ERF Policy Brief

Do Social Protection Programs Improve Health-related Outcomes of the Poor in Tunisia?

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In a nutshell

- *The Tunisian social protection main program (PNAFN) reduces the risks of incur- ring high and catastrophic out-of-pocket expenses.*
- *It encourages the beneficiary families to spend more on medications.*
- *PNAFN families have a higher probability of being unable to visit a doctor when having an illness.*
- *The former is due to a higher demand for health facilities coupled with financial deficiencies.*

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1. Introduction

The resilience of social protection programs was key to the fight against the COVID-19 pandemic in developing countries. After the rapid deterioration of the socioeconomic situation due to social distancing measures, the implementation of mitigation measures relied heavily on regular social protection programs (Krafft et al., 2022).

Given the costs of social protection and the reduction of fiscal resources in many coun- tries such as Tunisia, it is relevant to investigate the effectiveness of social protection programs in improving health utilization. Although high, the budgets allocated to so- cial protection could at the same time be insufficient to reduce out-of-pocket spending by the poor (Wagstaff et al., 2009).

In this policy brief we discuss the results of an impact evaluation of the main social protection program in Tunisia, the PNAFN.[1] Launched in 1986 to reduce the burden of the social adjustment program on the poorest, it is based on unconditional cash transfers and free access to public health services. The outcome of PNAFN beneficiaries is compared to those of three groups: those excluded from all programs, the beneficiaries from AMGII[2] and the contributors to the national health insurance program CNAM.[3]

Acharya et al. (2012), defines three main outcomes to analyze the impact of social protection, namely healthcare utilization, out-of-pocket spending and health outcomes. We focus on the first two as our database does not include information on health outcomes. When dealing with health expenses, the literature distinguishes between high expenses and catastrophic[4] ones (Wagstaff and Lindelow, 2008; Bernal et al., 2017).

As for out-of-pocket expenditures, they may not necessarily decrease as one would expect, at a first glance, with the access to free public health services. First, the greater access to the health system makes poor households more aware of healthcare (Bernal et al., 2017). However, due to limited supply of public health, they may for example pay for unavailable medicines in hospitals, prescribed by public physicians. Second, the cash transfer raises income and thus the possibilities of increasing out-of-pocket spending if needed (Wagstaff and Lindelow, 2008).

The impact analysis of PNAFN summarized in this policy brief is based on the Tunisian household survey of 2015. The methodology consists of estimating actual out-of-pocket expenses and the probability of incurring large or catastrophic expenses.[5] Since the economic and health vulnerability might predispose the PNAFN beneficiaries to higher or lower healthcare expenditures, compared to other groups, a simple estimate of the effect of PNAFN might be biased upward or downward. Therefore, an instrumental variable strategy is deployed to take into account this selection bias.

2. Insights from previous work on the impact of health subsidy programs

Acharya et al. (2012) conduct a literature review on the impact of subsidized health insurance programs until 2010, completed by Erlangga et al. (2019) for the studies conducted between 2010 and 2016. Based on 19 studies, Acharya et al. (2012) find weak evidence of impact of the programs on the variables of interest in the studies. When there is a protection from financial risk, it is accompanied by an increase of out-of- pocket spending for the poorest. Unaffiliated households do not afford healthcare and seem to have given it up. In contrast, Erlangga et al. (2019) highlight a positive impact of publicly-funded health insurance on healthcare use and mixed effects on protection from financial risk. In what follows we focus only on previous studies on Tunisia.[6]

Abu-Zaineh et al. (2013) study the effects of health insurance on catastrophic health spending in Tunisia. They rely on a on healthcare expenditure, utilization and mor- bidity survey and find that the probability of catastrophic health expenditures is twice lower for households benefiting from free or subsidised healthcare (8 times lower for households affiliated to private

[1] Programme national des familles ne´cessiteuses.

[2] Assurance maladie gratuite

[3] Caisse nationale d'assurance maladie

[4] Which exceed a pre-defined level of per capita expenditures

[5] Following Wagstaff and Lindelow (2008), Wagstaff et al. (2009) and Bernal et al. (2017), we define out-of-pocket health spending as high if its exceeds an x percentage threshold of the sampling unit's mean; or exceeds the 50th or 75th percentile of the sampling unit. Similarly, a household has catastrophic out- of-pocket spending if its share of healthcare spending in total annual spending exceeds an x percentage threshold. Five thresholds are taken into account: 5%, 10%, 15%, 20% and 25%.

[6] See Le et al. (2022) for a more detailed literature review.

insurance regimes). Makhloufi et al. (2015) compare the outcomes of those enrolled in the mandatory health insurance (CNAM) for formal workers, beneficiaries of the medical assistance schemes (PNAFN and AMGII) and those uncovered. They find that both insurance schemes increase healthcare services utilization, but the effects vary across services and areas.

3. Social assistance programs and health in Tunisia

3.1. The beneficiaries

In Tunisia, social assistance programs (the Amen Social scheme) are structured around two main programs: (1) the National Program for Assistance to Needy Families (PNAFN), providing targeted populations with unconditional monthly cash transfers and free access to health care in public health facilities[7] labeled AMG I and (2) the reduced-fee health care access program, labeled AMG II. Social assistance also imple- ments programs dedicated to the disabled, support for school-aged children coming from poor and vulnerable families, improvement of housing for needy families, and specific initiatives to protect children at risk.

The beneficiaries of the PNAFN receive a monthly cash transfer of about 180 Tunisian Dinars (TND) equivalent to 62 US $. The monetary transfer is increased by 10 TND per month and child under the age of 18, and up to the age of 25 for dependent justifying studies, apprenticeship or training. The amount of this additional transfer is doubled for each child with a disability.[8]

The number of recipients of the PNAFN skyrocketed just after the revolution in 2011 (176 000 versus 118 309 in 2010) and reached around 256 000 recipients in 2020 . More than half (55.1 %) of PNAFN beneficiaries are over 60 years.[9]

3.2. Eligibility criteria for the PNAFN/AMGI and AMGII

Benefiting from PNAFN or AMGII is subject to eligibility criteria that include annual income and other living standards variables of the families. The identification of eligible households is the responsibility of social workers who are distributed in all governorates of the country. A social survey is undertaken by these social workers to assess the household's socio-economic and health situation against the eligibility criteria of the Ministry of Social Affairs.

In order to benefit from free care (AMG I),[10] the beneficiary applying for the program must justify an adjusted annual per capita income of no more than 585 TD or 290 USD, the incapacity of all family members to work, the absence of family support, the disability and/or chronic illness of a family member, and deteriorated living conditions (particularly the condition and facilities of the home). Not all of these criteria need to be met for the family to be eligible, thus providing a wide margin of discretion to the social worker.

The eligibility criteria for AMGII are mainly based on annual income, which should not exceed the minimum wage (SMIG) for families of less than two people and up to twice the minimum wage if the family exceeds five people.[11] Following the grouping of the two programs PNAFN and AMGII under the umbrella of the Amen Social, a decree was issued in 2020,[12] which adopts unified eligibility criteria underlying a classification drawn up at the level of each governorate to identify the families eligible for each of the two programs.

The two programs, PNAFN and AMGII, do not perfectly target the poorest segments of the population. Bibi and Ben Cheikh (2017) show that the inclusion errors for the PNAFN would be around 53 % and 49.7 % for the AMGII.

[7] The first line of care is provided by the Basic Health Care Centers (CSB) and the District Hospitals (HC). The secondary level of health care (2nd line) is provided in the regional hospitals, which also provide first line care for the local population. The tertiary level (3rd line) of health care is composed of a network of 23 hospitals and University Hospitals (CHU), which may be general or specialized, with the status of public health establishments (EPS). They provide referral and highly specialized care, in addition to first and second level care for the local population.

[8] Organic law no. 2019-10 of January 30, 2010, creating the "AMEN SOCIAL" program.

[9] Authors' calculation using administrative data from PNAFN (2018)

[10] Joint Circular of the Ministry of Social Affairs and the Ministry of Interior, dated 27 May 2011, defining the eligibility criteria of families for the AMG 1 program.

[11] Decree No. 2012-2522 of 16 October 2012, which sets out the conditions for the attribution of the AMGII cards.

[12] Decree No. 2020-317 of 19 May 2020, setting the conditions and procedures for eligibility, withdrawal and objection to the "AMEN SOCIAL" program.

3.3 Use of public health facilities by AMGI and AMGII beneficiaries

AMGI and AMGII beneficiaries unevenly access public health care services (World Bank, 2016). AMGI beneficiaries, representing 9 % of Tunisian households, benefited from 14 % of public healthcare facilities, compared to only 13 % for AMGII cards' holders, whose weight in the population is almost 22 % (World Bank, 2016). This high level of use of public healthcare facilities by AMG I beneficiaries can be attributed to the higher needs of PNAFN beneficiaries due to their age and the prevalence of chronic diseases among them. Co-payments could also act as a disincentive for the pooreest among AMGII households.

4. The database: the Tunisian household survey

The impact analysis of the PNAFN and AMG I on household's annual out-of-pocket expenses and the probability of large expenditures, is based the 2015 National Survey on Household Budget, Consumption and Living Standards (EBCNV). The 2015 EBCNV was conducted on a sample of 25,235 households. The survey is composed of three modules. The first deals with housing conditions and characteristics of all household's members, such as gender, age, marital status, education attainment and employment. It contains information on individual health status, coverage by the main health insurance funds (AMG I, AMG II and CNAM) and basic healthcare service utilization. The second and the third modules provide detailed information on household expenditure and food consumption. The expenditure module tackles household annual spending at a fine product/ service level. Therefore, the survey allows the analysis of spending on various healthcare products and services, such as doctor visits, medications, medical analysis, etc.

5. Results and policy implications

We find that the access to PNAFN (and AMG I) has no effects on total health expenses. However, it protects from catastrophic out-of-pocket expenses, compared to the three other groups (no-coverage, AMGII and CNAM). It also encourages the PNAFN families to spend more on medications than any of the three control groups, thanks to the cash transfer. In the specific case of the the comparison between the PNAFN and AMG II beneficiaries, we find that the former spend less on inpatient services thanks to the fully subsidised healthcare. However, PNAFN beneficiaries have a higher probability to be unable to visit the doctor when having an illness due to a higher demand for health facilities, coupled with financial deficiencies.

The policy implications of these findings are that the PNAFN has a protecting role for poor households and improves their use of some healthcare services. However, this role is weakened by the low availability of good quality health services in public healthcare institutions.

To go a step further in the assessment of the effectiveness of this program we would need information on actual health outcomes of beneficiaries and non-beneficiaries. It would be also very relevant to be able to compare the relative impact of additional funds to improve the supply of public health facilities with those devoted to increase the resources of the beneficiaries or the coverage of the program.

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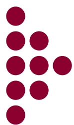

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