethiopia is divided into regions, zones, woredas, and kebeles, with region being the highest administrative unit and kebele the lowest.

Yet, despite the successes of PSNP, the need for HFA has persisted.[3] It is estimated that in non-drought years, approximately five million Ethiopians – not included in PSNP – need emergency assistance (NDRMC 2018). In the period covered by this study (2015-2018), poor rainfall during the main cropping seasons (the short rains, *belg*, and the long rains, *meher*) in 2015 led to the worst drought in decades, resulting in an additional 10.2 million people (additional to those covered by PSNP) requiring food assistance (NDRMC 2017). While the rains in 2016 were better, the 2017 agricultural year was characterized by below average and erratic *belg* rains, conflicts in Oromia and Somali regions, and localized weather shocks in the south, meant that 9.35 million people needed food assistance, including 850,000 internally displaced people (IDPs) from conflicts at the borders of Somali and Oromia regions (NDRMC 2018).

PSNP woredas can apply for additional contingency funds to respond to a broad range of shocks and stressors to protect PSNP investments and support the livelihoods of program beneficiaries. Contingency planning is a design feature that has been embedded in PSNP from the program's outset (Wiseman et al. 2010). In order to help avoid short-term household food needs turning into chronic food insecurity, the fourth phase of PSNP (2015-2020) included two design features: a woreda contingency budget and a federal contingency budget. The contingency budget is calculated as 16 percent of the base transfer budget: 11 percent is held at the federal level, while 5 percent is managed by woredas.[4] Under PSNP rules, contingency funds were meant for two uses: (1) to cover the needs of existing beneficiaries who require additional 'top-up' transfers for a period of time in order to maintain their food consumption and protect their productive assets during a shock; and (2) covering non-beneficiaries in PSNP woredas who require support on a temporary basis until the shock passes. Scaling up involves the PSNP temporarily reaching more beneficiaries for the duration of the shock and then scaling down again when the shock has passed. The two contingency budgets were meant to enable the PSNP to provide an early response before the full effects of the emerging shock are felt, so that people do not have to resort to harmful coping mechanisms, such as selling assets. But, the program is only able to expand up to the level of available resources in the woreda and federal contingency budgets. Any transitory needs that exceed these additional sources of funds are covered through the national emergency response system – typically through HFA. The geographical overlap between PSNP and HFA is considerable. In 2018, more than 90 percent of PSNP woredas were also receiving HFA (Figure 2.1), suggesting that the number of people in need in these localities exceeds the PSNP caseload.

PSNP uses a mix of geographic and community-based targeting to identify chronically food insecure households in chronically food insecure woredas. Initially, data on past receipt of food aid were used to determine the number of eligible beneficiaries in each region and woreda (Wiseman et al. 2010). Woreda administrators then selected chronically food insecure kebeles, assigning the woreda's 'PSNP quota' among these areas. Within program kebeles, community-based targeting is used to identify eligible households, which are then assigned to public works or direct support (GFDRE 2006). The community-based targeting is based on common program criteria, including household's chronic food security status, recent shocks, household assets (particularly livestock), non-farm income, specific vulnerabilities (such as female-headed households or those with

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[3] "HFA is defined as direct transfers to individuals or households for the purpose of increasing the quantity and/or quality of food consumption in anticipation of, during, and in the aftermath of a humanitarian crisis. As such, it includes both in-kind food aid and cash transfers for smoothing consumption" (World Bank 2017).

[4] Historically, the contingency budget is calculated as 20 percent of the base transfer budget: 15 percent was held at the regional level, while 5 percent was managed by woredas. In 2017, the Government took steps to consolidate PSNP and HFA systems into a single delivery framework, since both aim to address transitory need; indeed, the PSNP midline performance report in 2018 revealed a level of confusion in woredas about the difference between them. The federal contingency budget line would no longer be pre-financed (the 11 percent) but adjusted to zero. Finance would be mobilised from both the Government and development partners and held in a dedicated local currency account. Funds would be released based on predicted needs established through the biannual seasonal assessments and allocated to either PSNP or non-PSNP woredas. The woreda contingency budget remained unchanged: pre-financed at 5 percent and transferred in regular disbursements to the woreda.

chronically ill or elderly members), as well as the needs of poor and vulnerable pregnant and lactating women.

Figure 2.1: Humanitarian Food Assistance (HFA) and Productive Safety Net Programme (PSNP) woredas as of January 2018
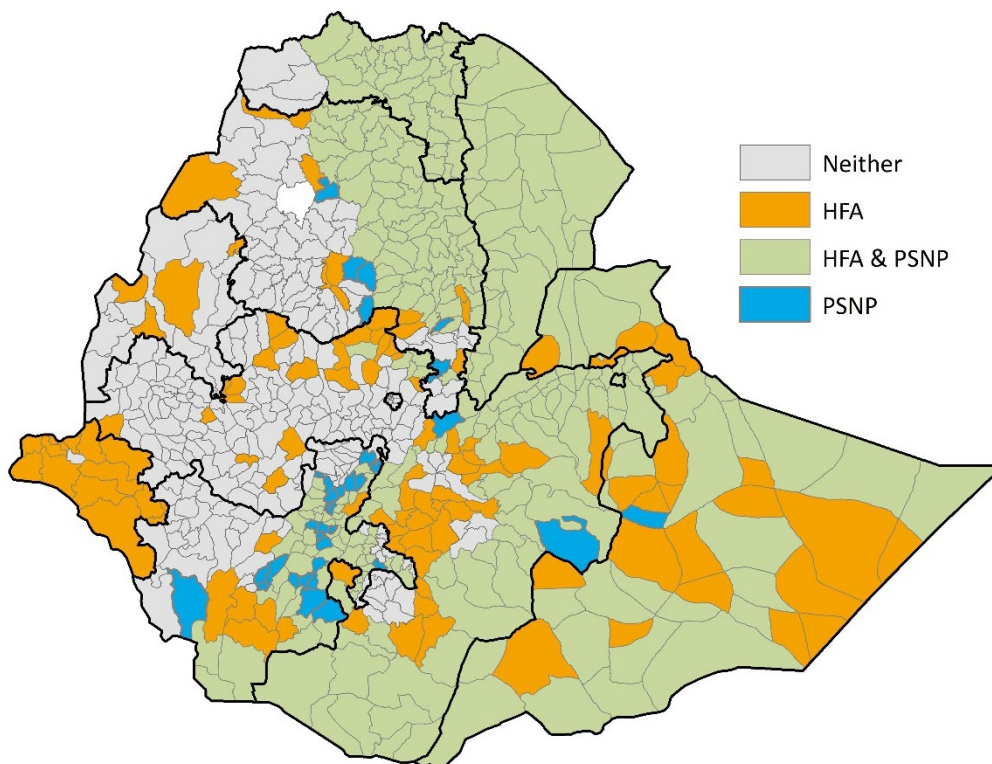
Source: ENCU and the World Bank. The white area to the northwest is Lake Tana.

Household re-targeting in PSNP is conducted every two to three years, with minor adjustments taking place annually. PSNP transfers are in the form of cash or food and in most woredas their distribution is managed by the Government of Ethiopia. PSNP beneficiary households receive transfers in return for participating in public works over a six-month period during a slack season when agricultural activities are not taking place. Food insecure households with limited labour capacity are exempt from public works and receive direct support. Food payments are supposed to consist of 3 kilograms of cereals (usually in the form of wheat) and 0.8 kg of pulses for each day worked (GFDRE 2014). Cash payments are calculated based on the cost of buying 3 kg of cereal and 0.8 kg of pulses per day. The wage rate is adjusted annually to take account of changes in grain prices. However, the relatively high food inflation in Ethiopia often quickly erodes the real value of cash payments (Sabates-Wheeler and Devereux 2010, Hirvonen and Hoddinott 2021). Each household is entitled to five days of payments per person, to a maximum (the 'household cap') of five persons or 25 days of payments. Thus, for households with 5 or fewer members, the per person per month PSNP transfer is equal to 15 kg of cereals and 4 kg of pulses. However, during the period of this study, pulses were included in the payment package sporadically, and it was later announced that pulses would be abandoned as part of the transfer altogether due to funding constraints (World Bank 2017).

The geographical allocation of HFA is guided by a semi-annual classification of woredas according to their food security status. This "hotspot classification" is based on a multi-sectoral set of indicators that include nutrition, agriculture, market, water and hygiene, health, and education. Food insecure woredas are scaled from priority 1 to 3, with priority 1 woredas categorized as being most in need of assistance. In the period covered by this study, out of the 396 woredas classified

as priority 1, 2, or 3 in July 2016, only four percent (17 woredas) graduated out of HFA by January 2018.[5] In woredas selected to receive HFA, kebele officials select households eligible for support. Interestingly, while PSNP has elaborate and specific targeting guidelines, there is no stated target group or guidelines outlining eligibility for HFA.

Household targeting for HFA is typically conducted twice a year after the seasonal assessments of the humanitarian situation. Unlike PSNP, HFA transfers are mainly in the form of food and are directed by the National Disaster Risk Management Commission (NDRMC) and the World Food Programme (WFP), with a consortium of non-governmental organizations (NGOs) helping to deliver. HFA households receive transfers over periods of 3 to 12 months, depending on the results of needs assessment and the availability of resources. About 90 percent of HFA transfers are made in the form of food. The per person per month HFA transfers equal to 15 kg of cereals, 1.5 kg of pulses, and 0.45 litres of cooking oil (World Bank 2017). These are unconditional transfers, although households may be encouraged to participate in PSNP public works if they exist in their locality.

3. DATA

We use quantitative and qualitative data collected in 2018 (roughly covering the period 2017-18) from woredas benefitting both from PSNP and HFA. These data were collected as a part of the midline evaluation of the fourth phase of PSNP (PSNP-4) led by the International Food Policy Research Institute (IFPRI) and the Institute of Development Studies (IDS). The scope of the 2018 evaluation was widened to assess the performance of HFA. To this end, the qualitative survey instruments included detailed questions about the interaction between the PSNP and HFA programs in woredas in which both programs were operational. Meanwhile, the quantitative survey was expanded to cover more households in woredas in which HFA was operational. The analysis reported here is based on data collected in woredas that were selected to benefit from both PSNP and HFA programs in six regions of Ethiopia (Afar, Amhara, Oromia, Somali, SNNP[6], and Tigray).[7]

3.1. Quantitative data

The quantitative surveys informing the PSNP-4 midline evaluation were administered in June and July 2018, and data were collected at the woreda, community, and household levels. The sample consisted of 112 woredas where the PSNP was operational, and under these woredas, 336 kebeles (or enumeration areas; EAs), and 10,022 households were visited.

The sampling frame for the PSNP-4 evaluation focused on PSNP households and on poor non-PSNP households, which served as a control group in the evaluation. These comparison households were selected based on their subjective welfare status. During listing, we asked all households to place themselves on a conceptual poverty ladder that had 7 rungs. The first rung represented the very poorest households in the village, while the highest (7th) rung represented the very richest households in the village. Households for the comparison sample were chosen from among those that placed themselves on the bottom four rungs.[8]

This sample design is well suited for the impact evaluation of PSNP-4, but it limits our ability to study the targeting of the HFA as the richer strata in these communities are missing from the sample. We addressed this limitation by drawing an additional sample of relatively richer

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[5] Based on authors' calculation using the administrative data received from the Emergency Nutrition Coordination Unit (ENCU).

[6] SNNP refers to the Southern Nations, Nationalities, and Peoples' region

[7] The 2018 quantitative survey also covered a small number of non-PSNP woredas that received HFA. However, given the focus on the interaction between PSNP and HFA, the data from the non-PSNP woredas are not used in this paper.

[8] Our analysis of the 2016 baseline data suggests – as does our previous work in Ethiopia – that this poverty ladder is well correlated with other (more objective) welfare measures: durable asset levels, livestock holdings, and self-reported food security.

households (i.e., those in the top three rungs of the subjective poverty ladder) in 56 randomly selected woredas. These were selected from a sub-sample of woredas included in the PSNP evaluation and selected to receive HFA in 2018. Out of the list of 112 PSNP woredas that were part of the main evaluation study that met these criteria, we randomly selected 56 woredas from which to select the supplemental sample of richer households. The additional survey of these households took place at the same time as the main PSNP-4 evaluation surveys and was administered in the same kebeles and enumeration areas that were selected for the PSNP evaluation in that woreda. Three households in each enumeration area were added to supplement the original sample.[9] The final additional sample is formed of 496 (relatively) richer households from 166 kebeles in 56 woredas. Here, we restrict our quantitative analyses to these 56 woredas and 166 kebeles. The household sample in these woredas is formed of 5,006 households, out of which 4,510 originate from the sample used in the PSNP-4 evaluation and 496 relative richer households from the additional sample collected specifically for the HFA performance assessment.

Our targeting analysis uses sampling weights to correct for the unequal share of relatively poorer and richer households in the sample. From the PSNP evaluation sample, we have 30 households from the lower rungs of the subjective poverty ladder in each kebele, while the additional survey provides us three households from the top rungs. Based on our household listing data, these original 30 households drawn from each kebele represent 88.8 percent of the population in the sampled areas, while the three households that located themselves in the top three rungs represent 11.2 percent of the total population (Annex Table 1). This means that we slightly oversampled households who located themselves in the bottom rungs and slightly under-sampled households in the higher rungs. We use a sampling weight in our quantitative analyses to correct for this.[10]

Analysis of payments is based on households' reports about the payments they had received in the period between June 2017 and May 2018. For each month, respondents were asked the type of payment they received (cash, cereals, pulses, or oils) and the amount they received. Pooling data from the PSNP evaluation sample and the additional HFA sample, we have 2,803 households reporting PSNP or HFA payments over 13,125 household-payment months. About half of these payments were made in food and half in cash. To ensure comparability between cash and food payments, we converted all food payments into Ethiopian birr. To do so, we first converted food payments reported in local quantity units into kg amounts and then valued these kg amounts using price data collected from local food markets in June 2018. With food payments expressed in June 2018 prices, we adjust all cash payments made prior to June 2018 by computing region-specific monthly cereal price indices using the monthly cereal price data collected at the kebele level. The consumption shares used in this index were computed from the 2016 nationally and regionally representative Ethiopian Socio-Economic Survey (ESS).[11] After applying the price index on cash payments, all payments – irrespective of the payment modality or payment month – were expressed in June 2018 prices.

3.2. Qualitative data

A suite of qualitative survey methods complemented the quantitative methods, most notably focus groups and key informant interviews. Doing so provided a richer pool of data, particularly with respect to program implementation and beneficiary experiences. Key informant interviews were

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[9] The questionnaire administered to these additional households focused on basic demographic information of the household, its asset levels, and the amount of HFA they received.

[10] The sampling weight obtains a value 0.98 if the household belongs to the lower four rungs of the poverty ladder. For the relatively richer households, the sampling weight is 1.23.

[11] We used the ESS survey because the PSNP survey instrument used in Afar and Somali regions did not contain a detailed food consumption module.

carried out at regional, *woreda*, and *kebele* levels with government officials responsible for implementing the PSNP and coordination with HFA. Focus groups were held at the community level. These included groups made up, respectively, of men and women, the elderly and the young, and different types of program beneficiaries as well as non-beneficiaries.

4. COORDINATION PROCESSES

Administrative coordination across operational systems and processes for long-term social assistance and short-term humanitarian response is critical to ensuring a 'continuum of support' that is functional. Qualitative fieldwork at the regional, woreda, and kebele levels explored the degree of coordination and level of joined-up planning that exists between PSNP and HFA. A fundamental point is that PSNP operates according to five-year plans. These specify the program's coverage, budget, and implementation guidance over a five-year period, or 'phase'. Regional and woreda Food Security Task Force (FSTF) officials pointed out that there is no mechanism to adapt PSNP plans on an annual basis and, thus, that PSNP plans are not adjusted to either an increase in levels of humanitarian need or to the inflow of humanitarian aid.

> *No, we did not change the PSNP plan. Because PSNP and HFA are different things, [each] have their own guidelines and mechanism to operationalize it. [TIG-RFSTF]*

> *No, the region has never changed plans to respond to humanitarian situations as regards to budget, public works, targeting, complaints, and grievance mechanism. [AMH-RFSTF]*

One exception to this, where officials exercise some flexibility, is in the implementation of public works. While not uniform, officials in some regions and woredas explained that they followed federal guidance in canceling public works requirements on beneficiaries during droughts. For instance, in Afar the region moved to unconditional transfers in response to the severe drought conditions that developed in 2016:

> *Two years ago (in 2016), at the beginning of PSNP 4, due to the existence of a big drought – when grazing lands dried up, livestock died, and even people themselves were exposed to death – the PSNP budget shifted to respond to the situation. In this regard, PSNP transfers were given freely to PSNP beneficiaries with no requirement of performing public works. [AFA-RFSTF]*

Beyond planning processes, officials also shared their views on coordinating implementation where both PSNP and HFA support is delivered. Regional officials referred to efforts to coordinate in areas such as targeting, aligning transfer values, and reporting mechanisms:

> *We are developing one master list of clients, master list A for PSNP clients and master list B for humanitarian beneficiaries, to avoid overlap and duplication. [ORO-RFSTF]*

> *R2: The operational linkages are manifest with the support of administration budget. Whenever relief is delivered from the Federal Government, the administrative budget is always covered from the regional management budget for food security (PSNP).*
> *R3: Since HFA doesn't have technical capacity, the safety net accountant and coordinator are assisting them to do their transfer by PASS (software, used for PSNP systems). In this way, the two institutions are supporting each other. [AMH-RFSTF]*

> *Both PSNP contingency plans and HFA are delivered through one delivery mechanism using PASS software. Currently, the extended support of the 11 percent contingency budget is fully handled by the Regional Early Warning and Disaster Management*

Bureau. We support them in data assessment when the federal Disaster Response Management-Agriculture Task Force conducts a study. [AMH-RTRMTC]

There is an operational linkage between PSNP and humanitarian assistance in all structures, from the regional to woreda and kebele levels. First, the beneficiary lists are identified differently for PSNP and for emergency/humanitarian assistance. As we are working in a coordinated manner, care is taken place to avoid duplications. [AFA-RFSTF]

Woreda and kebele perspectives support the outlook of regional officials that there is considerable coordination of PSNP and HFA implementation. Woreda and kebele FSTF structures cover operations for both PSNP and humanitarian responses in most places, even if targeting mechanisms and payments are different between the two. As the quotes above highlight, years of PSNP implementation have contributed to building an infrastructure for delivery that is also useful for implementing HFA. Regional officials in Oromia pointed to numerous challenges for HFA distribution, which PSNP systems and structures were able to address:

Among the challenges for delivering HFA are a lack of experience in the management of cash transfers [and] the absence of administration costs for the allocated HFA (transfer) resources … Coordination and logistics problems at the woreda level are many. [ORO-RFSTF]

Somali Region has gone further than most regions in integrating PSNP and HFA delivery systems. According to the Somali RFSTF, a single system has been developed to align delivery of assistance through the two channels. This unified system incorporates harmonization of planning, joint committee structures at different levels, aligning the timing as well as the value of transfers, the use of PASS, and issuing of client cards. Officials explained that, to manage the two channels of support (PSNP and HFA), they used HFA to increase the caseload and extend the period of public works payments from six months to cover the entire year. Further, while the funding is from different sources, the same principles used for PSNP targeting are applied and the same committee targets PSNP and HFA beneficiaries.

In Afar, officials explained that PSNP and HFA beneficiaries were different as were the distribution periods of the two programs, which reduced the challenge of simultaneously managing the two channels of support. In the past, PSNP and HFA transfers in Afar were mixed together (which was possible given that they are both provided in food in Afar, whereas in Somali region PSNP transfers are made in cash in some places). However, in response to the 2016 drought, PSNP and HFA support was kept separate, and different populations were targeted. Whereas PSNP beneficiaries were selected using the program's targeting procedures, joint annual assessments conducted with UN agencies and NGOs were used to determine levels of humanitarian need.

Overall, the extensive investment over the years in establishing and building the PSNP institutional architecture from federal down to local levels has had clear payoffs for the relative ease and timeliness of channeling humanitarian funds to those most in need.

5. TARGETING

Our discussion of processes above identified several areas of harmonization and operational linkages between the PSNP and regional/woreda structures covering humanitarian assistance. These include proactive support for aligning targeting across sectors. So, for instance in Tigray, while "PSNP has its own targeting mechanism and HFA also has its own mechanism", the two

processes are harmonized so that "HFA beneficiaries were those seasonally affected by drought and PSNP was for chronically food insecure." [TIG-SAE-KFSTF]

In principle, this harmonization could take three non-mutually exclusive forms, using HFA to: (a) provide additional support to existing PSNP clients; (b) provide support to households that should have been included in PSNP but were not because of budget constraints; (c) including households affected by shocks but who were not considered eligible for PSNP. Most respondents in our qualitative surveys indicated that non-PSNP households were prioritized in HFA targeting processes. However, there are variations across and within regions. In Tigray, HFA was only provided to non-PSNP households, so there was no overlap. As reported by a woreda official in Loko Abaya, SNNP, "families suffering from entrenched chronic food shortage are covered under PSNP, while those facing seasonal food shortage are covered in HFA." Our qualitative data suggest that in woredas where PSNP is operational, while PSNP households are also eligible for HFA, non-PSNP households are prioritized in HFA targeting processes.

> In HFA we look for those suffering the impacts of drought, internally displaced due to conflict, diseases, or any other risk. While PSNP goes to those who were critically food insecure for more than three years, HFA and contingency resources address those who normally have resources but have transitory needs due to shocks. [SOM-GUR-WTRMTC]

Some woredas saw HFA as an opportunity to increase coverage of needy households within communities:

> The additional food aid helped us to increase our beneficiary number to cover those who are in need but were excluded because of the fixed quota system. [AFA-ELI-WFSTF]

> We have considered it as an opportunity rather than a challenge, because many of the people in our woreda were not targeted by PSNP. [AFA-ABA-WFSTF]

The question as to whether PSNP households are eligible for HFA transfers was also included in the quantitative community surveys. About 26 percent of the kebele informants reported that PSNP households are eligible to receive HFA with limited variation across the six regions (from 21 percent in Tigray to 31 percent in Afar). These surveys also included a series of "forced choice" questions about kebele officials' attitudes toward targeting.[12] Table 5.1 summarizes the responses given by the kebele officials, contrasting views regarding PSNP and HFA targeting.[13]

It is clear from these data that the attitudes of those with decision making power at the local level are pro-poor – responses to questions 1 and 5 indicated across both programs that fairness corresponds to provision of program transfers and benefits to poor households. Despite this, there is a noticeable difference in the strength of perceptions across the two programs, with fewer officials reporting that poverty is the main criteria of fairness for the HFA program. This may reflect the fact that the effects of the drought hit as many non-poor households as it did poor households.

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[12] In a forced choice question, the respondent is given two or more alternatives and asked to choose which statement they agree with most.

[13] The questions about PSNP were asked in 2016 in PSNP baseline survey while the questions about HFA were asked in 2018 in the PSNP midline survey.

Table 5.1: Kebele officials' attitudes toward targeting

#	Statement	Statement about: PSNP program	Statement about: HFA program
1	a) Fairness requires that everyone in this kebele have access to *program* benefits.	9.5	12.0
	b) Fairness requires that only the poorest households in this kebele have access to *program* benefits.	90.5	88.0
2	a) We know who is poor in this locality.	87.3	80.4
	b) It is difficult to distinguish between poor and less poor households in this locality.	12.7	19.6
3	a) There will be tension in this locality if *program* payments only go to some households.	50.6	58.9
	b) People in this locality agree that *program* payments should only go to some households, not all.	49.4	41.1
4	a) Because we know who is poor in this locality, we can target *program* transfers to those who need them most.	83.5	62.7
	b) Differences between households are so small that the only fair way to allocate *program* transfers is to give them to many households.	16.5	37.3
5	a) It is only fair that local leaders in this locality should receive *program* transfers if they help with *program* implementation	12.7	20.9
	b) It is only fair that *program* transfers should only go to poor households.	87.3	79.1

Note: N=158 kebeles. Data on targeting attitudes is missing for 8 kebeles.

It is also interesting that the responses to question 2 suggest that, with regard to HFA targeting, it is more difficult for kebele level officials to distinguish between the poor and less poor, as compared to PSNP targeting. This may reflect the lack of clarity in the official eligibility criteria for HFA beneficiaries, as is clear from our qualitative data reported above. It also may be due to the bi-annual needs assessment – HFA may focus more on the transiently poor instead of the chronically poor households targeted by PSNP (World Bank 2020).

Furthermore, the responses to forced choice question 4 suggests that identifying the poor for targeting purposes is significantly more difficult for HFA transfers – only 63 percent of respondents said they could identity the poor for targeting HFA, compared to 84 percent for PSNP targeting. This fuzziness in eligibility for HFA transfers is further illustrated in the response to question 3, where expectation of tension within the community due to narrow targeting (option 3a) is higher for HFA transfers.

Table 5.2: Percent of households receiving support from Humanitarian Food Assistance and Productive Safety Net Programme, by region

Region	N	HFA	PSNP	Neither
Afar	593	5.4	56.9	37.7
Amhara	1,241	7.8	46.4	45.8
Oromia	787	7.8	46.0	46.2
SNNP	792	9.1	38.1	52.9
Somali	297	0.4	45.7	53.8
Tigray	1,296	6.3	45.2	48.5
All regions	5,006	6.9	45.9	47.2

Note: N = Number of households. Percentages are based on survey weights described in the text.

Mindful of these results, we turn to examine our quantitative household data, focusing on the year 2017 and applying the sampling weights described earlier. Table 5.2 shows the share of households benefitting from each program. In terms of coverage, PSNP is considerably more important than HFA in these localities. About 46 percent of households in these communities benefitted from the PSNP and about 7 percent from HFA (with the Somali region being an outlier). The remaining 47 percent of households did not receive support from either program in 2017. Only

50 households reported receiving both PSNP and HFA benefits, indicating that HFA was not used to provide additional support to existing PSNP clients. However, we acknowledge that it may be difficult for PSNP households to recognize the correct source of additional support. Therefore, and to avoid double counting, we have considered these 50 households as PSNP beneficiaries only in our analyses.

We study targeting performance by assessing how the likelihood of selection into both programs varies by household asset levels. Following previous targeting analyses in Ethiopia (Berhane et al. 2013, Berhane et al. 2016a), our primary measure of wealth is households' livestock holdings. Livestock is a typical measure of wealth in rural Ethiopia; 86 percent of the households in our sample own livestock. It has also typically been the main wealth indicator used in the PSNP to target households at the local level (Coll-Black et al. 2012). We measure livestock holdings in terms of tropical livestock units (TLU).[14] Table 5.3 shows TLU distribution by region. The average household in our sample owns 3.7 TLUs (median 2.3 TLU) with relatively small variation across the regions, apart from Afar where average TLU holdings are considerably larger. We then categorize households into quintiles based on their TLU holdings.[15] Households in the bottom quintile own 0.01 TLUs (equivalent of 1 chicken) on average, while households in the top quintile own more than 10 TLUs on average. There is an obvious difference in the average TLU between the lowland agro-pastoralist areas and highland areas, with households in Afar and Somali regions having significantly more livestock than households in the highland regions of Amhara, Oromia, SNNP, and Tigray.

Table 5.3: Mean household livestock holdings by region and by TLU quintile, in Tropical Livestock Units (TLU)

	All	Afar	Amhara	Oromia	SNNP	Somali	Tigray
Mean	3.7	8.8	3.2	3.1	2.2	3.7	3.2
Median	2.3	4.1	2.9	2.0	1.3	2.3	2.7
mean by TLU quintile:							
Poorest	0.1	0.2	0.1	0.1	0.0	0.1	0.0
2nd quintile	1.2	1.8	1.4	1.4	0.4	1.0	0.9
Middle	2.7	4.2	2.8	2.7	1.6	2.4	2.5
4th quintile	4.9	9.3	4.4	4.9	3.0	4.6	4.5
Richest	10.7	28.2	7.3	11.8	7.0	10.6	7.7

Note: Survey-weighted estimates. N = 5,006 households.

Next, we compare the likelihood of receiving HFA across TLU quintiles.[16] Figure 5.1 shows the share of households benefitting from each program by TLU quintile. These results confirm the earlier finding that PSNP targeting is generally pro-poor (Coll-Black et al. 2012, World Bank 2020): across all regions in our sample – households in the poorest two quintiles are nearly three times more likely to be selected into the program than households in the richest quintile. By contrast, the likelihood of selection into HFA increases steadily as we move from the poorest to the richer quintiles. Households in the richest quintile are nearly two times more likely to be selected to receive HFA than households in the bottom two quintiles. In the Annexes, we show that these

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[14] The tropical livestock unit (TLU) method is a means of measuring diverse livestock holdings literally by adding together cows, sheep, and other animals. The standard measure of one TLU is an adult bull or cow with a body weight of 250 kg (Jahnke 1982). TLU are expressed as ratios to this, the ratios being based on metabolic weights. So, for example, six sheep have the same energy requirements as one adult bull or cow, so six sheep are one TLU or, alternatively, one sheep = 0.167 TLU.

[15] We use zone-specific TLU quintile ranges; each household's standing in a TLU quintile is based on its relative ranking within a zone.

[16] Livelihoods in our sample can vary enormously both across and within regions. For example, in SNNP, HFA is delivered in the highland areas where crop-agriculture is the main livelihood, but also in the lowland areas of the region where the dominant livelihoods are pastoralism and agro-pastoralism. This within-region heterogeneity complicates the targeting analysis. For example, if HFA is more common in pastoralist areas where livestock holdings are typically larger, then a regional targeting analysis would indicate that humanitarian support is targeted towards wealthier households. To address this issue, we use zone-specific TLU quintile ranges; each household's standing in the quintile is based on its relative ranking within a sub-regional zone and not within a region as a whole.

findings are robust to using alternative asset measures – TLU per capita (Annex Figure 1); lagged TLU levels[17] (Annex Figure 2); and ownership of consumer durables (Annex Figure 3)[18].

Figure 5.1: Percent of households receiving Humanitarian Food Assistance and benefitting from the Productive Safety Net Programme in 2017, by Tropical Livestock Unit quintile
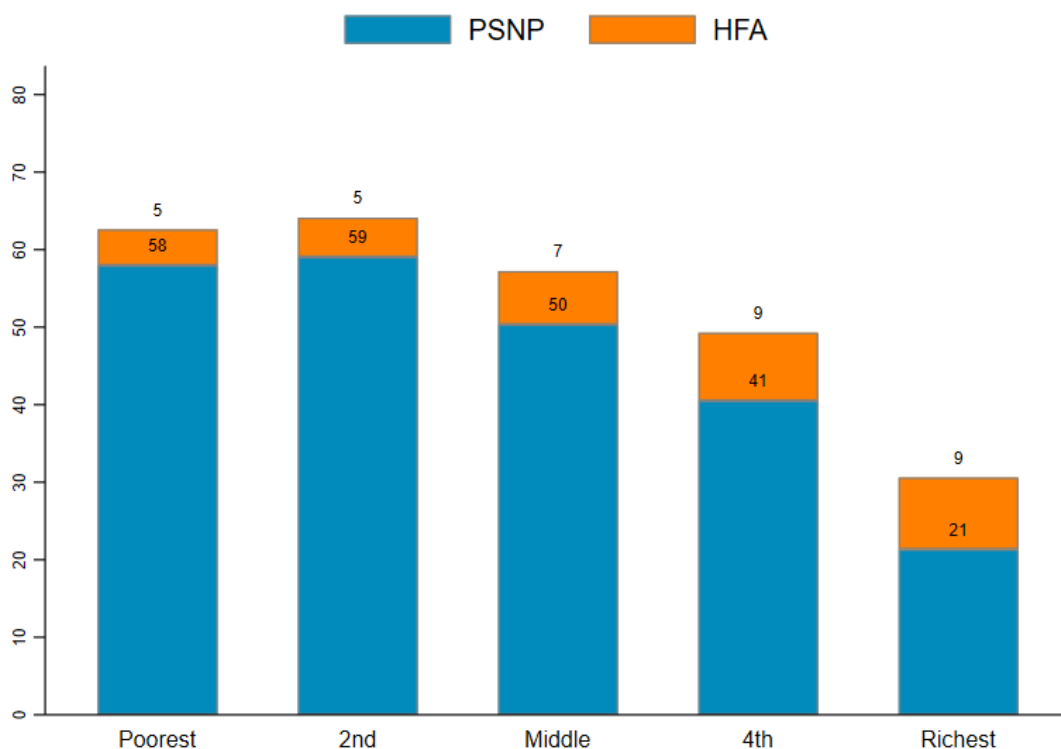
Note: The topmost number is the percent of households in quintile receiving HFA, while the number below is the percent of households selected into PSNP. N = 5,006 households.

We explore these selection patterns further by comparing selected household characteristics between HFA and PSNP households. We estimate a multinomial logit regression where the dependent variable (Y_{ir}) equals zero if the household did not benefit from either program in 2017, one if the household benefitted from the PSNP, and two if the household benefitted from HFA. Choosing non-beneficiaries as the reference category (Y_{ir}=0), we estimate:

$$(1) \qquad ln\left(\frac{Y_{ir}=k}{Y_{ir}=0}\right) = X'_{ir}\gamma + R_r,$$

where k=1 if the household benefits from PSNP, and k=2 if it benefits from HFA. The unit of analysis is household *i* located in region *r*. Vector *X* captures various household characteristics that we hypothesize to be associated with selection into PSNP or HFA. These include characteristics of the household head (sex, age, and level of schooling), household asset levels (TLU, land size, and dwelling characteristics), household's duration of residence in the kebele, and whether or not the household head holds an official position in the kebele. We also consider recent self-reported drought shocks as a predictor of program selection. The term *R* in the equation contains a set of binary indicator variables for each administrative region. We estimate this equation using a weighted multinomial logit model where the weights are based on the survey correction weights described earlier. Standard errors are clustered at the woreda level. We express the coefficients as relative risk ratios. In our setup, the estimated relative risk ratios quantify the probability of being selected for PSNP (or HFA) relative to the probability of not being selected to either program per

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[17] This is based on retrospective questions about livestock owned one year before the interview.

[18] This is based on a wealth index based on a principal components analysis of ownership of 23 different durable assets.

unit increase in a given independent variable (i.e., variable in vector X). A relative risk ratio greater than 1 indicates an increased probability of being selected into PSNP (or HFA), and vice versa.

Table 5.4 lists the variables used in the regression model with corresponding summary statistics. Across many of indicators, HFA beneficiaries are more similar to non-beneficiaries than to PSNP beneficiaries. In other words, compared to PSNP beneficiaries, HFA households are better off, more likely to be male-headed, and better educated.

Table 5.4: Characteristics of Productive Safety Net Programme (PSNP) and Humanitarian Food Assistance households in PSNP woredas

Variable	(1) Non-Bene-ficiary Mean/SE	(2) PSNP Mean/SE	(3) HFA Mean/SE	t-test p-value (1)-(2)	t-test p-value (1)-(3)	t-test p-value (2)-(3)
Head's schooling, years	1.807	1.144	1.904	0.000***	0.720	0.002***
	[0.162]	[0.114]	[0.270]			
Head's age head, years	46.182	47.631	46.765	0.025**	0.605	0.434
	[0.584]	[0.611]	[1.188]			
Female head, 0/1	0.191	0.355	0.188	0.000***	0.913	0.000***
	[0.012]	[0.016]	[0.030]			
Livestock owned by household, TLU	4.311	3.037	3.970	0.001***	0.424	0.089*
	[0.379]	[0.533]	[0.379]			
Land size owned, in hectares	0.949	0.759	0.988	0.000***	0.734	0.033**
	[0.076]	[0.064]	[0.114]			
Dwelling has metal roof, 0/1	0.512	0.343	0.480	0.000***	0.532	0.003***
	[0.038]	[0.038]	[0.055]			
Dwelling in bad or very poor condition, 0/1	0.193	0.317	0.255	0.000***	0.043**	0.077*
	[0.016]	[0.022]	[0.034]			
Head holds official position, 0/1	0.107	0.070	0.111	0.000***	0.821	0.028**
	[0.010]	[0.008]	[0.020]			
Household resident for 5 years or less, 0/1	0.258	0.275	0.287	0.356	0.354	0.660
	[0.018]	[0.022]	[0.027]			
Household size	5.230	4.728	5.357	0.000***	0.406	0.000***
	[0.087]	[0.103]	[0.168]			
Household reported drought in 2016-17	0.324	0.358	0.494	0.207	0.000***	0.002***
	[0.031]	[0.037]	[0.047]			
Afar region	0.094	0.145	0.108	0.034**	0.758	0.362
	[0.038]	[0.055]	[0.056]			
Amhara region	0.241	0.255	0.254	0.550	0.831	0.978
	[0.059]	[0.060]	[0.078]			
Oromia region	0.154	0.152	0.204	0.959	0.399	0.253
	[0.051]	[0.050]	[0.076]			
SNNP region	0.177	0.129	0.206	0.151	0.632	0.122
	[0.056]	[0.045]	[0.076]			
Somali region	0.068	0.061	0.003	0.494	0.083*	0.083*
	[0.038]	[0.034]	[0.003]			
Tigray region	0.267	0.258	0.225	0.721	0.463	0.467
	[0.061]	[0.060]	[0.070]			
N	2,315	2,294	397			
Clusters	56	55	48			

Note: Standard errors are clustered at the woreda level. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level. Estimates are based on survey weights. TLU = Tropical Livestock Unit

Table 5.5 shows the results of the multinomial logit estimation. The estimated relative risk ratios further confirm the finding that HFA is used to extend the safety net in PSNP localities to those who

are otherwise not included. Given that non-PSNP beneficiaries are often marginally better off, but also still prone to shocks, it makes sense that the better-off are targeted for HFA to cover their acute needs. First, even after controlling for differences in basic household characteristics, households with larger livestock holdings are less likely to be selected into PSNP. A unit increase in household's TLU holdings is associated with a lower probability of being selected into PSNP (as indicated by the statistically significant coefficient of 0.93). Second, relative to non-beneficiary households, female headed households are considerably more likely to be selected into PSNP, while the corresponding estimate for HFA is not statistically significant. Third, households with corrugated metal roofs are less likely to get selected into PSNP, but roofing material does not seem to play a role in selection into HFA. Poor dwelling condition is also correlated with selection into both programs (compared to not being selected for either program). Fourth, recently arrived households are more likely to be selected into PSNP. The relative risk ratio for recently arrived households in the case of HFA is also greater than one, but not statistically significant. Fifth, holding an official position in the kebele does not seem to be correlated with selection into PSNP or HFA. Finally, households reporting to have suffered from a drought are more than two times more likely to be selected into HFA (as opposed to not being selected into either program). The same estimate is not statistically significant in the case of PSNP, suggesting that a household's exposure to recent localized droughts does not alter probabilities for selection into PSNP.

Table 5.5: Relative risk ratios of selection into Productive Safety Net Programme and Humanitarian Food Assistance programs, multinomial logit model

	(1) Non-beneficiary	(2) PSNP beneficiary	(3) HFA beneficiary
Head's schooling, years	base	0.954***	1.016
		(0.014)	(0.032)
Head's age head, years	base	1.006**	1.004
		(0.003)	(0.005)
Female head, 0/1	base	1.862***	1.028
		(0.187)	(0.166)
Livestock owned by household, TLU	base	0.934**	0.978
		(0.027)	(0.018)
(ln) land holdings in ha	base	0.959	1.074
		(0.033)	(0.063)
Dwelling has a metal roof, 0/1	base	0.544***	0.913
		(0.057)	(0.212)
Dwelling is in bad or very poor condition, 0/1	base	1.230*	1.256*
		(0.150)	(0.168)
Head holds official position, 0/1	base	0.899	1.036
		(0.098)	(0.175)
Household resident for 5 years or less, 0/1	base	1.279***	1.137
		(0.121)	(0.171)
Household size	base	1.004	1.021
		(0.020)	(0.026)
Household reported a drought in 2016-17, 0/1	base	1.124	2.058***
		(0.122)	(0.340)
Binary variables for each region?		Yes	
Observations		5,006	

Notes: Multinomial logit model. Coefficients are relative risk ratios. Standard errors (in parentheses) are clustered at the woreda level. Asterisks indicate the following: *** p <0.01, ** p<0.05, * p<0.1. TLU = Tropical Livestock Unit. 0/1=binary variable. Estimates are based on survey weights.

In summary, HFA was used to provide support to non-PSNP households that have experienced a drought shock. Because PSNP is well-targeted – PSNP beneficiaries are, on average, poorer (as

measured by TLUs), with less educated and older heads, are more likely to be female headed, and have poorer quality housing – and because HFA was not used to provide additional assistance to existing PSNP households, this meant that HFA went to households that were relatively better off than the average PSNP beneficiary.

6. TRANSFERS – PREFERENCES AND EQUIVALENCE VALUES

The 'attitudes to targeting' data suggest that the ability to distinguish who is eligible for HFA transfers is more difficult than determining eligibility for PSNP. We also see in these data some expectation that HFA transfers should be more widely available than PSNP transfers. It is possible that this leads local level officials to dilute HFA payments across more households than officially allocated. Therefore, in this section we look at transfer preferences and the level of transfer values across PSNP and HFA payments.

Our qualitative work revealed that there has been an effort to harmonize the value/wage rate of the transfer across PSNP and HFA. That is, to deal with the problem that in some places HFA transfers are provided that are higher in value than PSNP payments, the PSNP payments are increased temporarily to ensure equivalence across payment types. However, this harmonization is not applied in all woredas. Regional and woreda-level officials were asked whether the extra food aid caused any challenges (or opportunities) for PSNP implementation. The main challenges that were raised relate to non-equivalence in the food value of the two transfers; perceived inequality in the number of family members included in the calculation of the transfer amount; and the difference in the duration of receipt of the transfers.

> The challenge is that the food for HFA includes pulses and oils, and this creates some jealousy among PSNP beneficiaries. They say: 'we are poor, but we did not get the pulses and oils'. [TIG-RFSTF]

> Under HFA, the whole family is targeted, but PSNP transfers are limited to five members. It causes complaints: when some PSNP beneficiaries see their neighbors getting full transfers, they complain. [SOM-SHI-WFSTF]

> We [the region] are concerned that the higher wage rate and household cap for food aid will cause a dependency syndrome by discouraging people from becoming self-reliant through the support of PSNP development concept. [AMH-RFSFT]

Woreda officials indicated that they have tried to deal with complaints from PSNP beneficiaries towards the HFA provision.

> We have been trying to help the PSNP clients to understand the difference, as HFA is a temporary intervention as opposed to PSNP. Besides, HFA does not have other program components like those included in the PSNP. [AMH-DESS-WFSTF]

Regional, woreda and kebele officials gave mixed views on whether households preferred to receive their support via HFA or PSNP. PSNP was seen to offer regular support over a longer period. However, the value of the in-kind payments received under HFA is higher than those received from PSNP, particularly after pulses were dropped from the PSNP payment package.

> They prefer HFA, because the food transfer norm for PSNP has been reduced -- the cash does not buy the same amount of grain. But for HFA, the food package includes pulses and oil. [TIG-RTMTRC]

> Generally, the community prefers to have transfers from PSNP. We think it is because PSNP is for 6 months while HFA is mostly for 1 to 3 months. [ORO-Kuy-WFSTF]

A regional official from Amhara described the tensions around preferences for HFA versus PSNP:

> *Some people at the community level prefer transfers through HFA. This is because of two reasons. If the transfer is in food, it has a full package (oil, cereals and pulses) and fulfils the dietary requirement of the family. And, if the transfer is in cash, it exceeds the PSNP transfer by 10 birr per person (43 birr vs 33 birr). For these reasons, people prefer HFA. In contrast, PSNP is preferred by the administration as well as many other community members. This is because, unlike the HFA transfer, PSNP has a management budget which supports the delivery expenses of the transfer. Some in the community prefer PSNP because it is predictable and, so, people can plan ahead. [AMH-RTMTRC]*

A woreda FSTF official explained the confusion felt by community members:

> *There is confusion about the difference between the transfers given through PSNP and HFA. PSNP clients look at the transfer payment given in food items as a privilege. There are some PSNP clients who prefer HFA more than PSNP support. This is probably because of the recent deductions of transfer payments and skyrocketing food grain prices that have discouraged PSNP clients – as the transfer payment does not purchase grains equivalent to the amount of grains given by HFA. [AMH-DESS-WFSTF]*

In Afar, where both transfers are made in food, the preferences are not as straightforward.

> *As you know, PSNP is implemented from January to June and HFA is implemented based on needs assessments. In terms of predictability, the community prefers PSNP because the community is aware of the timing of PSNP transfers; but, in terms of volume and quality, they prefer HFA, because they get additional food items included, like oil and pulses. [AFA-RTRMTC]*

In summary, the qualitative data show mixed views about the equivalence and preferences between PSNP and HFA payments. The differences in payment modalities – while HFA payments come mainly in the form of food, PSNP has largely shifted to cash transfers – makes it difficult for administrators and beneficiaries to compare payment levels between the two programs. We also know from our previous work that PSNP beneficiaries overwhelmingly prefer food payments, mainly because food payments maintain their value in the context of high food inflation (Hirvonen and Hoddinott 2021). This then can explain the preference toward HFA payments that are mostly in food, especially in areas where PSNP payments come in the form of cash. There could also be differences between the stated entitlements and the transfers actually received by the households. For example, in reality, the food payment packages under PSNP rarely included pulses during the study period.

These considerations motivate us to use our quantitative data and a regression approach to assess the equivalence of transfer values across HFA and PSNP recipients. To do so, we model (log) per capita payment received in month *m* by household *i* residing in woreda *w* on a binary variable obtaining a value of 1 if the payment came through the PSNP and zero if HFA:

$$(2) \qquad ln(payment_{iwm}) = \beta PSNP_{iwm} + X'_{iwm}\gamma + H'_{iw}\delta + \theta_m + \mu_w + \varepsilon_{iwm},$$

where *X* and *H* are vectors capturing time-varying and time-invariant variables, respectively, that are likely to affect payment levels. For example, previous work on PSNP has noted that, because of the persistent high food inflation in the country, the value of cash payments are typically of

considerably lower than the value of food payments (Sabates-Wheeler and Devereux 2010, Hirvonen and Hoddinott 2021). To account for this and the fact that cash payments are more common in the PSNP than in the HFA, we control for the difference in the payment value through a binary variable obtaining value 1 if the payment was in cash and zero if it was in food. Moreover, PSNP payments are characterized by delays that result in situations where several months of payments come at once. To control for such lumpiness of PSNP payments, we include a variable capturing the number of payments the household has received in the past five months.

Time-invariant variables include a set of binary variables for different numbers of household members that we expect to influence payment levels – even after expressing payments in per capita terms. We also include a binary variable capturing female-headed households to control for possible differences in payments received by male and female-headed households. The equation also includes woreda (μ) and month (θ) fixed effects. The former controls for all observed and unobserved time-invariant characteristics fixed to the woreda (e.g., administrative capacity, infrastructure), while the latter controls for macro shocks and seasonal changes occurring in a given month and affecting all households. The last term in the equation (ε) is the error term. As before, we cluster our standard errors at the woreda level.

We restrict the data to months in which a payment occurred. Consequently, our regression model attempts to answers the following question: "What is the difference in the transferred amount when two similar households residing in the same woreda receive a payment in the same month with only difference being the source of the payment (PSNP or HFA)". The coefficient β quantifies this estimated difference in payment levels between PSNP and HFA. A positive and statistically significant coefficient indicates that PSNP payments are larger than HFA payments, while the opposite is true if β is negative and significant.

Table 6.1 provides the summary statistics for the variables used in the regression analysis, by program type. The unconditional differences in payment levels are not statistically different from zero, irrespective if we use raw or logged payments. As noted above, cash payments are more common under PSNP than they are under HFA. The average beneficiary household received 2.3 payments in the previous 5 months, on average. The difference between PSNP and HFA households is not statistically different from zero. We also see that female-headed households are more likely to receive PSNP payments than HFA households, as do smaller households.

Table 6.1: Summary statistics of main variables used in payment analysis, by program type

Variable	(1) HFA Mean/[SE]	(2) PSNP Mean/[SE]	t-test p-value (1)-(2)
Per capita payment in birr	171.786	180.346	0.510
	[13.809]	[6.695]	
(log) Per capita payment in birr	4.836	4.982	0.134
	[0.100]	[0.036]	
Cash payment	0.165	0.667	0.000***
	[0.028]	[0.046]	
Number of payments in the last 5 months	2.294	2.325	0.863
	[0.162]	[0.121]	
Female headed household	0.220	0.361	0.000***
	[0.029]	[0.013]	
Household size	5.210	4.637	0.004***
	[0.169]	[0.127]	
Number of observations:	1,480	11,645	
Woredas:	51	55	

Note: The value displayed for t-tests are p-values. Standard errors (SE) are clustered at woreda level. ***, **, and * indicate significance at the 1, 5, and 10 percent critical levels.

Table 6.2 provides the regression estimates. The unconditional regression coefficient reported in column 1 tells us that PSNP payments are, on average, 25 percent larger than HFA payments. Once we control for payment modality that differs considerably between the two programs (see Table 6.1), the average estimated difference increases to 38 percent (column 2).[19] The coefficient decreases slightly when we add to the regression model further controls capturing payment lumpiness (i.e., the number of payments the household had received over the past five months) and household demographics (column 3). Column 4 reports our preferred estimates based on equation 2. Controlling for payment modality and lumpiness, head's sex and household size as well as calendar month and woreda fixed effects, we estimate that payments through PSNP are, on average, 28 percent higher than those through HFA. These results are robust to replacing calendar month fixed effects with calendar month times region fixed effects (Column 1 in Annex Table 2) as well as replacing woreda fixed effects with kebele fixed effects (Column 2 in Annex Table 2). They are also robust to restricting the data to the last six months of the study period (i.e., January to June 2018) (Column 2 in Annex Table 2), to address concerns related to respondents having difficulties in accurately recalling transfers that occurred in the more distant past.

Table 6.2: Adjusted associations between (log) per capita payment levels and program type

	(1)	(2)	(3)	(4)
Payment to a PSNP household	0.245***	0.383***	0.327***	0.276***
	(0.085)	(0.085)	(0.084)	(0.086)
Cash payment		-0.289***	-0.320***	-0.174***
		(0.070)	(0.058)	(0.064)
Number of payments in the last 5 months			-0.048***	-0.025**
			(0.012)	(0.009)
Female headed household			-0.041	-0.046
			(0.035)	(0.029)
Household size			-0.130***	-0.128***
			(0.010)	(0.009)
Calendar month fixed effects?	Yes	Yes	Yes	Yes
Woreda fixed effects?	No	No	No	Yes
Observations	13,125	13,125	13,125	13,125
R^2	0.019	0.058	0.238	0.219

Note: Ordinary Least Square method. Dependent variable is (log) per capita payment level (in birr). Unit of observation is household-calendar month. Standard errors clustered at the woreda level and reported in parentheses. ***, **, and * indicate significance at the 1, 5, and 10 percent critical levels.

These results are surprising given the generally held assumption and qualitative findings that indicate that HFA is a more valuable transfer. One way to explain this is that the differences in payment modalities between the two programs coupled with relatively high food inflation makes it difficult for administrators and beneficiaries to compare the actual payment levels between PSNP and HFA. Furthermore, it is possible, even likely, that the pressure of local demand on local officials in the context of an acute and unanticipated shock may lead them to distribute the total HFA resources more widely than the officially prescribed transfer amount. In other words, local officials dilute the total amount of transfer across more households.

Coefficients on the control variables reported in Column 4 of Table 6.2 indicate that cash payments are about 17 percent lower in value than food payments, thus confirming our previous research (Sabates-Wheeler and Devereux 2010, Hirvonen and Hoddinott 2021). Households who have received more payments in the last five months receive smaller payments. This finding

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[19] This increase in the estimate is fully in line with our earlier finding that, due to high food inflation, cash transfers are less valuable than food transfers (Hirvonen and Hoddinott 2021). Since PSNP transfers are made mainly in the form of cash and the HFA mainly in the form of food, the estimated difference in the value of PSNP and HFA payment widens further once we control for the payment modality of the transfer.

suggests delays in payments resulting in payment lumpiness, a finding that also corresponds to our previous work (Berhane et al. 2015). We also see that larger households are receiving smaller per capita payments than are smaller households. We also explored whether the difference between PSNP and HFA payments varies by household size, but our various interaction models did not provide support for this hypothesis (see Annex Table 3).

7. CONCLUSIONS

Provision for basic needs in the wake of sudden and unanticipated shocks traditionally sits within the remit of humanitarian response and is typically provided as short-term (often one-off) support. Social protection, on the other hand, is provided as a regular transfer that allows people to cope with and overcome the more predictable risks to their livelihoods. Ideally, a continuum of support and response would be offered to help households manage risk and uncertainty across a range of circumstances and contexts. Innovative programming in recent years has enabled social protection in different contexts to scale-up assistance in response to large covariate shocks, facilitated by targeting systems and contingency funding that provides programs with the ability to respond more quickly to acute needs in a crisis than conventional humanitarian responses. PSNP is one such program.

Using data from 2017-2018, we find that in the context of a drought crisis, the institutional architecture and processes established by PSNP over many years provided a useful and effective system to also deliver humanitarian assistance. Furthermore, just because the humanitarian assistance was channelled through the same structures used to provide PSNP safety net support, this did not necessarily constrain the provision of the humanitarian assistance to the PSNP target group. In fact, we find that the safety net support and humanitarian support were targeted to households with different characteristics. PSNP – meant for the poorest and most food insecure – did, on average, reach those households that were characterised as poor. The humanitarian support, while delivered through the same system as for PSNP, did not cater for households with poverty-identifiers, but responded to households that had reported a shock experience in the preceding twelve months. This is what one would expect from humanitarian support that is provided in response to an acute, rather than chronic, problem. Given that non-PSNP beneficiaries are often marginally better off, but also still prone to shocks, it would make sense that the better-off are targeted for HFA to cover their acute needs. We assessed targeting accuracy at the household level using livestock ownership as a measure of wealth. Households in the poorest two livestock ownership quintiles have a higher likelihood of benefitting from PSNP than the richest quintile. In contrast, the likelihood of selection into HFA increases as we move to richer quintiles – this supports the view that HFA is used to expand the *total* safety net as wide as possible.

These are promising findings as they suggest that social protection systems are able to effectively deliver support in response to different vulnerabilities and shocks – to both chronic poverty as well as to acute vulnerability. PSNP is a safety net program with long-term objectives, whereas HFA is designed to respond to ad hoc emergency needs. This is precisely what a shock responsive system should be designed to do. Of course, there is always room for improvement.

A concern that continues to vex practitioners working to facilitate linkages across the humanitarian and social protection sectors relates to the non-equivalence in transfer values and the possible adverse effects this can have on recipient behavior in terms of double-dipping, social tension, or strategic movement between benefits. While the broader literature often indicates that humanitarian support is, on average, higher value per capita (Ghorpade and Ammar 2021, McLean et al. 2021), our analysis shows that, per month, the PSNP support is higher value than the HFA transfers. One reason for this may be due to the social pressure on local officials to distribute a

fixed amount of support much more widely across a drought-affected population when faced with sudden and acute needs. In other words, local officials dilute the support across more beneficiaries than was officially planned for. This supports conclusions from earlier work by the authors (Sabates-Wheeler et al. 2013).

The findings from this work are specific to the combined provision of social and humanitarian assistance in the context of a weather-related shock, in this case a drought, where a well-developed national social protection system exists. In a relatively stable governance setting, the investment in national and decentralised infrastructure for social assistance has clearly reaped benefits for effectively providing a continuum of response. However, ongoing conflict in Ethiopia and the ensuing disruption to PSNP implementation in the affected areas illustrates vividly how the nature of a shock will determine whether social protection and humanitarian provision can (or should) align and be harmonised to serve the most vulnerable. Furthermore, conflict and crises that disrupts systems of provision justifies a continued role for solely humanitarian support.

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ANNEXES

Annex Table 1: Distribution of households in sampled kebeles by their own subjective classification on a seven-rung poverty ladder

Poverty ladder rung	%	Cumulative %
The richest in the village	0.7	0.7
One of the richest in the village	2.1	2.8
Better than most in the village	8.5	11.3
Middle class	29.9	41.2
Upper poor class	20.7	61.9
Poor	24.1	86.0
Among the poorest of the poorest	14.0	100.0
Total	**100.0**	**n/a**

Source: PSNP baseline listing data, 2016. N=59,627 households. n/a=not applicable

Annex Table 2: Payment regressions, robustness checks

	(1) June 2017 to May 2018	(2) June 2017 to May 2018	(3) January 2018 to May 2018
Payment period:			
Payment to a PSNP household	0.264***	0.273***	0.267***
	(0.083)	(0.063)	(0.092)
Cash payment	-0.158**	-0.167***	-0.221***
	(0.060)	(0.044)	(0.065)
Number of payments in the last 5 months	-0.029***	-0.022***	-0.032***
	(0.010)	(0.008)	(0.010)
Female headed household	-0.046	-0.031	-0.020
	(0.028)	(0.027)	(0.029)
Household size	-0.129***	-0.125***	-0.127***
	(0.009)	(0.007)	(0.008)
Calendar month fixed effects?	No	Yes	Yes
Calendar month x region fixed effects?	Yes	No	No
Woreda fixed effects?	Yes	No	Yes
Kebele fixed effects?	No	Yes	No
Observations	13,125	13,125	6,932
R^2	0.231	0.212	0.232

Note: Ordinary Least Square method. Dependent variable is (log) per capita payment level (in birr). Unit of observation is household-calendar month. Standard errors reported in parentheses and clustered at the woreda level in columns (1) and (3) and at the kebele level in column (2). ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Annex Table 3: Payment regressions, household size interactions

	(1)	(2)	(3)
Payment to a PSNP household	0.379***	0.332***	0.330***
	(0.106)	(0.093)	(0.086)
PSNP * Household size	-0.020		
	(0.020)		
Household size	-0.111***		
	(0.021)		
PSNP * Household size is >4		-0.077	
		(0.092)	
Household size is >4		-0.335***	
		(0.094)	
PSNP * Household size is >5			-0.106
			(0.082)
Household size is >5			-0.302***
			(0.083)
All other controls	Yes	Yes	Yes
Calendar month fixed effects?	Yes	Yes	Yes
Woreda fixed effects?	Yes	Yes	Yes
Observations	13,125	13,125	13,125
R^2	0.219	0.141	0.129

Note: Ordinary Least Square method. Dependent variable is (log) per capita payment level (in birr). Unit of observation is household-calendar month. Standard errors clustered at the woreda level and reported in parentheses. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Annex Figure 1: Replicating Figure 5.1 by using Tropical Livestock Unit per capita quintiles
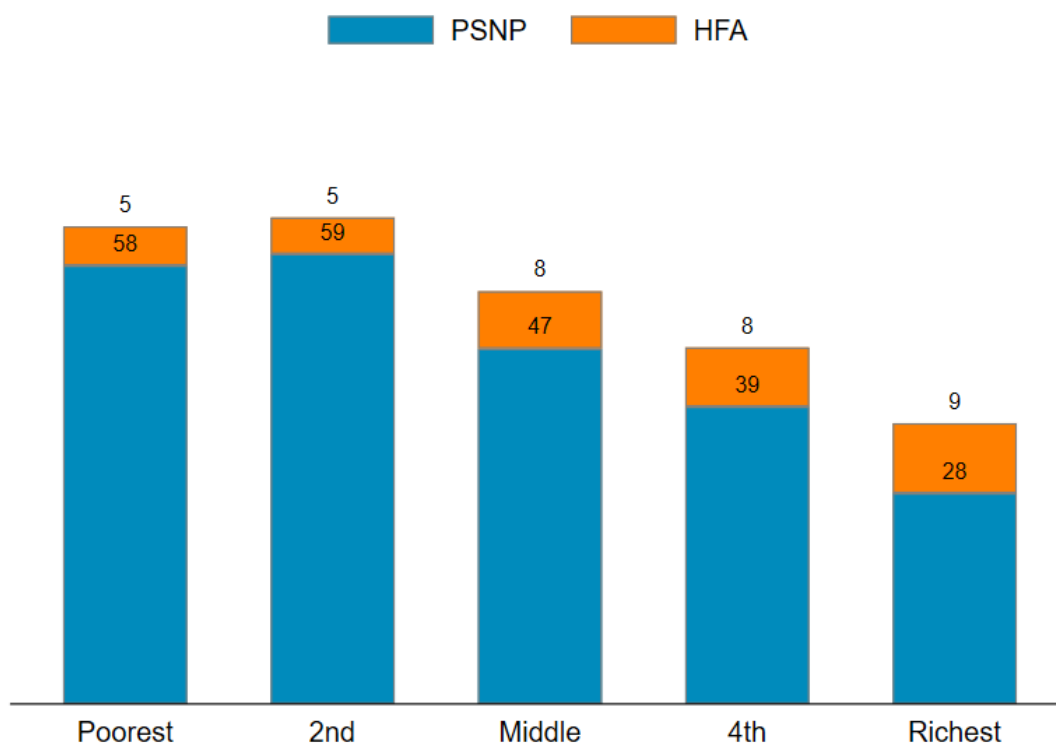
Note: The topmost number is the percent of households in quintile receiving HFA, while the number below is the percent of households selected into PSNP. N = 5,006 households.

Annex Figure 2: Replicating Figure 5.1 by using lagged Tropical Livestock Unit quintiles
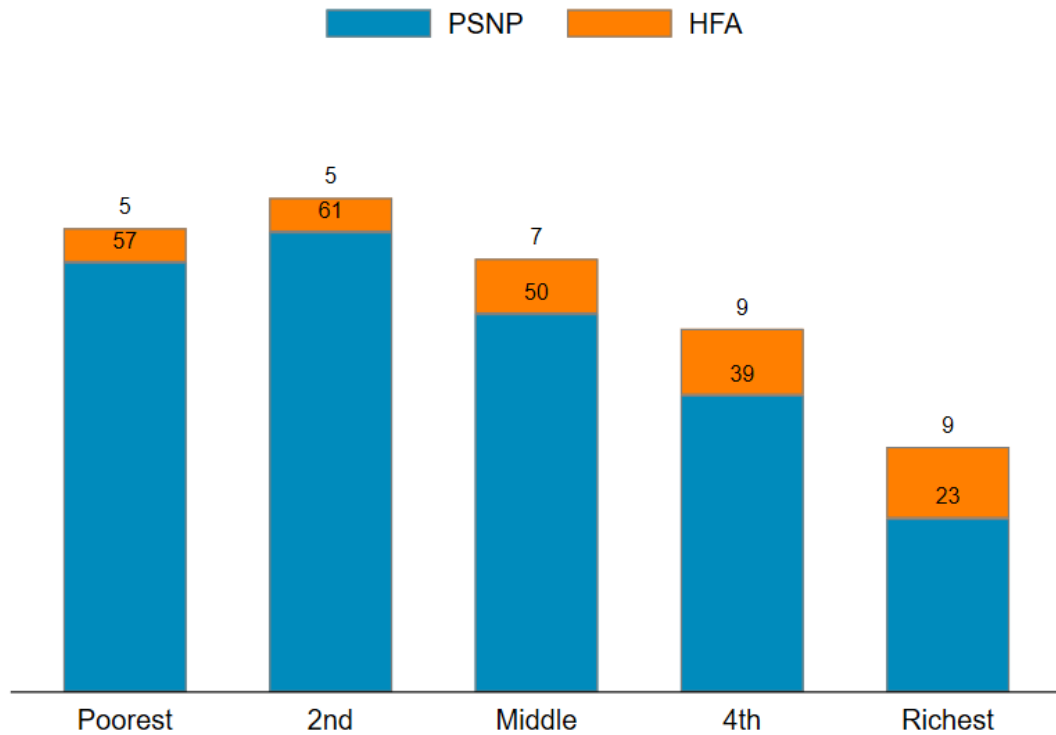
Note: The topmost number is the percent of households in quintile receiving HFA, while the number below is the percent of households selected into PSNP. N = 5,006 households.

Annex Figure 3: Replicating Figure 5.1 by using durable asset index quintiles
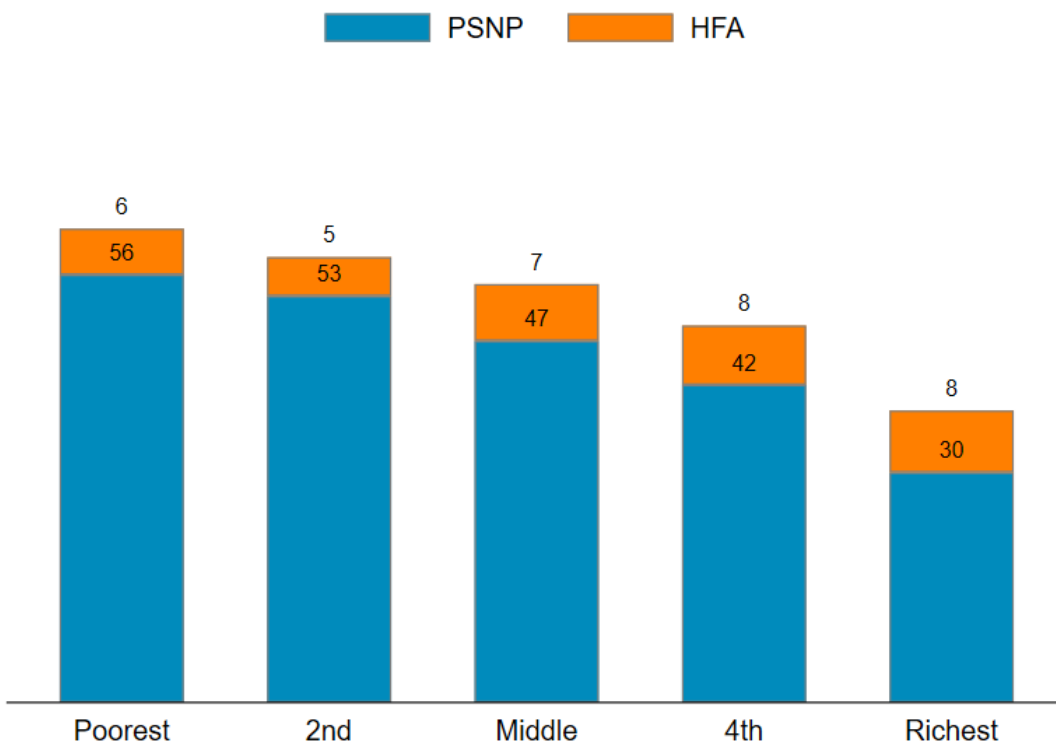
Note: The topmost number is the percent of households in quintile receiving HFA, while the number below is the percent of households selected into PSNP. N = 5,006 households.

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