The Program on Governance and Local Development

The Tunisian Local Governance Performance Index: Selected Findings on Health

Report
March 2017
SERIES 2017:3

Yale

The Program on Governance and Local Development

UNIVERSITY OF GOTHENBURG

Acknowledgments

We are grateful for the financial support of the Moulay Hicham Foundation, Yale University, the World Bank, and the Swedish National Research Council. We also thank the team of interviewers and researchers from MAZAM, without whom no data would have been collected, for the survey implementation. All remaining errors are those of the authors of this report, which include Lindsay Benstead, Adam Harris, Kristen Kao, Pierre Landry, Ellen Lust, and Dhafer Malouche. We reserve special recognition for Megan Reif whose contribution greatly enriched this report.

1. Introduction

Tunisia has a very good health-care system compared to most of the Arab world. The health-care system includes primary-care clinics and health centers, which deal with nearly 60 percent of public-sector medical outpatients, reproductive-health visits, schools, and student-health visits; a secondary-care sector with 209 district and regional hospitals; and a tertiary sector with 24 hospitals and academic institutions. It also has a large and expanding private sector, located predominantly in the coastal urban center. The public sector employs 49 percent of doctors, 73 percent of dentists, and 80 percent of pharmacists, and receives 54 percent of total health-care spending.[1] Most Tunisians' health-care spending is covered or subsidized by insurance plans: Public and private employees and self-employed workers (about 66 percent of the population) are covered by insurance plans overseen by the Caisse nationale de l'assurance malade (CNAM). Another 22 percent of the population is covered by the Free Medical Assistance to the Poor (FMAP)/Medical Assistance Schemes (MAS), made available via a *chahedat fakr*, or poverty certificate, allocated by the Ministry of Social Affairs. Together, these plans cover close to 90 percent of Tunisians.[2] The availability of health care and insurance may help explain why, according to the World Health Organization, Tunisia has the best health indicators of all North African countries.[3]

However, Tunisia's health system does face challenges. These challenges lie mainly in the heavy debts the country's public health-care system shoulders and the fact that private health care, which is of much higher quality, is unaffordable to most. Moreover, doctors and citizens report that health-care service quality varies greatly across localities, with inequities related to class and education.

This report sheds light on both the successes and the shortcomings of the health-care system in Tunisia. It identifies areas needing improvement and highlights areas where the system is doing a

[1] Oxford Business Group. 2016. "Tunisian Health Sector to Undergo Overhaul." *The Report: Tunisia 2016*. Available at: http://www.oxfordbusinessgroup.com/overview/annual-check-solid-foundation-sector-ready-overhaul.
[2] Makhloufi, Khaled, Bruno Ventelou, and Mohammed Abu-Zaineh. 2015. "Have Health Insurance Reforms in Tunisia Attained Their Intended Objectives?" *International Journal of Health Economics and Management* 15(1): 2951. http://link.springer.com/article/10.1007/s10754-014-9157-6.
[3] "The Future of Healthcare in Africa." 2012. *The Economist Intelligence Unit*. http://www.economistinsights.com/sites/default/files/downloads/EIU-Janssen_HealthcareAfrica_Report_Web.pdf

good job. Armed with this information, citizens and stakeholders can channel efforts to areas in need and seek to understand best practices and drivers of success from areas of excellence.

2. Local Governance Performance Index (LGPI)

The analyses presented in this report draw from the Local Governance Performance Index (LGPI), which was implemented in Tunisia during February and March, 2015 (Tunisia 2015 LGPI). The LGPI provides a new approach to the measurement, analysis, and improvement of local governance. The tool aims to help countries collect, assess, and benchmark detailed information concerning issues of local and public-sector performance and service delivery to citizens and businesses. It uses heavily clustered surveys to uncover local-level variation in governance and service provision. The goal of the LGPI is to provide information to help citizens, policymakers, and the development community pinpoint, diagnose, and foster discussion about areas of need; help formulate policy recommendations; provide a benchmark for assessing policy implementation; and allow us to examine the factors driving good governance and quality service provision.

Households within each governorate were sampled using probability proportional to size (PPS) sampling, and respondents within households were chosen randomly from among those over 18 years old using a Kish selection grid.[4] There are 3,559 complete interviews, approximately 200 in each of the 18 municipalities. The survey was implemented under the oversight of Professor Dhafer Malouche of the University of Carthage, by interviewers who were trained by the GLD team in conjunction with MAZAM.

[4] [4] More precisely, a multistage sampling design was used. First, six governorates (*wilayat*) were selected by probability proportional to size (PPS). Within governorates, the "delegation" that is the seat of the governorate was selected as a self-representing unit, while two other delegations were selected at random, also by PPS. We thus obtained a set of 18 municipalities/delegations as secondary sampling units (SSUs). Given the lack of updated census information below the SSU level, the selection of tertiary sampling units (TSUs), defined as square half-arcminutes from a spatial grid, was conducted by gridding each municipality with the listed nighttime-light data from the Defense Meteorological Satellite Program–Operational Linescan System series. The light intensity of each pixel on the remote-sensing image was used as proxy for the relative population density within the municipality. Ten TSUs (and a backup unit) were drawn within each SSU. Finally, the enumerators were sent to 20 randomly selected coordinates within each TSU. Taking those as starting points and using instructions to conduct a random walk, enumerators reached and contacted the corresponding households. Within each household, computer tablets were used to select a final respondent through a Kish selection grid in order to select eligible individuals randomly within households. Interviewers of either gender proceeded to interview the randomly selected respondent, whether male or female, and then administered the entire questionnaire using the tablet. This process resulted in 3,559 completed interviews.

Governorate[5]	Municipality		
Bizerte (BZ)	Bizerte Nord	Bizerte Sud	Menzal Jemil
Mahdia (MH)	Mahdia	Ksour Essaf	Souassi
Monastir (MS)	Monastir	Taboulba	Moknine
Sfax (SF)	Sfax Sud	Sfax Ville	Sakiet Eddair
Siliana (SL)	Siliana Ville	Bouarada	Gaafour
Tunis (TU)	La Marsa	Cité El Khadra	Jebel Jloud

Table 1: Municipalities included in the LGPI survey, Tunisia 2015.

The LGPI provides systematic measures for self-reporting physical and mental health, as well as access to quality health care. The survey examines respondents' experiences with doctors and local clinics, both public and private. Assessments of the quality of the health infrastructure (e.g., clean bathrooms), service delivery process (e.g., patients treated with respect, presence of doctors, and clarity of posted fees), satisfaction (e.g., with cost, infrastructure, and treatment), and governance (e.g., use of bribes, informal payments, referrals to private clinics) are recorded in the survey. Moreover, respondents provide information about whom they turn to for help with medical problems (e.g., pharmacist, local healer, doctor, clinic), as well as problems in accessing or financing care. Finally, the LGPI taps into expectations about local medical facilities, including doctor presence at the local public clinic, and about care at various medical providers (e.g., local hospital, private clinic, public clinic).

3. Overview of Health Conditions in Tunisia

The LGPI provides a measure of both physical- and mental-health conditions in Tunisia, which can be compared with other studies from government and nongovernment sources. Respondents were first asked to rate their own physical and mental health. They were also asked standard questions about their ability to access health care and the quality of care provided.

[5] Municipality data is presented with two-letter abbreviations for the corresponding governorate using hierarchical administrative subdivision codes (HASC) developed by Gwillim Law (1999) and used frequently in geographic data analysis. Abbreviations for the governorates included in the sample are: BZ (Bizerte), SL (Siliana), MS (Monastir), MH (Mahdia), TU (Tunis), and SF (Sfax). For a list of abbreviations for all governorates and information about HASC, see Law, G. (1999) *Administrative Subdivisions of Countries.* Jefferson, North Carolina: McFarland & Co., and Gwillim Law's "Statoids" Web page, which provides ongoing updates to his 1999 book (http://www.statoids.com/utn.html and http://www.statoids.com/ihasc.html).

Analysis of this data allows us to consider the relationship between self-reported health and the presence of physical and mental problems, and provide data for comparison with extant data.

The 2015 survey found that 67 percent of respondents nationally reported being in good (49 percent) or very good (18 percent) health, and an additional 23 percent reported being in fair health; however, nearly one in ten (9 percent) reported being in poor (6 percent) or very poor (3 percent) health.[6] Moreover, nearly one in five respondents (about 20 percent) reported having suffered from at least one chronic disease in the previous 12 months. Diabetes, high blood pressure, arthritis or rheumatism, other unspecified problems, and heart disease are the most common, accounting for 35, 31, 18, 10, and 9 percent, respectively, of conditions among those with recent chronic illness (Figure 1).[7]

[6] All figures presented in the narrative, figures, and tables are calculated based on survey design weighting, and numbers are weighted percentages and counts. The narrative, figures, and tables in the report may report percentages that do not total to 100, because item nonresponse is included in the calculations. Distributions corresponding to each figure, along with questionnaire wording, are presented in Appendix I. Where the report narrative mentions quantities without a corresponding figure, distributions are not included in the appendix but are available upon request. Where very few respondents answer a question (e.g., few report having had a family member give birth in the previous year), the weighted number of respondents is presented, rather than the percentage.

[7] Respondents may report suffering from more than one condition.

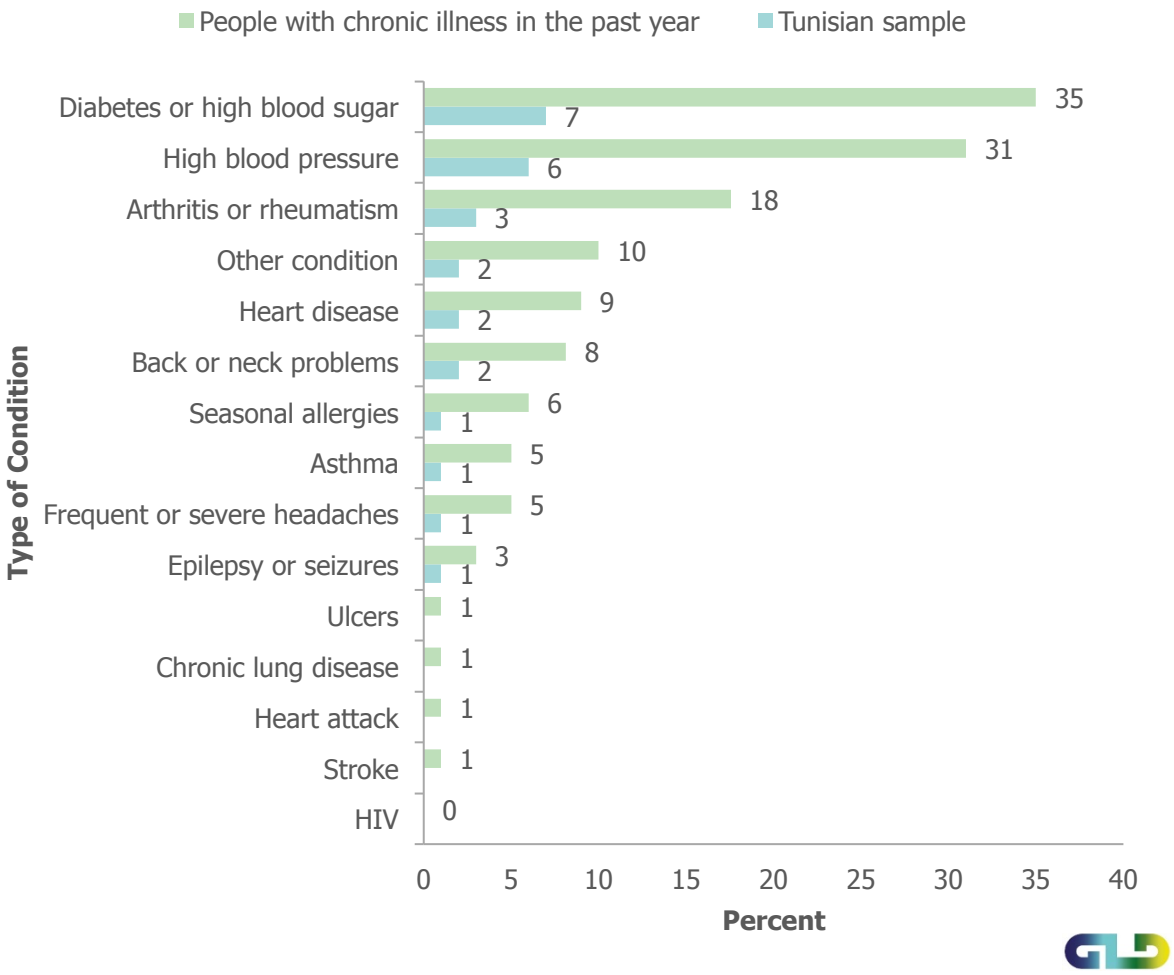


Figure 1: Types of conditions reported as a percentage of respondents with chronic illness and of overall sample.

As we would expect, chronic illness is more common among older citizens: 43 percent of those 50 or older report having had at least one chronic physical health condition during the previous 12 months. That figure is 19 percent among 40- to 49-year-olds, 15 percent among 31- to 39-year-olds, and 7 percent among those 30 years old or younger.[8]

[8] [8] We advise readers to interpret differences between groups presented in the report with caution. Percentages for health indicators across demographic and geographic groups are reported if a Pearson's chi-squared test of their cross-tabulation suggests that the two variables may be associated (p=<0.10). Differences between specific subgroups (e.g., a difference between the 18–30 and over-50 age groups) and associated tests of statistical significance of such differences using t-tests or regression analysis are not presented. This largely descriptive report of preliminary findings is intended to draw attention to variation and general trends that may require further investigation. These would be best conducted using multivariate techniques. The narrative notes where a relationship between variables might have been expected, but the bivariate distributions do not differ (e.g., we might expect gender differences in rates of reported chronic illness but find none). Again, we caution that this does not mean that there is no relationship between the variables; a multivariate analysis controlling for other factors (e.g., employment status, education, etc.) could still uncover such a relationship.

Not surprisingly, those who report that they are among the lower and lower-middle class also experienced chronic illnesses in the previous 12 months at higher rates than self-described members of the middle, upper-middle, and upper class. Nearly half (41 percent) of lower class and a quarter (25 percent) of lower-middle class respondents reported having experienced chronic illness, whereas members of the middle, upper-middle, and upper class all had rates of chronic illness of about 15 percent. Similarly, education appears to be associated with lower rates of chronic illness, with 46 percent of those with no education experiencing a chronic disease in the previous year, compared with just 13 percent of those who are high school graduates but did not attend university (Figure 2).

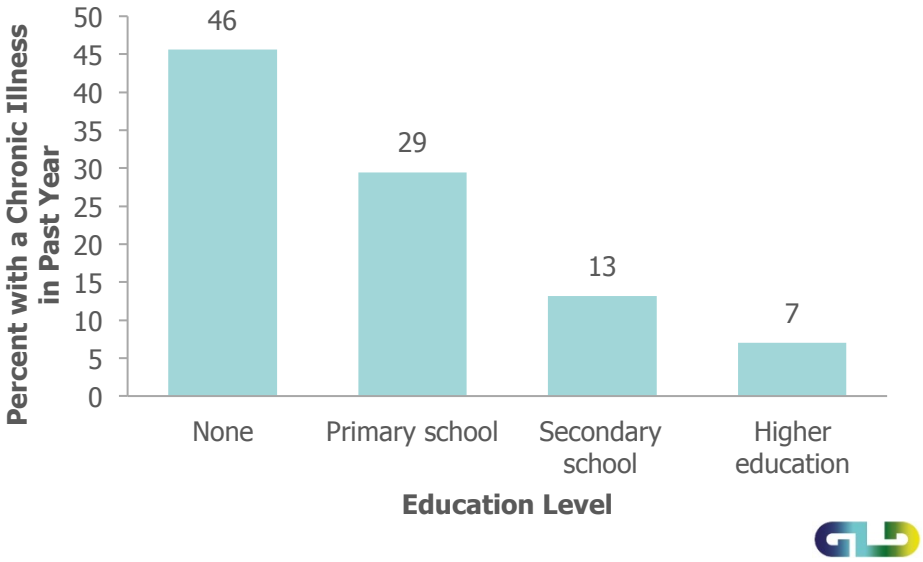


Figure 2: Percentage experiencing chronic illness in past year, by education level.

Men and women report having a chronic disease at similar rates, as do respondents living in urban and rural areas. While respondents in most of the sampled municipalities report experiencing rates of chronic illness equal to or less than the national average of 20 percent, higher rates are reported in Moknine (40 percent), Mahdia (26 percent), Sfax Sud (23 percent), and Sfax Ville (30 percent) (Figure 3). These local differences are reflected in the aggregate differences between rates of chronic illness across the six sampled governorates, with Monastir (28 percent) and Sfax (24 percent) reporting the highest percentages, followed by Mahdia (19 percent), Tunis (17 percent), Bizerte (15 percent), and Siliana (13 percent). Rates of chronic illness have real implications for health-service delivery, as those with chronic illness use health services more often than those without chronic illness. Of those respondents with chronic

illness, 62 percent reported having visited a doctor or clinic in the previous year, compared with 52 percent of those without chronic illness. Among the subset of respondents who were asked if they had had a health checkup in the previous year, 65 percent of those with a chronic illness had done so, compared with 43 percent of those without chronic illness. Similarly, 21 percent of those with a chronic illness, compared to 10 percent of those without, had spent the night in a hospital in the previous year.

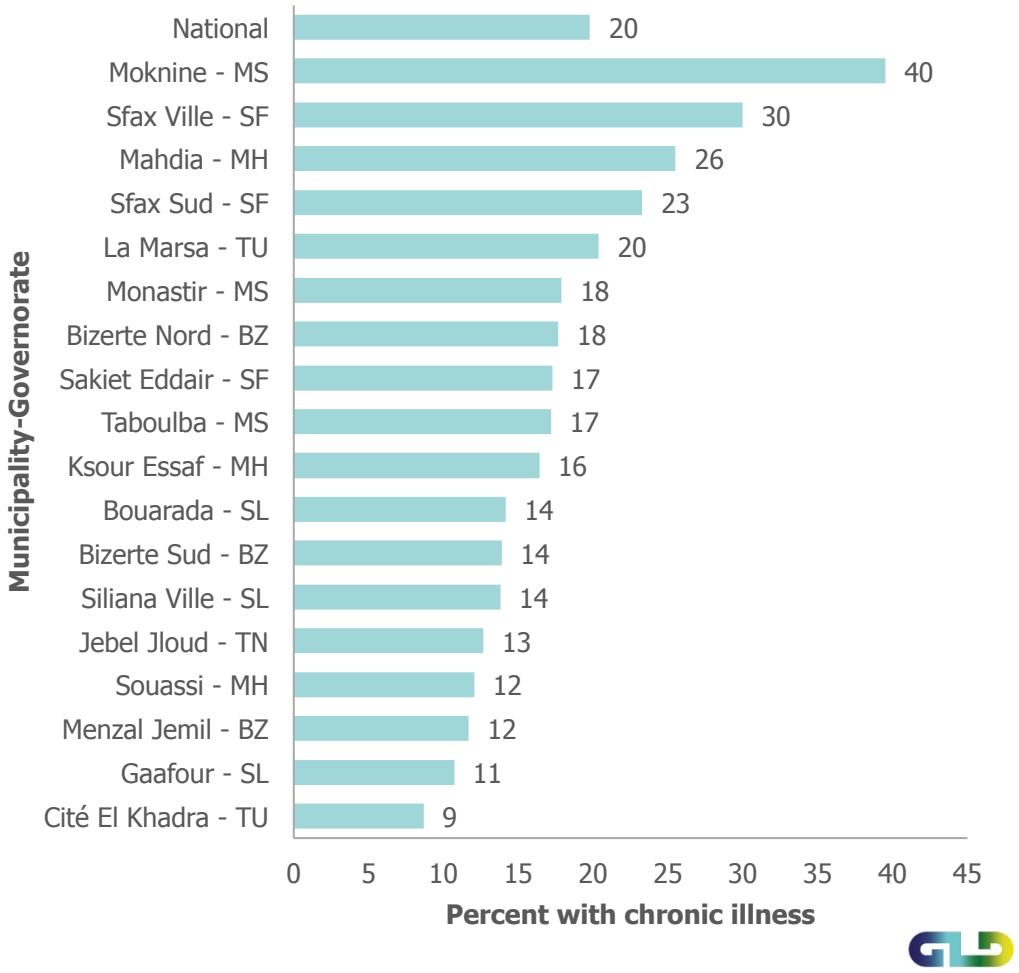


Figure 3: Percentage experiencing chronic illness in previous year, by municipality.

Patterns of chronic illness are consistent with the way respondents describe their own general health. More than 70 percent of those in the middle (74 percent), upper-middle (86 percent), and upper (78 percent) classes characterize their health as good or very good; only 50 percent of the lower-middle class and 38 percent of lower class describe their health as good or very good (Figure 4). Like chronic illness, overall health is also strongly related to education. For example,

only 37 percent of those with no education report being in good health, compared with 75 percent of those who have a high school diploma but no further education (Figure 5).

Figure 4: Overall self-reported health, by self-reported class.

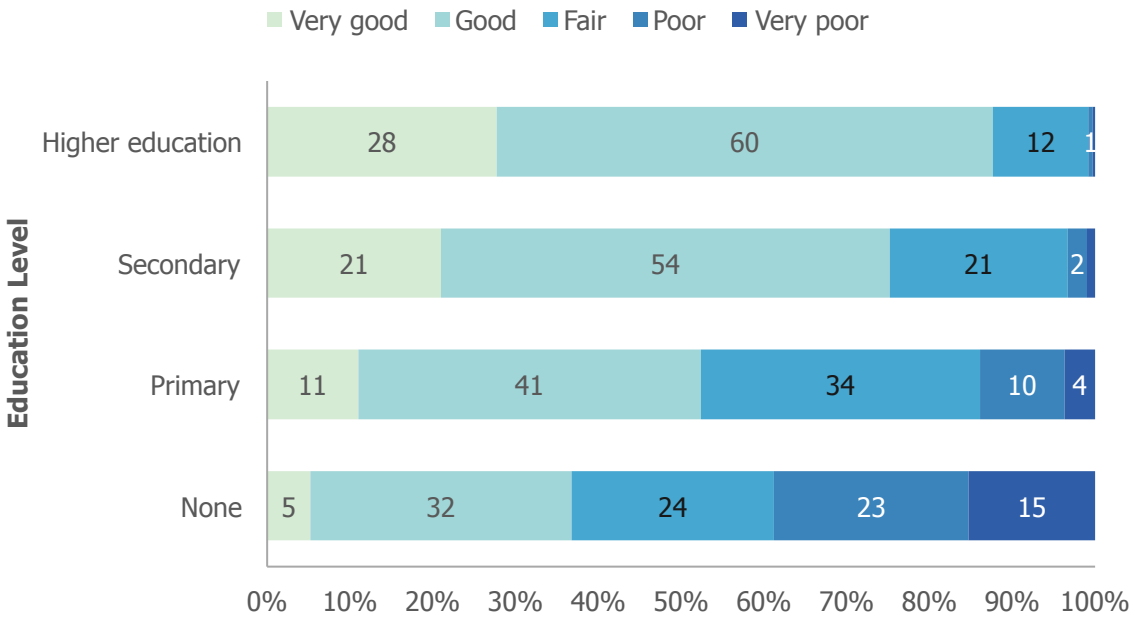


Figure 5: Overall self-reported health, by education level.

Male and female, and urban and rural, residents report similar rates of overall health, but, as with chronic illness, there may be differences across municipalities. Although self-reported overall health rates are similar across governorates, Sfax Ville (Sfax), La Marsa (Tunis), Moknine (Monastir), Taboulba (Monastir), and Siliana Ville (Siliana) have higher-than-average rates of respondents reporting being in poor or very poor health (Figure 6).[9]

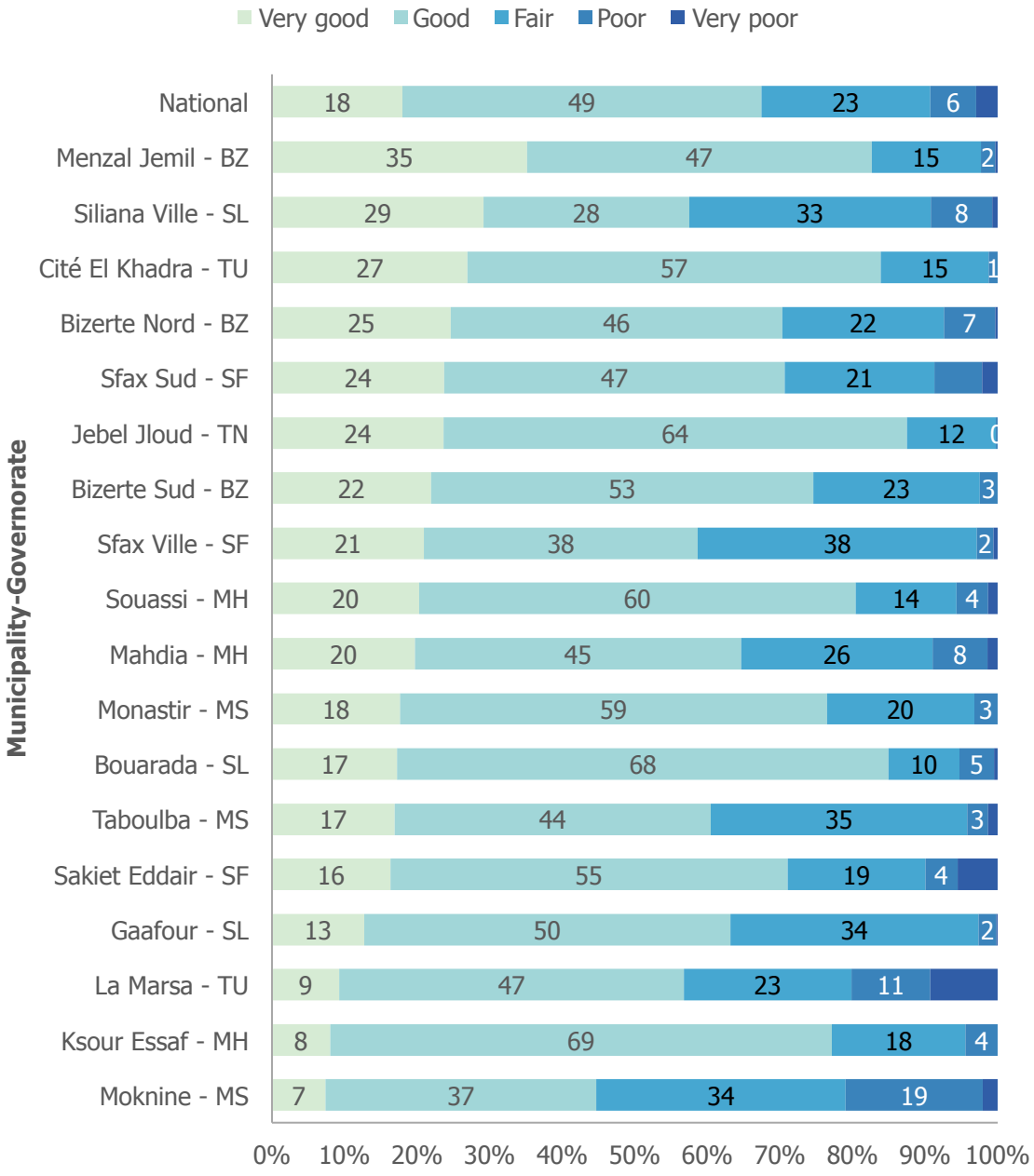


Figure 6: Overall self-reported health, by municipality.

[9] The sample size varies in each municipality, so the differences could be attributed to sampling error.

Those without insurance also report being in poor or very poor health at much higher rates than those who have CNAM or another form of insurance. Just over half (55 percent) of those without insurance report being in very good or good health, compared to 80 percent of those with private insurance (Figure 7).[10]

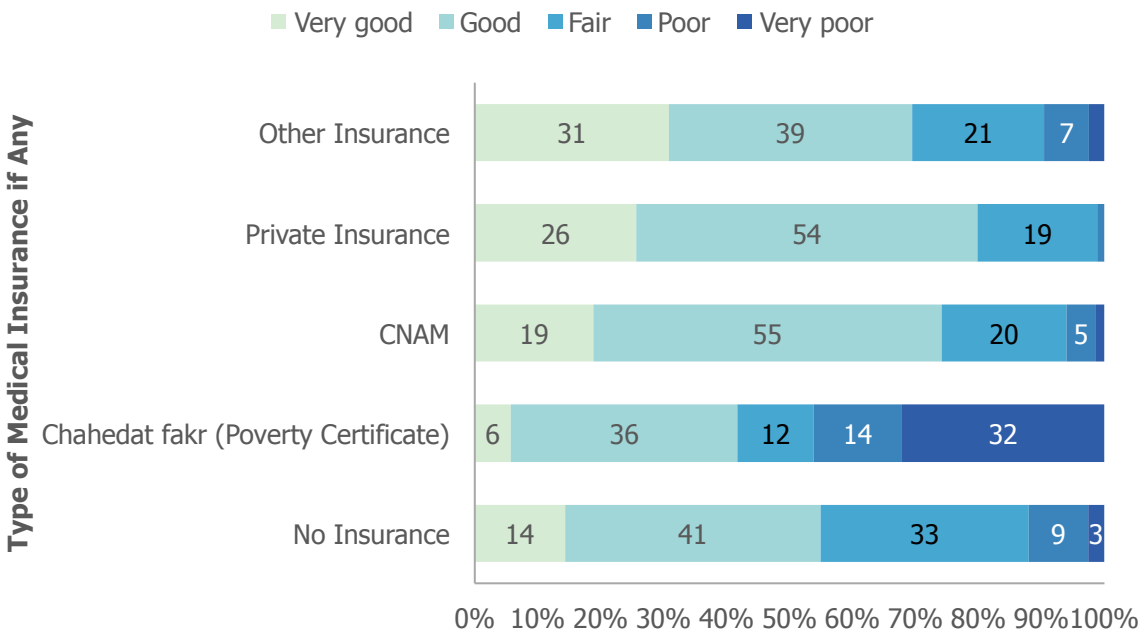


Figure 7: Overall self-reported health, by insurance coverage.

When asked to reflect on the state of their mental health, most respondents assess their own mental health as good (with 17 percent stating very good and 48 percent good), but nearly one-quarter state that it is fair (24 percent), poor (7 percent), or very poor (4 percent). Men and women report similar states of mental health, but, as with overall health, higher economic status and educational attainment are associated with better mental health. For example, 27 percent of those in the lower class report being in poor health, compared with just 3 percent in the middle class (Figure 8). Almost one-third (31 percent) of those with no education report being in poor or very poor mental health, while less than 5 percent of respondents with a secondary education do so (Figure 9). Not surprisingly, those who are uninsured rate their mental health lower than do those with insurance, with 18 percent feeling in poor or very poor health, compared with 6 percent of those with CNAM and 3 percent of those with private insurance.

[10] The number reporting that they are insured by other insurance and by chahedat fakr are relatively smaller (N=68 and N=125, respectively), so the distribution reported may not be as reliable as for the other insurance types.

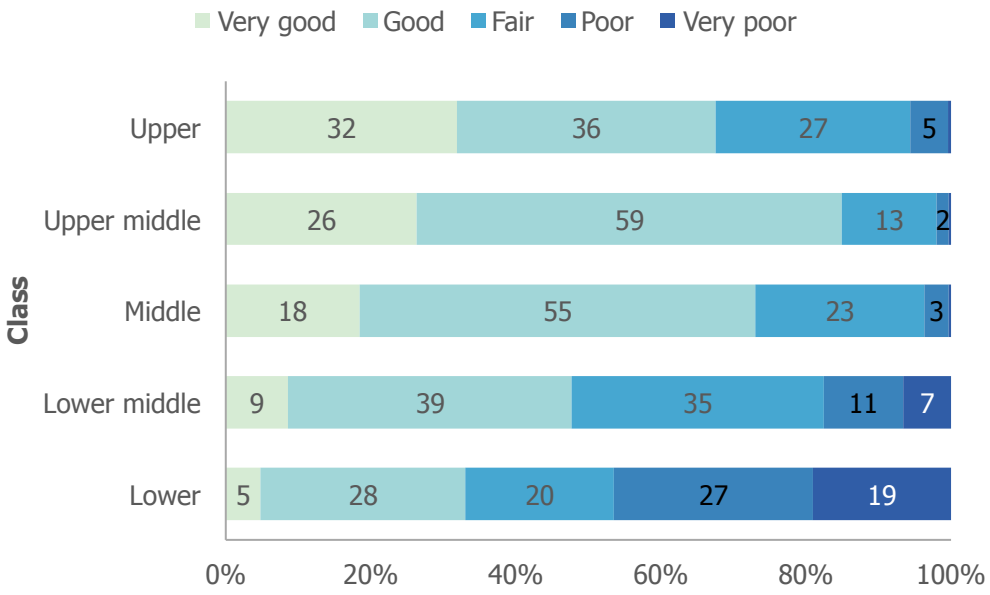


Figure 8: Self-reported mental-health status, by class.

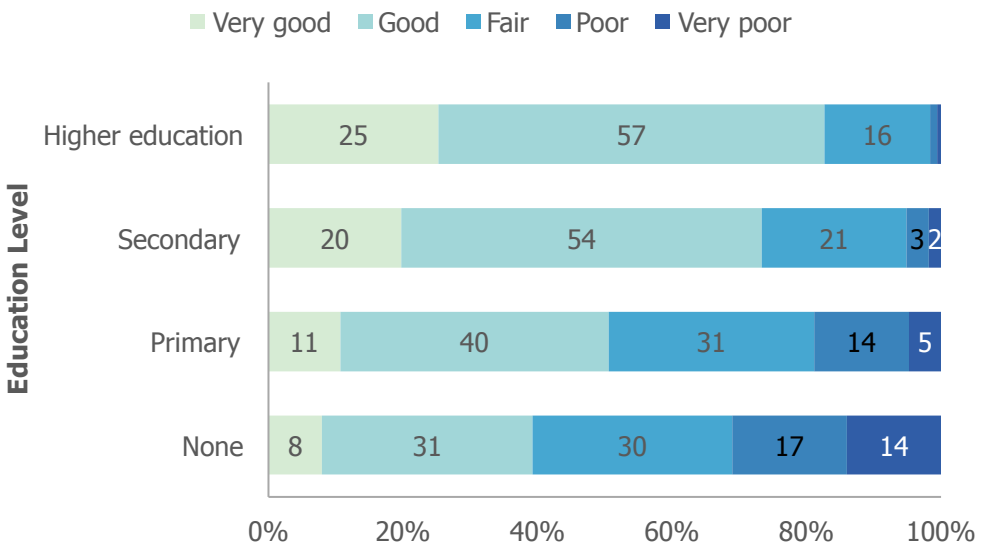


Figure 9: Self-reported mental health status, by education level.

There is also a relationship between age and mental health. One in four (24 percent) respondents between the ages of 18 and 30 rate their mental health as "very good," compared to only 12 percent of respondents in the 40–49 age group and 13 percent among those 50 and older (see Figure 10).

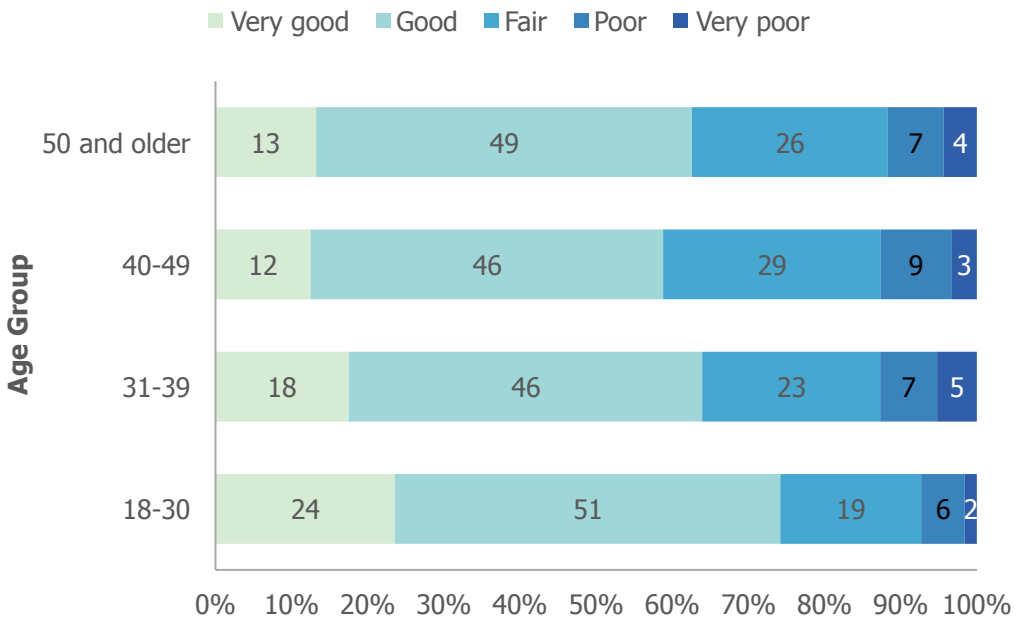


Figure 10: Self-reported mental health, by age.

Although self-rated mental health does not vary significantly between urban and rural respondents, there are differences across governorates and municipalities. In Tunis, for example, 17 percent of respondents report being in poor or very poor mental health, followed by respondents in Monastir (12 percent), Sfax (10 percent), Siliana (8 percent), Mahdia (7 percent), and Bizerte (3 percent). (See Figure 11.) A quarter of respondents in La Marsa (Tunis), 15 percent in Moknine, and 11 percent in Sfax Ville (Sfax) and Sakiet Eddair (Sfax) say that they are in poor or very poor mental health. This compares to fewer than 10 percent in the other municipalities. Almost one-third (32 percent) report being in very good mental health in Menzal Jemil (Bizerte) and Bizerte Nord, while fewer than 15 percent do in eight municipalities (Figure 12).

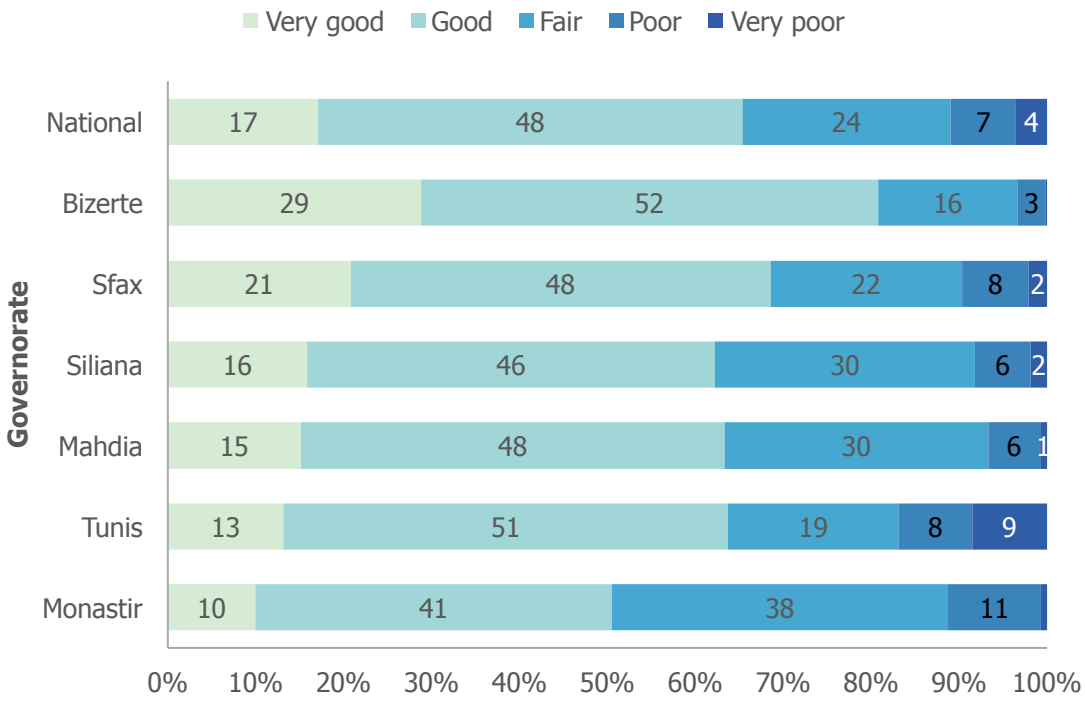


Figure 11: Self-reported mental health, by governorate.

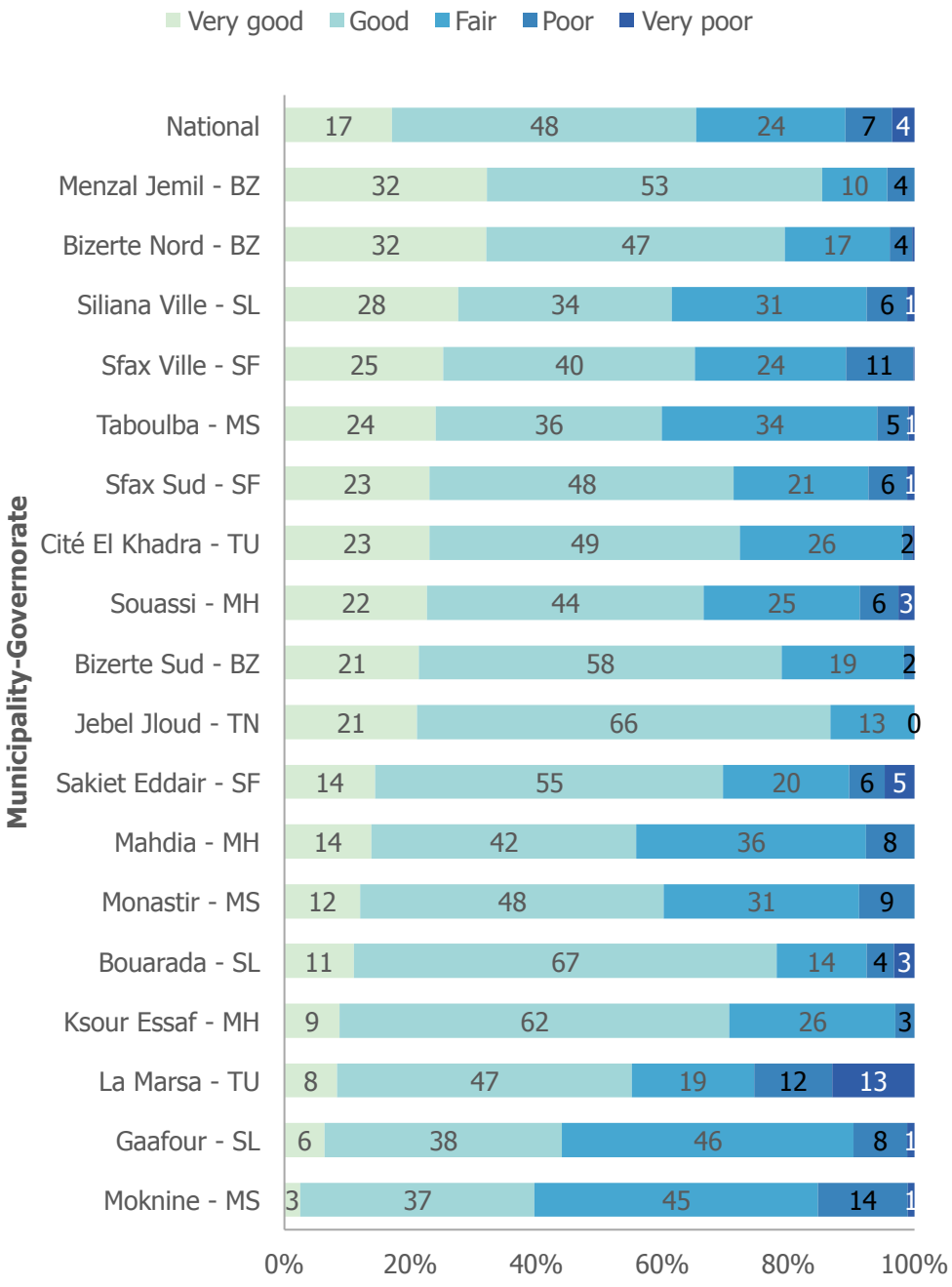


Figure 12: Self-reported mental health, by municipality.

4. Access to Health Care and Health Care–Seeking Behavior

The level of chronic illness and overall physical and mental health suggest that in Tunisia, as in many countries, there are considerable health needs that remain insufficiently addressed. About a quarter of respondents (26 percent) report that they or a family member in their household have at least one health need (medical, mental, dental, hearing, or contraception) for which they need

care. Fewer than 3 percent report unmet mental-health, hearing, and contraception needs, but 24 percent and 18 percent of Tunisians, respectively, report that their household has unaddressed medical and dental-care needs. It is possible that the low rates of reported mental-health or contraception needs may be due to stigma associated with answering questions about sensitive health topics.

Men report more unmet health needs than women (29 percent vs. 23 percent). Younger and older respondents report fewer unmet health needs than those age 31–49 (Figure 13).

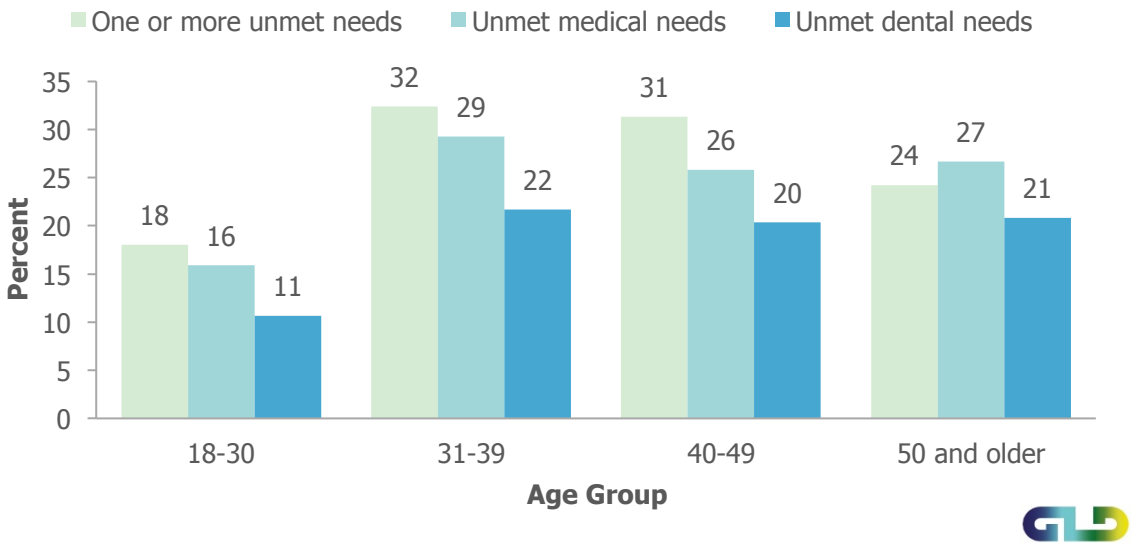


Figure 13: Unmet health needs, by age group.

Those with lower class and education status report having unmet health needs at much higher rates, with 82 percent of those in the lower class and 43 percent in the lower-middle class reporting one or more unmet health needs, compared with just 15 percent who are middle class (Figure 14). Similarly, 54 percent of those with no education and 40 percent of those with primary through some secondary school report at least one area of health for which needs are unmet, compared with just 15 percent of high school graduates and 4 percent of those with at least a university education (figure not shown).

Those with chronic illnesses are more likely to have unmet health needs. Of those with a chronic disease, 54 percent report at least one unmet health need in their household, compared with 22 percent of those without a chronic illness.

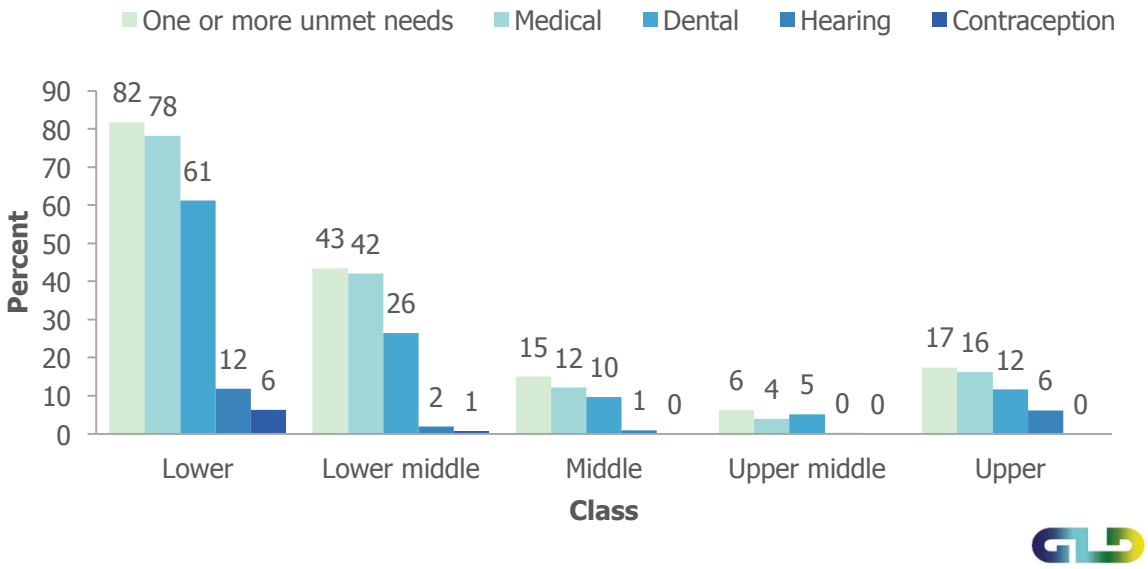


Figure 14: Unmet health needs, by class.

More than one-third (35 percent) of those in rural areas report having at least one type of unmet health need, while almost one-fourth (24 percent) of urban respondents do. Respondents in Siliana and Monastir governorates have higher rates of unmet health needs than those in the other governorates (Figure 15). At the municipal level, 54 percent of respondents in Bourada (Siliana), 59 percent in Moknine (Monastir), 39 percent in La Marsa (Tunis), and 38 percent in Gaafour (Siliana) report having at least one unmet health need, while the other municipalities have rates under 35 percent (Figure 16).

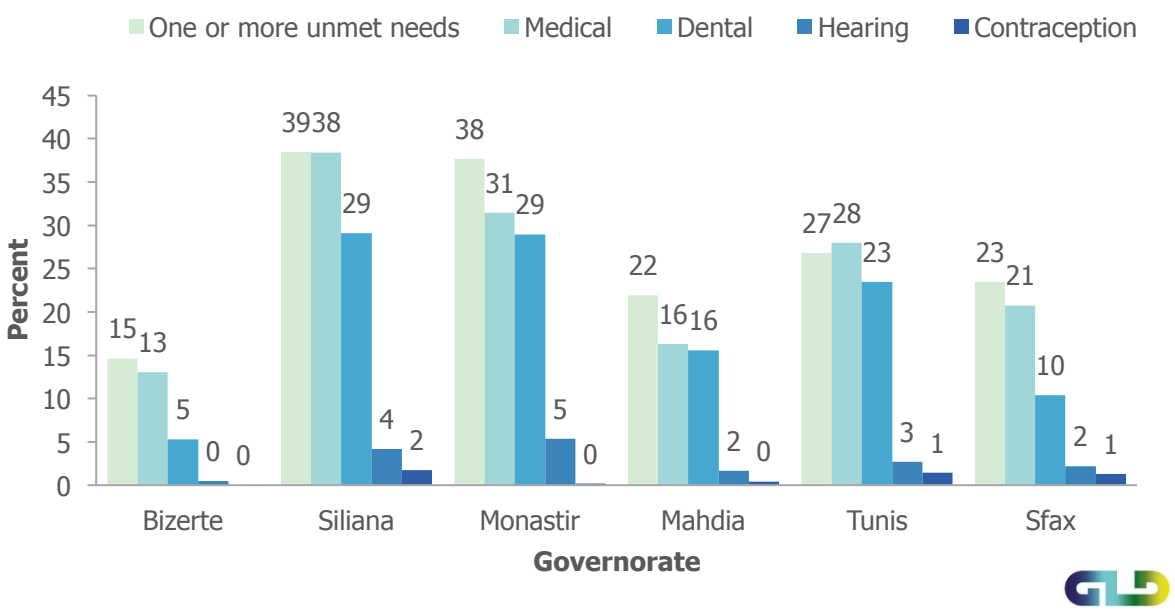
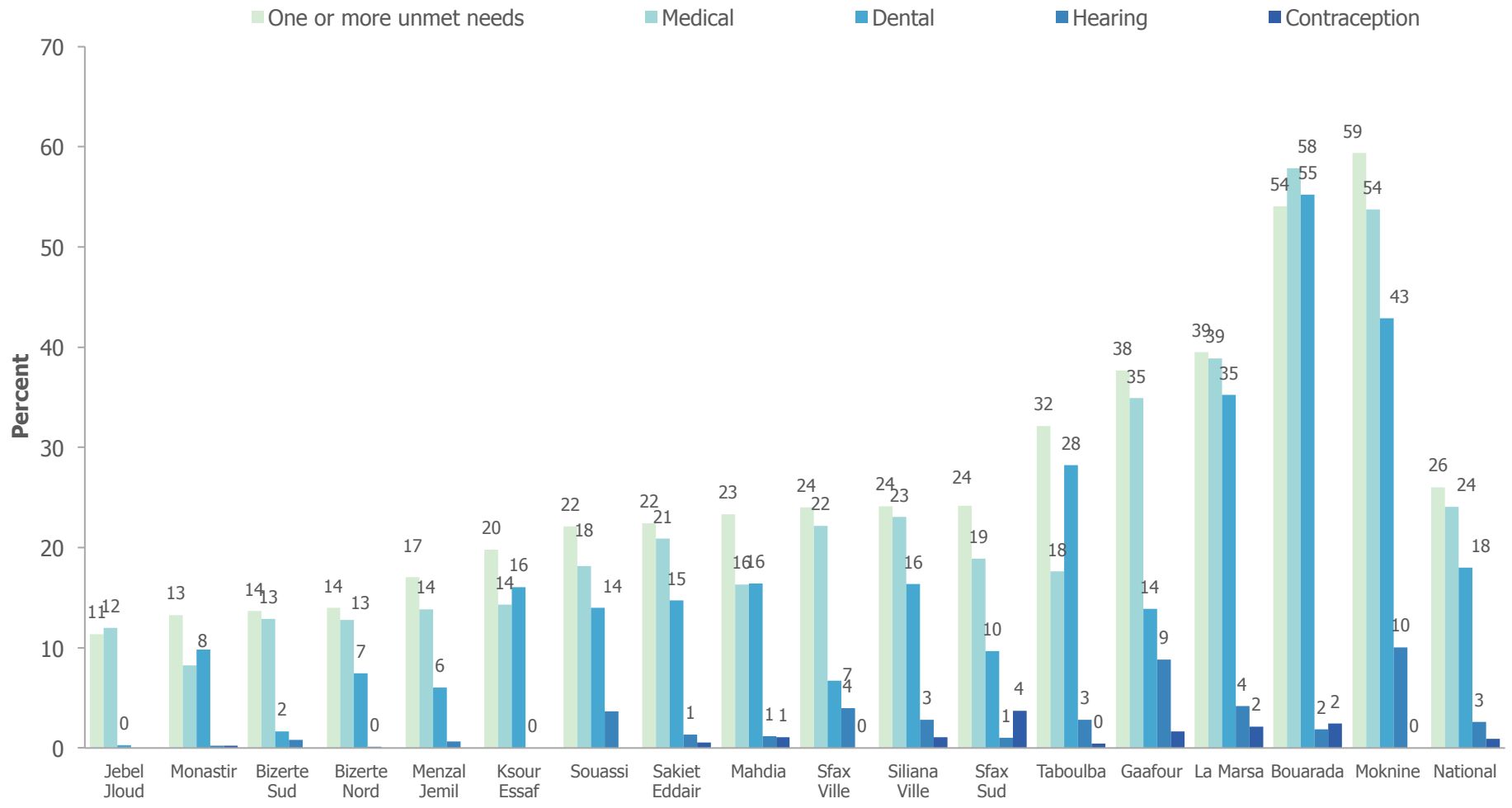


Figure 15: Unmet health needs, by governorate.


One or more unmet needs
Medical
Dental
Hearing
Contraception
Percent
70
60
50
40
30
20
10
0
Jebel Jloud
Monastir
Bizerte Sud
Bizerte Nord
Menzal Jemil
Ksour Essaf
Souassi
Sakiet Eddair
Mahdia
Sfax Ville
Siliana Ville
Sfax Sud
Taboulba
Gaafour
La Marsa
Bouarada
Moknine
National

Some Tunisians may have health needs that go unmet in part because they lack health insurance. Almost one-third (30 percent) of Tunisians have no health insurance, and an additional 4 percent have chahedat fakr, a poverty certificate that provides health-care benefits and is given to the lowest classes. One-quarter of respondents (26 percent) have one or more family members who are uninsured. Just over half of respondents have CNAM, and an additional 12 percent have private or other insurance. CNAM is held by 52 to 56 percent of people in each age category except the youngest age group, in which only 44 percent report having CNAM. More women than men report having private health insurance (Figure 17).

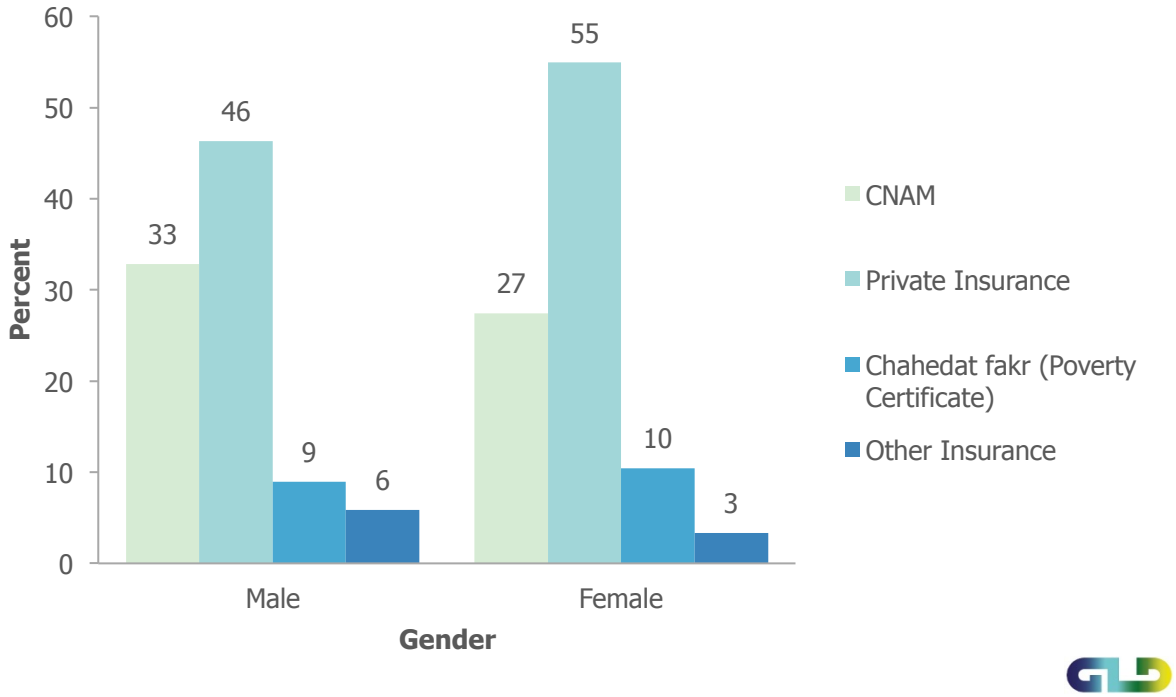


Figure 17: Type of insurance, by gender.

Urban and rural respondents have similar percentages of types of insurance, but those who are among the least educated and lowest economic class are less likely to be covered by health insurance. Almost half of respondents in both the lower and lower-middle classes are uninsured, while no more than 25 percent are uninsured among the middle, upper-middle, and upper classes. Only 25 and 37 percent, respectively, of lower and lower-middle class respondents have CNAM, compared with 58 and 68 percent of middle and upper-middle class respondents (Figure 18).

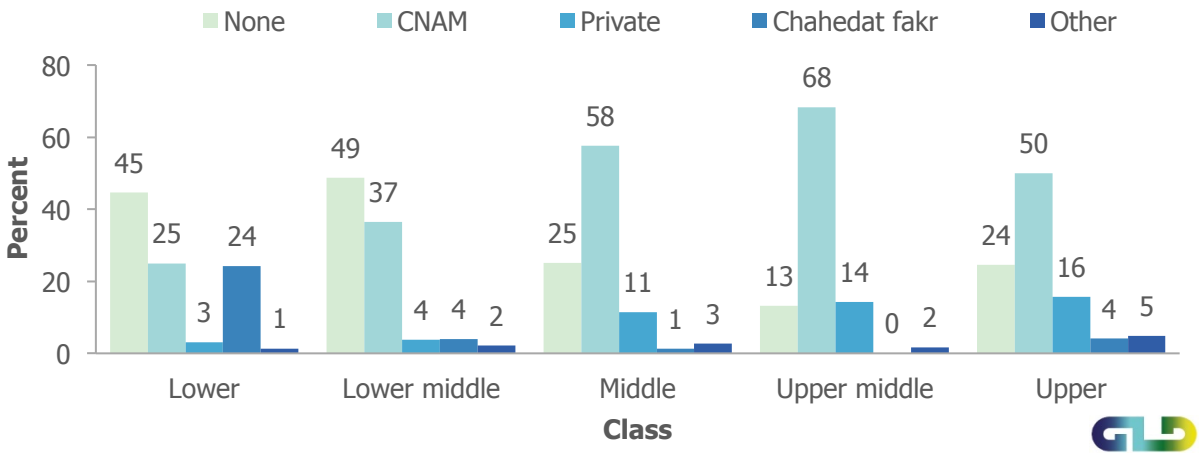


Figure 18: Type of insurance, by class.

Similarly, around 40 percent of those in the two lowest education categories report having CNAM insurance, while 55 percent of high school graduates and 65 percent of those with some university education or more have CNAM (Figure 19). Those who are less educated or in the lower-middle and lower classes also report having uninsured family members at similar rates.

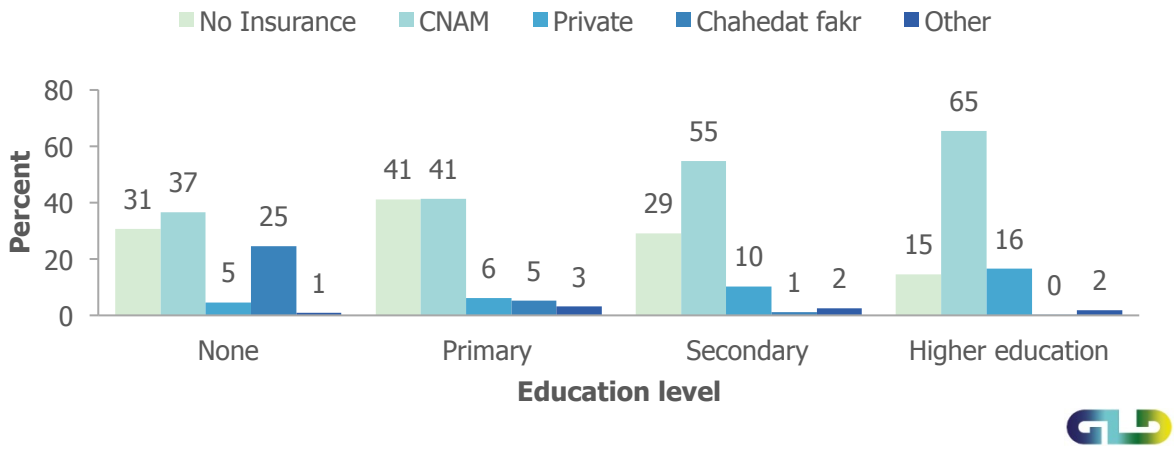


Figure 19: Type of insurance, by education level.

Such discrepancies may help to explain why some Tunisians report being in poor health or suffering chronic illness more than others. While rates of chronic illness are similar among both insured and uninsured Tunisians, those who report having at least one type of health need that is unmet are higher for the uninsured, with 49 percent of uninsured having unaddressed heath needs, compared with 27 percent of those with CNAM and 13 percent of those with private insurance.

Yet poverty and low education may also prevent people from getting the information they need to obtain both insurance and health care. One might expect these types of respondents to seek health care from alternative sources, such as local healers, family and friends, or pharmacists, but when asked about different sources of advice consulted about health problems in the past year (a pharmacist, a healer, family and friends, and the Internet), or whether they visited a local clinic or doctor in the past year, respondents without insurance are less likely to consult any source for health advice.

Table 2 summarizes the sources of health advice that Tunisians consulted in the past year. While 13 percent of Tunisians overall did not consult any source of advice, almost one-third (30 percent) of those without insurance did not consult any source of advice, while 51 percent of those with CNAM sought one or more sources of medical advice.[11] Fifteen percent consulted only medical sources (doctors and pharmacists), another 15 percent consulted only a pharmacist, and almost one-third (28 percent) of respondents supplemented advice from doctors and pharmacists with "traditional" advice from healers and family, while only 8 percent consulted only a healer, family and friends, or a combination of both. Nine percent of respondents consulted the Internet as well as medical and traditional sources of advice.

Combined sources of health advice consulted in past year	*Weighted Percentage*	*Weighted Count*
Did not seek any advice	13	380
Only healer	4	122
Only family and friends	3	71
Only a pharmacist	12	332
Only the Internet	1	25
Only a doctor or clinic	15	414
Medical only: doctor and pharmacy	15	428
Traditional only: healer and family	1	15
Medical and traditional	28	800
Alternative only (Internet, family, healer)	1	16
Many sources (all types consulted)	8	217
Don't know (DK)	1	15
Refuses to answer (RA)	0	3
Total	100	2,837

Table 2: Combined sources of health advice consulted in the previous year.

[11] Distributions of types of health advice consulted among those who have private or other insurance are not presented, as the number in each category is too small to calculate reliable estimates.

Women seek advice more often than men. The LGPI finds that only 9 percent of women did not seek health advice from at least one source, compared with 19 percent of men. Access or proximity to sources of care may be a factor in seeking health advice, as 19 percent of rural respondents sought no health advice in the previous year, compared with 12 percent of urban respondents. As with the uninsured, those with lower socioeconomic and educational status are less likely to seek any form of advice. Among those in the lowest class, 23 percent did not seek any form of health advice, compared to 12 percent in the middle class and 20 percent of uneducated respondents; only 14 percent of high school graduates did not seek advice.

Percentages of those who sought advice from alternative sources, such as healers and family members, instead of or in addition to pharmacists and doctors, do not vary by class, age, education, or gender.

The LGPI also explores informal personal ties and the ways in which different social institutions influence behavior and decisions of ordinary people, including assessing the extent to which family, friends, religious leaders, neighbors, community leaders, and others affect political and socioeconomic decisions. When asked whether neighbors help one another with health needs, only 12 percent of all respondents said they do; less affluent and educated people are no more likely than others to say neighbors help them with health. Rural respondents report that neighbors help one another more often than do urban respondents (20 percent versus 11 percent). Those who report having unmet health needs were no more likely to seek advice from extra-institutional sources, but they are more likely to say neighbors help one another with health (18 percent, compared with 10 percent of those with no unmet health needs). This may suggest that those with the lowest standard of living and education, even though they have poorer health and more unmet health needs, cannot necessarily substitute health advice from extra-institutional sources, but rather that they may lack the time, knowledge, networks, or other tools that facilitate information- and treatment-seeking behavior about health, regardless of the source. Neighbors may be a potential source of health advice for those whose health needs are unmet.

While the governorates have, on average, about 30 percent uninsured, there is variation at the level of the municipality within governorates. In Monastir (Monastir), for example, only 12 percent of respondents have no insurance, while 42 percent of those in Moknine (Monastir) have no insurance. There are greater differences between governorates when respondents are asked about uninsured family members, with 39 percent of respondents in the Monastir governorate reporting that one or more family members is uninsured, compared with 14 percent in Bizerte, 26 percent in Siliana, 20 percent in Mahdia, 25 percent in Tunis, and 29 percent in Sfax. At the municipality level, 60 percent of respondents in Moknine (Monastir) have an uninsured family member, compared to just 9 percent in Bizerte Sud (Bizerte) (see Figure 20).[12]

[12] Sample sizes at the municipality level vary from 44 to 593 for this question, so some estimates are more reliable than others. See appendix for weighted counts in each municipality, by question.

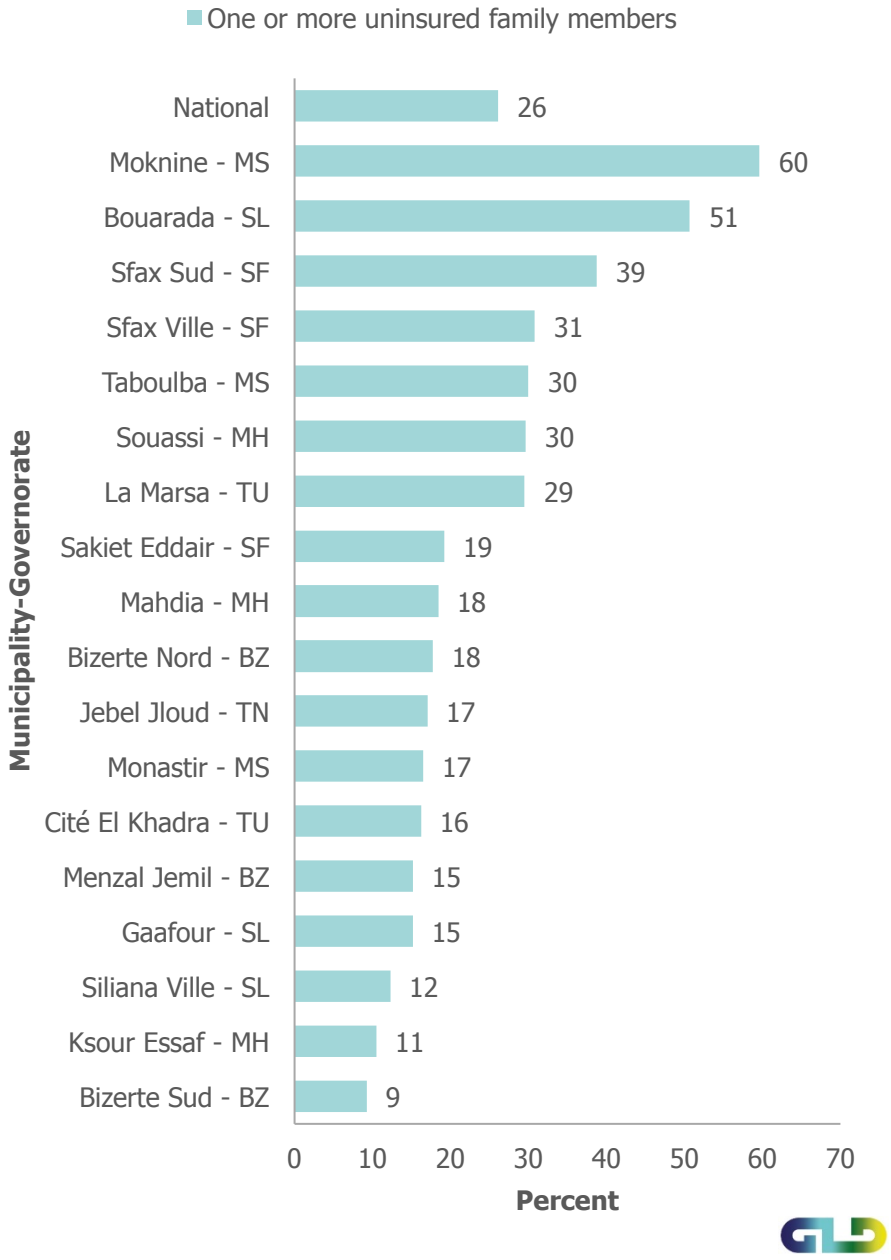


Figure 20: Uninsured family members, by municipality.

Of the 3,514 respondents, about 20 percent (approximately 700) randomly selected respondents received a slightly long version of the survey, with pilot questions measuring knowledge and opinions. Respondents are distributed evenly throughout the governorates.[13] Of those asked about recent health, dental, and vision checkups (N=509), under half (47 percent) had had a health checkup, just over one-fourth had had a dental exam (26 percent), and 16 percent had had

[13] There are insufficient numbers of respondents in the random sample to present data by municipality.

a vision exam in the past year. Over half of women (54 percent), compared with 39 percent of men, reported having had a health checkup. Women reported having had a vision checkup twice as often (22 percent) as men (10 percent), but the frequency of dental checkups did not vary significantly by gender. More urban respondents had health (49 percent), dental (28 percent), and vision (18 percent) checkups than did rural respondents (42 percent, 15 percent, and 8 percent, respectively). Those with more education had checkups at a higher rate than those with less education—59 percent of those with higher education had a general health checkup, compared with 42 percent of those with primary education, with similar patterns for dental and vision checkups.[14] Not surprisingly, those with chronic illness have general health checkups more frequently than others—65 percent having had a checkup in the previous year, compared with 43 percent of those who are not chronically ill.

Questions about knowledge of health systems in this subsample suggest that most Tunisians are aware of some health services in the area in which they live. Almost all (94 percent) were able to name the nearest government hospital, regardless of age, class, education, and urban or rural area. Fewer respondents were able to name the nearest government clinic (53 percent), and more women (59 percent) than men (46 percent) were able to do so. Those with primary education named a clinic less often (46 percent) than those with secondary (61 percent) or higher education (54 percent).

Over half (54 percent) of respondents had visited a clinic or doctor in the previous year, and 10 percent did so in the past two to three years. Only 17 percent of respondents had spent a night in a hospital in the previous two years, while 32 percent spent at least one night in a hospital more than three years ago, and almost half (48 percent) have never spent a night in a hospital. Almost all of these respondents (88 percent) did so as patients. Of those who visited a clinic or doctor, 52 percent visited a public facility, 33 percent visited a private facility, 2 percent a military facility, and 13 percent some other facility. Five percent of respondents gave birth or had a member of

[14] The sample size for those who received this question is too small for estimates disaggregated by class. Data for dental and vision checkups not shown.

their family give birth in the previous year. Of those, 60 percent used a public facility, 27 percent a private facility, 12 percent a local clinic, and 1 percent stayed home.[15]

More women than men visited a health clinic or doctor in the previous year (58 percent versus 49 percent). While people from all education levels and social classes visited a doctor in the previous one to three years at similar rates (around 50 percent), only 40 percent of members of the lower class visited a doctor in the previous year and 10 percent in the past two to three years, while more than one-third have never visited a doctor or clinic (Figure 21). Those with no education also visit a clinic or doctor at lower rates.

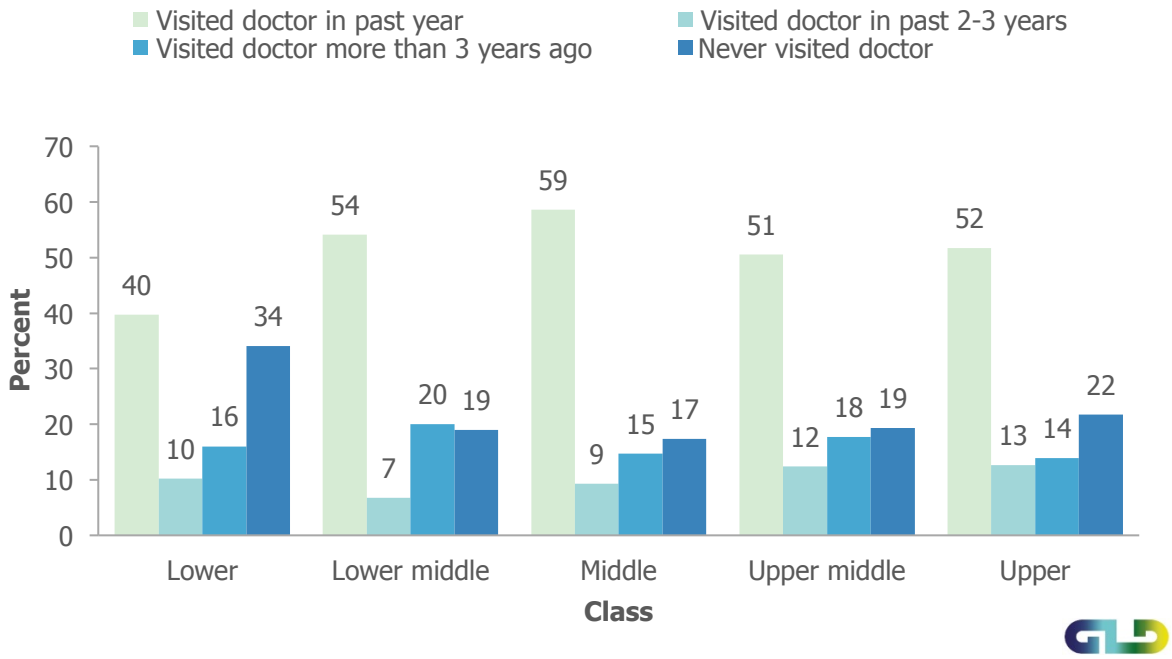


Figure 21: Timing of last visit to clinic or doctor.

Both those who report being in very good and those who report being in very poor health report have visited a doctor or clinic less recently than those who report fair health (Figure 22). This suggests that health conditions alone do not drive health care–seeking behavior and access to care.

[15] Due to a survey software skip error, those who spent the night in a hospital were not asked which type of facility they stayed in.

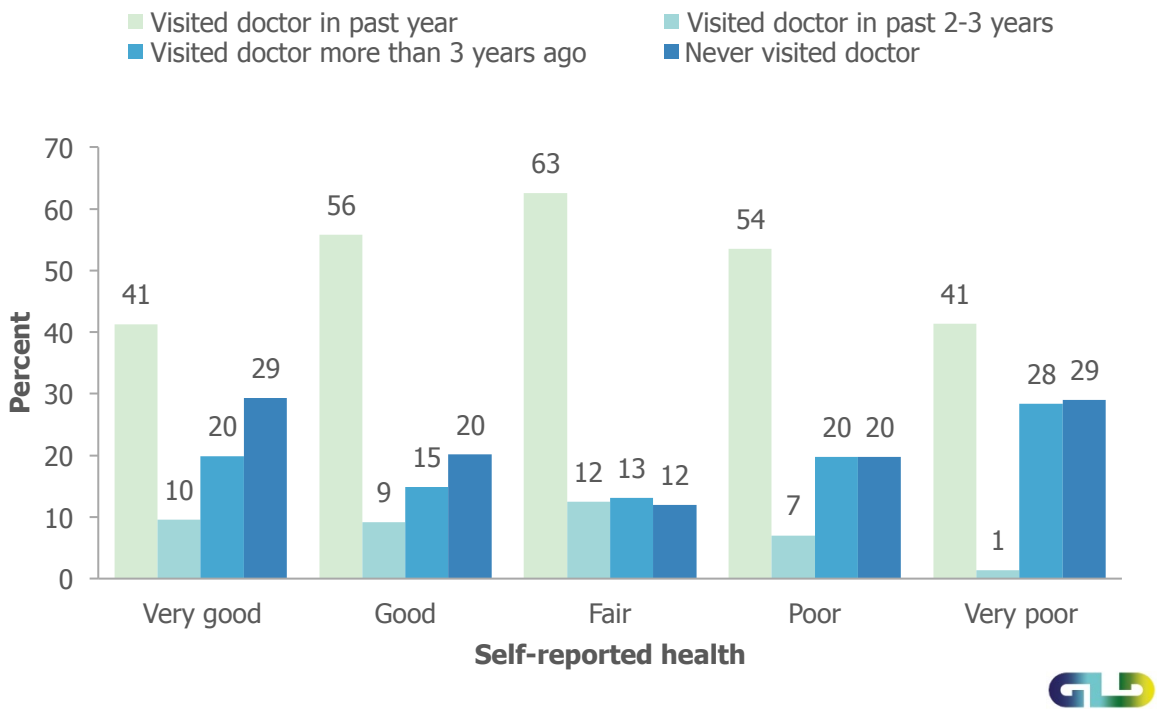


Figure 22: Timing of last visit to clinic or doctor by self-reported health status.

The full sample of respondents were asked about how recently they visited a doctor or clinic, spent the night in a hospital as a patient or accompanying a patient, and had a family member give birth in the previous year.

We find that Tunisians living in some areas may have to leave their municipality for medical care. Of those who visited a clinic or doctor in the past three years, one-third of those in Bizerte (33 percent) left the municipality for care, compared with 14 percent in Mahdia, 15 percent in Siliana, 22 percent in Monastir, 23 percent in Tunis, and 24 percent in Sfax (Figure 23). These differences across the sampled governorates may be accounted for by substantial differences across municipalities (Figure 24). However, many respondents did not know whether the doctor or clinic they visited was outside the municipality. Of the respondents who accompanied or spent the night as a patient in a hospital in the previous two years, all could identify whether the facility was inside or outside the municipality. About half of all those who spent the night in a hospital

did so outside the municipality in each governorate, while more may have left the municipality in Mahdia and Monastir (Figure 25).[16]

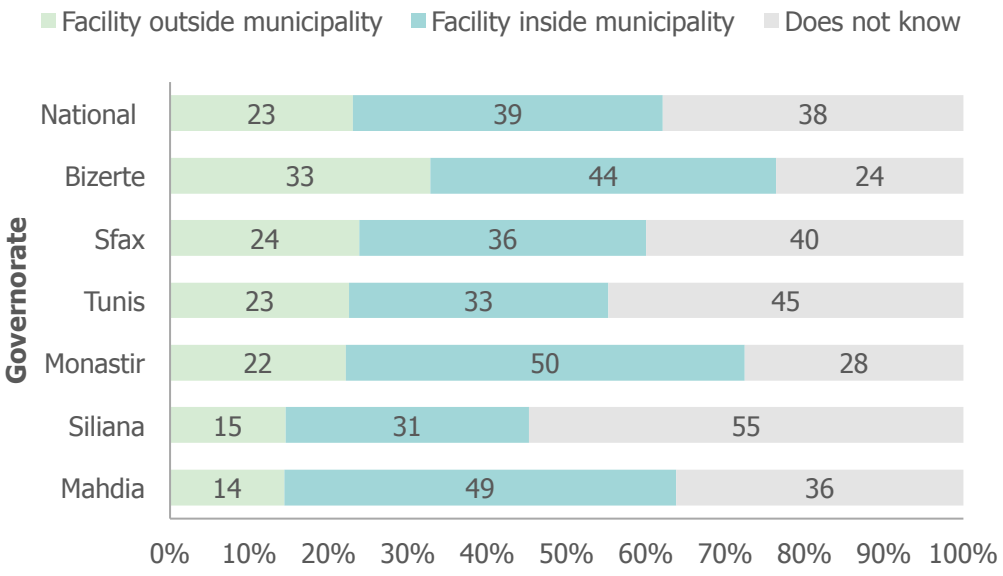


Figure 23: Location of clinic or doctor visited, by governorate.

[16] Estimates disaggregated by governorate and municipality are less reliable, because relatively few respondents overall visited a hospital in the previous two years. Presentations of inpatient data disaggregated by geographic area are hereafter limited for this reason.

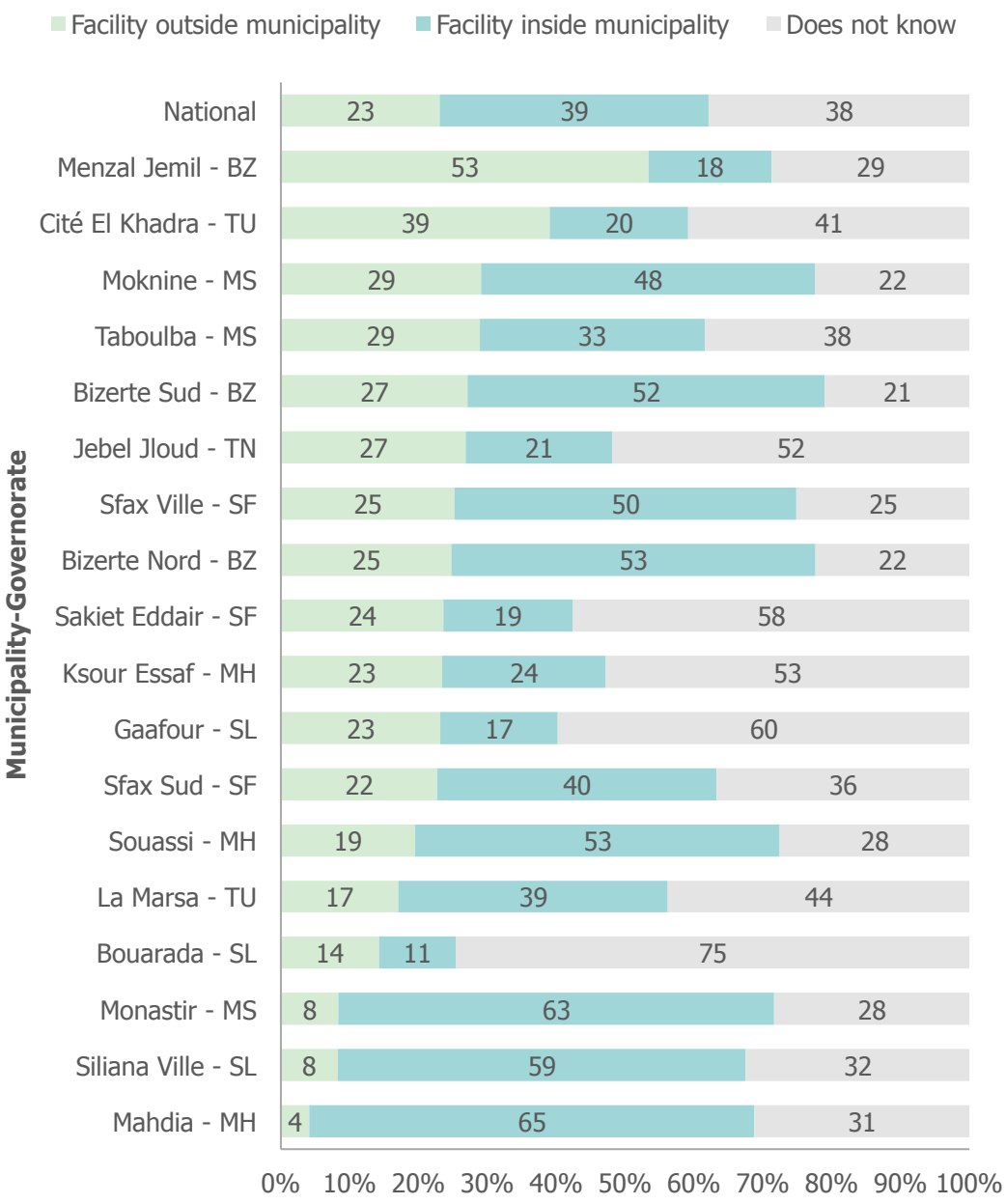


Figure 24: Location of last doctor or clinic visited, by municipality.

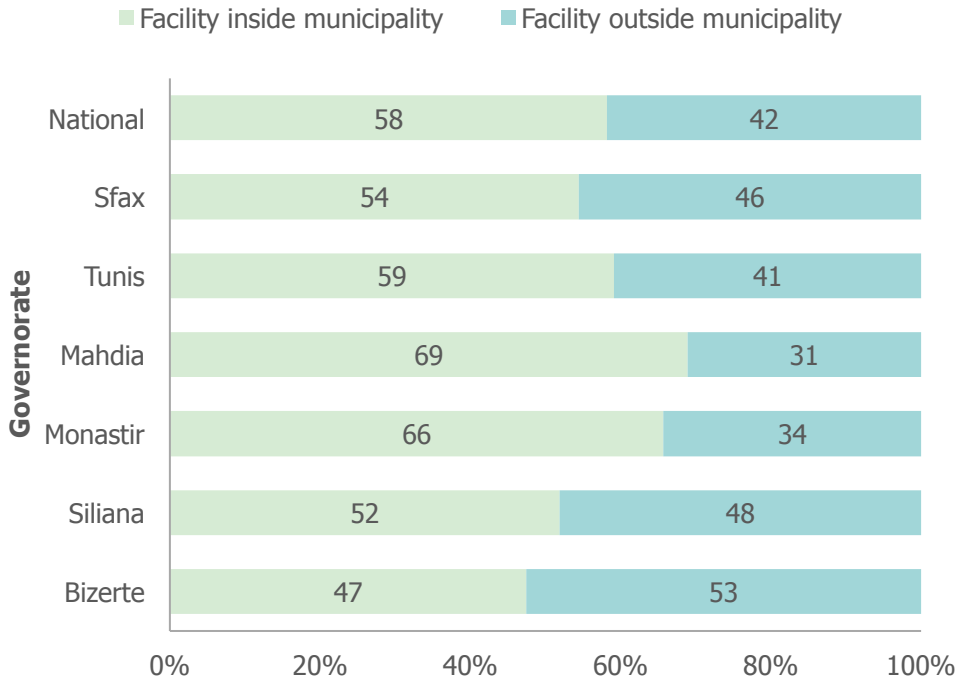


Figure 25: Location of last hospital visited, by governorate.

What information do Tunisians weigh when choosing a clinic or doctor? Those who visited a clinic or doctor within the previous three years were asked whether they considered one or more of these factors in their decision: proximity of the facility, its reputation for quality, price, personal connections with the medical staff, and personal connection with someone who helped the respondent access care (i.e., informal ties). The most common factor was proximity (42 percent), followed by quality (33 percent), cost (23 percent), personal ties to nursing staff or doctors (17 percent), and informal ties to someone who helped the respondent access care at the clinic or with the doctor visited (8 percent). Women cite all reasons more often than men (Figure 26). For those who visited a facility for birth services in the previous year, 80 percent (N=73) said proximity was an important factor, compared with 20 percent who said it was not (N=17).[17] The percentages citing the other factors (quality, cost, ties to staff, ties to gatekeepers) in this group are very similar to those for people who visited clinics and doctors.

[17] Weighted count.

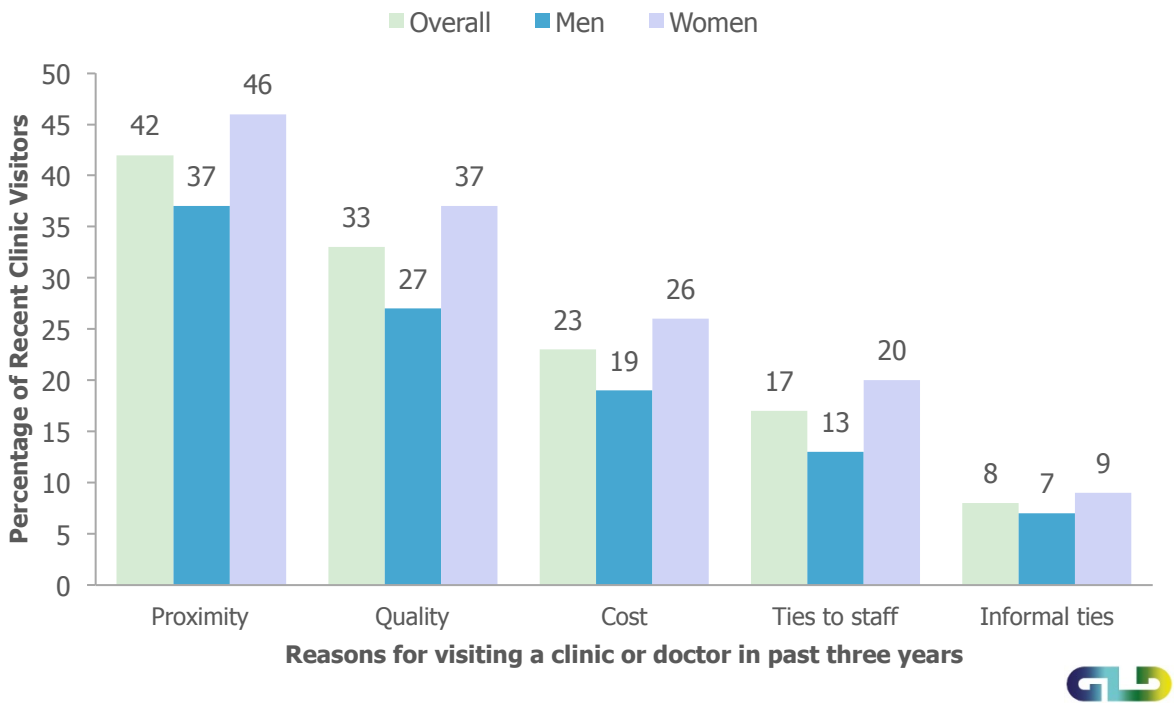


Figure 26: Reasons given for visiting a clinic or doctor, overall and by gender.

Such decisions are also tied to class, which shapes whether a person has access to information about health-care providers or the means to travel to a range of clinics. Economic status and education also affect a person's range of choices, such as the ability to choose between public and private clinics.

Of those who named proximity as a reason for choosing a particular clinic or doctor, 81 percent visited a facility inside the municipality, compared with just 46 percent of those who said proximity was not a factor. Seventy percent of those who rate proximity as a reason visited a public facility, while only 35 percent of those who do not view proximity as a factor visited a public facility. Those for whom proximity is less important visited a private clinic more often (46 percent) than those who place importance on proximity (19 percent of whom visited a private clinic). Similarly, 61 percent of those who rated quality as important visited a private facility. This compares with just 17 percent of those who did not say quality was a factor who visit a private clinic. (The majority—70 percent—of these visit public facilities.) Concerns about cost are also associated with visits to public clinics, with 89 percent of those for whom price is a factor in choosing facilities visiting a public clinic, compared to 39 percent for whom cost was not a

consideration (44 percent of those in this category visited a private clinic). Those with chronic illnesses are also more cost-conscious than those without, with 40 percent of those who are chronically ill and went to a clinic in the previous three years citing cost as a decisive factor, compared with 23 percent of those who are not.

Personal ties to staff at the clinic or to a person who helped the respondent connect to a clinic or doctor are related to the type of clinic visited. Of those who said that knowing a member of the medical staff was important in their choice of clinic or doctor, only 23 percent visited a public facility. Among the 8 percent of respondents who said that knowing someone who helped them connect to a clinic or doctor was a factor in choosing a facility, there were no systematic associations with gender, education, chronic illness, rural domicile, or the public or private status of the clinic.

Figure 27 summarizes the percentage giving each reason for visiting a clinic or doctor by self-reported class.[18] Proximity is important to around half of all respondents, except those among the top two social classes, while quality considerations are a factor most frequently for those in the middle (35 percent), upper (45 percent), and upper-middle classes (52 percent). A little over one-third of respondents in the lower (36 percent) and lower-middle class (35 percent) say cost is an important factor, while one in four (25 percent) of those in the middle class and 12 percent and 15 percent, respectively, of the upper-middle and upper classes do so. Somewhat surprisingly, members of the upper and upper-middle class report choosing facilities based on personal ties more often than do members of the lower classes, which suggests that those with lower incomes not only have limited access to institutionalized means of accessing care, such as insurance, and information, but they may also have fewer informal ties through which they might compensate for these disadvantages.

[18] Percentage saying "yes," that the reason is one that the respondent considered. See appendix for distributions for each question, including negative answers and item nonresponse.

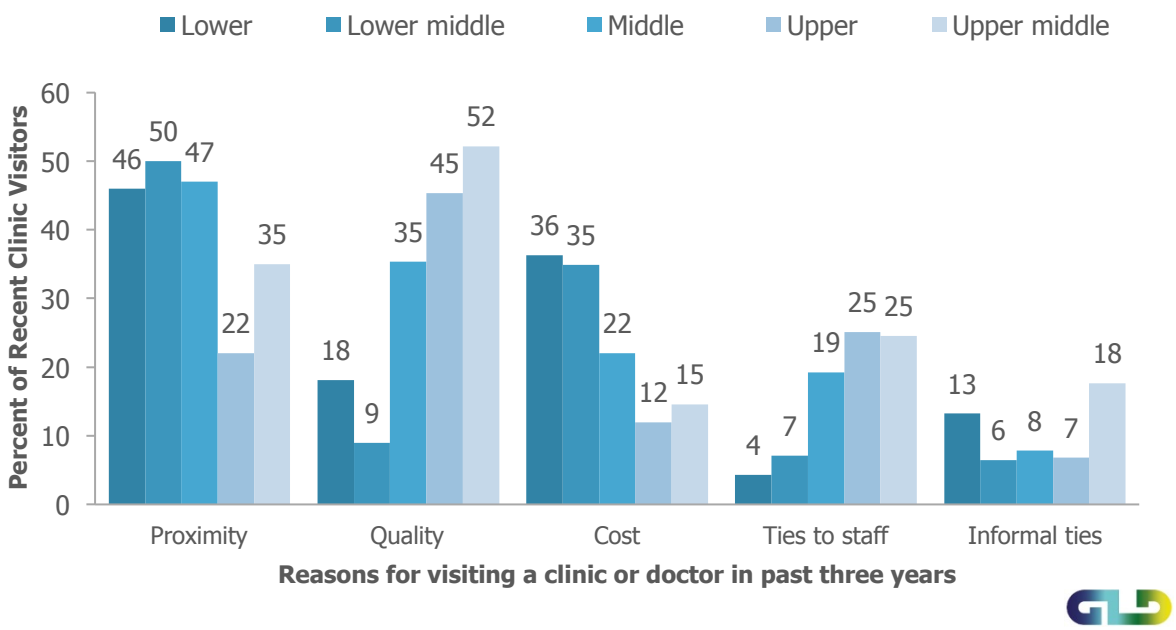


Figure 27: Reasons for visiting a clinic or doctor, by self-reported class.

Those who spent the night in a hospital in the previous two years, as well as those who used facilities for birth in the previous year, were asked if they received any financial assistance to access health care, and if so, from which sources. Only 16 percent of those who used inpatient care received financial assistance (N=78 of 499), and 19 percent of those who gave birth did so (N=29), although the number who reported the source is too small for reliable estimation. Fewer (10 percent) of those who visited a doctor or clinic in the previous three years received financial assistance (N=176). Of these, 11 percent received assistance from extended family, 5 percent or fewer from members of a tribe or ethnic group (3.4 percent), a local imam (1.1 percent), a nonreligious charity (2.2 percent), a civil-society organization (5 percent), a trade or professional association (0.5 percent), a powerful local family (0.5 percent), or a state welfare office (5 percent).

5. Quality of Health-Care Services

The LGPI also explores the quality of health care, first by asking about general perceptions of different health providers in Tunisia and then by consulting respondents who actually used health-care services relatively recently. Examining the general perceptions of Tunisians, as well as

the specific experiences of individuals who obtained care at public and private facilities, reveals possible discrepancies in perceived quality between health care provided in these sectors.[19]

When asked to rate the quality of the nearest general public hospital, only 26 percent of respondents said "very good" or "good," but satisfaction varied substantially by governorate and municipality, with 46 percent of respondents in Monastir rating the public hospital as good or very good and only 19 percent of respondents in Sfax doing so (Figure 28). While over half of respondents rate the nearest public hospital negatively in nearly all sampled municipalities, over half of respondents have positive ratings for the nearest public hospital in Monastir (Monastir), Bourada (Siliana), Moknine (Monastir), and Gaafour (Siliana) (Figure 29).[20]

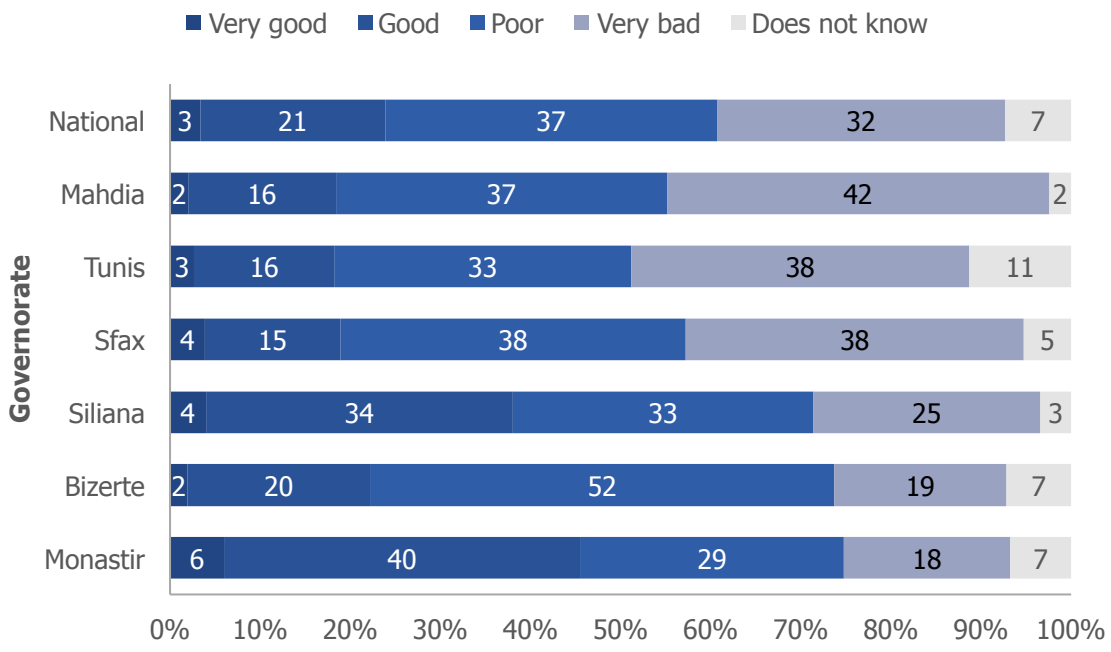


Figure 28: Perceived quality of medical care at nearest public government hospital, by governorate.

[19] Respondents were asked about military hospitals, but most said they did not know anything about a military hospital and few reported visiting one. With few respondents rating the quality of military hospitals, the perception of quality of these facilities is not reported. For example, 66 percent of respondents said they did not know the quality of medical care at the nearest military hospital.

[20] Between 1 and 15 percent of respondents across different municipalities respond to this question by saying they do not know, with 13 percent, 12 percent, and 15 percent, saying "don't know," respectively, in Menzal Jemil (Bizerte), La Marsa (Tunis), and Cité El Khadra (Tunis). Distributions including item nonresponse are included in the appendix.

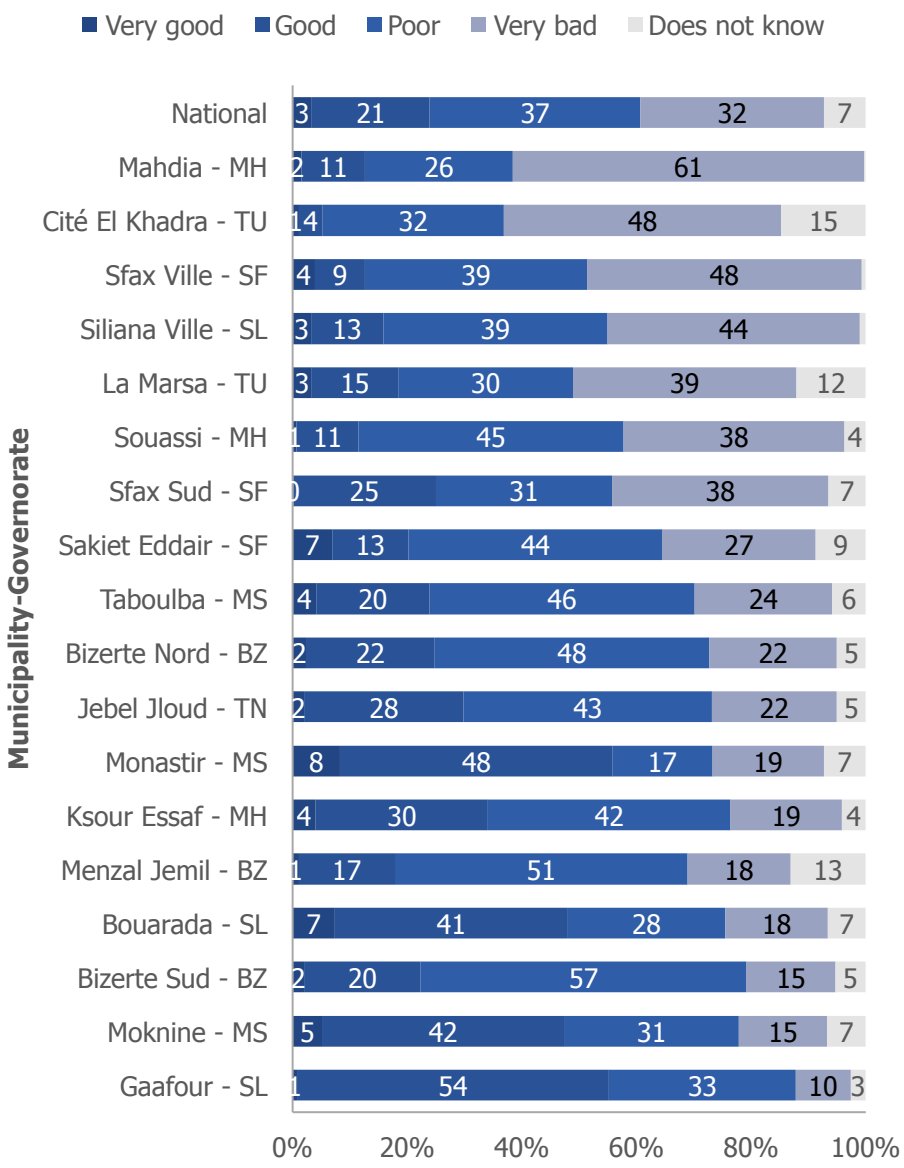


Figure 29: Perceived quality of care at nearest public government hospital, by municipality.

Perceptions of the quality of medical care at the nearest private hospital are much more positive, with 67 percent of respondents rating private hospitals as good or very good, but a large number of respondents do not know enough about the nearest private hospital to provide a rating. At the national level, the percentage of respondents who do not know enough is 24, but in Siliana, those who do not know make up over half (53 percent) of respondents, followed by Monastir and Mahdia (38 percent), Bizerte (29 percent), Tunis (12 percent), and Sfax (12 percent). These discrepancies at the governorate level may be associated with local-level differences in availability

of private health-care facilities. Figure 30 shows the distribution of ratings of the nearest private hospital by municipality.

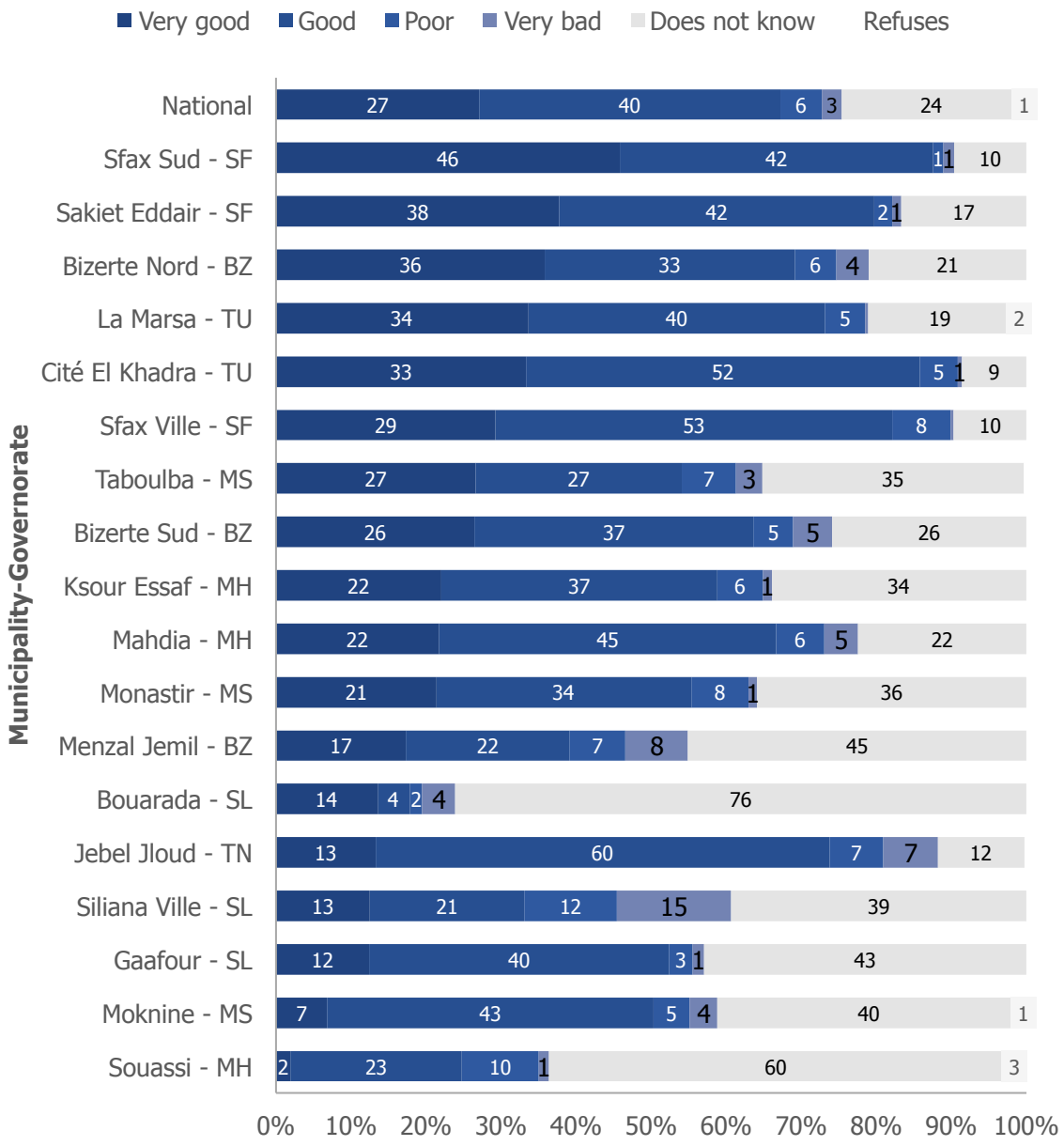


Figure 30: Perceived quality of care at nearest private hospital, by municipality.

Respondents are also more reluctant to state an opinion about local clinics, public or private. When asked to rate the quality of medical care at the nearest public clinic, 64 percent say the quality is good or very good. Averages for the governorates are similar except for Siliana, where

42 percent rate the quality in a positive light and 43 percent do not know enough to make an assessment, accounted for largely by respondents in Bourarada municipality. The perception of public clinics is particularly poor in Souassi (Mahdia), where 51 percent rate them as poor or very bad, and Siliana Ville (Siliana), where 30 percent do so. In the other sampled municipalities, where respondents were able to make a judgment, ratings are overwhelmingly positive (figures 31 and 32).

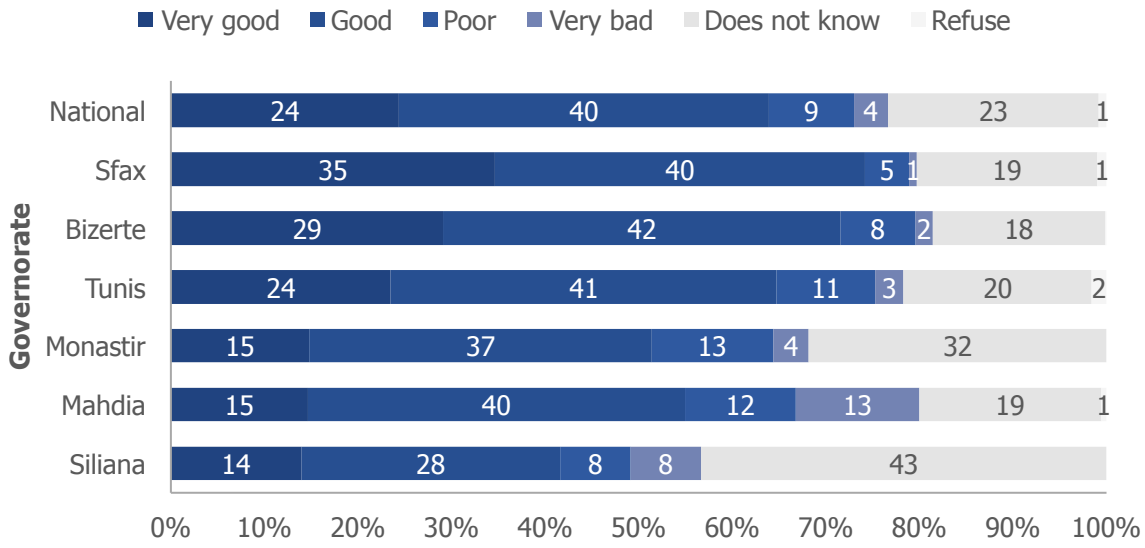


Figure 31: Perceived quality of care at nearest public clinic, by governorate.

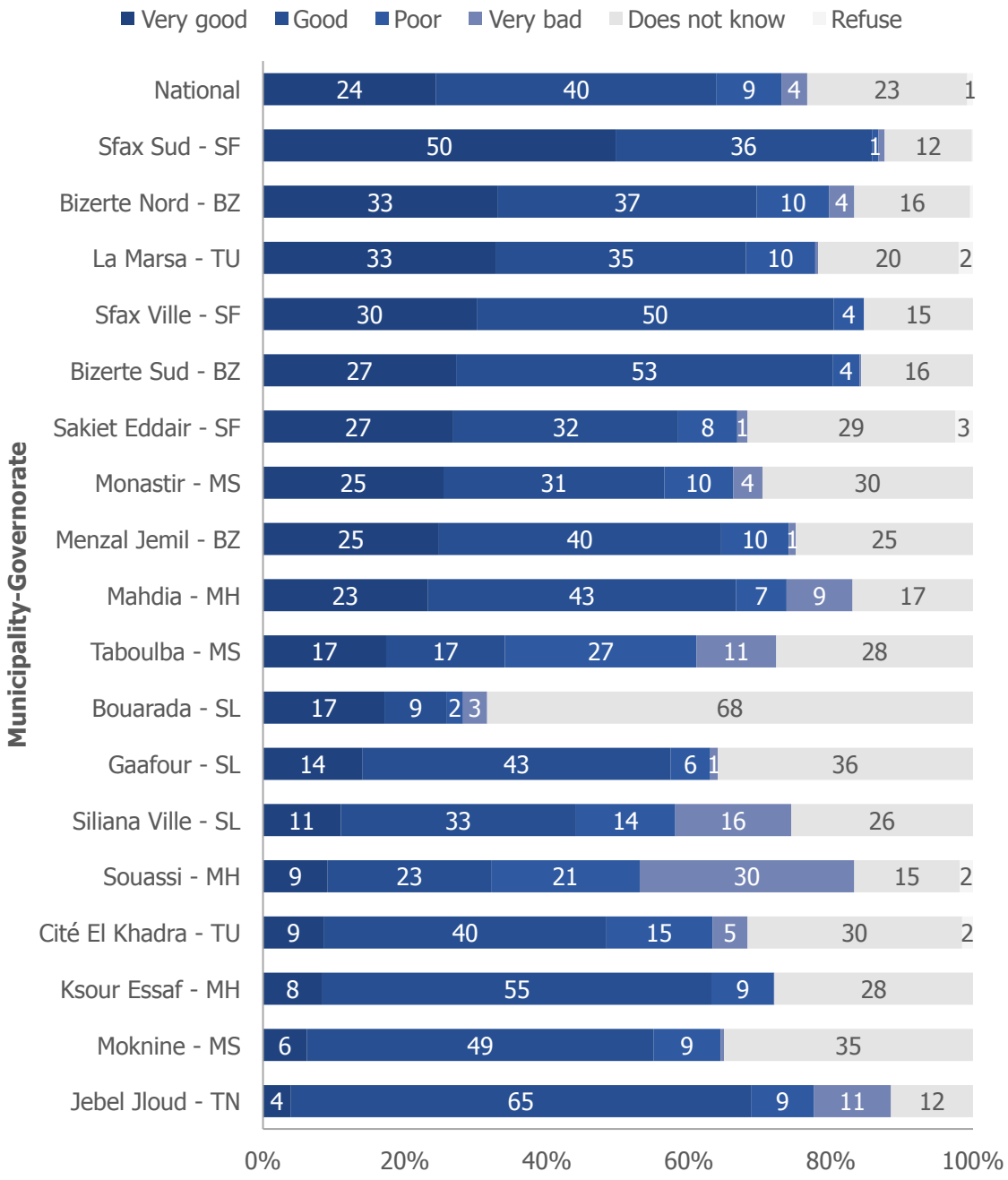


Figure 32: Perceived quality of care at nearest public clinic, by municipality.

When asked to assess the quality of medical care at a private clinic or doctor, over one-quarter (27 percent) of respondents say the care is very good, and almost half (46 percent) say it is good, but 17 percent do not know enough to make an assessment. These ratings also differ at the municipal level, but, generally, private doctors or clinics are perceived in a somewhat more positive light than are public clinics. More than one-third of respondents in five municipalities

rate the quality of care at these facilities as very good. Only in Gaafour (Siliana) and Souassi (Mahdia) do less than half of respondents rate them as good or very good (Figure 33). Only in five municipalities are private clinics rated as poor or very bad by more than 15 percent of respondents, with 30 percent of respondents in Souassi (Mahdia) expressing negative evaluations, followed by Jebel Jloud (Tunis, 29 percent), Siliana Ville (Siliana, 28 percent), Taboulba (Monastir, 17 percent), and Cité El Khadra (Tunis, 17 percent).

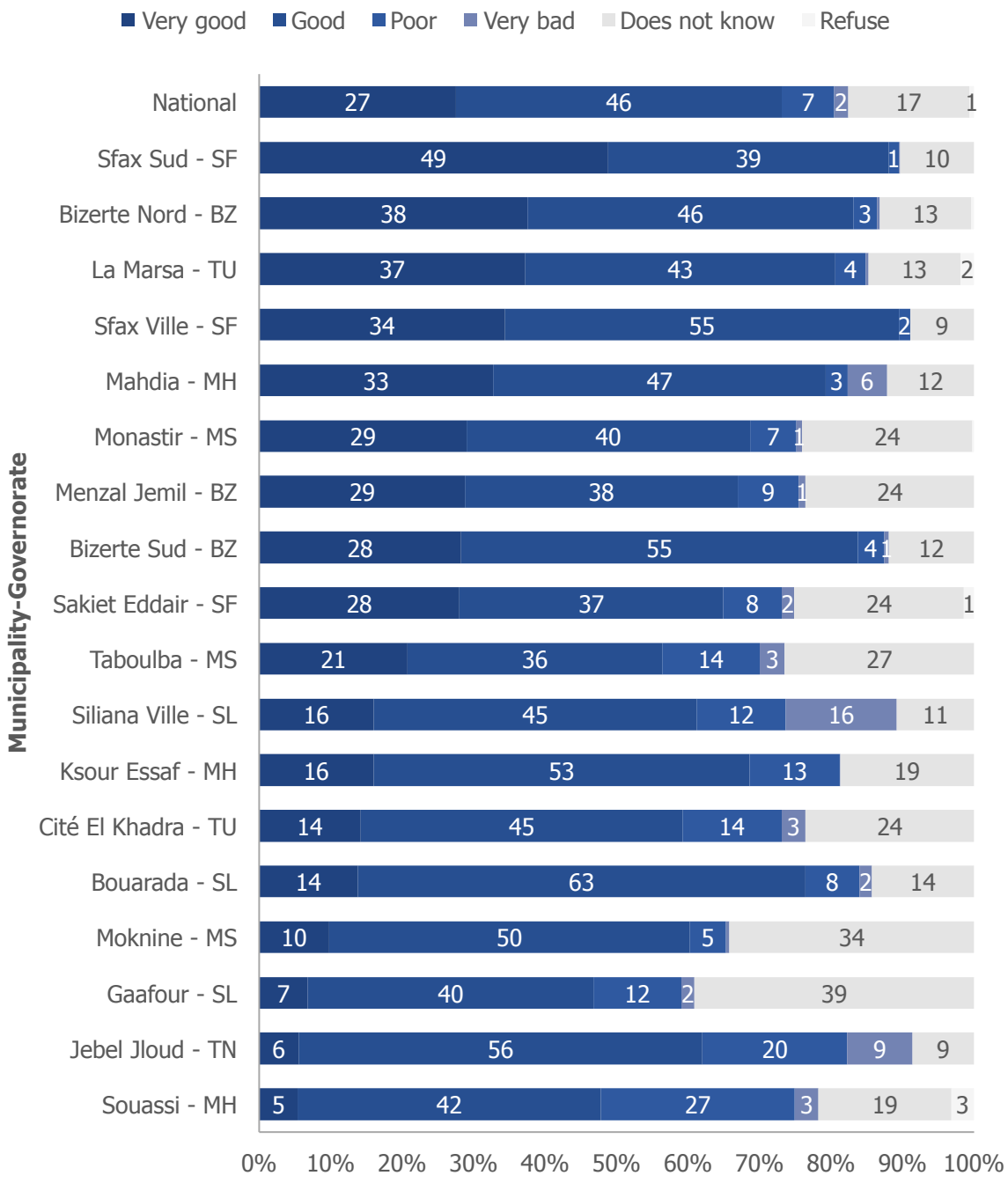


Figure 33: Perceived quality of care at a private doctor or clinic, by municipality.

Pharmacists are the health providers whose quality of care is rated most positively by a vast majority of all respondents. Over half of all respondents (51 percent) rate the quality as good, and 38 percent as very good, while only 6 percent rate it as poor or very bad, proportions that are relatively similar across governorates and municipalities, with the exceptions of a few in which the percentage of poor or very bad ratings is higher than 10 percent: Siliana Ville (Siliana, 23 percent), Jebel Jloud (Tunis, 18 percent), Taboulba (Monastir, 12 percent), and Cité El Khadra (Tunis, 11 percent).

Respondents also have a positive assessment of the quality of care at a local healer, with 17 percent saying the quality is very good, 39 percent good, 10 percent poor, and 3 percent very bad. (Thirty percent are unable to make an assessment.) Somewhat surprisingly, the quality ratings do not differ by age, gender, class, education, or urban or rural area, whereas one might have expected those with limited resources or living in rural areas more likely to seek help from traditional sources. Figure 34 summarizes the responses by municipality. High numbers of respondents are unable to make a judgment in some municipalities, while eight municipalities have negative perceptions of healers that exceed the national average.

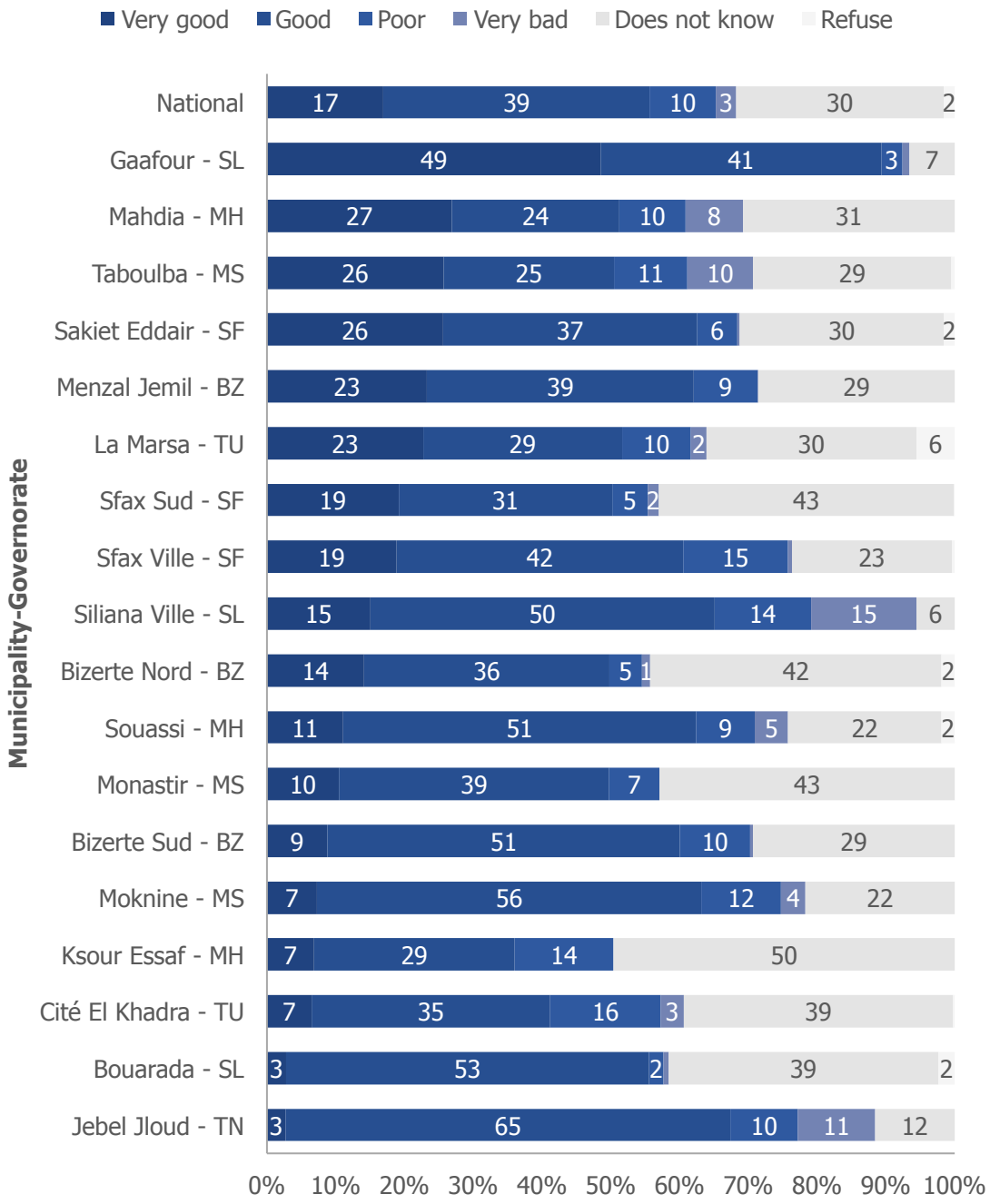


Figure 34: Perceived quality of care at a local healer, by municipality.

Figure 35 summarizes the perceived quality of care across these different types of health-care providers. Only public hospitals are perceived in an overwhelmingly negative light, while respondents have positive views of both public and private clinics, as well as pharmacists and local healers, which suggests that people may be more likely to rate local providers positively than national providers, or that they may have more positive views of those facilities with which they

have greater familiarity. Questions about quality based on respondents' specific experiences with providers explore this possibility.

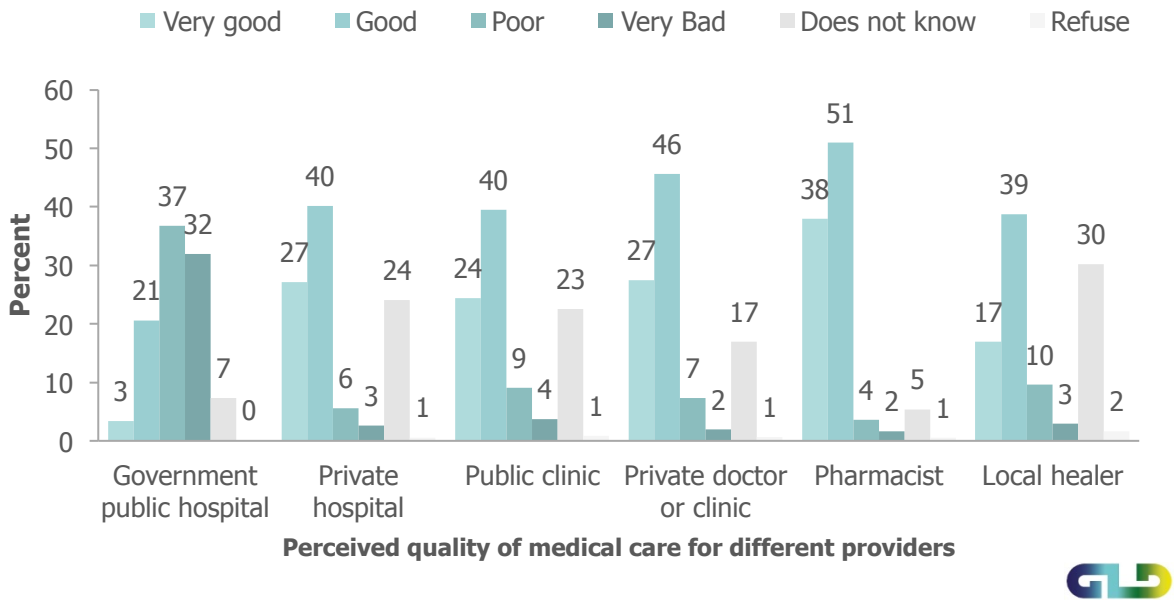


Figure 35: Perceived quality of care from different providers.

Respondents who went to a doctor or clinic in the previous three years (64 percent, Weighted N=1,763), spent the night in a hospital as a patient or accompanying a patient in the previous two years (17 percent, Weighted N=347),[21] or gave birth or had a family member give birth in the previous year (5 percent, Weighted N=155) were asked to indicate their level of satisfaction with four general areas of service (cost, care, medical services, and infrastructure) and to describe specific aspects of their clinic and hospital visits, including facility cleanliness, duration of waiting time, availability of information, respectfulness of staff, and availability of medicine.[22] Figure 36 shows the distribution of responses for satisfaction with inpatient experiences, which suggest that those who actually used inpatient services share the same negative impressions as the population

[21] Both patients and non-patients were asked to rate hospital quality.

[22] For an example of a similar use of principal component analysis, see Webster, Tashonna R., Jeannie Mantopoulos, Elizabeth Jackson, Heather Cole-Lewis, Lillian Kidane, Sosena Kebede, Yigeremu Abebe, Ruth Lawson, and Elizabeth H. Bradley. 2011. "A Brief Questionnaire for Assessing Patient Healthcare Experiences in Low-Income Settings." *International Journal for Quality in Health Care* 23(3): 258–268. Retrieved from https://academic.oup.com/intqhc/article/23/3/258/1794153/A-brief-questionnaire-for-assessing-patient. For an overview of studies using surveys to track patient satisfaction, see Rashid Al-Abri and Al-Balushi, Amina. 2014. "Patient Satisfaction Survey as a Tool Towards Quality Improvement." *Oman Medical Journal* 29(1): 3–7. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3910415/.

at large. Around half of those with recent inpatient experience are very or somewhat dissatisfied with care (53 percent), medical services (49 percent), and facilities (48 percent), while one-fourth of those who spent time in a hospital overnight said they were very or somewhat dissatisfied with the cost.

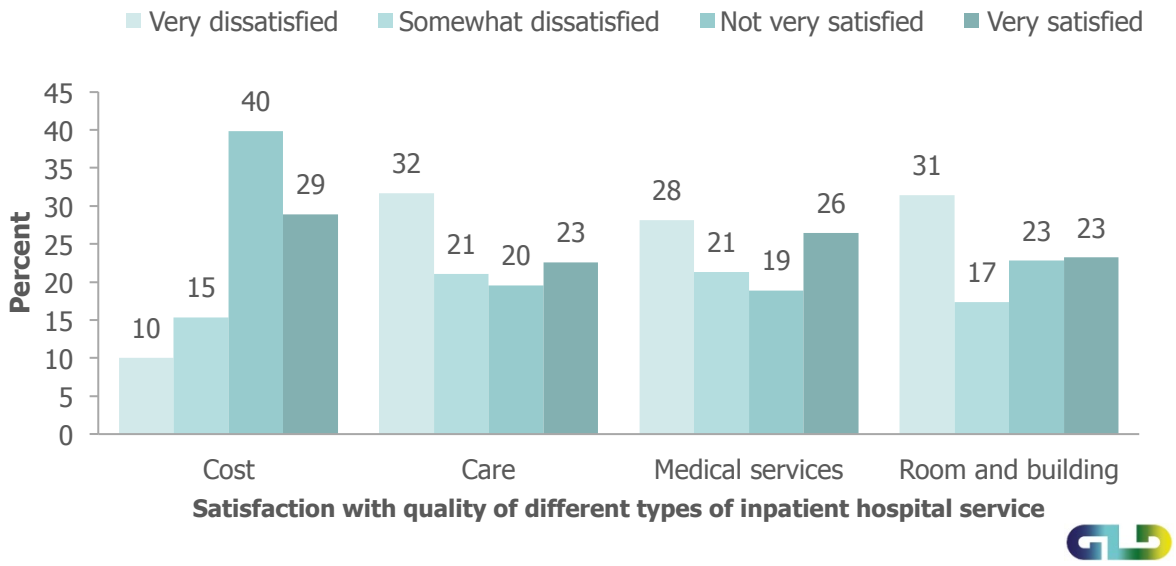


Figure 36: Satisfaction with quality of different types of hospital services.

Respondents with inpatient experience were also asked to indicate the presence or absence of different kinds of hospital services. Figure 37 shows that a majority did not feel that the hospital fulfilled expectations in each area of service, with 68 percent saying bathrooms were not clean, 87 percent that doctors were not present, 55 percent that patients were not treated with respect, 53 percent that costs were unreasonable, 83 percent that fees were not explained and clearly posted, and 76 percent that waiting times were unreasonable.

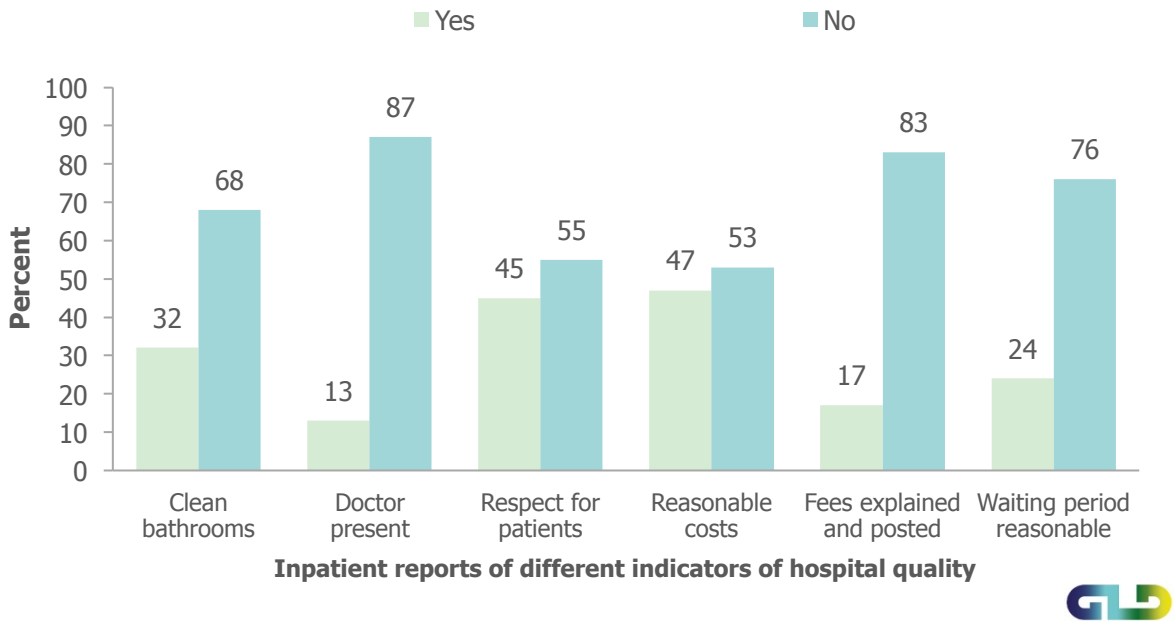


Figure 37: Inpatient reports of indicators of hospital quality.

Local clinics and doctors received somewhat better quality ratings from those who visited in the past three years as outpatients than did hospitals (Figure 38). Yet negative ratings are still common, with almost half of outpatients (48 percent) reporting that bathrooms were not clean, 25 percent saying health-care workers were not present, 39 percent saying patients were not treated with respect, 58 percent saying costs were unreasonable, 76 percent saying fees were not clearly explained and posted, and 65 percent saying waiting times were unreasonable.

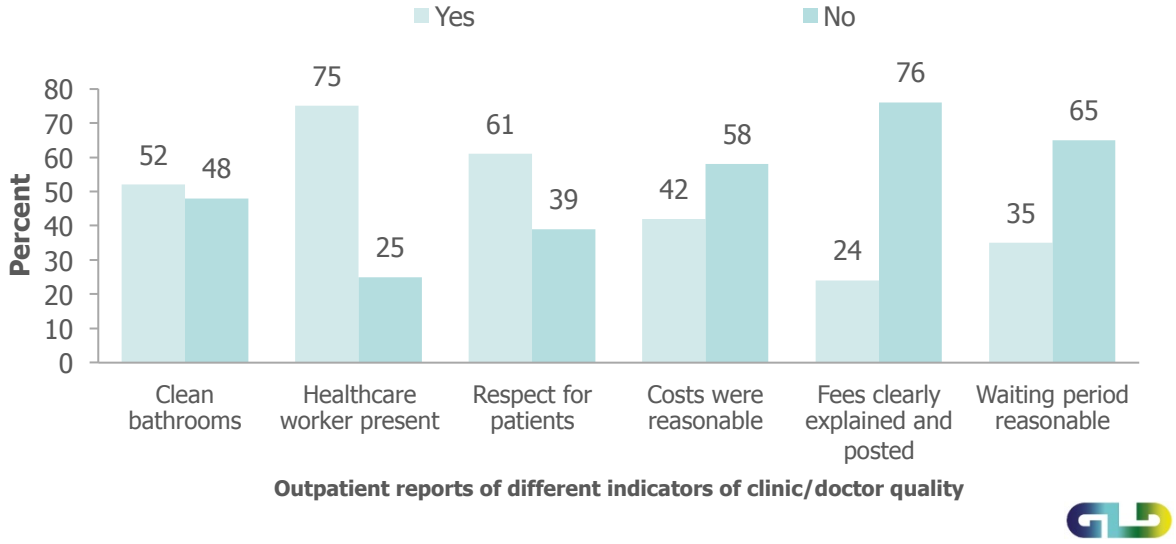


Figure 38: Outpatient reports of clinic quality.

Satisfaction with four areas of outpatient clinic services is somewhat higher than for hospitals, especially with respect to cost (Figure 39).

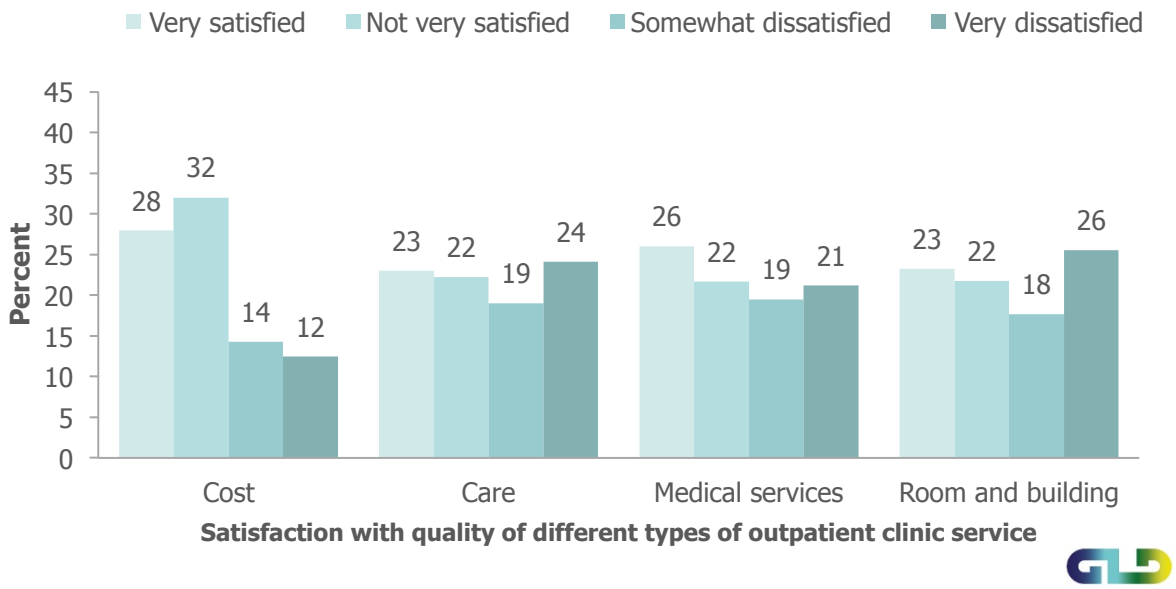


Figure 39: Outpatient satisfaction with different types of clinic services.

Figure 40 shows the satisfaction with these areas of care among those who used a health facility for themselves or a family member to give birth in the previous year. The number of respondents in this category is small (N=155), but the distribution suggests that the number that is very dissatisfied might be lower than for those who visited clinics or doctors more generally.

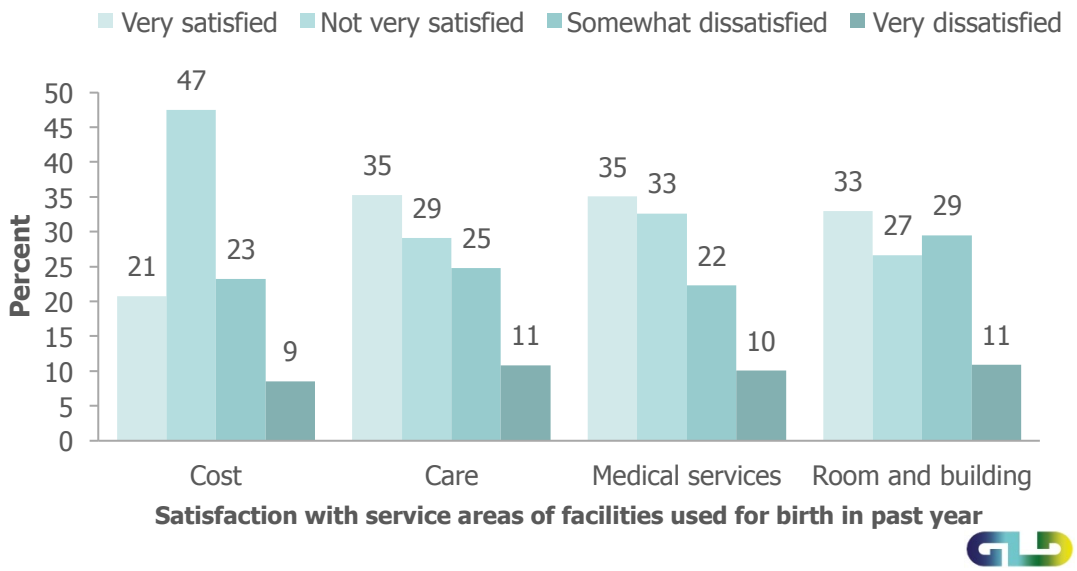


Figure 40: Satisfaction with facilities used for childbirth in the previous year.

While both inpatient and outpatient quality ratings do not differ consistently by age group, gender, or urban versus rural area, there are class and educational differences in ratings of quality for both inpatient and outpatient services. For nearly all questions about satisfaction and indicators of quality, members of the lower and lower-middle classes say they are very or somewhat dissatisfied more often than those in the middle, upper-middle, and upper classes. They are also less likely to report that bathrooms are clean, costs are reasonable, fees are clearly posted, patients are treated with respect, or that a doctor or health-care worker was present. Similar patterns follow for those with only primary-school education or less.

To illustrate, Figure 41 shows that 70 percent of those in the lower-middle and 59 percent of those in the lower class say bathrooms at their most recent clinic or doctor visit were not clean, compared with 45 percent in the middle class, 33 percent in the upper-middle, and 36 percent in the upper class. Similarly, Figure 42 shows that satisfaction levels concerning the quality of the infrastructure of the facilities at local clinics are lower among members of the lower class.

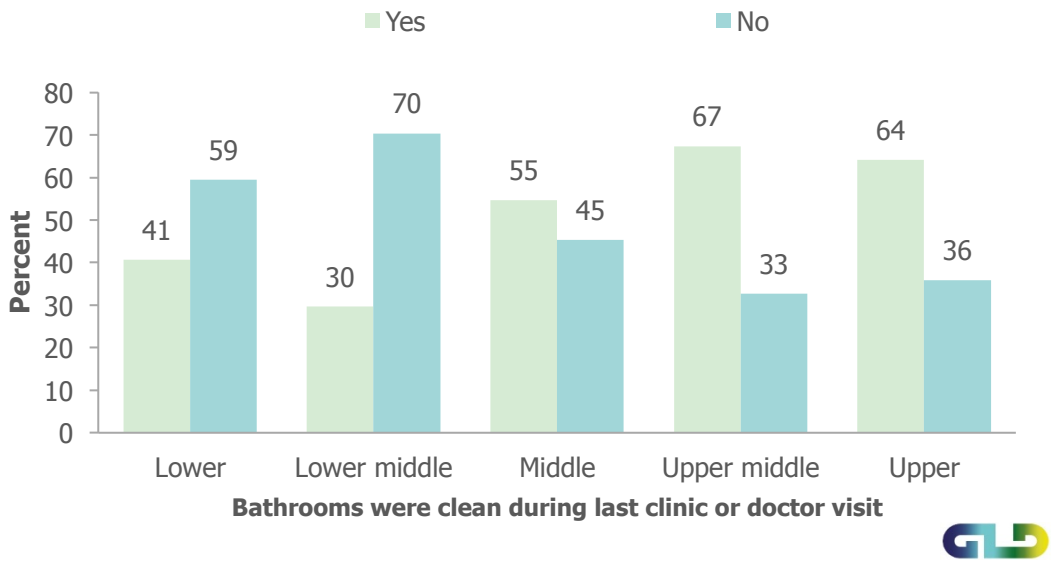


Figure 41: Indicator of clean bathrooms at clinic or doctor's office, by class.

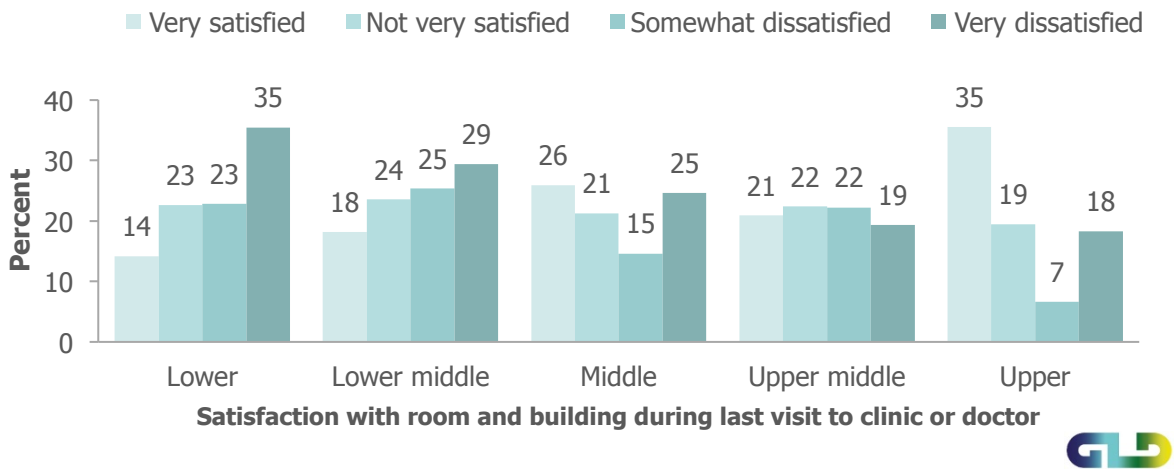


Figure 42: Satisfaction with doctor's office or clinic facility, by class.

Whether those who are less educated or have lower socioeconomic status receive inferior treatment at the same facilities or are visiting different facilities than those with higher socioeconomic status is not clear. Those with higher socioeconomic status may be able to afford private clinics, and Figure 27 suggests that those with higher socioeconomic status are more likely to make choices based on quality as opposed to proximity or cost.

All respondents asked to rate whether fees were posted and explained clearly during their most recent clinic or doctor visit find facilities deficient in this area (76 percent), but negative experiences are more common among members of the lower (86 percent) and lower-middle (91 percent) classes (Figure 43). Similarly, Figure 44 shows that those with less education find that fees are posted and explained less often than do those with higher education. More than one-third (34 percent) of those with higher education found the clinic adequate in this area, compared to half that number (16 percent) of those with no education.

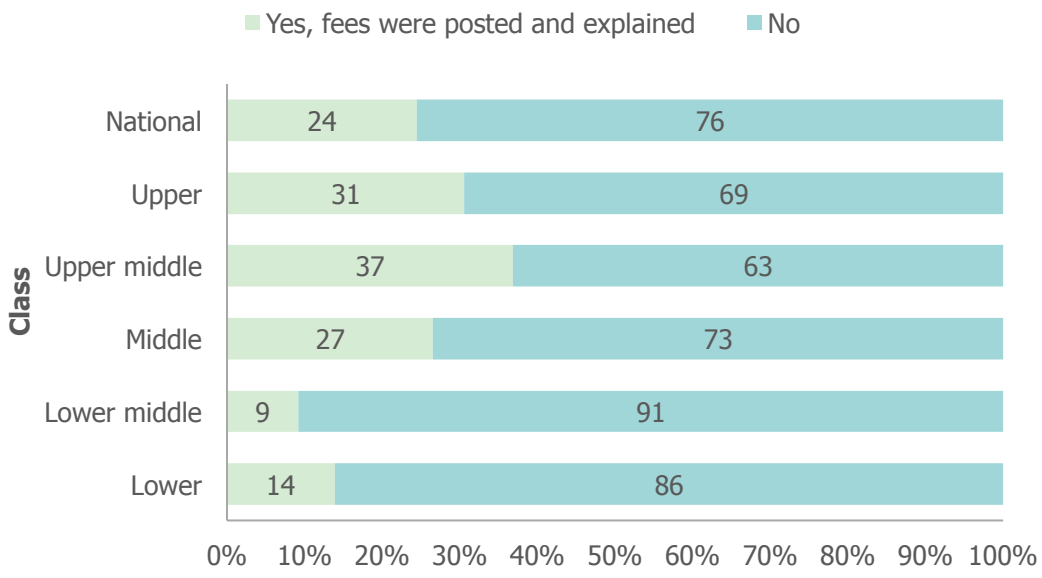


Figure 43:Clarity and availability of posted fees for recent clinic or doctor visits, by class.

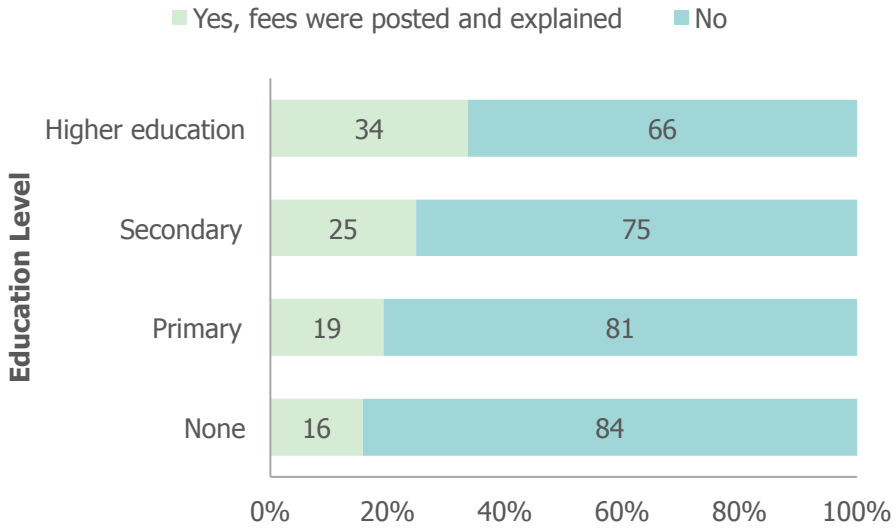


Figure 44: Whether fees were clear and posted, by education level.

This suggests that the various groups may be visiting different facilities, or that information is less accessible to some people. It is likely to be a combination of both factors. Those with higher incomes are more likely to have the means to visit private clinics (see Figure 27, for example), and a comparison of this and other indicators across public and private clinics suggests that private facilities receive higher ratings.

To facilitate comparison between public and private clinics and across geographic areas, indices summarizing these outpatient and inpatient experiences of health care–facility quality based on a series of questions asked of respondents who visited a doctor or clinic in the previous three years and those who spent the night at a hospital in the previous two years were developed using polychoric principal components analysis[23] of questions that addressed respondents' assessment of (1) bathroom cleanliness; (2) presence of a doctor (inpatient) or health-care worker (outpatient

[23] Polychoric Principal Components Analysis is more robust than ordinary PCA as a method of aggregating multiple indicators measuring one underlying dimension or concept and is increasingly standard in the creation of indices based on ordinal and discrete variables in development economics, health, and other fields. See Stanislav Kolenikov and Angeles, Gustavo. 2009. "Socioeconomic Status Measurement with Discrete Proxy Variables: Is Principal Component Analysis a Reliable Answer?" *Review of Income and Wealth* 55(1): 128–165. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1475-4991.2008.00309.x/suppinfo. See also the construction of the Social Institutions and Gender Index and its sub-indices at https://www.oecd.org/dev/development-gender/Technical%20note_FINAL.pdf and Ana Maria Osório, Bolancé, Catalina, and Alcañiz, Manuela. "Measuring Early Childhood Health: A Composite Index Comparing Colombian Departments." *Research Institute of Applied Economics. Retrieved from* http://www.ub.edu/irea/working_papers/2011/201122.pdf.

clinic); (3) patients treated with respect; (4) waiting times were reasonable: (5) clarity of posted fees; (6) medication availability.[24] Figure 45 shows the mean of the index for the country as a whole and for each governorate. Lower values indicate lower quality and higher values indicate higher quality. Quality ratings for outpatient clinic experiences are higher than then national average for Sfax, Tunis, and Monastir, while Mahdia, Siliana, and Bizerte are below average.

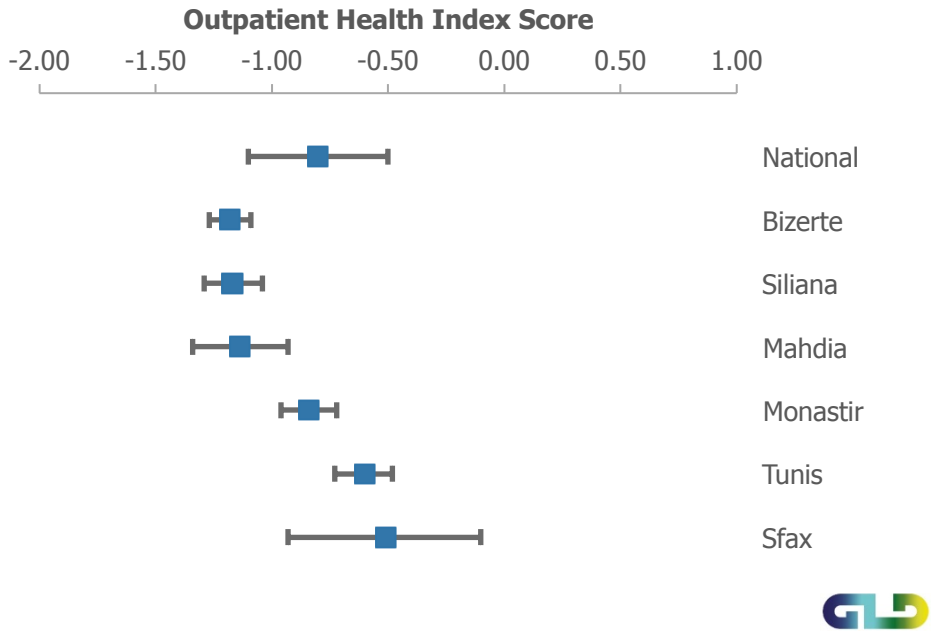


Figure 45: Outpatient health-care index by governorate: The index comprises six variables: (1) clean bathroom, (2) doctor present, (3) patients treated with respect, (4) waiting times were reasonable, (5) clarity and posting of fees, and (6) medication availability. Lower scores indicate lower quality; higher scores indicate higher quality.

Private clinics are rated more highly than public clinics (Figure 46).

[24] Cronbach's alpha scale reliability coefficient is 0.77 for the items included in both the inpatient and outpatient health care–perceptions indices. These items, including access to medication services, are typical of those used in other cross-national health indices (see, e.g., the European Union Health Consumer Index). Also, http://journal.managementinhealth.com/index.php/rms/article/viewFile/200/574, although there is a general lack of comparative, cross-national data and measures of patient quality perceptions of health care (see, e.g., http://www.who.int/healthinfo/paper32.pdf).

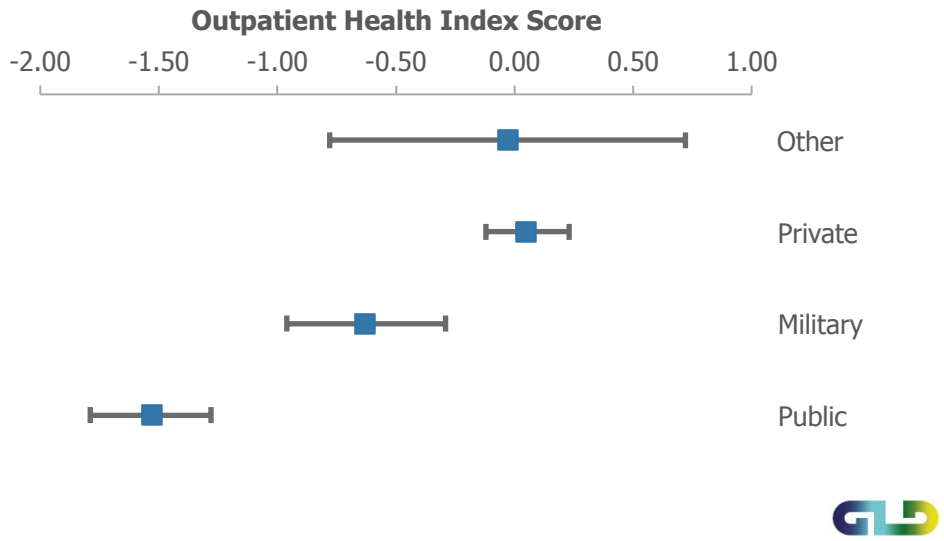


Figure 46: Outpatient health index, by facility type.

Comparison of the means of the outpatient index confirms that members of the lower and lower-middle class tend to report receiving lower-quality care than those with higher socioeconomic status (Figure 47).

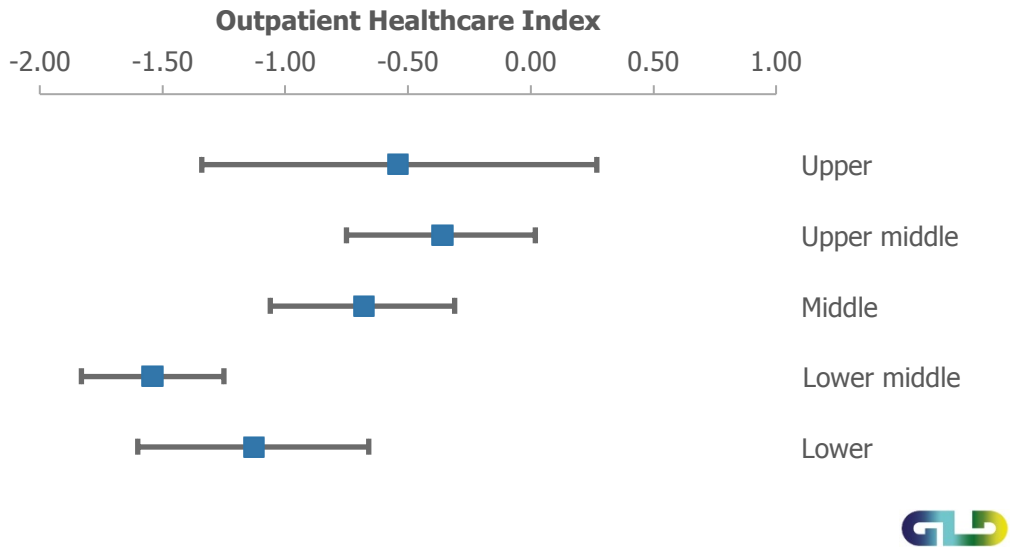


Figure 47: Outpatient health care index, by class.

The quality index is lower for inpatient experiences (Figure 48), but there is less variation across governorates, with Mahdia, Bizerte, and Siliana falling somewhat below average. Those with lower socioeconomic status also rate hospital quality lower than do those with higher status (Figure 49).

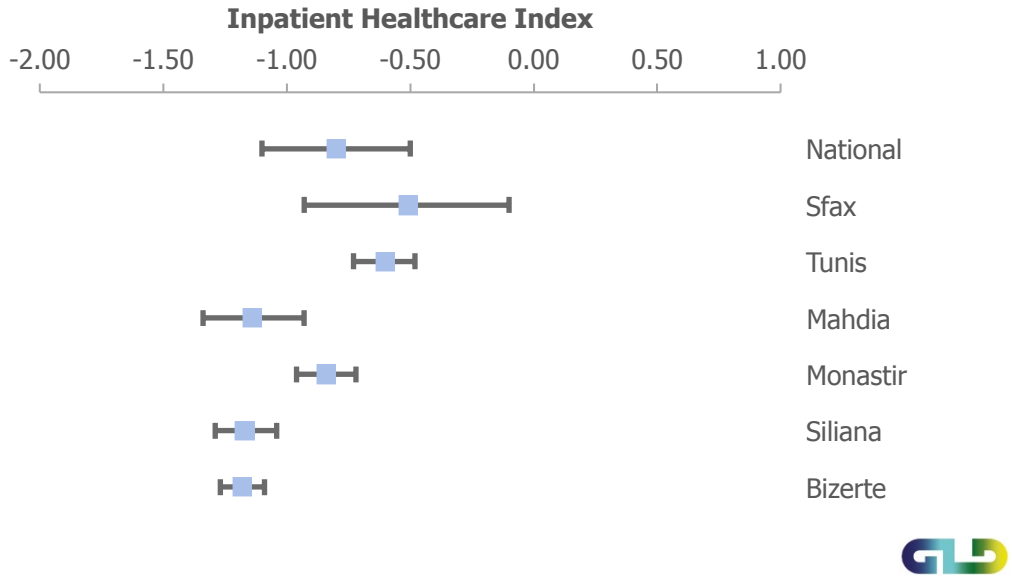


Figure 48: Inpatient health care index, by governorate.

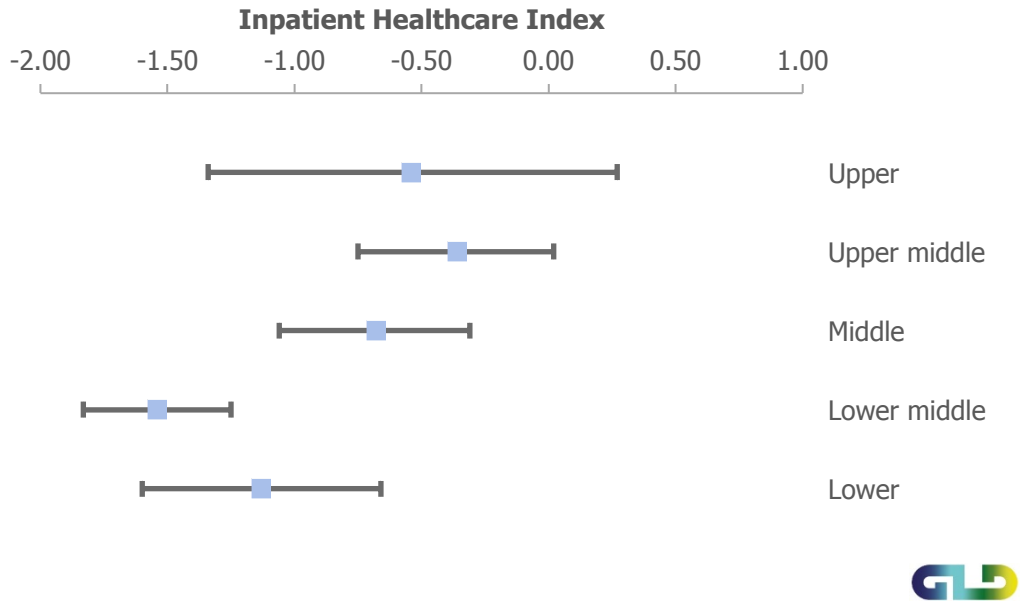


Figure 49: Inpatient health index, by class.

While insufficient numbers of respondents reported having given birth or a family member having given birth in the previous year to estimate reliable percentages or create indices, the percentages for a positive experience (a "yes" answer) for each indicator are higher than for those who spent the night in a hospital and closer to that of those who visited clinics or doctors in the previous year: about 82 percent (N=109) in this group said a doctor was present, 71 percent (N=96) said patients were treated with respect, 52 percent (N=57) said costs were reasonable, 44 percent (N=49) said fees were clearly explained and posted, and 45 percent (N=53) said they experienced reasonable wait time.

Tunisians have little confidence that doctors will be present in public clinics. When asked if they believed that the doctor would be present at 8:30am, at lunchtime, and at 4:30pm, respondents overwhelmingly answered that the doctor would not be present at any of the given times. Only one of every ten (10 percent) respondents expected the doctor to be present at all three time periods. Another quarter (24 percent) believed the doctor would be present at only one of these times,[25] and almost half (46 percent)[26] expected that the doctor would be out during all of those times. There is variation at the municipality level, with higher numbers of respondents expecting doctor absence at all three times in Mahdia (Mahdia, 69 percent), Siliana Ville (Siliana, 67 percent), Souassi (Mahdia, 62 percent), and Menzal Jemil (Bizerte, 58 percent) (Figure 50).[27] More than half of all respondents in all three sampled municipalities in Sfax believed a doctor would be present at least once during the day, and almost half did so in all three sampled municipalities in Monastir, Bizerte Nord, Cité El Khadra (Tunis), Jebel Jloud (Tunis), Bourada (Siliana), Gaafour (Siliana), and Ksour Essaf (Mahdia).

[25] Forty-nine percent of women and 53 percent of men believe they are never absent, and 27 percent of women and 24 percent of men believe that the doctor is present only once per day.
[26] This figure includes those respondents who said definitively that the doctor would not be present at the given time but said they did not know for the other two times given.
[27] The sample size for this question in Siliana Ville, Bourarada, and Gaafour is less than 75 (weighted count), so estimates for these localities are less reliable.

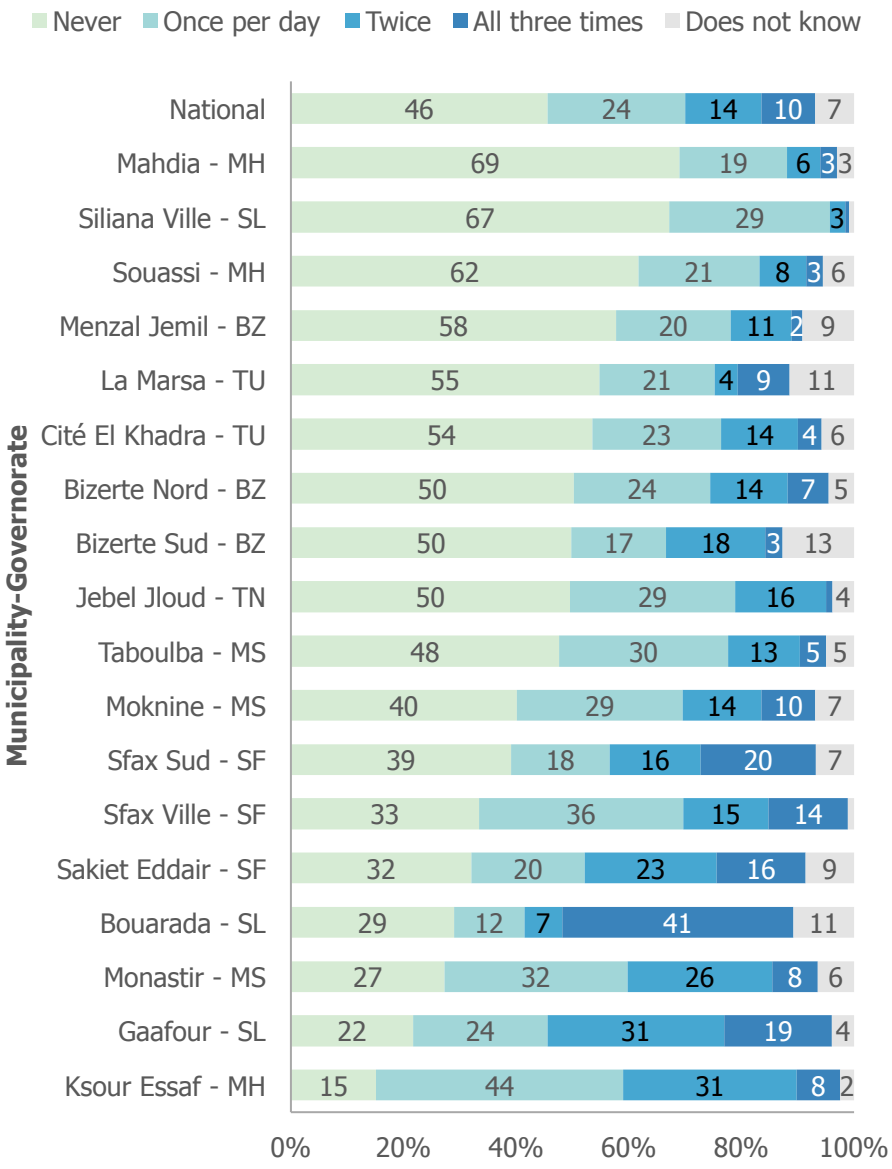


Figure 50: Expected timing of doctor presence in public clinic, by municipality.

6. Governance

Although the data suggest that Tunisia could do a better job of addressing the health needs of its citizens, particularly those with less education and lower socioeconomic status, few Tunisians identify health as the most important problem facing the municipality in which they live. A longer version of the questionnaire was administered to some respondents, who were asked to talk about the problems, successes, and failures of the municipality. Of those who were asked these

questions, only 1 percent said health is the municipality's most important problem, while an additional 9 percent identified the health-related issue of waste and sanitation. Similarly, when asked to rank issues that are the most important achievement of the municipality in which they live, 1 percent mention health. Seven percent said health care is the greatest failure of the municipality in which they live. Of the people who contacted a member of their local council about a problem, 5 percent said they did so for help with a health-related issue.

This may be because most respondents believe that the responsibility for health services currently lies and should continue to lie with the central government (69 percent), while 12 percent believe that the governorate has the greatest impact. Only 3 percent believe that the local council has the greatest impact on health, while 7 percent believe the private sector is the most influential actor. Few or no respondents said religious actors, unions, clans, or civil society have the most impact on health services. When asked which authority should have the most impact on health services, 65 percent say it should be the central government, 15 percent the governorate, 7 percent the private sector, and 4 percent the local council (Table 3).

Perceived health authority	***Has most impact***	***Should have most impact***
Central government	69	65
Governorate	12	15
Local council	3	4
Religious authority	0	0
Private sector	7	7
Unions	0	0
Clans	0	0
Civil society	1	1
Does not know	8	7
Refuse to answer	0	1
Total	100	100

Table 3: Authority perceived to have most impact on health / authority that should have most impact

Sixty percent of respondents indicate that the authority that currently has the most impact is the authority that should have the most impact, while almost one-third (28 percent) say that a different authority should have the most impact on health from the one that currently has the most impact.

Of those who say the central government has the most impact, 20 percent believe that a different actor should have more impact. Almost half (45 percent) who believe the governorate has the most impact believe the most influential health authority should change, and of those who believe the local council has the most influence, 57 percent believe a different authority should be responsible for health services, while nearly half (48 percent) of those who think the private sector has the most impact believe another authority should bear responsibility for health.

Perceptions about which authorities are actually in charge of health vary across municipalities. For example, only 41 percent of residents of Cité El Khadra believe that the central government is in charge, compared to 89 percent of those in Mahdia (Figure 51). When asked which authority respondents believe would be best suited to oversee health care, there is also municipal-level variation. Less than one-third of those living in Silianna Ville or Souassi want the central government to be in charge, compared to the vast majority in Mahdia, Sfax Ville, and La Marsa (Figure 52).

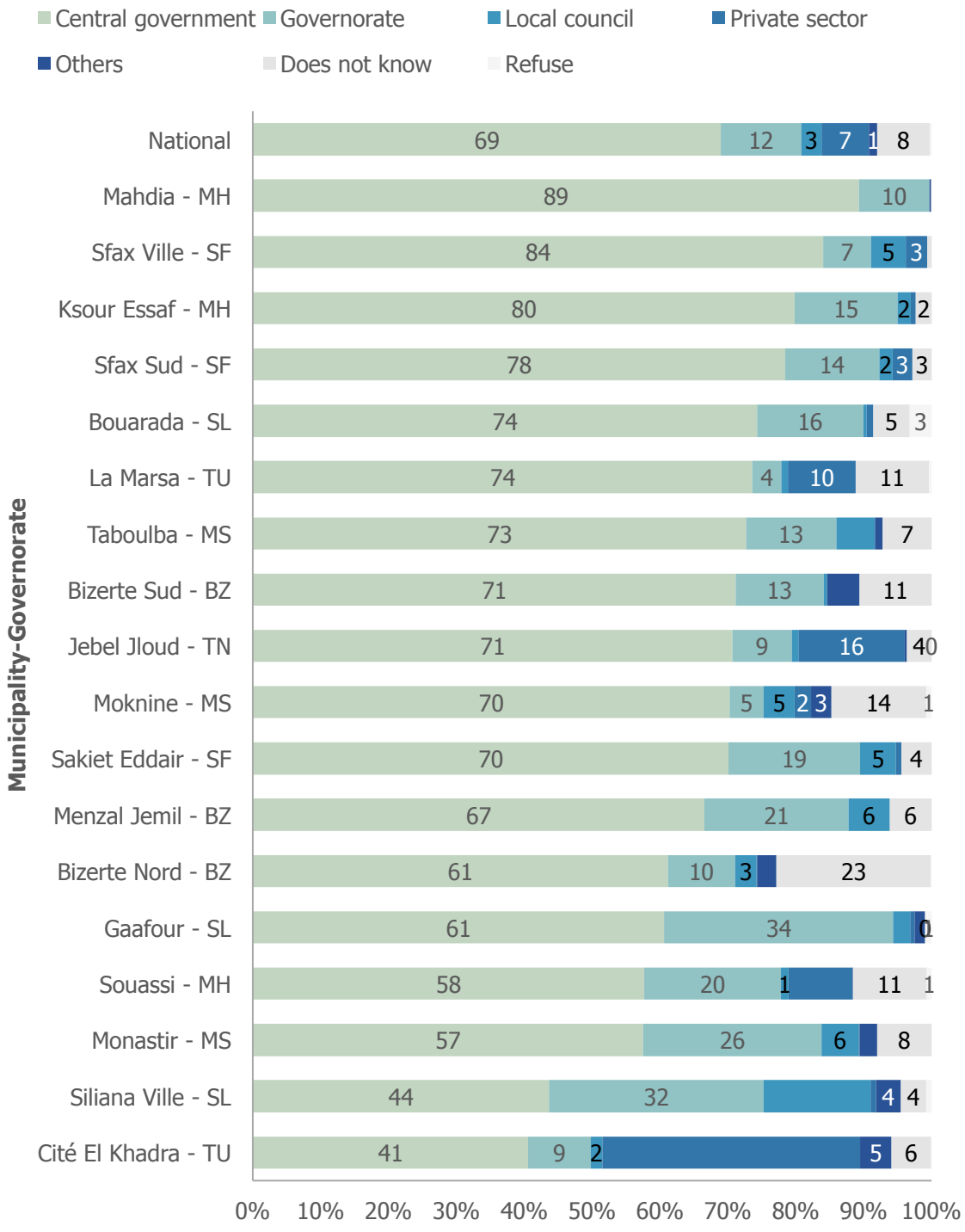


Figure 51: Authority perceived to have the most impact on health, by municipality.

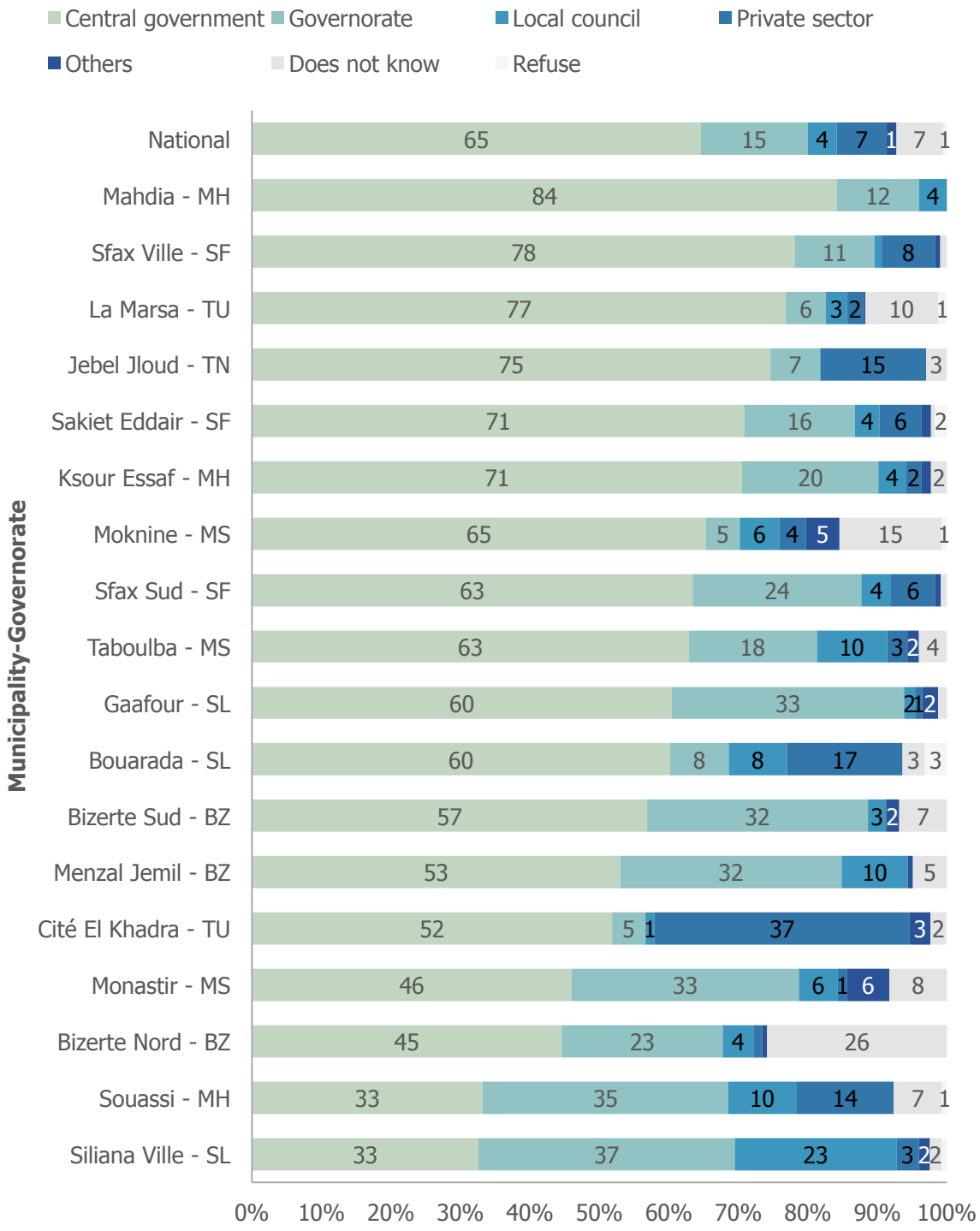


Figure 52: Preferred authority for responsibility for health, by municipality.

We also find that some respondents who spent time as outpatients in a doctor's office or clinic or as inpatients in a hospital recently said they used aktaf (or wasta, connections) in order to get better treatment. About one in five respondents who visited a doctor's office or clinic in the previous three years in four governorates reported using wasta to get better treatment, with lower

rates in Sfax (16 percent) and Bizerte (12 percent) (Figure 53). Of those who spent the night in a hospital in the previous two years, 38 percent report having used wasta to get better treatment.[28] The use of bribes is less common, with fewer than 10 percent reporting having used them during their last clinic visit in all governorates, ranging from 4 percent in Bizerte to 9 percent in Siliana (Figure 54). Of those who spent a night in a hospital in the previous two years, one in five reported having used a bribe.[29]

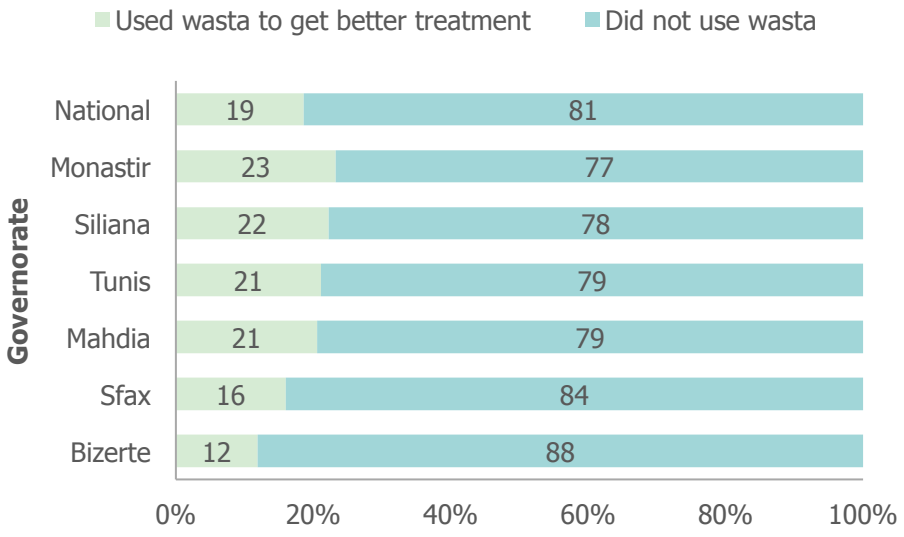


Figure 53: Use of wasta to get better treatment during last clinic visit, by governorate.

[28] Weighted N=290. Data not disaggregated by governorate.
[29] Weighted N=290. Data not disaggregated by governorate.

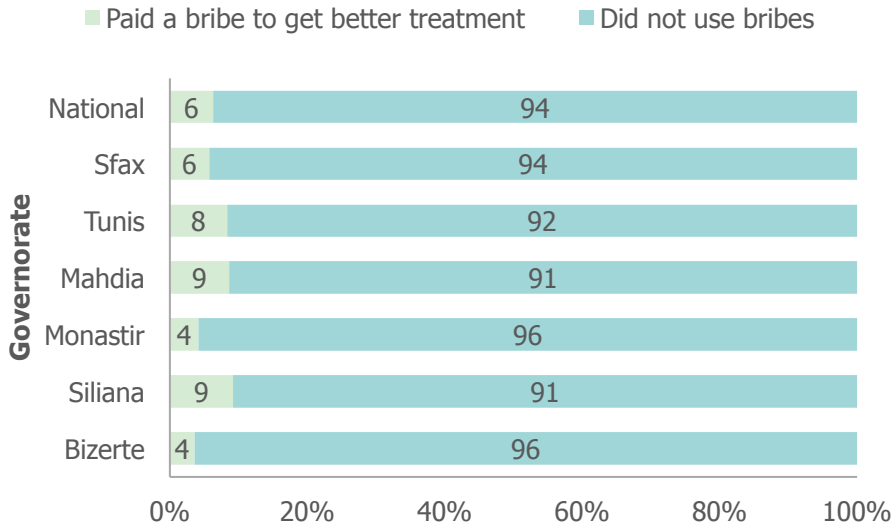


Figure 54: Payment of bribe to get better treatment during last clinic visit, by governorate.

Those who used health services for childbirth in the previous year reported having paid a bribe to get better services (35 percent, N=30) and having used wasta (53 percent, N=51) at rates similar to those of others who recently accessed the health system.

Those who report being members of the lower class report using wasta at a recent doctor or clinic visit somewhat more often than others (Figure 55), but not dramatically so, and education level does not seem to be associated with higher rates of wasta use.

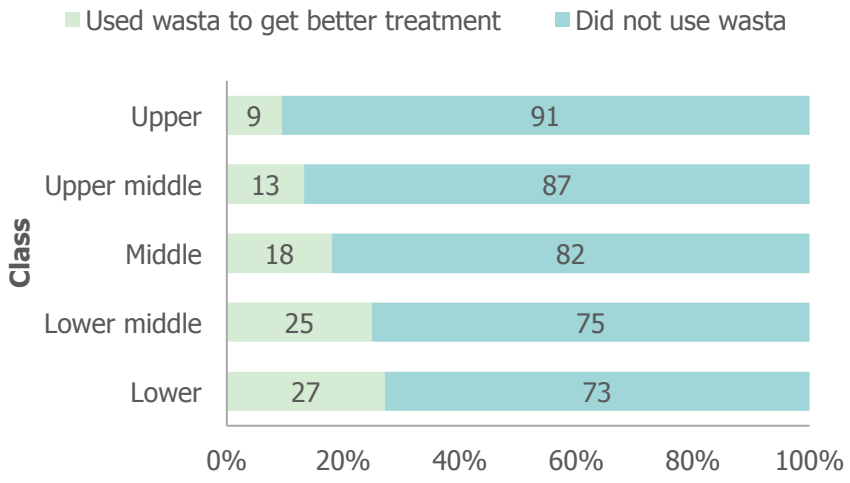


Figure 55: Use of wasta to get better treatment, by class.

This possible relationship between class and wasta is further explored using logistic regression. We explore whether wasta use is more likely in public or private clinics and for people who lack insurance (as a possible substitute for those who are uninsured to gain access to care).[30] The analyses find that age, gender, insurance type, rural milieu, and education are not associated with the use of wasta (see regression coefficients in Table 4).

However, those who visited a public clinic are more likely to use wasta. The probability that a typical respondent who visits a public clinic reports using wasta to obtain better treatment is 24 percentage points higher than an otherwise similar respondent who visits another type of clinic (military or other) (p=000). The probability that a respondent who visits a private clinic reports using wasta decreases by 19 percentage points compared to a respondent who visits a public clinic (p=.004).[31]

The use of wasta also varies by class. The probability that a respondent reports using wasta for someone who self-identifies as being part of the upper-middle class is 10 percentage points lower than for a member of the lower class (p=.079), while a member of the upper class has a probability of paying wasta 13 percentage points lower than someone in the lowest class category (p=.013). Members of the upper class are also less likely than the middle class (6 percentage points, p=.16) and the upper-middle class (3 percentage points, p=.123) to pay wasta for better treatment.

[30] The number reporting paying bribes at a clinic and the number reporting paying bribes or wasta for overnight hospital stays are too low for regression analysis.

[31] Average marginal effects calculated using the SPost13 Stata Package (Long, J. Scott, and Jeremy Freese. 2014. *Regression Models for Categorical Dependent Variables Using Stata.* 3rd ed. College Station, TX: Stata Press).

Variable	Coefficient (Standard Error)
Clinic Type (other is base case)	
Public	2.15***
	(0.26)
Private	0.81**
	(0.27)
Insurance	
CNAM	-0.06
	(0.25)
Private	-0.56
	(0.65)
Chahedat fakr	-0.50
	(0.38)
Other	-0.09
	(0.50)
Age 30 and older	-0.47
	(0.26)
Female	-0.06
	(0.37)
Rural	-0.37
	(0.25)
Education > Secondary	0.49
	(0.32)
Self-Reported Class (lower is base case)	
Lower middle	-0.34
	(0.61)
Middle	-0.46
	(0.45)
Upper middle	-0.68*
	(0.32)
Upper	-1.02
	(0.33)**
Constant	-2.68
	(0.40)
Weighted N	1,708
Significance levels: *10 percent **5 percent ***1 percent	
Dependent variable: 1 if respondent used wasta and 0 otherwise	

Table 4: Logistic regression predicting use of wasta during recent clinic visit to obtain better care.

One measure of health-system governance is the frequency of referral to private clinics.[32] This practice is often understood as an unethical way for staff in public clinics to shift patients to more lucrative private practices in which they have a personal interest. Of those Tunisians who visited a clinic or doctor in the previous year, 22 percent report having been referred to a private clinic. This varies by governorate, however, with 40 percent reporting referral to a private clinic in Siliana, 30 percent in Tunis, 25 percent in Mahdia, 23 percent in Monastir, 14 percent in Birzerte,

[32] See, for instance, Lewis, Maureen, and Guinilla Pettersson, 2009. "Governance in Health Care: Raising Performance." *Policy Research Working Paper 5074*, World Bank.

and 13 percent in Sfax (Figure 56).[33] Referrals to private clinics do not differ significantly by class, age group, education level, or rural compared with urban areas. More women (25 percent) than men (18 percent) who visited a doctor or clinic recently report having been referred to private clinics. Not surprisingly, referrals are more common in public facilities than private, with 27 percent of respondents who visited a public clinic or doctor recently reporting that they were referred to a private clinic compared with 18 percent of those who visited a private facility in the first place. Of those who used a health facility for a birth in the previous year, 42 percent (N=40) were referred to a private clinic.

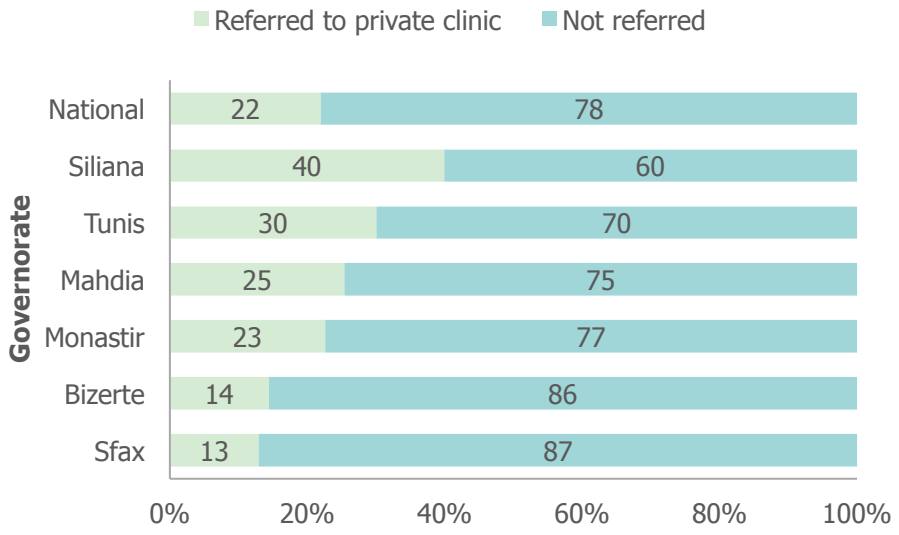


Figure 56: Referrals to private clinics in most recent clinic or doctor visit, by governorate.

7. Conclusion

Our findings vary, especially when socioeconomic status and municipality differences are taken into account. Women in their 50s who are at the bottom of the socioeconomic hierarchy are the most vulnerable. More than three-fourths of those suffering chronic disease in the sample come from lower or lower-middle class. Moreover, self-reported mental health is almost five times worse for the lower social class in comparison with the upper class. Tunisians consistently report

[33] A small sample size in Siliana (weighted N=70) and higher sampling error may account somewhat for the higher rate in Siliana, however.

important problems in the quality and governance of the health care system, yet they are also divided over who is, and should be, responsible for improving it.

The results indicate notable disparities in the quality of services that patients receive under private versus public care. Public health-care centers lag in doctor availability, duration of patient wait times, availability of proper medication, and the completion of treatment without the use of wasta. Tunisians from the lower social classes are more likely to receive lower-quality health care, as are those from less advantaged areas of the country.

Taken together, these findings suggest that while Tunisia's health-care system is strong overall, there are several areas for improvement. Steps should be taken to improve public health clinics, raising them to the level of private services. There is also clear need to improve the access to and quality of care for lower-class individuals. These needs are evident in both rural and urban areas, although they vary by region, district, and municipality. This suggests the need to target health-care improvements geographically to areas where the poor and marginalized live.

Appendix

Figure 1 Table: Types of conditions reported as a percentage of respondents with chronic illness and of overall sample

	Percent of people with chronic illness in the past year		Percent of LGPI Tunisia Sample	
	Yes	**DK/RA**	**Yes**	**DK/RA**
Any chronic condition?	18	0.31	18	0.31
HIV	0	0	0	0
Stroke	1	0	0	0
Heart attack	1	0	0	0
Chronic lung disease	1	0	0	0
Ulcers	1	0	0	0
Epilepsy or seizures	3	0	1	0
Frequent or severe headaches	5	0	1	0
Asthma	5	0	1	0
Seasonal allergies	6	0	1	0
Back or neck problems	8	0	2	0
Heart disease	9	0	2	0
Other condition	10	0	2	0
Arthritis or rheumatism	18	0	3	0
High blood pressure	31	0	6	0
Diabetes or high blood sugar	35	0	7	0

Survey questions:
(1) q602. Do you suffer from a chronic disease? Yes (1), No (2), Don't Know (DK, 96, Not read aloud), Refuses to Answer (RA, 97, Not read aloud).[35]

(2) q604. During the past 12 months, did you still have the following chronic disease?
(2.1) q604.1 Arthritis or rheumatism?
(2.2) q604.2 Back or neck problems?
(2.3) q604.3 Frequent or severe headaches?
(2.4) q604.4 Seasonal allergies?
(2.5) q604.5 Stroke?
(2.6) q604.6 Heart attack?
(2.7) q604.7 Heart disease?
(2.8) q604.8 High blood pressure?
(2.9) q604.9 Asthma?
(2.10) q604.10 Chronic lung disease?
(2.11) q604.11 Diabetes or high blood pressure?

[35] If respondents responded to the question by saying they did not know or refused to answer, interviewers were instructed to designate these responses with the codes 96 and 97, respectively, but these options were never read aloud. Subsequent question wording presented here does not repeat this option.

(2.12) q604.12 Ulcer?

(2.13) q604.13 HIV?

(2.14) q604.14 Epilepsy or seizures?

(2.15) q604.15 Cancer? (note: N too small to report in summary table)

(2.16) q604.16 Other?

Figure 2 Table: Percentage experiencing chronic illness in past year, by education level

Highest Education Level	**Does not suffer chronic illness (percent)**	**Has chronic illness(es) (percent)**	***DK/RA***	***Total***	***Weighted Count***
None	54	46	0	100	266
Primary school	70	29	1	100	855
Secondary school	87	13	0	100	1,103
Higher education	93	7	0	100	607
DK	100	0	0	100	0
RA	80	11	9	100	6
Total	**80**	**20**	**0**	**100**	**2,837**

Survey questions:
(1) q602. Do you suffer from a chronic disease? (See table for Figure1 in this appendix)
(2) q501. What is your highest level of education?
(2.1) No formal education; (2.2) Primary school; (2.3) Secondary school; (2.4) Higher education

Figure 3 Table: Percentage experiencing chronic illness in past year, by municipality

Suffers from:					
Municipality	**No Chronic Illness (percent)**	**Chronic Illness(es) (percent)**	***DK/RA***	***Total***	***Weighted Count***
Cité El Khadra - TU	91	9	0	100	157
Gaafour - SL	88	11	1	100	44
Menzal Jemil - BZ	88	12	0	100	104
Souassi - MH	88	12	0	100	85
Jebel Jloud - TN	87	13	0	100	165
Siliana Ville - SL	86	14	0	100	57
Bizerte Sud - BZ	86	14	0	100	124
Bouarada - SL	86	14	0	100	53
Ksour Essaf - MH	84	16	0	100	78
Taboulba - MS	83	17	0	100	79
Sakiet Eddair - SF	82	17	0	100	245

Bizerte Nord - BZ	82	18	0	100	175
Monastir - MS	81	18	1	100	133
La Marsa - TU	79	20	1	100	593
Sfax Sud - SF	77	23	0	100	200
Mahdia - MH	75	26	0	100	111
Sfax Ville - SF	70	30	0	100	246
Moknine - MS	61	40	0	100	188
National	**80**	**20**	**0**	**100**	**2,837**

Survey questions:
(1) q602. Do you suffer from a chronic disease? (See table for Figure1)

Figure 4 Table: Overall self-reported health, by self-reported class

Self-reported class	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**	***RA***	***Total***	***Weighted Count***
Lower	4	34	27	19	17	0	100	338
Lower-middle	11	39	33	12	5	0	100	463
Middle	19	55	23	3	0	0	100	1,448
Upper-middle	29	58	12	2	0	0	100	414
Upper	36	42	17	5	0	0	100	161
DK	16	18	39	27	0	0	100	11
RA	16	0	84	0	0	0	100	2
Total	**18**	**49**	**23**	**6**	**3**	**0**	**100**	**2,837**

Survey questions:
(1) q601. In general, how would you rate your overall health?
(1.1) very good; (1.2) good; (1.3) fair; (1.4) poor; (1.5) very poor;
(2) q1304. Which social class do you belong to?
(2.1) Lower class; (2.2) Lower-middle class; (2.3) Middle class; (2.4) Upper-middle class; (2.5) Upper class;

Figure 5 Table: Overall self-reported health, by education level

Education Level	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**	***RA***	***Total***	***Weighted Count***
None	5	32	24	23	15	0	100	266
Primary	11	41	34	10	4	0	100	855
Secondary	21	54	21	2	1	0	100	1.103
Higher education	28	60	12	1	0	0	100	607
DK	100	0	0	0	0	0	100	0

RA	31	49	20	0	0	0	100	6
Total	**18**	**49**	**23**	**6**	**3**	**0**	**100**	**2.837**

Survey questions: See tables for Figure 4 and Figure 2

Figure 6 Table: Overall self-reported health, by municipality

Municipality	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**	***RA***	***Total***	***Weighted Count***
Moknine - MS	7	37	34	19	2	0	100	188
Ksour Essaf - MH	8	69	18	4	0	0	100	78
La Marsa - TU	9	47	23	11	9	0	100	593
Gaafour - SL	13	50	34	2	0	0	100	44
Sakiet Eddair - SF	16	55	19	4	6	0	100	245
Taboulba - MS	17	44	35	3	1	0	100	79
Bouarada - SL	17	68	10	5	1	0	100	53
Monastir - MS	18	59	20	3	0	0	100	133
Mahdia - MH	20	45	26	8	1	0	100	111
Souassi - MH	20	60	14	4	1	0	100	85
Sfax Ville - SF	21	38	38	2	1	0	100	246
Bizerte Sud - BZ	22	53	23	3	0	0	100	124
Jebel Jloud - TN	24	64	12	0	0	0	100	165
Sfax Sud - SF	24	47	21	7	2	0	100	200
Bizerte Nord - BZ	25	46	22	7	0	0	100	175
Cité El Khadra - TU	27	57	15	1	0	0	100	157
Siliana Ville - SL	29	28	33	8	1	0	100	57
Menzal Jemil - BZ	35	47	15	2	0	0	100	104
National	**18**	**49**	**23**	**6**	**3**	**0**	**100**	**2,837**

Survey question: See table for Figure 4.

Figure 7 Table: Overall self-reported health, by insurance coverage

Type of medical insurance, if any	Very good	Good	Fair	Poor	Very poor	*RA*	*Total*	*Weighted count*
Chahedat fakr (poverty certificate)	6	36	12	14	32	0	100	125
No insurance	14	41	33	9	3	0	100	843
CNAM	19	55	20	5	1	0	100	1,454
Private insurance	26	54	19	1	0	0	100	278
Other insurance	31	39	21	7	2	0	100	68
DK	24	49	16	10	0	0	100	65
RA	15	81	4	0	0	0	100	3
Total	**18**	**49**	**23**	**6**	**3**	**0**	**100**	**2,837**

Survey questions: For overall health, see table for Figure 4.
(1) q621. Are you covered by medical insurance?
(1) Yes, (2) No.
(2) q622. What kind of medical insurance do you receive?
(2.1) CNAM (2.2) Private health coverage, (2.3) chahedat fakr (poverty certificate), (2.4) Other.
Note: The above two questions were combined to create a composite variable that includes uninsured.

Figure 8 Table: Self-reported mental health status, by class

Class self-reported	Very good	Good	Fair	Poor	Very poor	*DK*	*Total*	*Weighted count*
Lower	5	28	20	27	19	0	100	338
Lower-middle	9	39	35	11	7	0	100	463
Middle	18	55	23	3	0	0	100	1,448
Upper-middle	26	59	13	2	0	0	100	414
Upper	32	36	27	5	0	0	100	161
DK	16	10	57	17	0	0	100	11
RA	0	16	84	0	0	0	100	2
Total	17	48	24	7	4	0	100	2,837

Survey questions:
(1) q606. In general, how would you rate your overall mental health?
(1) Very good, (2) good, (3) fair, (4) poor, (5) very poor.
For class, see Table for Figure 4.

Figure 9 Table: Self-reported mental health status, by education level

Education level	Very good	Good	Fair	Poor	Very poor	*DK*	*Total*	*Weighted count*
None	8	31	30	17	14	0	100	266
Primary	11	40	31	14	5	0	100	855
Secondary	20	54	21	3	2	0	100	1,103
Higher education	25	57	16	1	1	0	100	607
DK	0	0	100	0	0	0	100	0
RA	31	49	20	0	0	0	100	6
Total	**17**	**48**	**24**	**7**	**4**	**0**	**100**	**2,837**

Survey questions: See Tables for Figure 2 and Figure 8.

Figure 10 Table: Self-reported mental health, by age

Age group	Very good	Good	Fair	Poor	Very poor	*DK*	*Total*	*Weighted Count*
18–30	24	51	19	6	2	0	100	809
31–39	18	46	23	7	5	0	100	744
40–49	12	46	29	9	3	0	100	679
50 and older	13	49	26	7	4	0	100	604
Total	**17**	**48**	**24**	**7**	**4**	**0**	**100**	**2,837**

Survey questions: For self-reported mental health, see table for Figure 8.
(1) q100: What year were you born? (Age computed)

Figure 11 Table: Self-reported mental health, by governorate

Governorate	Very good	Good	Fair	Poor	Very poor	*DK*	*Total*	*Weighted count*
Monastir	10	41	38	11	1	0	100	401
Tunis	13	51	19	8	9	0	100	915
Mahdia	15	48	30	6	1	0	100	274
Siliana	16	46	30	6	2	0	100	154
Sfax	21	48	22	8	2	0	100	691
Bizerte	29	52	16	3	0	0	100	403
National	**17**	**48**	**24**	**7**	**4**	**0**	**100**	**2,837**

Survey questions: For self-reported mental health, see Table for Figure 8.

Figure 12 Table: Self-reported mental health, by municipality

Municipality	Very good	Good	Fair	Poor	Very poor	*DK*	*Total*	*Weighted count*
Moknine - MS	3	37	45	14	1	0	100	175
Gaafour - SL	6	38	46	8	1	0	100	124
La Marsa - TU	8	47	19	12	13	0	100	104
Ksour Essaf - MH	9	62	26	3	0	0	100	57
Bouarada - SL	11	67	14	4	3	0	100	53
Monastir - MS	12	48	31	9	0	0	100	44
Mahdia - MH	14	42	36	8	0	0	100	133
Sakiet Eddair - SF	14	55	20	6	5	0	100	79
Jebel Jloud - TN	21	66	13	0	0	0	100	188
Bizerte Sud - BZ	21	58	19	2	0	1	100	85
Souassi - MH	22	44	25	6	3	0	100	78
Cité El Khadra - TU	23	49	26	2	0	0	100	111
Sfax Sud - SF	23	48	21	6	1	0	100	157
Taboulba - MS	24	36	34	5	1	0	100	165
Sfax Ville - SF	25	40	24	11	0	0	100	593
Siliana Ville - SL	28	34	31	6	1	0	100	245

Bizerte Nord - BZ	32	47	17	4	0	0	100	200
Menzal Jemil - BZ	32	53	10	4	0	0	100	246
National	**17**	**48**	**24**	**7**	**4**	**0**	**100**	**2,837**

Survey questions: For self-reported mental health, see Table for Figure 8.

Figure 13 Table: Unmet health needs, by age group

Age Group	None	One or more unmet needs	Unmet medical needs	Unmet dental needs	*Weighted count*
18–30	82	18	16	11	884
31–39	68	32	29	22	769
40–49	69	31	26	20	681
50 and older	76	24	27	21	772
DK/RA					
Total	**74**	**26**	**24**	**18**	**311**

Survey questions: For age see Figure 10.
(1) q620. Do you or anyone in your household living here have any health-care needs that you are not able to attend to, regarding:…
(2) q620.1 Medical health: (1) Yes (2) No;
(3) q620.2 Dental health: (1) Yes (2) No;
(4) q620.3 Hearing: (1) Yes (2) No;
(5) q620.4 Mental health: (1) Yes (2) No;
(6) q620.5 Contraception: (1) Yes (2) No;
Note: Compiles from question 620. Number of respondents reporting hearing, mental-health, and contraceptive needs too small to report by demographic variables such as age.

Figure 14 Table: Unmet health needs, by class

Class Self-Reported	None	One or more unmet needs	Medical	Dental	Hearing	Contraception	*Weighted Count*
Lower	18	82	78	61	12	6	348
Lower-middle	57	43	42	26	2	1	501
Middle	85	15	12	10	1	0	1,600
Upper-middle	94	6	4	5	0	0	506
Upper	83	17	16	12	6	0	169
DK	34	66	49	0	0	0	11
RA	10	90	0	90	0	0	2
Total	**74**	**26**	**24**	**18**	**3**	**1**	**3,100**

Survey questions:
For unmet health needs, see table for Figure 13.
For class, see table for Figure 4.

Figure 15 Table: Unmet health needs, by governorate

Governorate	None	One or more unmet needs	Medical	Dental	Hearing	Contraception	*Weighted count*
Bizerte	85	15	13	5	0	0	433
Siliana	62	39	38	29	4	2	173
Monastir	62	38	31	29	5	0	421
Mahdia	78	22	16	16	2	0	274
Tunis	73	27	28	23	3	1	1,095
Sfax	77	23	21	10	2	1	710
Total	**74**	**26**	**24**	**18**	**3**	**1**	**3,106**

Survey questions: For unmet health needs, see table for Figure 13.

Figure 16: Unmet health needs, by municipality

Municipality	None	One or more unmet needs	Medical	Dental	Hearing	Contraception	DK/ refuse	*Total*	*Weighted count (for unmet overall health needs)*
Cité El Khadra TU	97	3	4	3	0	0	0	100	206
Jebel Jloud TN	89	11	12	0	0	0	0	100	124
Monastir MS	87	13	8	10	0	0	0	100	104
Bizerte Sud BZ	86	14	13	2	1	0	0	100	66
Bizerte Nord BZ	86	14	13	7	0	0	0	100	63
Menzal Jemil BZ	83	17	14	6	1	0	0	100	44
Ksour Essaf MH	80	20	14	16	0	0	0	100	147
Souassi MH	78	22	18	14	4	0	0	100	86
Sakiet Eddair SF	78	22	21	15	1	1	0	100	188
Mahdia MH	77	23	16	16	1	1	0	100	85
Sfax Ville SF	76	24	22	7	4	0	0	100	78
Siliana Ville SL	76	24	23	16	3	1	0	100	111
Sfax Sud SF	76	24	19	10	1	4	0	100	247
Taboulba MS	68	32	18	28	3	0	0	100	173
Gaafour SL	62	38	35	14	9	2	0	100	675
La Marsa TU	61	39	39	35	4	2	0	100	264
Bouarada SL	46	54	58	55	2	2	0	100	200
Moknine MS	41	59	54	43	10	0	0	100	246
National	**74**	**26**	**24**	**18**	**3**	**1**	**0**	**100**	**3,106**

Survey questions: For unmet health needs see table for Figure 13.

Figure 17 Table: Type of insurance, by gender

Respondent gender	None	CNAM	Private	Chahedat fakr (poverty certificate)	Other	*DK*	*RA*	*Total*	*Weighted count*
Male	33	46	9	6	2	3	0	100	1,209
Female	27	55	10	3	2	1	0	100	1,628
Total	**30**	**51**	**10**	**4**	**2**	**2**	**0**	**100**	**2,837**

Survey questions: See table for Figure 7.
(1) q102. Sex (recorded, not asked): (1) Male (2) Female;

Figure 18 Table: Type of insurance, by class

Class self-reported	None	CNAM	Private	Chahedat fakr (poverty certificate)	Other	*DK*	*RA*	*Total*	*Weighted count*
Lower	45	25	3	24	1	2	0	100	338
Lower middle	49	37	4	4	2	5	0	100	463
Middle	25	58	11	1	3	2	0	100	1,448
Upper middle	13	68	14	0	2	3	0	100	414
Upper	24	50	16	4	5	1	0	100	161
DK	75	25	0	0	0	0	0	100	11
RA	84	16	0	0	0	0	0	100	2
Total	**30**	**51**	**10**	**4**	**2**	**2**	**0**	**100**	**2,837**

Survey questions: See tables for Figure 4 and Figure 7.

Figure 19: Type of insurance, by education level

Education level	None	CNAM	Private	Chahedat fakr (poverty certificate)	Other	*DK*	*RA*	*Total*	*Weighted count*
None	31	37	5	25	1	3	0	100	266
Primary	41	41	6	5	3	3	0	100	855
Secondary	29	55	10	1	2	2	0	100	1,103
Higher education	15	65	16	0	2	2	0	100	607
DK	0	0	0	0	100	0	0	100	0

RA	23	46	0	31	0	0	0	100	6
Total	**30**	**51**	**10**	**4**	**2**	**2**	**0**	**100**	**2,837**

Survey questions: See tables for Figure 7 and Figure 2.

Figure 20: Uninsured family members, by municipality

Municipality-governorate	Family insured	One or more uninsured family members	*DK*	*RA*	*Total*	*Weighted count*
Bizerte Sud - BZ	90	9	1	0	100	124
Ksour Essaf - MH	89	11	1	0	100	78
Siliana Ville - SL	85	12	3	0	100	57
Gaafour - SL	82	15	3	0	100	44
Menzal Jemil - BZ	82	15	3	0	100	104
Cité El Khadra - TU	83	16	1	0	100	157
Monastir - MS	83	17	1	0	100	133
Jebel Jloud - TN	75	17	8	0	100	165
Bizerte Nord - BZ	82	18	0	0	100	175
Mahdia - MH	81	18	0	0	100	111
Sakiet Eddair - SF	71	19	10	0	100	245
La Marsa - TU	70	29	0	0	100	593
Souassi - MH	70	30	0	0	100	85
Taboulba - MS	69	30	1	0	100	79
Sfax Ville - SF	65	31	4	0	100	246
Sfax Sud - SF	53	39	8	0	100	200
Bouarada - SL	48	51	2	0	100	53
Moknine - MS	33	60	8	0	100	188
National	**71**	**26**	**3**	**0**	**100**	**2,837**

Survey questions:
(1) q623. Are there people in your family who are unable to obtain health insurance coverage?
(1) Yes; (2) No

Figure 21: Timing of last visit to clinic or doctor

Class self-reported	Visited doctor in past year	Visited doctor in past 2–3 years	Visited doctor more than 3 years ago	Never visited doctor	*Total*	*Weighted count*
Lower	40	10	16	34	100	330
Lower middle	54	7	20	19	100	452
Middle	59	9	15	17	100	1,404

Upper middle	51	12	18	19	100	406
Upper	52	13	14	22	100	159
DK	91	0	9	0	100	11
RA	16	0	10	74	100	2
Total	**54**	**10**	**16**	**20**	**100**	**2,765**

Survey questions: For class, see table for Figure 4.
(1) q615. How long has it been since you visited a health clinic or medical doctor for care, either for yourself or accompanying others?
(1) Last year, (2) Between 1 and 3 years ago, (3) More than 3 years ago, (4) Never.

Figure 22: Timing of last visit to clinic or doctor, by self-reported health status

Overall health	Visited doctor in past year	Visited doctor in past 2-3 years	Visited doctor more than 3 years ago	Never visited doctor	*Total*	*Weighted count*
Very good	41	10	20	29	100	498
Good	56	9	15	20	100	1,376
Fair	63	12	13	12	100	636
Poor	54	7	20	20	100	171
Very poor	41	1	28	29	100	84
RA	0	0	100	0	100	0
Total	**54**	**10**	**16**	**20**	**100**	**2,765**

Survey questions: See tables for Figure 4 and Figure 20.

Figure 23: Location of clinic or doctor visited by governorate

Governorate	Facility outside municipality	Facility inside municipality	Does not know		*Total*	*Weighted count*
Mahdia	14	49	36	0	100	274
Siliana	15	31	55	0	100	154
Monastir	22	50	28	0	100	401
Tunis	23	33	45	0	100	915
Sfax	24	36	40	0	100	691
Bizerte	33	44	24	0	100	403
National	**23**	**39**	**38**	**0**	**100**	**2,837**

Survey questions:
(1) q615.2. Was this doctor or clinic in this municipality?
(1)Yes, (2) No.

Figure 24: Location of last doctor or clinic visited, by municipality

Municipality	Facility outside municipality	Facility inside municipality	Does not know	*Total*	*Weighted count*
Mahdia - MH	4	65	31	100	111
Siliana Ville - SL	8	59	32	100	57
Monastir - MS	8	63	28	100	133
Bouarada - SL	14	11	75	100	53
La Marsa - TU	17	39	44	100	593
Souassi - MH	19	53	28	100	85
Sfax Sud - SF	22	40	36	100	200
Gaafour - SL	23	17	60	100	44
Ksour Essaf - MH	23	24	53	100	78
Sakiet Eddair - SF	24	19	58	100	245
Bizerte Nord - BZ	25	53	22	100	175
Sfax Ville - SF	25	50	25	100	246
Jebel Jloud - TN	27	21	52	100	165
Bizerte Sud - BZ	27	52	21	100	124
Taboulba - MS	29	33	38	100	79
Moknine - MS	29	48	22	100	188
Cité El Khadra - TU	39	20	41	100	157
Menzal Jemil - BZ	53	18	29	100	104
National	**23**	**39**	**38**	**100**	**2,837**

Survey questions: See table for Figure 23.

Figure 25: Location of last hospital visited, by governorate

Governorate	Facility inside municipality	Facility outside municipality	*Total*	*Weighted count*
Bizerte	47	53	100	68
Siliana	52	48	100	37
Monastir	66	34	100	92
Mahdia	69	31	100	55
Tunis	59	41	100	133
Sfax	54	46	100	115
National	**58**	**42**	**100**	**499**

Survey questions:
(1) q614.4 Was this hospital in this municipality?
(1) Yes, (2) No.

Figure 26: Reasons given for visiting a clinic or doctor, overall and by gender

Composite table:			
***(1) q615.4* Reasons for visiting a clinic or doctor**	**Overall (percent)**	**Men (percent)**	**Women (percent)**
Proximity	42	37	46
Quality	33	27	37
Cost	23	19	26
Ties to staff	17	13	20
Informal ties	8	7	9

Source tables					
(2) q615.4.1 Reason: Closest facility	**Percent**	***Weighted count***			
No (percent)	45	905			
Yes (percent)	42	858			
DK/RA	13	269			
Total	100	2,032			
Respondent gender	**No (percent)**	**Yes (percent)**	***DK/RA***	***Total***	***Weighted count***
Male	41	37	23	100	890
Female	48	46	6	100	1,143
Total	45	42	13	100	2,032
(3) q615.4.2 Reason: Known for high-quality care	**Percent**	***Weighted count***			
No (percent)	54	1,100			
Yes (percent)	33	663			
DK/RA	13	269			
Total	100	2,032			
Respondent gender	**No (percent)**	**Yes (percent)**	***DK/RA***	***Total***	***Weighted count***
Male	51	27	23	100	890
Female	57	37	6	100	1,143
Total	54	33	13	100	2,032
(4) q615.4.3 Reason: It is not too expensive	**Weighted**	***Weighted count***			

No (percent)	64	1,296			
Yes (percent)	23	467			
DK/RA	13	269			
Total	100	2,032			
Respondent gender	**No (percent)**	**Yes (percent)**	***DK/RA***	***Total***	***Weighted count***
Male	58	19	23	100	890
Female	68	26	6	100	1,143
Total	64	23	13	100	2,032
(5) q615.4.4 Reason: Know doctors or nurses	**Weighted**	***Weighted count***			
No (percent)	69	1,411			
Yes (percent)	17	352			
DK/RA	13	269			
Total	100	2,032			
Respondent gender	**No (percent)**	**Yes (percent)**	***DK/RA***	***Total***	***Weighted count***
Male	64	13	23	100	890
Female	74	20	6	100	1,143
Total	69	17	13	100	2,032
(6) q615.4.5 Reason: Know gatekeepers	**Weighted**	***Weighted count***			
No (percent)	78	1,592			
Yes (percent)	8	171			
DK/RA	13	269			
Total	100	2,032			
Respondent gender	**No (percent)**	**Yes (percent)**	***DK/RA***	***Total***	***Weighted count***
Male	70	7	23	100	890
Female	85	9	6	100	1,14
Total	**78**	**8**	**13**	**100**	**2,032**

Survey questions:

(1) q615.4 For each of the following, is it a reason you went to this doctor or clinic?

(2) q615.4.1 It was the closest facility: (1) Yes, (2) No;

(3) q615.4.2 It is known for high-quality care: (1) Yes, (2) No;

(4) q615.4.3 It is not too expensive: (1) Yes, (2) No;

(5) q615.4.4 You know doctors or nurses who work in it: (1) Yes, (2) No;

Figure 27: Reasons for visiting a clinic or doctor, by self-reported class

Reasons to visit a clinic or doctor	Lower class	Lower-middle class	Middle class	Upper-middle class
Proximity	46	50	47	35
Quality	18	9	35	52
Cost	36	35	22	15
Ties to staff	4	7	19	25
Informal ties	13	6	8	18

Source tables

Class self-reported	No	Yes	*DK/RA*	*Total*
Lower	48	46.09	5.71	100
Lower-middle	38	50.31	12.07	100
Middle	42	46.62	11.26	100
Upper-middle	52	21.71	26.42	100
Upper	57	35.02	7.83	100
DK	62	38.44	0.00	100
RA	100	0.00	0.00	100
Total	**45**	**42.20**	**13.25**	**100**

(2) q615.4.2 Reason: Known for high-quality care

Class self-reported	No	Yes	*DK/RA*	*Total*
Lower	76	18	6	100
Lower-middle	79	9	12	100
Middle	53	35	11	100
Upper-middle	28	45	26	100
Upper	40	52	8	100
DK	29	71	0	100
RA	0	100	0	100
Total	**54**	**33**	**13**	**100**

(3) q615.4.3 Reason: It is not too expensive

Class self-reported	No	Yes	*DK/RA*	*Total*

Lower	58	36	6	100
Lower-middle	53	35	12	100
Middle	67	22	11	100
Upper-middle	62	12	26	100
Upper	78	15	8	100
DK	100	0	0	100
RA	100	0	0	100
Total	**64**	**23**	**13**	**100**
(4) q615.4.4 Reason: Know doctors or nurses				
Lower	90	4	6	100
Lower-middle	81	7	12	100
Middle	69	19	11	100
Upper-middle	49	25	26	100
Upper	68	25	8	100
DK	90	10	0	100
RA	100	0	0	100
Total	**69**	**17**	**13**	**100**
(5) q615.4.5 Reason: Know gatekeepers				
Lower	81	13	6	100
Lower-middle	81	6	12	100
Middle	81	8	11	100
Upper-middle	67	7	26	100
Upper	75	18	8	100
DK	100	0	0	100
RA	100	0	0	100
Total	**78**	**8**	**13**	**100**

Figure 28: Perceived quality of medical care at nearest public government hospital, by governorate

Governorate	Very good	Good	Poor	Very bad	Does not know	*RA*	*Total*	*Weighted count*
Monastir	6	40	29	18	7	0	100	401
Bizerte	2	20	52	19	7	0	100	403
Siliana	4	34	33	25	3	0	100	154
Sfax	4	15	38	38	5	0	100	691
Tunis	3	16	33	38	11	0	100	915
Mahdia	2	16	37	42	2	1	100	274
National	**3**	**21**	**37**	**32**	**7**	**0**	**100**	**2,837**

Survey questions:
q617. How good do you believe the quality of medical care is at...
Q617.1 ...the general public hospital nearest you?

Figure 29: Perceived quality of care at nearest public government hospital, by municipality

Municipality	Very good	Good	Poor	Very bad	Does not know	*RA*	*Total*	*Weighted count*
Gaafour - SL	1	54	33	10	3	0	100	44
Moknine - MS	5	42	31	15	7	0	100	188
Bizerte Sud - BZ	2	20	57	15	5	0	100	124
Bouarada - SL	7	41	28	18	7	0	100	53
Menzal Jemil - BZ	1	17	51	18	13	0	100	104
Ksour Essaf - MH	4	30	42	19	4	0	100	78
Monastir - MS	8	48	17	19	7	0	100	133
Jebel Jloud - TN	2	28	43	22	5	0	100	165
Bizerte Nord - BZ	2	22	48	22	5	0	100	175
Taboulba - MS	4	20	46	24	6	0	100	79
Sakiet Eddair - SF	7	13	44	27	9	0	100	245
Sfax Sud - SF	0	25	31	38	7	0	100	200
Souassi - MH	1	11	45	38	4	2	100	85
La Marsa - TU	3	15	30	39	12	0	100	593
Siliana Ville - SL	3	13	39	44	1	0	100	57
Sfax Ville - SF	4	9	39	48	1	0	100	246
Cité El Khadra - TU	1	4	32	48	15	0	100	157
Mahdia - MH	2	11	26	61	0	0	100	111
National	**3**	**21**	**37**	**32**	**7**	**0**	**100**	**2,837**

Survey question: See table for Figure 27.

Figure 30: Perceived quality of care at nearest private hospital, by municipality

Municipality	Very good	Good	Poor	Very bad	Does not know	Refuses	*Total*	*Weighted count*
Souassi - MH	2	23	10	1	60	3	100	85
Moknine - MS	7	43	5	4	40	1	100	188
Gaafour - SL	12	40	3	1	43	0	100	44
Siliana Ville - SL	13	21	12	15	39	0	100	57
Jebel Jloud - TN	13	60	7	7	12	0	100	165
Bouarada - SL	14	4	2	4	76	0	100	53
Menzal Jemil - BZ	17	22	7	8	45	0	100	104
Monastir - MS	21	34	8	1	36	0	100	133
Mahdia - MH	22	45	6	5	22	0	100	111
Ksour Essaf - MH	22	37	6	1	34	0	100	78
Bizerte Sud - BZ	26	37	5	5	26	0	100	124
Taboulba - MS	27	27	7	3	35	0	100	79
Sfax Ville - SF	29	53	8	0	10	0	100	246
Cité El Khadra - TU	33	52	5	1	9	0	100	157
La Marsa - TU	34	40	5	0	19	2	100	593
Bizerte Nord - BZ	36	33	6	4	21	0	100	175
Sakiet Eddair - SF	38	42	2	1	17	0	100	245
Sfax Sud - SF	46	42	1	1	10	0	100	200
National	**27**	**40**	**6**	**3**	**24**	**1**	**100**	**2.837**

Survey questions:
(1) q617. How good do you believe the quality of medical care is at...
(2) q617.3 …the private hospital nearest you?

Figure 31: Perceived quality of care at nearest public clinic, by governorate

Governorate	Very good	Good	Poor	Very bad	*Does not know*	*Refuse*	*Total*	*Weighted count*
Siliana	14	28	8	8	43	0	100	154
Mahdia	15	40	12	13	19	1	100	274
Monastir	15	37	13	4	32	0	100	401
Tunis	24	41	11	3	20	2	100	915
Bizerte	29	42	8	2	18	0	100	403
Sfax	35	40	5	1	19	1	100	691
National	**24**	**40**	**9**	**4**	**23**	**1**	**100**	**2,837**

Survey questions:
(1) q617. How good do you believe the quality of medical care is at...?
(2) q617.5 The nearest public clinic.

Figure 32: Perceived quality of care at nearest public clinic by municipality

Municipality	Very good	Good	Poor	Very bad	*Does not know*	*Refuse*	*Total*	*Weighted Count*
Jebel Jloud - TN	4	65	9	11	12	0	100	165
Moknine - MS	6	49	9	0	35	0	100	188
Ksour Essaf - MH	8	55	9	0	28	0	100	78
Cité El Khadra - TU	9	40	15	5	30	2	100	157
Souassi - MH	9	23	21	30	15	2	100	85
Siliana Ville - SL	11	33	14	16	26	0	100	57
Gaafour - SL	14	43	6	1	36	0	100	44
Bouarada - SL	17	9	2	3	68	0	100	53
Taboulba - MS	17	17	27	11	28	0	100	79
Mahdia - MH	23	43	7	9	17	0	100	111
Menzal Jemil - BZ	25	40	10	1	25	0	100	104
Monastir - MS	25	31	10	4	30	0	100	133
Sakiet Eddair - SF	27	32	8	1	29	3	100	245
Bizerte Sud - BZ	27	53	4	0	16	0	100	124
Sfax Ville - SF	30	50	4	0	15	0	100	246
La Marsa - TU	33	35	10	0	20	2	100	593
Bizerte Nord - BZ	33	37	10	4	16	0	100	175
Sfax Sud – SF	50	36	1	1	12	0	100	200
National	**24**	**40**	**9**	**4**	**23**	**1**	**100**	**2,837**

Survey questions: See table for Figure 30.

Figure 33: Perceived quality of care at a private doctor or clinic, by municipality

Municipality	Very good	Good	Poor	Very bad	Does not know	Refuse	*Total*	*Weighted count*
Souassi - MH	5	42	27	3	19	3	100	85
Jebel Jloud - TN	6	56	20	9	9	0	100	165
Gaafour - SL	7	40	12	2	39	0	100	44
Moknine - MS	10	50	5	0	34	0	100	188
Bouarada - SL	14	63	8	2	14	0	100	53
Cité El Khadra - TU	14	45	14	3	24	0	100	157
Ksour Essaf - MH	16	53	13	0	19	0	100	78
Siliana Ville - SL	16	45	12	16	11	0	100	57
Taboulba - MS	21	36	14	3	27	0	100	79
Sakiet Eddair - SF	28	37	8	2	24	1	100	245

Bizerte Sud - BZ	28	55	4	1	12	0	100	124
Menzal Jemil - BZ	29	38	9	1	24	0	100	104
Monastir - MS	29	40	7	1	24	0	100	133
Mahdia - MH	33	47	3	6	12	0	100	111
Sfax Ville - SF	34	55	2	0	9	0	100	246
La Marsa - TU	37	43	4	0	13	2	100	593
Bizerte Nord - BZ	38	46	3	0	13	0	100	175
Sfax Sud - SF	49	39	1	0	10	0	100	200
National	**27**	**46**	**7**	**2**	**17**	**1**	**100**	**2,837**

Survey questions:
(1) q617. How good do you believe the quality of medical care is at...
(2) q617.4 …a private doctor or clinic?

Figure 34: Perceived quality of care at a local healer, by municipality

Municipality	**Very good**	**Good**	**Poor**	**Very bad**	***Does not know***	***Refuse***	***Total***	***Weighted count***
Jebel Jloud - TN	3	65	10	11	12	0	100	165
Bouarada - SL	3	53	2	1	39	2	100	53
Cité El Khadra - TU	7	35	16	3	39	0	100	157
Ksour Essaf - MH	7	29	14	0	50	0	100	78
Moknine - MS	7	56	12	4	22	0	100	188
Bizerte Sud - BZ	9	51	10	0	29	0	100	124
Monastir - MS	10	39	7	0	43	0	100	133
Souassi - MH	11	51	9	5	22	2	100	85
Bizerte Nord - BZ	14	36	5	1	42	2	100	175
Siliana Ville - SL	15	50	14	15	6	0	100	57
Sfax Ville - SF	19	42	15	1	23	0	100	246
Sfax Sud - SF	19	31	5	2	43	0	100	200
La Marsa - TU	23	29	10	2	30	6	100	593
Menzal Jemil - BZ	23	39	9	0	29	0	100	104
Sakiet Eddair - SF	26	37	6	0	30	2	100	245
Taboulba - MS	26	25	11	10	29	0	100	79
Mahdia - MH	27	24	10	8	31	0	100	111
Gaafour - SL	49	41	3	1	7	0	100	44
National	**17**	**39**	**10**	**3**	**30**	**2**	**100**	**2,837**

Survey questions:
(1) q617. How good do you believe the quality of medical care is at...
(2) q617.7 …a local healer?

Figure 35: Perceived quality of care for different providers

Composite Table:

Rating of quality of medical care at different facilities	Very good	Good	Poor	Very Bad	DK	RA
Government public hospital	3	21	37	32	7	0
Private hospital	27	40	6	3	24	1
Public clinic	24	40	9	4	23	1
Private doctor or clinic	27	46	7	2	17	1
Pharmacist	38	51	4	2	5	1
Local healer	17	39	10	3	30	2

Source tables: *(1) q617. How good do you believe the quality of medical care is at....?*

(1.1) q617.1 The general public hospital nearest you	**Percent**	***Weighted count***
Very good	3	94
Good	21	584
Poor	37	1.042
Very bad	32	908
DK	7	207
RA	0	2
Total	**100**	**2.837**

(1.2) q617.4 The private hospital nearest you	**Percent**	***Weighted count***
Very good	27	768
Good	40	1.138
Poor	6	158
Very bad	3	74
DK	24	682
RA	1	17
Total	**100**	**2.837**

(1.3) q617.4 A private doctor or clinic	**Percent**	***Weighted count***
Very good	27	780
Good	46	
Poor	7	208
Very bad	2	54
DK	17	482
RA	1	19
Total	100	2.837

(1.4) q617.5 A public clinic nearest you	**Percent**	***Weighted count***
Very good	24	692
Good	40	1.121
Poor	9	258

Very bad	4	104
DK	23	639
RA	1	23
Total	**100**	**2.837**
(1.5) q617.6 A pharmacist nearest you	**Percent**	***Weighted count***
Very good	38	1.076
Good	51	1.445
Poor	4	102
Very bad	2	48
DK	5	152
RA	1	15
Total	**100**	**2.837**
(1.6) q617.7 A local healer	**Percent**	***Weighted count***
Very good	17	481
Good	39	1.099
Poor	10	273
Very bad	3	83
DK	30	857
RA	2	45
Total	**100**	**2.837**

Figure 36: Satisfaction with quality of different types of hospital services

Composite table:				
Hospital overnight: satisfaction	**Cost**	**Care**	**Medical services**	**Room and building**
Very satisfied	29	23	26	23
Not very satisfied	40	20	19	23
Somewhat dissatisfied	15	21	21	17
Very dissatisfied	10	32	28	31
DK	6	5	5	5
Total	**100**	**100**	**100**	**100**

Source Tables:
(1) q614.6 For each of the following, would you say you were:
(1) Very satisfied, (2) Not very satisfied, (3) Somewhat dissatisfied, (4) Very unsatisfied.

(1.1) q614.6.1 Cost	**Percent**	***Weighted count***
Very satisfied	29	84

Not very satisfied	40	116
Somewhat dissatisfied	15	45
Very dissatisfied	10	29
DK	6	17
Total	**100**	**290**
(1.2) q614.6.2 Personal care of patient	**Percent**	***Weighted count***
Very satisfied	23	66
Not very satisfied	20	57
Somewhat dissatisfied	21	61
Very dissatisfied	32	92
DK	5	15
Total	**100**	**290**
(1.3) q614.6.3 Medical services	**Percent**	***Weighted count***
Very satisfied	26	77
Not very satisfied	19	55
Somewhat dissatisfied	21	62
Very dissatisfied	28	82
DK	5	15
Total	**100**	**290**
(1.4) q614.6.4 Room and building	**Percent**	***Weighted count***
Very satisfied	23	67
Not very satisfied	23	66
Somewhat dissatisfied	17	50
Very dissatisfied	31	91
DK	5	15
Total	**100**	**290**

Figure 37: Inpatient perceptions of indicators of hospital quality

Composite table:		
Perceptions of inpatient health-care service areas	**Yes**	**No**
Clean bathrooms	32	68
Doctor was present	13	87
Respect for patients	45	55
Reasonable costs	47	53
Fees explained and posted	17	83
Waiting period reasonable	24	76

Source tables: ***(1) q614.5 As I read you the following statements about that hospital, please tell me whether each is true or not. (1) True, (2) Not true.***

(1.1) q614.5.1 The restrooms were clean	**Percent**	***Weighted count***
Yes	32	92
No	68	199
Total	**100**	**290**
(1.2) q614.5.3 Health-care workers paid regular visits	**Percent**	***Weighted count***
Yes	13	38
No	87	253
Total	**100**	**290**
(1.3) q614.5.4 Patients were treated with respect	**Percent**	***Weighted count***
Yes	45	131
No	55	159
Total	**100**	**290**
(1.4) q614.5.Expenses for the received treatments were reasonable	**Percent**	***Weighted count***
Yes	17	50
No	83	241
Total	100	290
(1.5) q614.5.7 The waiting period between entering the clinic and the time you received treatment was reasonable	**Percent**	***Weighted count***
Yes	24	69
No	76	222
Total	**100**	**290**

Figure 38: Outpatient perceptions of clinic quality

Composite table:		
Perceptions of outpatient health-care service areas	**Yes**	**No**
Clean bathrooms	52	48
Health-care worker present	75	25
Respect for patients	61	39
Costs were reasonable	42	58
Fees clearly explained and posted	24	76
Waiting period reasonable	35	65
Source Table: (1) *q615.5 As I read you the following statements about that doctor's office or clinic, please tell me whether each is: (1) True, (2) Not true.*		
(1.1) q615.5.1 The restrooms were clean	**Percent**	***Weighted count***
Yes	52	917

No	48	846
Total	**100**	**1,763**
(1.2) q615.5.2 The doctor was present	**Percent**	***Weighted Count***
Yes	75	1,323
No	25	440
Total	100	1,763
(1.3) q615.5.3 Patients were treated with respect	**Percent**	***Weighted count***
Yes	61	1,077
No	39	686
Total	100	1,763
(1.4) q615.5.4 Expenses for the received treatment were reasonable	**Percent**	***Weighted count***
Yes	42	749
No	58	1,014
Total	100	1,763
(1.5) q615.5.5 Fees were posted and clearly explained ahead of time	**Percent**	***Weighted count***
Yes	24	431
No	76	1,332
Total	100	1,763
(1.6) q615.5.6 The waiting period between entering the clinic and the time you received treatment was reasonable	**Percent**	***Weighted count***
Yes	35	610
No	65	1,153
Total	**100**	**1,763**

Figure 39: Outpatient satisfaction with different types of clinic services

Composite Table:				
Outpatient satisfaction	**Very satisfied**	**Not very satisfied**	**Somewhat dissatisfied**	**Very dissatisfied**
Cost	28	32	14	12
Care	23	22	19	24
Medical services	26	22	19	21
Room and building	23	22	18	26

Source Table: ***q615.6 For each of the following, would you say you were:***

(1) Very satisfied, (2) Not very satisfied, (3) Somewhat dissatisfied, (4) Very unsatisfied.

(1.1) q615.6.1 Cost	**Percent**	***Weighted count***
Very satisfied	28	493
Not very satisfied	32	564
Somewhat dissatisfied	14	251
Very dissatisfied	12	219
DK	13	229
RA	0	6
Total	100	1,763

(1.2) q615.6.2 Personal care of patient	**Percent**	***Weighted count***
Very satisfied	23	406
Not very satisfied	22	392
Somewhat dissatisfied	19	335
Very dissatisfied	24	425
DK	11	200
RA	0	6
Total	100	1,763

(1.3) q615.6.3 Medical services	**Percent**	***Weighted count***
Very satisfied	26	459
Not very satisfied	22	382
Somewhat dissatisfied	19	344
Very dissatisfied	21	373
DK	11	200
RA	0	6
Total	100	1,763

(1.4) q615.6.4 Room and building	**Percent**	***Weighted count***
Very satisfied	23	410
Not very satisfied	22	383
Somewhat dissatisfied	18	311
Very dissatisfied	26	451
DK	11	202
RA	0	6
Total	**100**	**1,763**

Figure 40: Satisfaction with facilities used for childbirth in the past year

Composite table:				
	Very satisfied	**Not very satisfied**	**Somewhat dissatisfied**	**Very dissatisfied**
Cost	21	47	23	9
Care	35	29	25	11
Medical services	35	33	22	10
Room and building	33	27	29	11

Source table: *(1) q619.8 For each of the following, would you say you were: (1) Very satisfied, (2) Not very satisfied, (3) Somewhat dissatisfied, (4) Very unsatisfied [asked of those who gave birth or had a family member or give birth in the previous year].*

(1.1) q619.8.1 Cost	**Percent**	***Weighted count***
Very satisfied	21	32
Not very satisfied	47	74
Somewhat dissatisfied	23	36
Very dissatisfied	9	13
Total	**100**	**155**
(1.2) q619.8.2 Personal care of patient	**Percent**	***Weighted count***
Very satisfied	35	55
Not very satisfied	29	45
Somewhat dissatisfied	25	38
Very dissatisfied	11	17
DK	0	0
Total	**100**	**155**
(1.3) q619.8.3 Medical services	**Percent**	***Weighted count***
Very satisfied	35	54
Not very satisfied	33	51
Somewhat dissatisfied	22	34
Very dissatisfied	10	16
DK	0	0
Total	**100**	**155**
(1.4) q619.8.4 Room and building	**Percent**	***Weighted count***

Very satisfied	33	51
Not very satisfied	27	41
Somewhat dissatisfied	29	46
Very dissatisfied	11	17
Total	**100**	**155**

Figure 41: Indicator of clean bathrooms at clinic or doctor, by class

Class self-reported	**Yes**	**No**	***Total***	***Weighted count***
Lower	41	59	100	165
Lower-middle	30	70	100	276
Middle	55	45	100	954
Upper-middle	67	33	100	256
Upper	64	36	100	103
DK	90	10	100	10
RA	100	0	100	0
Total	**52**	**48**	**100**	**1.763**

Survey question:
(1) q615.5 As I read you the following statements about the doctor's office or clinic, please tell me whether each is true or not.
(1.2) q615.5.1 The restrooms were clean: (1) True, (2) Not true.

Figure 42: Satisfaction with doctor or clinic facility, by class

Class self-reported	**Very satisfied**	**Not very satisfied**	**Somewhat dissatisfied**	**Very dissatisfied**	**DK**	**RA**	***Total***	***Weighted count***
Lower	14	23	23	35	5	0	100	165
Lower-middle	18	24	25	29	4	0	100	276
Middle	26	21	15	25	13	1	100	954
Upper-middle	21	22	22	19	15	0	100	256
Upper	35	19	7	18	20	0	100	103
DK	0	10	11	79	0	0	100	10
RA	0	0	0	100	0	0	100	0
Total	**23**	**22**	**18**	**26**	**11**	**0**	**100**	**1.763**

Survey question:
(1) q615.6 For each of the following, would you say you were:
(1) Very satisfied, (2) Not very satisfied, (3) Somewhat dissatisfied, (4) Very unsatisfied.
(1.1) Q615.6.4 Room and building

Figure 43: Clarity and availability of posted fees for recent clinic or doctor visits, by class

Class self-reported	Yes, fees were posted and explained	No	*Total*	*Weighted count*
Lower	14	86	100	165
Lower-middle	9	91	100	276
Middle	27	73	100	954
Upper-middle	37	63	100	256
Upper	31	69	100	103
National	24	76	100	1.763
DK	36	64	100	10
RA	100	0	100	0
National	**24**	**76**	**100**	**1.763**

Survey question:
(1) q615.5 As I read you the following statements about the doctor's office or clinic, please tell me whether each is true or not.
(1.1) q615.5.5 Fees were posted and clearly explained ahead of time: (1) True, (2) Not true.

Figure 44: Whether fees were clear and posted, by education level

Education level	Yes, fees were posted and explained	No	*Total*	*Weighted count*
None	16	84	100	140
Primary	19	81	100	531
Secondary	25	75	100	698
Higher education	34	66	100	389
DK	0	100	100	0
RA	36	64	100	5
Total	**24**	**76**	**100**	**1.763**

Survey question: See tables for Figure 2 and Figure 43.

Figures 45 and 46 (PCA index created from questions shown in Figure 39 - inpatient)

Figures 47 and 48 (PCA index created from questions shown in Figure 38 – outpatient)

Figure 50: Expected timing of doctor presence in public clinic, by municipality

Municipality	Never	Once per day	Twice	All three times	Does not know	Total	Weighted count
Ksour Essaf - MH	15	44	31	8	2	100	78
Gaafour - SL	22	24	31	19	4	100	44
Monastir - MS	27	32	26	8	6	100	133
Bouarada - SL	29	12	7	41	11	100	53
Sakiet Eddair - SF	32	20	23	16	9	100	245
Sfax Ville - SF	33	36	15	14	1	100	246
Sfax Sud - SF	39	18	16	20	7	100	200
Moknine - MS	40	29	14	10	7	100	188
Taboulba - MS	48	30	13	5	5	100	79
Jebel Jloud - TN	50	29	16	1	4	100	165
Bizerte Sud - BZ	50	17	18	3	13	100	124
Bizerte Nord - BZ	50	24	14	7	5	100	175
Cité El Khadra - TU	54	23	14	4	6	100	157
La Marsa - TU	55	21	4	9	11	100	593
Menzal Jemil - BZ	58	20	11	2	9	100	104
Souassi - MH	62	21	8	3	6	100	85
Siliana Ville - SL	67	29	3	1	1	100	57
Mahdia - MH	69	19	6	3	3	100	111
National	**46**	**24**	**14**	**10**	**7**	**100**	**2.837**

Survey question: (1) q618 If you showed up at the public clinic nearest you, do you think the doctor would be present and see you if the time was 8:30am/ Lunchtime/ 4:30pm: (1) Yes, (2) No.

Figure 51: Authority perceived to have the most impact on health, by municipality

Municipality	Central government	Governorate	Local council	Private sector	Others	DK	RA	Total	Weighted N
Cité El Khadra - TU	41	9	2	38	5	6	0	100	247
Siliana Ville - SL	44	32	16	1	4	4	1	100	66
Monastir - MS	57	26	6	0	3	8	0	100	147
Souassi - MH	58	20	1	9	0	11	1	100	85
Gaafour - SL	61	34	3	1	2	0	1	100	44
Bizerte Nord - BZ	61	10	3	0	3	23	0	100	206
Menzal Jemil - BZ	67	21	6	0	0	6	0	100	104

Sakiet Eddair - SF	70	19	5	1	0	4	0	100	264
Moknine - MS	70	5	5	2	3	14	1	100	188
Jebel Jloud - TN	71	9	1	16	0	4	0	100	173
Bizerte Sud - BZ	71	13	0	0	5	11	0	100	124
Taboulba - MS	73	13	6	0	1	7	0	100	86
La Marsa - TU	74	4	1	10	0	11	0	100	675
Bouarada - SL	74	16	1	1	0	5	3	100	63
Sfax Sud - SF	78	14	2	3	0	3	0	100	200
Ksour Essaf - MH	80	15	2	1	0	2	0	100	78
Sfax Ville - SF	84	7	5	3	0	1	0	100	246
Mahdia - MH	89	10	0	0	0	0	0	100	111
National	**69**	**12**	**3**	**7**	**1**	**8**	**0**	**100**	**3.106**

Survey question: (1) q1102: Among the following groups, who do you believe currently has the most impact on: 3. Health services (clinics and hospitals): (1) Central government, (2) Governance, (3) Local council, (4) Imams/ religious organizations, (5)Private sector/businesses, (6) Unions, (7) Large families,/Clans (8) Other CSO (96)DK (97)RA;

Figure 52: Preferred authority for responsibility for health, by municipality

Municipality	**Central government**	**Governorate**	**Local council**	**Private sector**	**Others**	**DK**	**RA**	**Total**	**Weighted count**
Siliana Ville - SL	33	37	23	3	2	2	1	100	66
Souassi - MH	33	35	10	14	0	7	1	100	85
Bizerte Nord - BZ	45	23	4	1	1	26	0	100	206
Monastir - MS	46	33	6	1	6	8	0	100	147
Cité El Khadra - TU	52	5	1	37	3	2	0	100	247
Menzal Jemil - BZ	53	32	10	0	1	5	0	100	104
Bizerte Sud - BZ	57	32	3	0	2	7	0	100	124
Bouarada - SL	60	8	8	17	0	3	3	100	63
Gaafour - SL	60	33	2	1	2	1	0	100	44
Taboulba - MS	63	18	10	3	2	4	0	100	86
Sfax Sud - SF	63	24	4	6	1	1	0	100	200
Moknine - MS	65	5	6	4	5	15	1	100	188
Ksour Essaf - MH	71	20	4	2	1	2	0	100	78
Sakiet Eddair - SF	71	16	4	6	1	1	2	100	264
Jebel Jloud - TN	75	7	0	15	0	3	0	100	173
La Marsa - TU	77	6	3	2	0	10	1	100	675

Sfax Ville - SF	78	11	1	8	1	1	0	100	246
Mahdia - MH	84	12	4	0	0	0	0	100	111
National	**65**	**15**	**4**	**7**	**1**	**7**	**1**	**100**	**3.106**

Figure 53: Use of wasta to get better treatment during most recent clinic visit, by governorate

Governorate	Used wasta to get better treatment	Did not use wasta	*Total*	*Weighted count*
Bizerte	12	88	100	308
Sfax	16	84	100	415
Mahdia	21	79	100	175
Tunis	21	79	100	505
Siliana	22	78	100	70
Monastir	23	77	100	290
National	**19**	**81**	**100**	**1.763**

Survey question: (1) q615.5 As I read you the following statements about that doctor's office or clinic, please tell me whether each is true or not.
(2) q615.5.8 I used wasta/aktef in order to get better treatment: (1) True, (2) No.

Survey question: (1) q1103: Among the following groups, who would you prefer to be responsible for: 3. Health services (clinics and hospitals): (1) Central government, (2) Governance, (3) Local council, (4) Imams/ religious organizations, (5) Private sector/businesses, (6) Unions, (7) Large families/clans, (8) Other CSO (96)DK (97)RA.

Figure 54: Payment of bribe to get better treatment during most recent clinic visit, by governorate

Governorate	Paid a bribe to get better treatment	Did not use bribes	*Total*	*Weighted count*
Bizerte	4	96	100	308
Siliana	9	91	100	70
Monastir	4	96	100	290
Mahdia	9	91	100	175
Tunis	8	92	100	505
Sfax	6	94	100	415
National	**6**	**94**	**100**	**1.763**

Survey question: (1) q615.5 As I read you the following statements about that doctor's office or clinic, please tell me whether each is true or not.
(2) q615.5.7 I paid a bribe in order to get better treatment: (1) True, (2) Not true.

Figure 55: Use of wasta to get better treatment, by class

Class self-reported	Used wasta to get better treatment	Did not use wasta	*Total*	*Weighted count*
Lower	27	73	100	165
Lower-middle	25	75	100	276
Middle	18	82	100	954
Upper-middle	13	87	100	256
Upper	9	91	100	103
DK	0	100	100	10
RA	0	100	100	0
Total	**19**	**81**	**100**	**1.763**

Survey question: See Figure 54.

Figure 56: Referrals to private clinics in most recent clinic or doctor visit, by governorate

Governorate	Referred to private clinic	Not referred	*Total*	*Weighted count*
Sfax	13	87	100	415
Bizerte	14	86	100	308
Monastir	23	77	100	290
Mahdia	25	75	100	175
Tunis	30	70	100	505
Siliana	40	60	100	70
National	**22**	**78**	**100**	**1.763**

Survey question: (1) q615.5 As I read you the following statements about that doctor's office or clinic, please tell me whether each is true or not.
(2) q615.5.10 I was referred to a private clinic for further tests and treatment: (1) True, (2) Not true.