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## Is informality an irrevocable obstacle to Universal Health Coverage (UHC)? Evidence from Tunisia

by Khaled Makhloufi, Mohammad Abu-Zaineh  
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in collaboration with :  

### 1. Summary

*In many developing countries and in particular in the context of Middle East and North Africa (MENA) region, large fractions of the population are deprived of access to any social security system, mainly because they are working in the informal sector. This paper shows that even among the most precarious workers, the willingness-to-pay for a health insurance system is substantial but varies according to the three different healthcare insurance plans proposed in the survey (giving access to public provider, to private providers, or reimbursement), associated or not with a pension scheme. This suggests that informality, by and in itself, is not an incurable impediment behind the achievement of the UHC goal in Tunisia as long as appropriate insurance plans are offered to the uncovered populations.*

### 2. Introduction

In many developing countries, particularly in the Middle East and North Africa (MENA) region, non-enrollment in the formal health insurance scheme due to informality of employment is often seen as a fatality. Against this background, between August and September 2013 we conducted a cross-sectional contingent valuation study in Tunisia to assess the willingness-to-take-up mandatory health and pension insurance schemes; these are currently run by two national funds: the “caisse nationale d’assurance maladie” (CNAM) and the ‘caisse nationale de sécurité sociale’ (CNSS), respectively. The survey covered a sample of 456 subjects belonging to the different Tunisian agglomerations. Respondents’ willingness-to-pay (WTPs) were elicited in two sampling points, which were defined in order to collect data from the “hard-to-reach” populations: the informal markets (known as Souks), which is characterized by the high presence of informal workers, and the public squares (known as Al-Mydan), where peaceful demonstrations of unemployed people took place following the so-called “Arab Spring” that began in Tunisia at the end of 2010.

### 3. Methods and Results

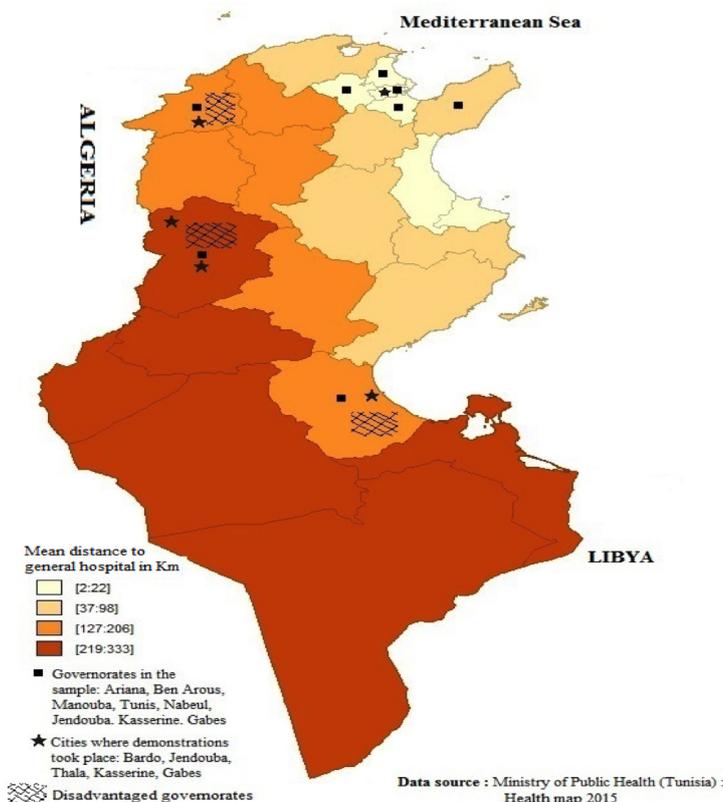
#### Survey design

For the purpose of our survey, only Tunisian citizens not covered by any of the current social insurance scheme were asked in face-to-face interviews to com-

plete a questionnaire. Our questionnaire was designed and refined using two pre-tests pilots and translated to the local language. The three main regions (North, Central and South) of Tunisia were targeted with the two sample points for each of them, as already described above: the Souk and Al-Mydan (see Figure 1). Participation was voluntary and no financial incentives were paid for those accepting to response the questionnaire. Respondents were given the descriptions of: (i) the three mandatory plans run by the current CNAM, and (ii) a pension scheme that mimics the mandatory retirement scheme for self-employed entitled to the CNSS. The proposed voluntary pre-payment health insurance scheme (VHIS) covers three health insurance plans: the public single-provider scheme, the private single-provider scheme and the reimbursement scheme. Unlike the public single-provider scheme, which only covers healthcare services delivered by the public sector with a cap on annual amount of co-payments, the private scheme covers healthcare services that are only provided by private sector providers including a third-party payment system. The reimbursement scheme, or the two-sector scheme, covers healthcare services in both private and public sector. All healthcare insurance plans cover the members and their families. The proposed voluntary pension insurance scheme (VPIS) is supposed to deliver a monthly retirement benefit for its members ranging between TND 70 and TND 120 after regular contributions for at least 40 quarter-contributions.

Respondents were then asked their willingness-to-join one of the above-mentioned insurance and pension scheme. After having chosen an insurance plan, respondents were also asked to state their maximum quarterly WTP according to one of the three elicitation formats: the standard open-ended (OE) and payment card (PC) techniques and a newly proposed technique: the circular payment card (CPC) (see Chanel et al., 2017)).

**Figure 1 Map of Tunisia showing governorates in the sample**



Of 456 individuals approached, 30 refused to participate, resulting in a response rate of 93.42%. Three sub-groups were made: they were randomly assigned to one elicitation format (OE, PC or CPC) to answer WTP questions for both VHIS and VPIS.

### ***Econometric study***

Data collected allow to control for inter-individual heterogeneity and test for the effects of socioeconomic and demographic characteristics on the elicited WTPs for VHIS and VPIS. Because respondents were, first, asked to state their WTPs for VHIS, we control for a possible effect of VHIS on WTP for health by introducing a VPIS dummy. The comparison of the impact of each elicitation format on WTP value has been fully addressed in Chanel et al., 2017. We also systematically controlled for the sample points (Souk versus Al-Mydan) to check that WTPs were not biased by politically oriented strategic responses.

**Sampling - descriptive results**

Of the 426 respondents, 179 were interviewed in Al-Mydan squares and 247 in Souks. On average, respondents are male (which is expected), 35 years old, educated (basic level), living in urban areas and belong to households earning about one and a half times the minimum monthly wage in Tunisia (TND 558.11 – approximately 250 euros in 2013). Interestingly, 60% of males and 83% of females who are informal workers were less than 40 years old; these figures are in line with previous and very recent studies suggesting that almost of Tunisian youth work in the informal sector (CRES/ADB, 2016).

**Willingness-to-pay (WTP) for an affiliation to voluntary pre-payment health insurance scheme (VHIS)**

This section reports some of the results which are extensively described in Makhloufi, Protiere, Ventelou (2017). Results show that both the informal workers and unemployed are willing-to-join and to-pay for the formal health and pension insurance schemes. Only 5 respondents stated a zero WTP for an affiliation to VHIS. According to the survey, the stated prices for VHIS were on average 46.4 TND quarterly (value for the preferred plan). This stated WTP represents about 3 times the contribution asked under the low-income self-employed workers' regime of 2002 (14.51 TND, which remains limited to the most deprived Tunisians). Also of note, respondents in the two sub-samples points do not exhibit important gaps in WTP values: respondents recruited in Souks have stated WTPs only 15% less than those of the respondent recruited in Al-Mydan squares (who are obvious demonstrators and therefore politically biased – they asked in general for a more efficient welfare state).

Average quarterly WTPs were slightly different for the three proposed schemes: 32.9, 36.5 and 37.4 TND for public, private and reimbursement plans, respectively (average value of WTPs, without considering the order of preference for a plan). When we compare the preferences for both sectors that are entitled to the private sector (private only versus reimbursement), the hierarchy is understandable because individuals, who cannot afford health care services, prefer an access to the public sector rather than paying for health care at the point of use, and then, waiting for a reimbursement. These results give some insights into the most suitable insurance plan that can help overcoming the informality obstacle.

**Willingness-to-pay (WTP) for an affiliation to Voluntary Pension Insurance Scheme (VPIS)**

WTP for VPIS were about 45.6 TND quarterly. Interestingly, the probability of affiliation to VPIS was shown to depend on the previous willingness-to-join and pay for VHIS (see Makhloufi, Protiere, Ventelou (2017) for detailed results on the econometric analysis of the probability to join VPIS). This means that specific adaptations of the whole package of the current social insurance scheme in Tunisia would be needed; in particular, separation of affiliation to health and/or pension could attract new enrollees and therefore reduce informality.

**4. Conclusions**

This study has attempted to address an important policy issue that has so far been seen as an incurable impediment to the achievement of UHC goal in the context of developing countries; viz, the considerable proportions of workers in the informal sector that are often left without health coverage (World Bank, 2006; Arfa and Elgazzar, 2013; Abu-Zaineh et al., 2013 & 2014, Makhloufi, Ventelou and Abu-Zaineh, 2015). By applying three elicitation techniques, the contingent-valuation survey – conducted in Tunisia and fully described in Makhloufi, Protiere and Ventelou (2017) – provided evidence on the feasibility of integrating the informal workers into the health coverage system by providing the right incentives and operating designs. Indeed, estimates on the willingness-to-join and to-pay of the “hard-to-reach” population have been collected for alternative insurance plans. This allowed for realistic estimations of the WTPs that can enable drawing conclusions about respondents' actual ATP and can help informing policy on the appropriate features to encourage informal workers to join the coverage scheme.

## 5. Implications and Recommendations

Results emerging from this study support the view that health insurance coverage can be extended to all population, including workers in the informal sector. The majority of the uncovered population targeted in this study appeared to be willing-to join and able-to-afford unsubsidized health insurance that runs on a voluntary and contributory basis. This finding has important policy implications on integrating the informal sector into the formal coverage in Tunisia. First, the elicited WTPs for each risk (health and old-age) show that the Tunisian households are generally willing-to-join and pay for both the health and the pension insurance schemes, seen as a coherent package. Second, willingness-to-join the proposed schemes by informal workers and unemployed varies with the three health insurance plans (the public and the private single-provider and the reimbursement schemes) and the risks covered (with or without old-age risk); this suggests that uptake rates could increase further shall an appropriate insurance design be offered to the uncovered populations. Lastly, our results obtained in Souks (where people are not trained to claim and, probably, remain uncovered for that reason) made a clear case that “informality”, which is seen as an irrevocable impediment behind the UHC of the population, can rather be overcome by appropriately targeting the populations with adequate insurance contract that corresponds to their needs.

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# FEMISE MED BRIEF

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*FEMISE is coordinated by the Economic Research Forum (Cairo, Egypt) and the Institut de la Méditerranée (Marseille, France) and gathers more than 100 members of economic research institutes, representing the 37 partners of the Barcelona Process.*

*Its main objectives are:*

- to contribute to the reinforcement of dialogue on economic and financial issues in the Euro- Mediterranean partnership, within the framework of the European Neighbourhood Policy and the Union for the Mediterranean,*
- to improve the understanding of priority stakes in the economic and social spheres, and their repercussions on Mediterranean partners in the framework of implementation of EU Association Agreements and Action Plans,*
- to consolidate the partners of the network of research institutes capable of North-South and South-South interactions, while it sets into motion a transfer of know-how and knowledge between members.*

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