CHAPTER 10

Targeting Social Safety Nets Using Proxy Means Tests: Evidence from Egypt's Takaful and Karama Program

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1 This chapter draws on findings from quantitative and qualitative impact evaluations of the Takaful and Karama cash transfer program. The team for the quantitative study was composed of Clemens Breisinger, Dan Gilligan (technical lead), Naureen Karachiwalla, Sikandra Kurdi, Hoda El-Enbaby, Amir Jilani, and Giang Thai. The team that authored the qualitative evaluation was composed of Hagar ElDidi, Hoda El-Enbaby, Yumna Kassim (fieldwork lead), Sikandra Kurdi (technical lead), Patti Petesch (technical lead consultant), Yasmine Moataz (consultant), and Karim-Yassin Goessinger (consultant). The IFPRI team gratefully acknowledges very helpful consultations on the design and conduct of the evaluation with the Ministry of Social Solidarity of the government of Egypt, in particular Dr. Nivine El-Kabbag, Mr. Raafat Shafeek, and Eng. Amal Helmy, and advice from Dr. Heba El-Laithy and Dr. Hania Sholkamy. We would like to thank Denis Nitkin for valuable comments on the targeting analysis.

Cash transfer programs (both conditional and unconditional) have become a popular trend in social assistance for policy makers in developing countries in the 21st century. Successful and well-studied models of conditional cash transfer (CCT) programs such as Mexico's PROGRESA (Oportunidades) inspired a range of similar programs especially in Latin America, while there are also strong findings on the impacts of unconditional cash transfer (UCT) programs, which have become popular in Africa south of the Sahara (Adato and Basset 2009). A review of the evidence shows that this type of social assistance program plays an important role in economic development, bolstering incomes and food security for the poor and, in some cases, improving investments by poor households in education and productive assets (Hidrobo et al. 2017).

Given budget constraints, policy makers usually want to target cash transfers toward beneficiaries in poor households. There is an active debate, though, about the best way to do this. Policy makers need to decide how to identify those poor households, whether poor households should be defined in terms of lack of resources or current consumption, how to weigh the risks of exclusion error (failing to enroll beneficiaries who need the program) against inclusion error (providing cash to those who do not need the program), and also consider at which point more precise targeting is worth the extra administrative or political costs. In this chapter, we discuss how a specific mechanism for targeting, the proxy means test (PMT), is viewed in terms of the current debates regarding optimal design of social assistance programs, and we then turn to the specific case study of Egypt to illustrate the advantages and disadvantages of proxy means testing.

Proxy means testing is one of a family of mechanisms used to target social programs to poor households. Other mechanisms include geographic targeting by enrolling only households living in poor regions; categorical targeting by focusing on the elderly or households with children; inducing self-selection such as by requiring work or time commitments that better-off households may find too onerous; community-based targeting by allowing local community members or leaders to identify the neediest households among them; or some combination of the above.

In proxy means testing, detailed household survey data from a sample population are used to generate a formula for predicting the probability that a household is poor based on household characteristics such as education levels, housing characteristics, and asset ownership. The parameters in this formula are estimated using regression analysis, and the predicted poverty level of the household based on this formula is the PMT score. The social program then collects those same household characteristics for all households that are under consideration for the program and the formula is applied to determine their scores. The PMT score can then be used as a criterion for determining eligibility for the program.

The idea of regression-based PMTs for optimally targeting transfers to reduce poverty developed in the academic literature in the early 1990s as an alternative to geographic targeting and in parallel out of program experience in Chile's Ficha CAS. An influential early cross-country comparative study of targeting procedures found that PMT-based targeting best minimized inclusion error (Grosh and Baker 1995). PMT and geographic targeting was used together in PROGRESA, and across Latin America and East Asia: almost all large CCT programs in the early 2000s used PMT as a tool for targeting (Fiszbein and Schady 2009).

The literature reviewing the targeting performance of social programs using PMT mechanisms generally concludes that PMT targeting is imperfect, but that it performs well compared to the alternatives.

Drawing on a dataset covering 122 antipoverty programs in 48 countries to assess the performance of targeting methods, Coady, Grosh, and Hoddinott (2004a) find that PMT-based programs produce good results on average, but with wide variation. Specifically, countries with better capacity for implementation, who have better accountability, and where inequality is more pronounced are better at targeting resources to the poor. Brown, Ravallion, and van de Walle (2016) assess simulated PMT performance in

nine African countries and find that constructing a PMT to try and identify the poorest 40 percent using an extensive set of variables resulted in an average of 30 percent of the nonpoor being included in an idealized setting with perfect implementation, but that the PMT targeting performs slightly better than the alternatives tested. Kidd and Wylde (2011) use econometric simulation exercises using data from Bangladesh, Indonesia, Rwanda, and Sri Lanka to assess the performance of PMT targeting. They find that inclusion and exclusion errors vary between 44 and 55 percent when 20 percent of the population is covered and are as high as 57 to 71 percent when only 10 percent of the population is covered. Thus, the smaller the coverage, the higher are the errors. They conclude that PMTs are susceptible to many types of errors since proxies for income are often not good proxies, are not measured well, and are often not verified. Devereux et al. (2015) similarly conclude from their review that PMT performance is highly sensitive to the proxies chosen because the correlation between household income or consumption varies greatly by indicator. As a result, performance across programs is highly variable.

While PMT targeting performance is good compared with other methods, it is expensive, and it is not necessarily clear that the gains in targeting performance are worth the costs. Ravallion (2007) has called for more attention to the impacts of social assistance programs on poverty, rather than on targeting, which is not necessarily correlated with cost-effectiveness of reaching the poor after accounting for administrative costs. While PMT methods are cheaper than traditional means testing, there are still high administrative costs associated with gathering and verifying the information. For example, home visits by officials are preferred since reporting error is reduced and information can be verified. Though expensive, most Latin American programs use this method. An evaluation of PROGRESA targeting found that the PMT approach increased targeting performance but the use of household surveys was costly enough to question whether purely geographic targeting might be preferable in the poorest rural areas (Skoufias, Davis, and de la Vega 2001). The high cost of household surveys also raises the question of how well PMT targeting will work in countries with less administrative capacity and smaller budgets (Coady, Grosh, and Hoddinott 2004b).

In addition to administrative costs, PMT-based targeting may be hard to explain or justify to the public compared with simpler targeting schemes. Qualitative studies of programs in Latin America found that the poor perceive a great deal of randomness in the selection of beneficiaries by PMT score (Kidd and Wylde 2011). In Indonesia, Alatas et al. (2012) experimentally compared a PMT-targeting method with community-based targeting and a hybrid of both. They find that the community and hybrid methods performed worse objectively than the PMT method when looking at the data but that the community method was seen as more fair and legitimate by community members. A similar hybrid method is used in PROGRESA, where after the application of geographic targeting and a PMT score, community committees review and adjust the list of beneficiaries (Hoddinott and Skoufias 2004).[2]

In several different contexts, studies have shown that good communication with communities plays a key role in the success of PMTs in terms of targeting performance. Duclos (1995) showed theoretically that one of the biggest hurdles in targeting is that those who should be applying to the program do not apply, and inadequate information plays a major role in this. Similarly, in studying a last-resort income support program in Armenia, Tesulic et al. (2014) found that the biggest constraint to targeting was that the poorest did not apply.

There is limited quantitative evidence on the impacts of cash transfers on community solidarity. Attanasio, Pellerano, and Reyes (2009) find

2 It should be noted that it is unclear how well this intention is implemented on the ground as focus groups with communities found that there was a lack of awareness that they could review the beneficiary list (Adato 2004).

evidence that Colombia's PMT-targeted Familias en Acciòn increased social capital as measured by trust games, but only measures this within the set of beneficiaries rather than looking at trust between beneficiaries and nonbeneficiaries. Ellis (2012) shows that because cash transfers are generally uniform, beneficiaries near the threshold can easily end up better off than nonbeneficiaries and thus there is a large potential for transfers to cause resentment.

Qualitative studies, however, have found some cases of nontrivial negative impacts of the perception that targeting is unfair or random on community solidarity. Adato (2004) conducted focus groups in Mexico and heard reports of increased social tensions related to PROGRESA, with nonbeneficiaries starting to feel unwelcome in health centers and less willing to contribute to community cleaning activities and parents' associations. Similarly, in household surveys in Nicaragua, respondents expressed that nonbeneficiaries felt excluded and reported envy, annoyance, and gossip (Adato 2004). MacAuslan and Riemenschneider (2011) report on negative impacts on social relations as a result of cash transfer programs in Malawi and Zimbabwe, especially as a result of targeting and the tension caused by the selection of only some community members. In Zimbabwe, the social tension caused was so severe that recipients said they would have preferred to have all community members receive the transfers, even though this would mean that their own household received less.

In the Middle East and North Africa, traditional social safety net programs primarily used categorical or geographical targeting (Silva, Levin, and Morgandi 2013). Similarly, social spending has historically been ineffective in reaching the poorest in Africa south of the Sahara (Brown, Ravallion, and van de Walle 2016). In particular, universal subsidy programs with very poor targeting as well as other distortionary impacts have been popular in the past. PMTs are seen as the new way forward in the African region with several large PMT-based social assistance programs being launched, including Egypt's Takaful and Karama program. In a recent survey of targeting measures for social safety nets in Africa south of the Sahara, the PMT is referred to as the "standard" tool in targeting to address chronic poverty (del Ninno and Mills 2015) and most of the featured country case studies explored either PMT or combinations of PMT with other metrics as potential ways to improve targeting.

Egypt is a useful case study to examine the effectiveness of PMT targeting in the new generation of CCT programs spreading beyond Latin America. We define targeting effectiveness in terms of the ability of the program to enroll beneficiaries from the lowest two quintiles of the expenditure distribution, following the existing literature. While we have limited information on administrative costs, we do attempt to also account for the social costs of implementing proxy means testing in a context with imperfect administrative capacity to explain the mechanism to the public. Egypt is a large lower-middle-income country with lower inequality and a much more limited budget for social spending than Mexico or Brazil, but the CCT system that it has envisioned is large scale and long term like those in Latin America. This study will describe the extent to which Egypt's CCT program has succeeded in its targeting goals through a combination of the PMT with geographic targeting, as well as pointing to lessons in some of the costs that accompany this targeting.

The chapter is structured as follows. The first section describes the context, goals, and targeting procedures of Takaful and Karama, the new national CCT program in Egypt. We then explain the methodologies and data sources used. The next section presents our quantitative assessment of the targeting successes and challenges of the program as well as a qualitative study of how these targeting procedures and the resulting selection of beneficiaries is perceived by both beneficiaries and nonbeneficiaries. We conclude with lessons for other countries considering using PMT-based methods for targeting social safety net programs.

Takaful and Karama Program

This chapter draws on findings from a quantitative and qualitative impact evaluation of Takaful and Karama conducted by the International Food Policy Research Institute (IFPRI) in 2017 and 2018 (ElDidi et al., forthcoming; Bresinger et al., forthcoming).

Context

Since 2014, Egypt has implemented major macroeconomic reforms—gradual reductions in energy subsidies, imposition of a value-added tax, and liberalization of the exchange rate leading to a 50 percent devaluation of the Egyptian pound. International experience shows that these reforms have the potential to initiate a process of longer-term economic growth and diversification (IMF 2015). International experience also shows that functioning social safety nets play an important role in protecting the poor from the negative impacts that often result from such ambitious reform packages during the first few years of adjustment. As a result, social safety nets can play an important role for medium-to-long-term economic and social development (Alderman 2017) as envisaged in Egypt's Vision 2030 (Egypt, Ministry of Planning, 2015).

Thus, along with the macroeconomic reforms, the government of Egypt began to reform and expand its social protection schemes in 2014. Egypt has a long history of providing social support, notably the long-standing subsidization of its food and social solidarity pension systems, but the redistributive benefits of these programs have been mixed. The food subsidy system goes back to the 1940s and currently covers about 70 percent of the Egyptian population (Egypt, Ministry of Finance 2017). Since 2014, the system has been transformed from a generalized subsidy to a voucher-based system (Ecker et al. 2016). During the macroeconomic reforms, the government increased the size of voucher payments, which is likely to have played an important role in protecting people from the short-term negative impacts of reform (Breisinger et al. 2018). In addition, Egypt launched the Takaful and Karama program, a pair of targeted cash transfer schemes, in March 2015.

Program Description

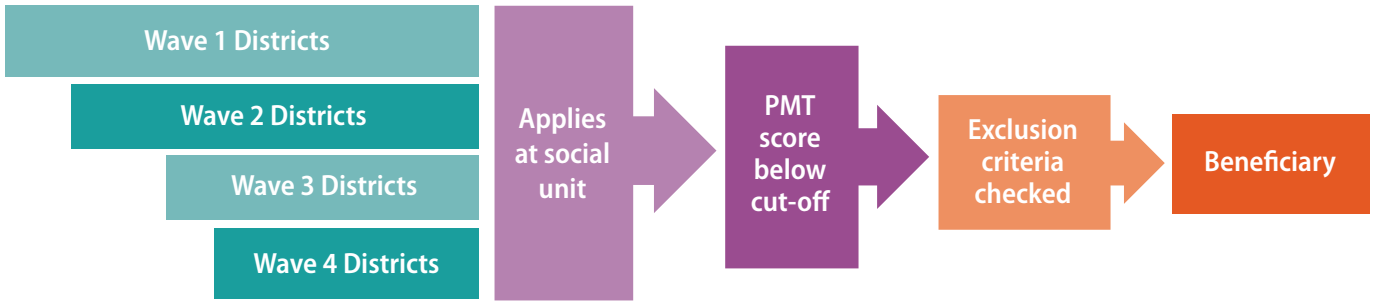
Takaful and Karama is a cash transfer program that seeks to provide income support to the poor and most vulnerable—namely, poor families with children (under 18 years of age), poor elderly (aged 65 years and above), and persons with severe disability. The introduction of the program represents a significant step on behalf of the Egyptian government to increase the share of social spending reaching poor households. It is implemented by the Ministry of Social Solidarity (MoSS) and co-financed by the government of Egypt and the World Bank. The average transfer for participating households is approximately £E460 (460 Egyptian pounds) or about US$26 per month.

The program is divided into two subprograms: Takaful and Karama. Takaful (or Solidarity) is a family income support scheme, conditioned on school attendance and health outcomes, although the conditionality will take effect only from September 2018. Cash transfers will be conditioned on attendance of at least 80 percent of the school days by children ages 6–18 years, and on conducting two visits per year to the health clinics by mothers and children below 6 years; this is in addition to maintaining child growth monitoring records and attending nutrition awareness sessions. Takaful transfers start from a basic amount of £E325 per household, per month, which increases depending on the number of children in the households and their educational level. Households receive £E60 for each child under six years old, £E80 for each child in primary education, £E100 for children in preparatory education, and £E140 for secondary education. Households can receive benefits for up to three children only, who are usually the oldest three children in the households. Karama (or Dignity) is an income support scheme targeted at the poor elderly, persons with severe disability, and orphans. Families can be entitled to both Takaful and Karama benefits. The mother or caretaker of the registered children for Takaful is entitled to

receive the cash, and Takaful is by far the larger of the two subprograms, so 90 percent of the beneficiaries are women.

The Takaful and Karama program was rapidly rolled out in three phases starting in March 2015 and now reaches more people than originally planned. The program has expanded more than originally planned both geographically and in terms of number of beneficiaries. Currently, 1.95 million households or about 9 million individuals are benefiting from Takaful (personal communication, Eng. Amal Helmny, MoSS, Aug. 30, 2018), exceeding the original target of reaching 1.5 million. Although Takaful and Karama is a major step forward in redistributing government resources toward the poor, limited funding means that many poor households are not included. In this study, we analyze and discuss the performance of the Takaful subprogram at reaching the poorest and most vulnerable households within the population of households with children in Egypt.

FIGURE 10.1—TAKAFUL'S TARGETING PROCEDURES



Source: Authors
Note: PMT = proxy means test.

Targeting Procedures

Takaful and Karama's targeting procedures combine geographical targeting with a PMT mechanism and the use of government databases to apply exclusion criteria, as portrayed in Figure 10.1. In addition, each subprogram has other categorical selection criteria: Takaful requires that beneficiary households have children under age 18, and Karama requires individual beneficiaries to be elderly and/or disabled, or (added later) orphaned.

Geographical Targeting

With respect to geographical targeting, the program was first launched in the poorest districts within the poorest governorates in Egypt. The rollout phases were as follows: The first wave in 2015 was launched in the poorest 19 districts of six governorates in Upper Egypt (Suhag, Assiut, Luxor, Qena, Aswan, and Giza), where the poverty rate is 50 percent and above. Through the second wave in 2016, the program expanded to districts where the poverty rate is 30 percent and above. In the third wave in 2017, the program was expanded further, covering districts where the poverty rate goes down to 17.9 percent and above. Finally, wave four went beyond the original plan and opened registration to all districts (Egypt, MoSS 2017).

Proxy Means Test

The Takaful and Karama program uses a PMT to distinguish between eligible and ineligible registrants. Following standard practice, the PMT formula was developed based on regression analysis, where the weights on

different proxy variables are derived from the coefficients in a regression of the proxy variables on log per capita annual expenditure. In Egypt's case, the PMT formula was developed using data from the Household Income, Expenditure, and Consumption Survey for 2012/2013. After identifying plausible variables for inclusion that would be predictive of a household's resources (characteristics of household members, monetary transfers, housing characteristics and assets), the models were built using stepwise regression, as this was found to give the best overall results for reduction of leakage to the nonpoor (El-Sheneity 2014), in spite of including some coefficients with individually illogical signs (that is, a few lower-quality assets or housing characteristics associated with higher predicted expenditure). Different PMT formulas were constructed for six geographic regions in Egypt: urban Upper Egypt, rural Upper Egypt, urban Lower Egypt, rural Lower Egypt, Metropolitan, and Frontier governorates. This disaggregation by region allows for more precision. For example, the degree to which the predictive value of being connected to a public sanitation network differs between urban and rural areas. The final formulas rely on 85 different variables and are kept confidential by the MoSS.

From the perspective of beneficiaries, what the PMT means in practice is that when they apply at the social unit, which is the local MoSS office, they are asked to help complete a detailed form about their household. The form covers the information needed to generate all the 85 variables that go into the PMT calculation. For each household member: the age, the education level completed, whether they are employed, the type of employment, whether they work in agriculture and whether they benefit from social insurance (a pension scheme that covers most formal-sector employees), whether they have health insurance, and whether they are ill or are disabled. For the household as a whole: housing characteristics, electric bill amount, whether the head of household worked abroad and whether any household member receives other forms of social support, and whether or not the household owns from a list of 17 durable household assets (such as a refrigerator and water heater). The responses on household characteristics, asset ownership, and household composition are verified by social unit staff with a household visit. The data from the forms are sent to the central MoSS office where they are entered into a computer system that verifies some of the data against other government databases and automatically applies the PMT formula and calculates the resulting score. Households with higher scores are better off, so households with a PMT score below the threshold are eligible.

Setting the threshold is an important policy choice that strongly influences the targeting outcomes. The current eligibility threshold PMT score of 4,500 for Takaful was selected based on targeting the lowest 40 percent of the population in terms of expenditure (H. El Laithy, professor of Statistics at Cairo University and consultant to the MoSS, personal communication, February 25, 2018). There is a higher threshold of 6,500 for female-headed households in Takaful and of 8,500 for households that include elderly or disabled who are applying for Karama. Prior to this, the eligibility threshold was adjusted several times in response to concerns about getting the correct number of beneficiaries enrolled to accommodate the overall budget. When the threshold was updated, the new threshold was retroactively applied to all households that had registered previously. The administrative data show, however, that there is still a small difference in the probability of current enrollment based on whether the household was eligible at the time it applied, with those that only became eligible retroactively when the threshold changed less likely to be enrolled. This can be explained by the fact that applying the threshold retroactively is not as easy in practice as applying the threshold to new registrants. The household may be difficult for social unit workers to relocate if there were errors in recording the household address and contacts, or the applicant may be resigned to not participating and not follow up on their status as actively as they would if they had just applied.

Exclusion Factors

In addition to the PMT, several exclusion factors are applied automatically during the computerized eligibility determination. These criteria are directly based on data from other government databases. Even if the household is eligible based on the PMT score, it is considered ineligible for the program if any of the binary exclusion criteria apply. The major criteria are:

- The household owns more than 1 *feddan* of land[3]
- The household has a member who benefits from another government pension
- The household member is a government employee
- The household owns a car
- The household receives transfers from abroad
- A household member is enrolled in social insurance (typical for formal-sector jobs)

Targeting Costs

While the direct costs of the transfers are almost entirely financed by the Egyptian government with some co-financing from the World Bank, the administrative costs for setting up the system for collecting and analyzing the necessary data for targeting are fully financed by the World Bank. The budget for targeting and operational support for Takaful and Karama was US$14.3 million, with an additional US$6.7 million budgeted for building a unified national registry to allow for easier targeting of future social assistance programs (World Bank 2015). Because of this agreement structure, the high costs of PMT-based targeting were less of a barrier than they would have been for a purely nationally financed cash transfer program.

Methodology

This chapter draws on an impact evaluation of the Takaful and Karama program conducted by IFPRI in 2017–2018. In addition to evaluating the program impact on household welfare, that study included data collection specifically designed to explore the quality of the PMT targeting and included both quantitative and qualitative data collection, allowing a rich mixed-methods approach to describing both how targeting performed objectively and how it was perceived by households.

As part of the quantitative evaluation, survey data were collected from a representative sample of 1,692 households with children under 18. The sample was stratified at the representative and the governorate level and clustered at the census enumeration area level. The follow-up qualitative evaluation sampled from among the same communities and households included in the sample mentioned above. Six diverse case study communities were selected following the principle of maximum diversity sampling. The six communities consisted of three each from the regions of Upper and Lower Egypt, including one urban community and two rural communities. The two rural communities were selected to include one more dynamic economy where employment rates and daily wages are high and one more static community where employment rates and daily wages are lower. In each community, two ultra-poor beneficiary households, two ultra-poor nonbeneficiary households, one threshold beneficiary household, and one threshold nonbeneficiary household were selected to participate in the study. The designation of "ultra-poor" or "threshold" was based on the quantitative data collection and defined as households with per capita consumption levels that placed them either far below or near the level of households at the PMT cut-off. A male and a female focus group with Takaful beneficiaries was also conducted in each community. The qualitative analysis was based on a combination of cross-case analysis of

3 1 *feddan* = 1.038 acres.

precoded questions in combination with in-depth case studies prepared on each community summarizing the major themes that emerged in responses to questions in that community together with illustrative examples. The quantitative data were collected in July–August 2017, while the follow-up qualitative data were collected in February–March 2018.

Results

Takaful Targeting Efficiency Assessment

Assessing Targeting Efficiency

The targeting objective of the program according to the World Bank project appraisal document was to reach 1.5 million households, with a predicted targeting accuracy of 60 percent, implying that 0.9 million poor households, or 22 percent of all poor households, would be included in the program. In 2015, when this objective was defined, it was estimated that 26.3 percent of Egyptian households fell below the poverty line (World Bank 2015).[4] As mentioned above, the analysts who developed the PMT targeting mechanism set the threshold level of the PMT score at 4,500, with the goal of including the poorest 40 percent of households in the program (H. El Laithy, personal communication, February 25, 2018).

Because of this expanded number of targeted households (from 26.3 percent to 40 percent of the population), the expected coverage of the poorest quintile of households is much lower. The program has received an expanded budget allowing it to reach 1.9 million households at the time of data collection. However, with a 60 percent targeting accuracy, it would only reach 12.5 percent of poor households.

Actual targeting accuracy was 67 percent (with a higher threshold, inclusion errors are reduced so targeting accuracy is easier to achieve), enabling the program to reach approximately 15 percent of poor households. In terms of comparing targeting performance with other countries, we can calculate the normalized share, the percentage of the target group who receives the program normalized by the size of the target group. Using the poorest 40 percent of households with children as the target group, this gives a targeting performance indicator of 0.67/0.4= 1.68. This is a fairly good performance relative to a broad array of social programs included in the review by Coady, Grosh, and Hoddinott (2004a) where the median value of the targeting measure is only 1.25. While there are programs with a greater share of benefits going to the targeted group, Takaful and Karama is in the same range as Mexico's PROGRESA and has a much better targeting performance than Egypt's regressive subsidies scheme, which had a normalized share of only 0.95.

As expected when acceptance is set at a level that makes the poorest 40 percent of households eligible while the program size is limited by budget constraints, the program is accepting a large amount of exclusion error. This is typical of many early CCT programs. It is common for exclusion error to be reduced as the budget increases and the program expands. Currently, due to the overall fiscal situation in Egypt, the program size is not likely to expand significantly in the near future.

In Table 10.1, we examine various statistics by quintile of household expenditure per AEU (adult equivalent unit) among households with children. Note that because we focus only on the subpopulation of households with children, the quintiles mentioned below do not correspond exactly to quintiles in the total population. The share of households with children is large enough, however, and constant enough across the expenditure distribution that our results give a first-order approximation of the incidence of benefits across the whole population and are directly relevant to our goal of measuring how well the program targets the poor within

4 As a result of the macroeconomics reforms mentioned above, the poverty rate has almost certainly increased above that figure, although new estimates will not be available until the latest round of the national consumption survey is released.

the potential beneficiary population. Because household expenditure was measured after households received the Takaful transfers, the expenditures reported below are adjusted for beneficiaries by subtracting the transfer amount that the household reported receiving.

Efficiency of Takaful Registration

In the first part of Table 10.1, we show the efficiency of program registration and outreach efforts. We can see that most people have heard about Takaful. The outreach regarding the program's existence appears to have been very successful, with 82 percent of the sample having heard about Takaful, and this is relatively evenly distributed among the quintile groups. In terms of applying to the program, we see that a higher proportion of the poorest two quintiles apply for Takaful compared with the higher quintiles. This is the result of both self-selection within communities and the geographical rollout that started with campaigns in the poorest areas of the country. We also see that much of the exclusion of poor households occurs at the level of registration, as only 50 percent of households in the poorest quintile and less than half of households in the poorest 40 percent applied to Takaful. Some households that did not sign up were those that did not know about the program, while others knew about the program but thought rightly or wrongly that they would not be eligible due to the exclusion factors.

Efficiency of Beneficiary Selection

The third row of Table 10.1 shows the acceptance rate among those who applied for Takaful by expenditure quintile. More than half of registrants in the lowest quintile of expenditure are rejected, while 13 percent of registrants in the highest quintile are accepted. As described above, this level of inclusion and exclusion error is not atypical of targeting using a PMT score. The PMT score, while predictive on average of household expenditure, is expected to be imperfect at judging individual cases. Additionally, the PMT score does not capture changes in expenditure due to transitory shocks (Alatas et al. 2012). For example, if a household owns a house made of concrete that was inherited decades ago, they may appear as if they own a

TABLE 10.1—TAKAFUL TARGETING BY EXPENDITURE QUINTILE

	Poorest 20%	20%–40%	40%–60%	60%–80%	Richest 20%	Total
Share heard of Takaful (of all households)	0.85 (0.026)	0.82 (0.027)	0.84 (0.026)	0.82 (0.024)	0.79 (0.038)	0.82 (0.019)
Share applied to Takaful (of all households)	0.50 (0.033)	0.42 (0.037)	0.33 (0.034)	0.30 (0.031)	0.17 (0.027)	0.35 (0.023)
Acceptance rate of applicants	0.41 (0.036)	0.23 (0.044)	0.22 (0.042)	0.18 (0.046)	0.13 (0.050)	0.27 (0.035)
Share Takaful beneficiaries (of all households)	0.20 (0.023)	0.10 (0.022)	0.07 (0.016)	0.06 (0.016)	0.02 (0.009)	0.09 (0.013)
Share of HHs that meet at least one exclusion criteria (of all households)	0.17 (0.021)	0.29 (0.027)	0.25 (0.030)	0.35 (0.028)	0.51 (0.040)	0.31 (0.018)
Observations (all)	339	338	339	338	338	1,692
Observations (applicants)	165	137	107	99	52	560
Share of Takaful beneficiaries in this quintile	**45%**	**22%**	**16%**	**12%**	**5%**	**100%**
Share of Takaful benefits received by this quintile	46%	18%	17%	13%	5%	100%
Share of Takaful beneficiaries in this quintile *if all applied*	35%	20%	19%	16%	11%	100%

Source: Authors.

Note: Data are from the weighted nationally representative sample of households with children using counterfactual based on subtraction of the transfer amount. In the upper section, shares are computed out of all households in the quintile except for the third row (Acceptance rate of applicants). In the lower section, the percentage is out of all beneficiaries. Standard errors in parentheses.

large asset that would disqualify them from the program. However, that household may not have the option to liquidate that asset and may have just as limited earning opportunities as a household who is counted as poor because they do not have this asset. The use of exclusion criteria may also be worsening the overall efficiency of beneficiary selection as described below.

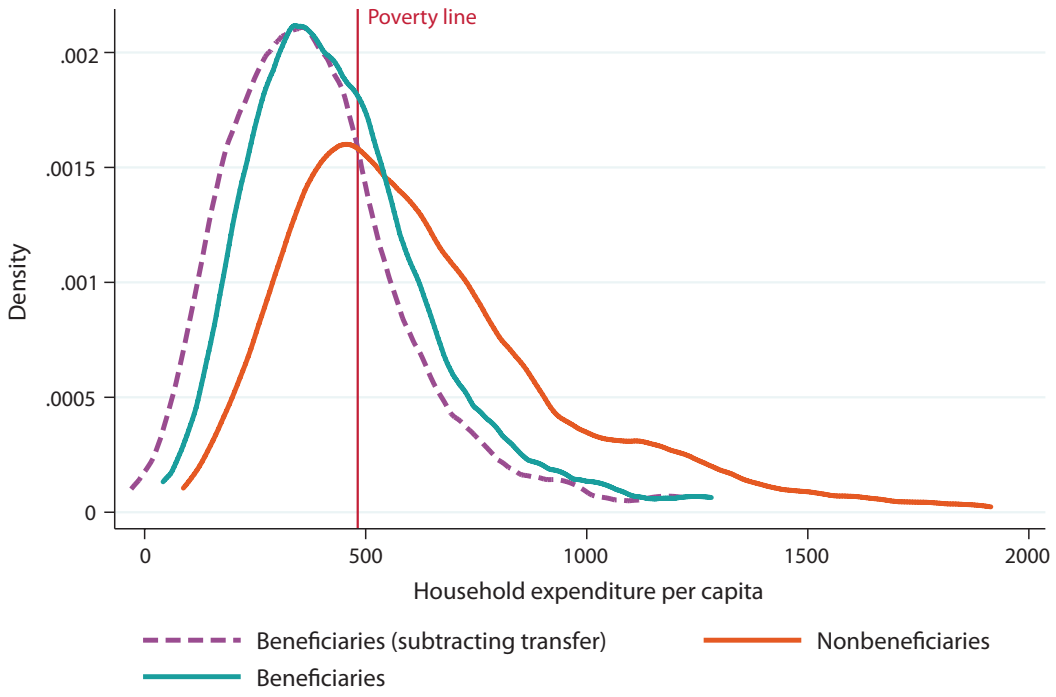
In the final row of Table 10.1, we present a counterfactual conjecture about how effective targeting would have been based on these acceptance rates if households in all quintiles had applied to the program at equal rates (in other words, without the geographic rollout and self-selection). Based on acceptance rates alone, only 55 percent of beneficiaries would have been in the first two quintiles. Due to self-selection and geographical rollout, the actual targeting rate was considerably better.

Overall Targeting Efficiency

In the fourth row of Table 10.1, we show the share of households in each quintile who are actually Takaful beneficiaries. This share is influenced by both the probability of registering for Takaful and the probability of being accepted conditional on registering. Only 20 percent of households in the poorest quintile and 10 percent of households in the second quintile are beneficiaries, for a total coverage of approximately 15 percent of poor households.

This low coverage rate is due to the high cut-off used, which means that the population of poor households is far larger than the share that can be covered by the program. The overall targeting performance of the program meets its goal if poverty is broadly defined, with 67 percent of beneficiary households in the lowest two quintiles of households with children.

FIGURE 10.2—DISTRIBUTION OF EXPENDITURE BY BENEFICIARY STATUS



Source: Authors.

Note: This figure is a kernel density plot of household expenditures for three different groups. Total area under each curve is normalized to one, although the groups are not of equal size.

Exclusion Factors Often Exclude Poor Households

Neglected in the above discussion is the fact that the postregistration selection of beneficiaries is actually a combination of PMT targeting and exclusion factors. While we do not have data on enrollment in social insurance, the first five exclusion factors can be checked in our dataset according to self-reports. (We were not able to verify whether households with exclusion factors were rejected from the program for this reason.) Table 10.1 shows that overall 31 percent of Egyptian households with children meet

at least one of these exclusion criteria. Table 10.1 also shows that, among households in the first quintile, 17 percent of households would not have been eligible for Takaful due to these exclusion factors (some households applied and were rejected while others may have decided not to apply knowing that they would not qualify). The leading exclusion factor among the poorest quintile was receiving a government pension or having a government job. While the use of exclusion criteria does not necessarily aid in overall program targeting given that the poorest households are only somewhat less likely to be excluded by these factors than better-off households, these factors are the most visible and accepted part of the program targeting from the point of view of beneficiaries, as described below.

Urban Poor Households Are Less Likely to Become Beneficiaries

In Table 10.2, we examine heterogeneity of targeting effectiveness in urban as compared with rural areas. Takaful beneficiaries are disproportionately rural, reflecting the geography of poverty in Egypt as well as the geographical targeting during rollout. However, there are still significant numbers of urban poor: approximately one-third of our sample in the lowest two quintiles were located in urban areas. Urban households were somewhat less likely to have heard of Takaful or applied to Takaful. This is likely related to the challenge of outreach in urban areas, where social networks for sharing information are more fragmented. More dramatically, however, 18 percent of urban poor are accepted to Takaful if they apply, compared with 31 percent of rural poor. As a result of both lower application rates and lower acceptance rates, only 9 percent of poor households in urban areas are Takaful beneficiaries, compared with 18 percent in rural areas. This suggests room for improvement in the way that the PMT and exclusion factors act to screen urban beneficiaries. Because the exclusion factors were introduced later in the program, they had a disproportionate impact on urban households, which became eligible to apply only in the later waves of the program.

TABLE 10.2—COMPARISON OF URBAN AND RURAL TARGETING

	Urban households in poorest 40%	Rural households in poorest 40%
Heard of Takaful	0.78 (0.04)	0.86 (0.03)
Applied to Takaful	0.37 (0.04)	0.50 (0.04)
Takaful beneficiary (currently receiving benefits)	0.09 (0.03)	0.18 (0.03)
Observations (all)	229	448
Share of applicants accepted	0.18 (0.05)	0.31 (0.03)
Observations (applicants)	181	379

Source: Authors.
Note: Standard errors in parentheses.

Magnitude of Transfer Amounts Relative to Income for Beneficiaries

For the average beneficiary, the transfer represents only 17 percent of household expenditures, while for the poorest quintile, the size of the transfer is a substantial 25 percent of expenditures (Table 10.3). Recall from above that less than half of Takaful beneficiaries are in this poorest quintile. This points to how an improvement in targeting would also increase program impacts.

TABLE 10.3—TAKAFUL TRANSFER AS A SHARE OF EXPENDITURE

	Poorest 20%	20%–40%	40%–60%	60%–80%	Richest 20%	Total
Share of Takaful transfer in expenditure for beneficiaries	0.25 (0.03)	0.13 (0.01)	0.11 (0.01)	0.15 (0.01)	0.09 (0.003)	0.17 (0.02)
Observations	76	39	26	17	8	137

Source: Authors

Note: Standard errors in parentheses.

TABLE 10.4—COMPARISON OF ACCEPTANCE RATES BY REGISTRATION PERIOD

Registration period	All	Poorest 20%	Richest 20%	Observations
March–November 2015 (Threshold = 5,003)	0.51 (0.08)	0.73 (0.11)	0.33 (0.13)	68
December 2015–September 2016 (Threshold = 4,296)	0.33 (0.04)	0.47 (0.05)	0.17 (0.09)	234
September 2016–July 2017 (Threshold = 4,500)	0.16 (0.03)	0.25 (0.06)	0	220
			Total	522

Source: Authors.

Notes: Data are from the weighted nationally representative sample of households with children, restricted only to registrants for which the registration date is not missing in the survey. Standard errors in parentheses.[5]

Much Higher Acceptance Rates Prior to the Introduction of Household Visits

We also examined how targeting effectiveness changed during the rollout of the program. Table 10.4 presents the probability of acceptance conditional on registration date for applicants in four different registration periods. Because only current beneficiaries are counted, this analysis does not fully capture how targeting changed over time, since some early beneficiaries were later excluded. During the early period, there was a high degree of geographical targeting, reflected in the high probability of enrollment, including accepting one-third of beneficiaries from the highest quintile. This type of inclusion error is much lower for applicants who registered later, and almost zero among applicants who registered since September 2016. On the other hand, poor applicants who registered later are also much less likely to be included. According to the MoSS, during the early phase of the program, there were no household visits to verify housing conditions and assets. This explains the high rate of inclusion error. Even though the PMT formula was secret, households could make some guesses about the types of answers on the application form that would increase the probability of their enrollment in the program, and by relying only on self-reports, there was room for well-off households to underreport their assets. On the other hand, the low rate of exclusion during this early phase points to the positive role of the geographic rollout and campaigns, as social workers took part in active outreach to poor areas, rather than relying on poor households to present themselves at the social unit to apply.

In terms of the cost-effectiveness of the household survey, as a back-of-the-envelope calculation, if we assume that a third of the 17 percent of households in the richest quintile that apply continued to be accepted based on the acceptance rate in the first wave of the program, at least 5 percent of the program's total resources would be lost to leakage to households that are clearly not poor. Although we do not have detailed cost information for the household survey, this is high enough to suggest that the reduction in leakage was almost certainly worth the additional cost.

5 The number of surveys for which the registration date is missing is not very large, only 38 out of 560 (6.7 percent), so we are not too concerned that any systemic variation with other characteristics would change the overall pattern.

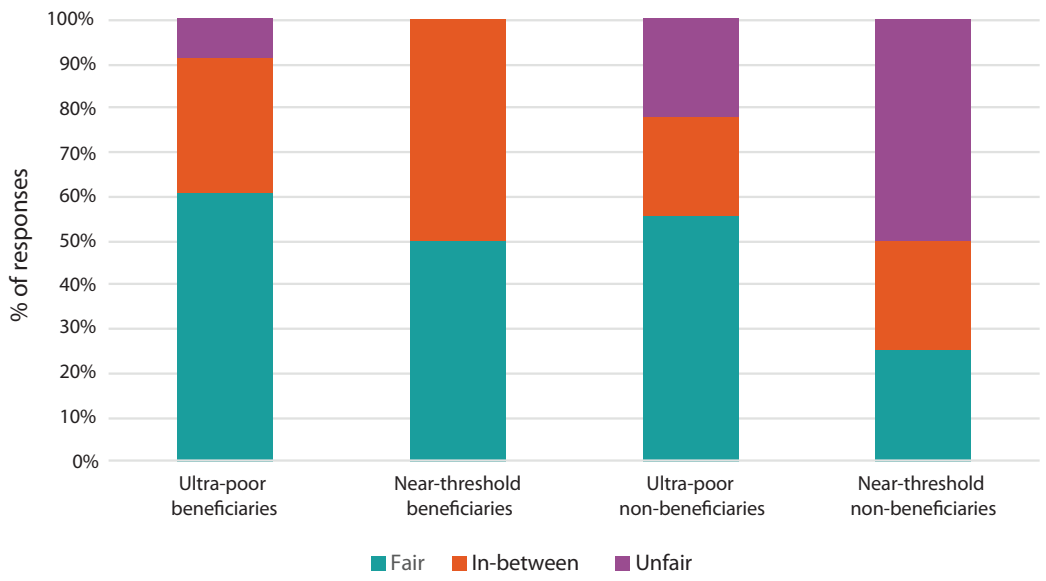
Perceptions of Targeting Outcomes

While the quantitative analysis above gives a precise answer relative to measured household expenditure about targeting efficiency, policy makers may also be concerned about how targeting is perceived on the ground by households.

Perceptions of Targeting Outcomes

In our qualitative survey, we asked participants in the semi-structured interviews whether they viewed the program as very fair, fair, in-between (neither fair nor unfair), unfair, or very unfair. Ultra-poor beneficiaries were the most likely to perceive the targeting process as fair or very fair, while nonbeneficiaries generally, and particularly nonbeneficiaries near the threshold, tended to see less fairness in the selection process (Figure 10.3). Representative of these ultra-poor households, a female beneficiary from the relatively dynamic rural community in Upper Egypt responded that "those who are in are need for it, receive it." Likewise, a woman from the more static rural community in Upper Egypt believes that "those who got the transfer need it and it's helping them with their livelihood."

FIGURE 10.3—FAIRNESS IN TAKAFUL TARGETING AS PERCEIVED BY QUALITATIVE INTERVIEW RESPONDENTS



Source: Authors.
Note: Categories of very fair and fair are combined, as are unfair and very unfair.

That near-threshold nonbeneficiaries reported more perceived unfairness than ultra-poor nonbeneficiaries may be explained by the fact that whereas threshold-level nonbeneficiaries were more likely to be excluded due to the PMT cut-off, ultra-poor nonbeneficiaries were more likely to have been excluded or failed to apply to the program because of exclusion criteria that they knew applied to them. An ultra-poor nonbeneficiary woman describes how knowing the reason for her exclusion made her more accepting of the program targeting:

> "I didn't apply because my husband is an employee. Had I applied and not received the transfer, I would have compared myself to the women who take it. However, I did not apply knowing that I shouldn't, so I don't need to think of why some women took it while I didn't."

In general, though, participants did not only assess the fairness of the beneficiary selection in relationship to their own situation, but also in terms of the situation of other poor households that they knew from the community. For example, a nonbeneficiary woman in rural Lower Egypt shows concern for other poorer nonbeneficiaries that are excluded: "Some families are much worse off than we are, but are not receiving the

transfers." Another female beneficiary from urban Upper Egypt explained, "There are many people in need who don't receive it which is regrettable. In our district we all know each other."

In the focus group discussions, participants discussed how the local poverty line should be defined in their community and then were asked what share of households above and below this self-determined poverty line they observed receiving Takaful transfers. For the question about the share of poor households that receive transfers (the inverse of exclusion error), the choices were most households, three-quarters of households, half of households, or one-quarter or fewer households. For the question about the share of nonpoor households who receive transfers, the choices were half or more, one in five, one in 10, or almost none. Tables 10.5 and 10.6 summarize the perceptions of focus group discussion participants on these targeting outcomes of Takaful. Each tally mark in the tables represents the response of one focus group participant. Table 10.5 shows the share of poor households that focus group participants believed receive the program (the inverse of exclusion error), while Table 10.6 shows the perceived inclusion error.

Perceptions of very high exclusion came up in focus groups in urban areas and in static rural areas, while in the two dynamic rural areas, both of which have a high share of men migrating for work, there were more concerns about inclusion errors.

It is also evident that even within the same community, there is a diversity of views about how well the targeting works. In most communities, the

TABLE 10.5—PERCEIVED SHARE OF POOR WHO RECEIVE TAKAFUL (INVERSE OF EXCLUSION ERROR)

	Upper urban		Lower urban		Lower rural static		Upper rural static		Lower rural dynamic		Upper rural dynamic	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Most households							11111			11111	1	
Three-quarters			111	1			1	1		11	1111	
Half	111		11	11	11111			11	11111	1	1	
One-quarter or less		11111	1			11111	1					111111

Source: Authors.

TABLE 10.6—PERCEIVED SHARE OF NONPOOR WHO RECEIVE TAKAFUL (INCLUSION ERROR)

	Upper urban		Lower urban		Lower rural static		Upper rural static		Lower rural dynamic		Upper rural dynamic	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Half or more									11111	11		
One in five					11					1111	11111	
One in 10					111							
One in 100 or almost none	1111	11111	111111			11111	1111111	111				111111

Source: Authors.

women's focus group mentioned lower exclusion errors than the men's focus group. In at least one community in rural Upper Egypt, this difference in views was reflected in a different perception of who the poor are. The men's focus group considered that their village's many households with family members working abroad should still be considered as poor, while the women's focus group considered households with income from abroad to be too well off to need the program.

Perceptions of the Targeting Process

The qualitative evaluation also allows us to understand in detail how households view the application and selection process. There is general support for the process of verification and household visits to determine who is poor and a broad but imperfect awareness of the exclusion factors. On the other hand, there were many reports of confusion about how the beneficiaries were selected beyond the exclusion factors and about the ability to get a response on the status of applications. This confusion contributed to some cases of discontent with local MoSS officers and reports of increased social tension between beneficiaries and nonbeneficiaries.

General Acceptance of Need for Targeting Mechanism and Checks

During the qualitative data collection, there were many positive mentions by beneficiaries of the verification and exclusion factor systems, as these are seen by community members as evidence that the program makes an effort to exclude those who are better off. For example, a female beneficiary from rural Upper Egypt reported that at the beginning "everyone was applying. Even the rich ones were applying, but now they figured out who needs it and who doesn't." She adds, "when they find that financially comfortable people are getting it, they stop their cards." Respondents mostly felt that their rights are guaranteed through such inspections and verifications, to make sure that those who deserve the transfer receive it, and those who do not stop receiving money. Similarly, an ultra-poor beneficiary from rural Lower Egypt mentioned the checks approvingly: "They check if you have land or own property. And we don't get upset when they come to ask what we own or don't own. Because it's right of them to see our situation and others' situation to pick the right families."

Respondents often mentioned the exclusion factors, showing that there is widespread awareness of these criteria. For example, a nonbeneficiary mother in the dynamic community in rural Lower Egypt explained her answer that targeting is unfair in reference to the exclusion of employees with social insurance: "They are not supposed to give [transfers to] people who have a monthly income. But those who are working on farms for daily wages deserve it, to be able to educate and feed their children." In rural Upper Egypt, a nonbeneficiary and her sister-in-law took the opportunity of replying to the question about program fairness to argue that their own exclusion was unfair, pointing out that "we have no insurance and no car or land, and he is not an employee, and we didn't take it."

Clear but Lengthy Application Process

In terms of the application process itself, Takaful requirements are quite clear to most of those who had applied. A father of four from rural Lower Egypt related that the application process for his family was easy and efficient. "They tell you exactly what to submit and what is still needed. It worked smoothly. There were no challenges. The only challenge was my expired ID which I had to renew first." However, the waiting time to hear back about the application status is unclear and applicants are unsure if they have been rejected. A nonbeneficiary in rural Upper Egypt is still unsure regarding her application status. "We waited five months or so, and you don't know when to expect an answer or if you will get accepted or not."

Unclear Acceptance Criteria

A major challenge with PMT-based targeting is that the acceptance determination is necessarily opaque from the point of view of potential beneficiaries.

The PMT formula itself is kept secret to avoid manipulation. This need for secrecy is especially a concern when, as in Egypt, the components of the PMT score are less visible. Household characteristics such as type of roofing material or sanitation type may be readily visible and hard to easily change, so there is less danger of participants having a general sense of the type of households that receive the program. When the PMT is based on a larger number of characteristics, the targeting efficiency usually improves (Brown, Ravallion, and van de Walle 2016). However, the inclusion of a very large number of variables in the PMT formula, including more easily hidden or misreported household characteristics like ownership of a vacuum cleaner or level of education completed by the parents, means that it becomes harder for observers within the community to discern a reliable pattern in terms of who receives the transfer and who does not. The confusion caused by the PMT-based criteria may also have been particularly strong in Egypt because households concentrated on the exclusion factors being used for targeting. According to one female beneficiary from an urban district in Upper Egypt, "We didn't know the acceptance criteria until they filtered people out and did the checks and their transfers stopped. Nothing was clear, and everyone applied anyway. The papers were clear, but not the criteria." An ultra-poor nonbeneficiary from the same community agreed: "It's very unclear who they pick and don't pick."

Concern about Specific Exclusion Factors

To the degree that households understand the selection process, they mostly concentrate on the exclusion factors. As mentioned above, there were many positive mentions of these exclusion factors showing that the program intended to target the deserving; however, there were also complaints about the way that specific exclusion factors were applied in practice.

Insurance was the disqualifier most mentioned as an obstacle for poor households. Men in the focus group in one community in rural Lower Egypt particularly raised concerns related to insurance, since the village depends on fishing from the Nile, and "anyone who as a fishing permit has to have insurance by default [part of license papers]. So, he cannot receive the transfers, while fishing does not provide him with any income [due to heavy pollution in the river]." In the same focus group, men also insisted that farmers owning a small plot of land should still qualify for Takaful, as they end up making losses on their small farms. A mother-in-law of a beneficiary household in urban Upper Egypt agreed that while people who have cars, land, and so forth should be excluded, some families should likely qualify for Takaful even if receiving "some minor assistance (like insurance)."

Lack of Communication and Transparency Causes Frustration

Although it is not directly related to the targeting mechanism, some frustration about the process of selecting beneficiaries was driven by lack of communication and transparency from the local MoSS office employees to Takaful applicants. A significant number of nonbeneficiaries had applied but had never been informed of their application status. They were either told by their local MoSS office that someone will call them or that they need to reapply, or they have yet to receive information. For example, a young mother of three in rural Upper Egypt is uncertain regarding the status of her application and was given no explanation: "Some of the papers come back with no response. My sister applied twice and they tell her to redo the paperwork from the very beginning, and nothing changes." A man in the focus group discussion in the same community expressed discontent because "these people don't even know the reasons for their rejection." While the PMT-based targeting mechanism makes it hard to give a single reason for rejection, these perspectives suggest that there needs to be a communication strategy that makes it clear that the application has been processed fairly and rejected based on an objective cut-off.

The process of delayed verification of data leading to recalculation of beneficiary status was also not clearly communicated. Some beneficiaries

reported that their card was stopped without any prior notice or any explanation. A poor beneficiary man in rural Lower Egypt was caught by surprise and had no idea why his family's "Takaful transfer stopped suddenly. I filed a complaint but haven't heard back from them."

Regarding concerns about the outreach strategy, IFPRI's qualitative evaluation was not the first to note that communication with applicants and beneficiaries needs improvement. An independent process evaluation in 2016 supported by the World Bank also pointed out communication gaps found especially between the central management and the social units Egypt, MoSS 2016). While the MoSS responded to the findings in this process evaluation by increasing trainings and implementing new communication policies, the continued evidence of confusion suggests that this issue needs further attention.

Concerns about Favoritism

In principle, the local MoSS office simply verifies the applications for completeness and the selection of beneficiaries occurs automatically through the central computer system. However, local MoSS officers do play a role in making sure that the application and notification process works smoothly. The lack of clarity about how beneficiaries are selected and lack of communication about application status combined to make participants suspicious of the role played by the local office workers.

In the dynamic community in rural Upper Egypt, there were a particularly large number of concerns about the staff at the social unit not doing their job correctly and showing favoritism. This was reflected in a complaint during the focus group discussion that "a lot of the documents submitted to the MoSS unit are simply piled on the floor and don't travel to Cairo." A nonbeneficiary mother-in law in this community also reported rumors that "people also say that the social unit workers only send on the documents belonging to the people they want [relatives, and so forth], and burn the rest."

A small number of participants in other communities also mentioned concerns about favoritism. Participants in Lower Egypt also raised concerns related to favoritism, claiming that MoSS employees at the village level would prioritize applications or facilitate paperwork for relatives and friends. A focus group participant in one community in Lower Egypt believes that in his village, "the local MoSS employees do not go out to see the people's living conditions. There is personal preference and laziness involved." A grandmother living with her beneficiary's son's family in Cairo questioned the devotion of local MoSS employees when relating the story of her daughter who had applied for Takaful. "My daughter's name was first on the list, [but] they told her your name is not there, go home, and we will call you … She kept telling them, 'Look for my name. If you do not want to look give me the paper and I will look for it myself,' and then she saw the paper, hers was the first name on the list (of eligibility)."

Corruption is one of the challenges in implementing this type of precise targeting method in countries such as Egypt where administrative capacity and overall trust in the government is limited. The MoSS is making an effort to monitor and clamp down on this type of corruption and has jailed some officers as an example. Additionally, the MoSS has created social accountability committees to foster collective responsibility within the communities. These committees' role is to report any undeserving beneficiary household and to support deserving households in applying to the program. However, these committees were not mentioned by participants in six visited communities in the qualitative fieldwork.

Some Evidence of Increased Social Tensions Caused by Targeting

Frustrations with the selection process may also have contributed to social tensions. In common with other qualitative evaluations focusing on the impact of cash transfers on social relations, respondents agreed that there

were some negative impacts. When asked whether any positive or negative effects existed for nonbeneficiaries, about a third of interview respondents mentioned somewhat unfavorable impacts. A threshold beneficiary, for example, responded, "Yes, I mean people get envious of those who get it. And there's sly comments here and there. But in the end, we're all poor people. No one's really that much more well off than the rest." Mentions of tension between beneficiaries and nonbeneficiaries particularly came up in the community where there were the most complaints about favoritism at the MoSS office. One ultra-poor nonbeneficiary from this community commented, "It created a bit of jealousy between people. Nothing serious, just some looks and perhaps a bit of distance." The social accountability committees that the MoSS created at the community level are also intended as a mechanism to allow community feedback on issues of eligibility.

Overall, the subjective perceptions of the targeting effectiveness fit well with the quantitative findings: the targeting mechanisms generally work to include a higher number of poor households than well-off households; however, respondents are also well aware of individual cases of inclusion or exclusion error. The qualitative data collection helps to show that these targeting errors, even if they are relatively small, have costs in terms of trust in the government and social relations.

Conclusion

This chapter has described the targeting performance of Egypt's Takaful and CCT program as an example of a PMT-based approach to targeting social safety nets. We find that via the combination of the PMT and exclusion factors alone, about 55 percent of beneficiaries would have been considered poor based on a poverty line at the 40th percentile while the addition of geographic targeting increased the incidence to 67 percent. This is in line with what is predicted in the simulation-based literature. The policy choice to use a relatively high cut-off is consistent with a common concern of policy makers with showing low inclusion error rather than with showing low exclusion error. By defining the cut-off at the 40th percentile, inclusion errors are lower than they would be for a more restrictive poverty cut-off. On the other hand, the fact that 45 percent of program beneficiaries are in the poorest quintile shows that households who are poorer were more likely to get accepted into the program than households near the cut-off, pointing again to the helpful role played by the other targeting mechanisms.

Egypt's experience also points to lessons for other countries developing targeted social safety net programs. We show that the higher rate of applications by poor beneficiaries, attributable to both the geographic rollout and outreach focused on poor households as well as self-selection by households, contributed substantially to the program's overall targeting success. The history of the program also shows that while household-level verification is costly, it makes an important difference in terms of preventing leakage, with the difference between the inclusion error in the first wave and subsequent waves of the program. The use of exclusion factors in addition to the PMT-based targeting had a mixed impact. On the one hand, from a quantitative perspective, there is limited evidence that the exclusion factors increased targeting effectiveness. From a qualitative perspective, the exclusion factors were far easier for beneficiaries to grasp than the PMT-based selection process and contributed to an understanding that the program was attempting to be fair. On the other hand, some exclusion factors were applied overly rigorously. The use of these specific factors is now being reconsidered as a revised and updated PMT-based selection process is under development by the MoSS. The qualitative work also shows that clear communication is needed about the PMT-based targeting approach, as the potential exists for confusion about the acceptance criteria in this necessarily opaque method to fuel suspicion about local government officials and exacerbate social tension.