

CONCLUSIONS

This study shows that Egypt faces two major nutritional challenges that are public health concerns and have critical, long-term implications for development and economic prosperity. Global comparisons indicate that both the double burden of malnutrition and the nutrition-growth disconnect are extremely pronounced in Egypt and were on the rise at least during the first decade of the 2000s. Considering the associated losses in development potential and economic costs for malnourished people and the general public, firm political commitment and comprehensive policy actions are needed to address these nutritional challenges effectively.

Egypt's exceptionalism in these nutritional challenges has likely been driven by a combination of four important interacting factors. The first factor is relatively rapid shifts in people's dietary patterns and lifestyles associated with the nutrition transition—a phenomenon present in many middle-income countries. The second factor is rising poverty due to the succession of economic crises in the 2000s and resulting adjustments in poor people's consumption patterns. The third factor is persistent underinvestment in nutrition-sensitive communal infrastructure and effective public services, in particular, healthcare, including specific interventions for child and maternal nutrition. The fourth factor is Egypt's large food subsidy system—the focus of our main empirical analysis. Egypt's own history of food subsidies, as well as evidence from the food economics literature, suggests that food price policies influence people's food consumption behavior and hence their nutritional status. Setting the right economic incentives at appropriate scale can do a great deal to reduce malnutrition, but unfavorable policies can further aggravate the nutritional challenges.

Although the purpose of the Egyptian food subsidy system has never been to influence nutrition, the market interventions and associated consumption incentives, in combination with the nutrition transition phenomenon, may have led to shifts in household diets toward more calorie-rich foods and less micronutrient-rich foods. The distortion of consumer preferences toward

higher calorie intakes and less balanced diets may have been further aggravated in the course of the succession of economic crises in the 2000s, due to high food price inflation and volatility. Unlike open-market foods, the subsidized foods (Baladi bread and flour, rice, sugar, and cooking oil) were unaffected because their prices remained fixed at constant levels throughout. Hence, these calorie-rich foods became cheaper in real terms over time, and the household quotas of rice, sugar, and cooking oil—subsidized under the ration card program—were raised in response to the economic crises.

Ubiquitous household food insecurity, scarcity of basic foods in local markets, and volatile food prices during and after World War II prompted the government to introduce (temporary) food subsidies. Nowadays, this rationale is obsolete. The high prevalence of overweight and obesity along with still widespread chronic child undernutrition calls for a reorientation of Egypt's social safety net. Such a reorientation would include reforming the food subsidy system. In the past, nutritional concerns seem to have hardly played a relevant role in discussions on food subsidy reforms in Egypt. The reform debate has been mainly focused on the fiscal sustainability of the system, the presumed impact on household poverty, and potential implications for social stability. Discussions of the system's possible nutritional implications may have been neglected to some extent because of a lack of empirical evidence, which this study aimed to address.

In addition to documenting Egypt's current nutritional challenges and studying their likely key drivers, our empirical analysis investigated the hypothesized direct effects of the food subsidy system on child and maternal malnutrition in detail. The impact evaluation served to identify potential causal effects of the ration-card-program subsidies and the Baladi bread and flour program subsidies on various indicators of under- and overnutrition and their coexistence at individual and family levels. Identifying these causal relationships can provide fundamental evidence supporting (or disproving) our main hypothesis that Egypt's food subsidy system has been ineffective in reducing chronic child undernutrition and may rather have contributed to sustaining and even aggravating the double burden of malnutrition and the nutrition-growth disconnect. Fundamental to this hypothesis is that individuals' nutritional status responds negatively—or, at least, not positively—to the subsidies that their households receive.

Instead of analyzing only whether program participation affects nutritional outcomes or not, we were particularly interested in exploring the dose-response relationships that indicate the change in average nutritional outcomes due to changes in food subsidy levels. Such findings might be of

greater value for policymakers concerned with reforming the food subsidy programs than findings that only allow inferences about situations with and without the programs. Because food subsidies are likely to directly affect child nutrition through the effects on their diets, we complemented our nutrition-focused analysis with two types of household diet quality indicators. They include indicators of household dietary diversity and the consumption frequency of food groups that are critical in child nutrition and for micronutrient adequacy in particular. Also, beyond its direct nutritional effect through food consumption, the food subsidy system may have contributed to Egypt's nutritional challenges through its heavy burden on the public budget. The funds that have been allocated to the food subsidy system have been unavailable for possibly more nutrition-beneficial investments. Our study refrained from estimating the potential effects through this pathway, due to a lack of appropriate data.

Summary of Main Findings

Overall, our estimation results suggest that the ration card program considerably affects under- and overnutrition, mainly in urban areas. The Baladi bread and flour program has notable effects on overnutrition in both urban and rural areas. The nutritional effects of the ration card program are generally larger than those of the Baladi bread and flour program. Our estimations provide no statistically significant indication that higher food subsidies lead to improved nutritional outcomes. On the contrary, we found that higher food subsidies increase the risk of malnutrition among both children and their mothers, especially the risk of overnutrition. In urban areas, the probability of child overweight and the probability of maternal overweight increase with the subsidy levels that the families acquire from the ration card program. Children and mothers from urban families with ration cards tend to also have higher average BMIZ and BMI than their peers from urban families without ration cards. In addition, mothers' BMIs and their risk of overweight tend to increase with increasing Baladi bread and flour subsidies among urban families. In rural areas, Baladi bread and flour subsidies seem to contribute to increasing BMIZs of children and their risk of overweight, especially at high subsidy levels.

Related to chronic child undernutrition, our dose-response model estimations yielded statistically insignificant results for urban areas and functions that indicate no clear tendency for rural areas. The results from the dose-response model estimations for the subsidy-level effects of the ration

card program in urban areas are noteworthy, however, because they provide a consistent picture in combination with other, statistically significant estimation results. They indicate that the HAZs of children from urban families with higher ration card subsidy levels is much lower, and their probability of being stunted much higher, than among their peers from urban families with lower subsidy levels. Consistent with this and the finding on the risk of child overweight, the estimated dose-response function of the effects on the double burden of child malnutrition suggests that the probability of children being stunted and overweight at the same time significantly increases with increasing ration-card-program subsidy levels among urban beneficiaries. Nevertheless, on average, children from urban beneficiary families tend to have higher HAZs and a lower probability of stunting, as well as higher BMIZs without an increased probability of overweight, compared to children from urban nonbeneficiary families.

Taken together, these results suggest that participation in the ration card program per se has no uniformly adverse effect on urban children's nutrition; it is the acquired subsidy level in high-beneficiary families that leads to increased risks of chronic undernutrition, overnutrition, and the double burden at the child level. At the same time, the ration card program contributes to maternal overnutrition among urban families, with an increasing risk of overweight at increasing subsidy levels. However, none of our estimations provide sufficiently robust results for an increased risk of the double burden of malnutrition at the family level caused by the food subsidies.

The findings on child malnutrition in urban areas are supported by our results from the estimations on household diet quality. The PSM estimations for ration-card-program participation suggest that household dietary diversity and the frequencies of vegetable consumption and meat and fish consumption tend to be lower, on average, among urban beneficiaries than urban nonbeneficiaries. Further, the results from the dose-response model estimations show that the frequencies of meat and fish consumption, milk and dairy product consumption, and legume consumption (for the most part) decrease with increasing subsidy levels among urban beneficiaries of the ration card program.

Thus, the ration card program seems to indeed adversely affect child nutrition in urban areas by incentivizing a diet that is too laden in calorie-rich foods; unbalanced across food groups; and lacks micronutrient-rich foods, which impair normal physical growth. With increasing subsidy levels of the ration card program, urban beneficiaries seem to increasingly substitute expensive, nonstaple foods that are important for child nutrition with calorie-rich and micronutrient-poor foods mainly made from cheap,

subsidized sugar and rice. Lower child HAZ and higher probability of child stunting among families with high subsidy levels may therefore be explained by reduced consumption of animal-source foods, legumes, and (some) vegetables—foods that are all rich sources of critical micronutrients, especially zinc, and high-quality protein. These substitution effects were likely fueled by rising prices of these foods in the course of the economic crises in the 2000s and the government's decision to hold the prices of the subsidized foods constant and to even increase ration card quotas to help beneficiary households to cope with real income losses from price increases of open-market goods. Such substitution effects were also found by previous studies based on other household survey data from Egypt (Kavle et al. 2015a; Ramadan and Thomas 2011).

Our estimation results also suggest that child and maternal nutrition indicators in rural areas are largely unresponsive to food subsidies from both programs, except for child overnutrition in response to Baladi bread and flour subsidies. Regarding household diet quality in rural areas, we found the strongest effect for household dietary diversity in response to Baladi bread and flour subsidies. The dose-response function indicates that the diversity of rural families' diets first slightly increases with increasing subsidy levels up to a medium level and decreases with higher levels at higher margins. According to that, there is an optimal, medium level for Baladi bread and flour subsidies in terms of their beneficial effects on household dietary diversity, while low subsidies have less adverse dietary effects than high subsidies. However, we do not find robust evidence that this or other, less strong dietary effects are reflected in child undernutrition indicators in rural areas, so the explanatory potential of inadequate household diet quality as a possible pathway of the hypothesized nutritional effects is limited here.

In conclusion, the results of our empirical analysis provide supportive evidence for our hypothesis that the food subsidy system has been ineffective in reducing chronic undernutrition and has contributed to aggravating the double burden of malnutrition and probably the growth-nutrition disconnect in Egypt. In combination with other developments in recent decades, Egypt's large food subsidies can help to explain the country's exceptionalism in the global comparison in terms of these nutritional challenges to some extent (although data limitations prevent quantifying the precise contribution). Indeed, Egypt is not the only country with a long and continuing history of large food subsidies; another one is India. India's PDS dates from the beginning of World War II and is quite similar to Egypt's ration card program (Measham and Chatterjee 1999; Mooij 1998). Since 1997, the Targeted PDS (TPDS) provides rations of staple food grains (rice and wheat), sugar, and

cooking oil to ration cardholders through a network of public distribution shops (Grosh et al. 2008; Jha et al. 2013; Tarozzi 2005). The TPDS has been found to fail in targeting the majority of the (officially) poor and to be ineffective in improving household food insecurity and reducing child undernutrition (Jha et al. 2013; Kochar 2005; Svedberg 2012; Tarozzi 2005). Yet the coverage of India's TPDS has been much smaller than Egypt's food ration card program (24.4 percent household coverage in India compared to 58.5 percent of Egyptian households with ration cards in 2004–2005, and 68.4 percent of Egyptian households in early 2011)—as well as the share of food subsidies in national GDP (0.7 percent in India compared to 1.8 percent in Egypt in 2008 and 2.4 percent in Egypt in 2010–2011) (Al-Shawarby and El-Laithy 2010; Svedberg 2012; see above). However, India resembles Egypt in that progress in reducing chronic undernutrition has been slow, despite high rates of economic growth (Deaton and Drèze 2009; Stevens et al. 2012; Subramanyam et al. 2010).

Our empirical findings consistently suggest that—from a nutritional perspective—primarily Egypt's ration card program, especially in urban areas, needed major changes to reduce the incentives to overconsume calorie-rich and unbalanced diets. The ration card program had stronger adverse effects on child and maternal nutrition than the Baladi bread and flour program, which may be explained by four crucial differences in the designs of the two programs:

First, unlike Baladi bread, rice, sugar, and cooking oil do not seem to be inferior goods (at least among households with young children), so their consumption tends to increase with growing household incomes. Therefore, it cannot be assumed that non-poor households with ration cards forego utilizing their quotas for consuming these subsidized foods. In other words, hoping for self-targeting of the subsidies among ration-card-program beneficiaries is unrealistic. Restricting access to these subsidized foods (as has been done through allocation of ration cards) is necessary.

Second, the ration card program (as in place until May 2014) was poorly targeted and provided food subsidies to most non-poor households, and the allotted per capita quotas were even higher among high-income beneficiary households than low-income beneficiary households—especially in urban areas. Hence, particularly households with no actual financial need were incentivized to overconsume subsidized rice, sugar, and cooking oil. Many of them also managed to acquire large per capita quotas.

Third, the selection of the foods to subsidize was contrary to the real nutritional needs of the vast majority of the Egyptian population—and probably even more contrary to the needs of the beneficiary population of the ration card program, which excluded one-third and one-fourth of the lowest income quintiles in urban and rural areas, respectively (Table 3.2). Child and maternal undernutrition from calorie deficiency has not been a prevalent nutritional problem in Egypt in recent years, as our descriptive analysis of the patterns of malnutrition shows.

Fourth, household per capita quotas of the subsidized foods—and therefore the availability of cheap calories—were larger, on average, among urban beneficiary households than rural beneficiary households. In contrast, individual calorie expenditures tend to be higher in rural areas because of higher physical activity levels from manual labor-intensive economic activities (in agriculture and related sectors) among adults, outdoor playtime activities for children, and less use of motorized means of transportation, among other reasons. Thus, in urban areas, higher availability of cheap calories coincide with lower physiological calorie requirements—leading to more excess calories.

Policy Implications

In addition to providing a strong nutritional rationale for reforming the Egyptian food subsidy system, our empirical analysis has six reform recommendations that emerge directly from it:

First, food subsidies for all (non-inferior) calorie-rich foods (subsidized under the ration card program) should be cut to reduce the incentives for their overconsumption. Instead, consumption of a variety of micronutrient-rich foods—and especially foods important for child nutrition—could be subsidized to increase the incentives for consuming nutritious and diverse diets.

Second, the fixed-quota scheme of the ration card program should be abolished to allow beneficiaries more flexibility in choosing foods according to their individual needs.

Third, the consumption of Baladi bread (and flour) should be restricted to reduce the incentive for its overconsumption if the Baladi bread and flour program as such is maintained.

Fourth, the fixed-price regime of the Egyptian food subsidy system should be phased out, and prices of subsidized foods should eventually be allowed to fully vary with open-market prices in order to avoid price distortions and related consumption incentives. This could be realized through switching to a voucher-based system like the Supplemental Nutrition Assistance Program (SNAP) of the United States. This system change would make subsidization of individual food items and differentiation to open-market products—as well as operation of a separate procurement and marketing system for subsidized products—redundant.

Fifth, household eligibility for food subsidies under the ration card program should be reviewed, and food subsidies—or, more generally, food assistance—should be better targeted to the needy population. Means tests could be used for targeting food assistance, and under- and over-nutrition indicators should be considered, in addition to household wealth indicators.

Sixth, benefit differentiation corresponding to beneficiaries' neediness should be reintroduced. For example, Egypt could adopt a two-level system consisting of a high-assistance level, which includes a broad basket of subsidized products for the neediest beneficiaries, and a reduced-assistance level with a narrower basket limited to key nutritious foods, for the less needy beneficiaries.

Following the presidential election in May 2014, the new Egyptian government did begin to fundamentally reform the food subsidy system. The rapidly growing fiscal burden as well as the system's ineffectiveness as a social protection instrument and factor for social stability—rather than nutritional concerns—have likely motivated the initiation of reform. Nevertheless, the revised food subsidy system shows notable modifications that can be expected to have nutrition-beneficial implications. The modifications already implemented are consistent with the reform recommendations emerging from our empirical analysis but still fall short of most of them.

The changes made to the food ration program with expected positive dietary effects are the transition from food quantity-based quotas to cash assistance for selected food and nonfood products and the expansion of the subsidized food basket. Removing the fixed quotas for rice, sugar, and cooking oil reduced—but did not eliminate—the incentives to overconsume these calorie-rich foods, especially considering that the quotas under the old program were well above recommendations for healthy diets. Rice, sugar, and

cooking oil remain in the subsidized consumption basket, and other foods rich in carbohydrates and dietary fat were added, including rice of higher quality, pasta, other cooking oils, and shortening.¹ The issuance of cash allotments and the expansion of the basket of subsidized foods allow beneficiaries to choose the commodities with greater concern for their dietary needs and to select somewhat more micronutrient-rich foods such as lentils, fava beans, meat, chicken, fish, milk, and cheese.

The new subsidy system restricts purchases of Baladi bread to holders of subsidy cards and is entirely based on electronic smart cards. This system provides a basis for implementing improved targeting to the households in (food) need; it also offers the technical flexibility to easily align the amount of cash assistance with the level of beneficiaries' neediness. Limiting the number of handed-out Baladi bread loaves and allowing for substitution of the unused bread rations with other subsidized commodities reduce the incentives of Baladi bread overconsumption (and waste) and enable beneficiaries to acquire larger quantities of more micronutrient-rich and calorie-lean foods at subsidized prices. Recently, the Egyptian government also began to take first steps to reduce the number of holders of subsidy cards by appealing to people's social responsibility and asking them to hand in unneeded subsidy cards voluntarily. Yet the regime of fixed prices and the government-controlled procurement and marketing system for subsidized products remain in place.

Potential next reform steps to make the current system more nutrition sensitive include eliminating the remaining adverse dietary incentives and creating more nutrition-beneficial ones, introducing under- and overnutrition indicators as eligibility criteria, utilizing the system for food fortification programs, and complementing it with nutrition awareness campaigns and nutrition education programs. Perhaps most critically, the new system still incentivizes consumption of calorie-rich diets, and the revised basket of subsidized foods now includes even relatively superior sources of carbohydrates and dietary fat, such as rice of higher quality, pasta, and varieties of cooking oil and shortening. It also includes non-nutritious nonessentials such as chicken bouillon, instant coffee, and black tea. In contrast, the consumption of micronutrient-rich fresh vegetables and fruits—critical for child nutrition in particular—is not subsidized. Similarly, infant formula—an expensive but vital product for nonbreastfed infants and young toddlers—is excluded from the subsidized food basket. Poor households are not able to regularly afford

1 See Table A.9 in the Appendix.

high-quality formula, which may also contribute to poor child nutrition to some extent.

Targeting food assistance based on under- and overnutrition indicators—in addition to household wealth indicators—as well as monitoring the system’s effectiveness in terms of nutritional outcomes would certainly set a milestone. It would require that the Egyptian government commit, as an explicit goal of the food assistance system, to reducing malnutrition. For implementing a need-based allocation of food assistance at the subnational level, the required anthropometric data are available at least at the governorate level and in regular, multiyear intervals from the DHS. Anthropometric data for individual household members could be collected through the (reforming) public health system and possibly even be stored on the smart card, in addition to other eligibility criteria.

The subsidized foods provide excellent vehicles for fortification programs. The fortification of Baladi bread with iron and of oil with vitamin A should be resumed, and the coverage of the fortification program should be expanded to the entire country, while the stability of the added nutrients needs to be ensured. Expanding the fortification program to some of the newly subsidized foods, as well as fortification with additional micronutrients such as zinc, could be explored.

In addition to economic factors, key determinants of consumer food preferences include food habits and consumers’ nutritional knowledge. As our Engel curve analysis shows, per capita consumption of sugars and edible oils and fats continuously increases with increasing household incomes among beneficiary and nonbeneficiary families of the ration card program—irrespective of widespread overweight and obesity. It implies that there is little consciousness of nutritional health—even among the rich, who are usually more educated. Nutrition awareness campaigns and nutrition education programs, particularly ones related to overnutrition, unhealthy diets, and “modern” food habits are needed. The high consumption of junk foods and sugary soft drinks—especially among young children—is of particular concern (Kavle et al. 2015b; Musaiger 2011). For example, sponge cakes and sugary biscuits are not perceived as unhealthy and are often considered as “ideal” common complementary foods for toddlers (Kavle et al. 2015b). Moreover, the implications of sedentary lifestyles for nutrition and health need to be debated publically, and physical activity should be promoted (Han et al. 2010; Musaiger and Al-Hazzaa 2012; Rahim et al. 2014; Mehio Sibai et al. 2010).

To develop effective complementary nutrition education programs, Egypt can draw from experiences in other countries with similar food assistance

programs. For example, impact evaluation studies of various nutrition education interventions among SNAP beneficiary households in the United States show that professional nutrition education for both children and their parents in controlled environments (such as health centers) can be effective in improving children's diets at home (Williams et al. 2014, 2015). As with SNAP in the United States, several nutrition interventions should be tested and rigorously analyzed in order to identify the most effective and feasible ones to be implemented. Further down the road, making food assistance conditional on participation in nutrition education programs should be taken into consideration, and its feasibility explored.

The reform steps undertaken by the Egyptian government since June 2014 mark the beginning of the end of one of the world's oldest food subsidy systems. Nevertheless, the current voucher-based system may be only an intermediate solution toward a (conditional) cash transfer system, which has been shown to be most cost-effective in reducing poverty and food insecurity in developing countries (e.g., Grosh et al. 2008; Hidrobo et al. 2014; Rawlings and Rubio 2005). With this, Egypt would follow several other countries, including Algeria, Jordan, and Mexico, which shifted their social safety net from a food subsidy-based to a cash transfer-based system. The experiences in these countries may provide important lessons for a successful transition process in Egypt (Grosh et al. 2008). However, to the best of our knowledge, the nutritional effects of neither the reforms in these countries nor those in other developing countries that have had large food subsidy systems (in the past), such as Bangladesh, India, Iran, and Iraq, have been analyzed rigorously and comprehensively. The current literature also contains very little evidence of program impact evaluations that can help to assess the potential nutritional effects of different reform alternatives—especially in terms of their effects on overnutrition. This lack of evidence calls for more rigorous research in that direction, and Egypt has the opportunity to let research-based evidence guide the decisionmaking in future reform steps.

Although the transition from a food subsidy-based to a (conditional) cash transfer-based system may have helped to substantially reduce child and maternal undernutrition and to slow the double burden of malnutrition in other countries, having a conditional cash transfer program in place is no panacea. Using data from rural areas in southern Mexico, Leroy et al. (2014) show that increasing household wealth—possibly thanks to the national cash transfer program—is associated with an increased probability of coexisting child stunting and maternal overweight. However, the authors also show that maternal education effectively mitigates the negative nutritional effects of

increasing household wealth. Hence, where maternal schooling is low, income support needs to be accompanied by formal female education and behavior change communication to effectively reduce child stunting and to protect women from unhealthy weight gain (Leroy et al. 2014). Consequently, independent of the present system of public assistance, education—and nutrition education in particular—is indispensable to effectively reduce the double burden of malnutrition and the growth-nutrition disconnect in Egypt.

Limitations and Research Implications

Finally, our main empirical analysis has several limitations emerging from the household survey data used and the methodology (which is conditioned by the available data) applied. Our findings should be understood under consideration of the study's limitations, which may also be motivation for follow-up research:

First, no time-series household survey data are available for evaluating the effects of the Egyptian food subsidy system and its past reforms over time. Given that our estimation relies on cross-sectional data, for example, our results are likely to underestimate the long-term effects that may arise from the intergenerational transmission of malnutrition. For the same reason, we are unable to analyze the drivers of the observed growth-nutrition disconnect at the household level in greater detail.

Second, because of a lack of respective survey questions, the HIECS data (CAPMAS and WFP 2011) do not allow (or insufficiently allow) for analyzing the nutritional effects of inadequate child and infant feeding practices, eating and lifestyle habits, diseases, and poor infrastructure and public service provision. Therefore, our analysis permits drawing precise conclusions on the nutritional effects of underinvestment in infrastructure; public services; and direct nutrition, health, and education interventions, as well as on the possible indirect nutritional effects of food subsidies through the allocation of the public budget.

Third, the HIECS data fall short of the ideal set of variables for our impact evaluation analysis (which can probably only be obtained from a specialized survey). We made great efforts to minimize a potential bias due to unobservables in our PSM estimations. We acknowledge that the possibility of such a potential bias exists, but we also believe that even if there is such a possible bias, it is unlikely to compromise our main findings.

Fourth, although PSM methods are suited for assessing the changes in an outcome variable in response to a treatment or a treatment level, they fall short in explaining the mechanism through which the changes occur. Hence, we are unable to econometrically identify the precise impact pathways and to quantify the relative importance of the nutritional effects of the food subsidy system compared to (all) other potential effects. However, the results from the complementary estimations for the effects on household diet quality provide supportive evidence that food subsidies affect people's nutrition through incentivizing calorie-overladen and unbalanced diets. Our estimation results are also supported by the results from our Engel curve analysis and are consistent with evidence from the food and health economics literature—including studies from Egypt.

Fifth, the data that have been used and are currently available are unsuited for evaluating the nutritional and dietary effects of the ongoing reform. At least with respect to the evaluation of the reform's food consumption effects, the forthcoming data from the 2014–2015 HIECS, in combination with the 2010–2011 and 2012–2013 HIECSs, may overcome some of the data limitations. Part of the 2012–2013 and 2014–2015 HIECS sample is a panel of the households interviewed in the 2010–2011 HIECS, which would allow tracking their food consumption over time and identifying changes in consumption patterns. Yet neither the 2012–2013 HIECS nor the 2014–2015 HIECS include anthropometric measurements—essential for assessing the effects on nutritional outcomes—or diet-related questions. Thanks to the support from WFP, the existence of the food security and nutrition module complementing the basic 2010–2011 HIECS made our analysis possible and, at least for that reason, so unique and valuable.

Follow-up research that evaluates the impact of future reform steps on food consumption and nutritional outcomes may be of great value, particularly for policy makers who are in charge of the reform implementation. Properly designed research can inform the political decision-making process regarding, for example, the likely income, dietary, and nutritional implications of different reform alternatives and thereby help to create a more effective and possibly more nutrition-sensitive social safety net in Egypt. Experimental impact evaluation studies could be designed to examine the transition from voucher-based food assistance to cash transfers or the introduction of complementary nutrition education programs with and without conditionality.

Before implementing such substantial—and perhaps costly—reform steps on a large scale or even nationwide, they could be tested on a smaller scale and rigorously analyzed in order to assess their practicability, effectiveness, and social acceptance. Indeed, such research requires political intent and firm commitment by relevant governmental institutions to close collaboration in research implementation.