

Syrian refugee and Affected Host Population Health Access Survey in Lebanon

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Executive Summary

The objective of this survey was to evaluate access to health services for Syrian refugees in Lebanon. The study examines the health status and care-seeking behaviors of Syrian refugees living in host communities throughout Lebanon. The sample consisted of 1,376 Syrian refugee and 686 Lebanese households. The refugee sample was nationally representative of Syrians in Lebanon in areas accessible to the research team accounting for approximately 53% of the Syrian refugee population in the country. The South, which is sparsely populated by Syrian refugees, and many areas of the Bekaa, which is heavily settled by Syrian refugees, were not included in the survey area. A summary of key findings is as follows:

- ❖ **Demographics:** The Syrian refugee population was young, 53% of household members were children and only 3% were older adults ages 60 and above. The average household size was 6.0 and 9% of households were headed by women. Educational attainment among household heads was low, with approximately 15% having completed secondary school. In contrast, the Lebanese host community population was significantly older; 32% of household members were children and 10% were over 60 years of age. Average Lebanese host community household size was smaller at 4.8, with a larger proportion of female headed households (13%). Educational attainment among Lebanese was generally low, though higher than refugees, with 30% of household heads having completed secondary school.
- ❖ **Living Conditions:** Approximately half of Syrian refugee households lived in apartments or homes (50%); many rented rooms (20%), lived in temporary structures (16%), additions to houses (9%), or unfinished buildings (5%). In contrast, 96% of Lebanese host community members lived in apartments or houses. Syrian refugee and Lebanese host community households reported using an average of 1.4 and 2.1 rooms for sleeping, respectively. Crowding, defined as five or more people per sleeping room, was significantly more common among refugee households (44%) as compared to host community households (9%).
- ❖ **Household Economy:** Median monthly incomes and expenditures among Syrian refugee households were 400,000 LBP (US\$265) and 995,000 LBP (US\$660), respectively. In comparison, Lebanese host community households had a median income of 1,000,000 LBP (US\$663) and median expenditures of 1,646,500 LBP (US\$1,092). For both refugee and host community households, the greatest proportions of monthly expenses were for food and health (both populations), housing/rent (refugees), and education (Lebanese). Almost all (85%) refugee households reported borrowing money in the three months preceding the survey and half (52%) reported selling assets. This compares to borrowing and asset sales rates of 52% and 11%, respectively, among Lebanese host community households.
- ❖ **Refugee Registration and Receipt of Humanitarian Assistance:** A majority (76%) of refugee households reported registration of all household members with UNHCR. The registration rate was similar across regions and compares to a registration rate of 95% in a similar survey conducted in Jordan. All refugee households received humanitarian assistance in the month preceding the survey with a median value of 142,000 LBP (US\$94). The most common forms of support were food assistance (68%) and [non-food] vouchers (18%).
- ❖ **Perceptions of Access to Medical Care:** Perceived ability to access medical care and specialists, affordability of medical care and medications, and receipt of health information were assessed. A minority of refugees, between 24-36% perceived care as affordable and accessible as compared to 44-56% of Lebanese host community members.

- ❖ **Household Spending on Health:** Median household spending on health in the month preceding the survey was 100,000 LBP (US\$66) among Syrian refugees, which was much less than the median expenditure of 200,000 LBP (US\$133) reported by Lebanese host community households; mean expenditures in both groups were substantially higher. When assessed as a percent of reported income, Syrian refugee households spent an average of 18% of income on health.
- ❖ **Adult Health:** Medical care for adults was needed more frequently among Syrian refugee households than Lebanese host community households with 67% of refugee and 59% of Lebanese households, respectively, reporting that an adult household member needed care within the month preceding the survey. Infection and communicable diseases were the most common reason for needing care in both groups, followed by chronic medical conditions and non-communicable diseases. For the last episode where an adult household member needed medical attention, care was sought and received by 69% of refugee households and 85% of host community households. Cost was the primary reason for not seeking care among both refugee (86%) and Lebanese (91%) households. Syrian refugees were most likely to seek care at primary health centers (46%) followed by private clinics/cabinets (24%) whereas Lebanese most often sought care at private clinics/cabinets (51%) followed by primary health centers (19%). At the last visit 31% of refugees and 22% of Lebanese host community members reported no out-of-pocket payment; the average out-of-pocket payment was higher among Lebanese (median=50,000 LBP or US\$33) than Syrian refugees (median=10,000 LBP or US\$7). Most adult refugees and host community members were prescribed medications (93% in both groups) and of these, 89% of refugees and 97% of host community adults obtained medications. The median cost of medication was 30,000 LBP (US\$19) for refugees and 50,000 LBP (US\$33) among host community adults; cost was the primary reason for not obtaining prescribed medicines among both refugees and Lebanese.
- ❖ **Hospitalizations:** In the year preceding the survey, 20% of refugee households and 43% of host community households reported one or more hospitalizations of a household member in Lebanon for reasons other than childbirth, the most common being injury, digestive problems, and acute illness/infection. The average length of stay was 5 days. The majority of hospitalizations were in the private sector, including 61% among refugees and 77% among the host community. Out-of-pocket payments were similar among refugee and host community households and were reported by 90% and 88% of households, respectively (median= 300,000 LBP or US\$199).
- ❖ **Chronic Health Conditions:** The presence of hypertension, cardiovascular disease, diabetes, chronic respiratory disease, or arthritis in one or more household members was reported by 50% of Syrian refugee households and 60% of Lebanese host community households. Arthritis and hypertension were the most prevalent conditions among adult refugees, with rates of 7.9% and 7.4%, respectively among adults. In contrast, hypertension was most prevalent among host community adults, with a 10.7% prevalence rate. Of 1,079 refugee index cases with a chronic health condition diagnosis, 83% received care in Lebanon. A majority of refugees (58%) sought care at primary health clinics which differed from the Lebanese host community, most of whom (62%) sought care at private clinics. Among refugees receiving care for a chronic condition in Lebanon, 70% had an out-of-pocket payment for the most recent care received as compared to 83% of Lebanese. The median out-of-pocket cost was 5,000 LBP (US\$3) for refugees and 50,000 LBP (US\$33) for Lebanese (who were more likely to seek care at private facilities). Of those prescribed chronic disease medications, 76% of refugees and 88% of Lebanese were currently taking medicines; among those not taking medication, the primary barrier was cost.
- ❖ **Mental Health:** A small proportion of Syrian refugee (3.1%) and Lebanese host community households (4.7%) reported having members with a previously diagnosed mental health condi-

tion. Slightly less than half of mental health index cases needed care within the past three months (47% of refugees, 41% of Lebanese). A majority of refugees (60%) received care at primary health centers (60%) whereas a majority of host community members received care at private clinics (83%); the most common type of provider was a psychologist or psychiatrist (74% of refugees, 65% of Lebanese). A minority of Syrian refugees (33%) and majority of Lebanese (96%) reported out-of-pocket payments for mental health services; the median payment was 0 LBP among refugees and 50,000 LBP (US\$33) among Lebanese. Medication for mental health conditions was prescribed to 19% of refugees and 85% of host community members; the most common reason for stopping medication was inability to afford the cost.

- ❖ **Child Health:** Medical care for children was needed more frequently among Syrian refugee households than Lebanese host community households with 70% of refugee and 62% of Lebanese households reporting a child needing care within the month preceding the survey. Respiratory problems were the most common reason for needing medical care in both groups (~60%) followed by fever and diarrhea (~10%). For the last episode where a child household member needed medical attention, care was sought and received by 74% of refugee households and 85% of host community households. Cost was the primary reason for not seeking care among both refugee (96%) and Lebanese (78%) households. Syrian refugees were most likely to seek care at primary health centers (53%) followed by pharmacies (22%) whereas Lebanese most often sought care at private clinics/cabinets (48%) followed by primary health centers (23%). At the last visit, 34% of refugees and 24% of Lebanese host community members reported no out-of-pocket payment. Among those with an out-of-pocket payment, the median out-of-pocket payment was significantly higher among Lebanese (40,000 LBP or US\$27) than Syrian refugees (median=10,000 LBP or US\$7). Most child refugees and host community members were prescribed medications (95% for both groups) and of these, 93% of refugees and 97% of host community children obtained medications. The median cost of medication was 25,000 LBP (US\$17) for refugees and 38,000 LBP (US\$25) for the host community; cost was the primary reason for not obtaining prescribed medicines among both refugees and the host community.
- ❖ **Vaccination:** Selected aspects of access to vaccination, including presence of a vaccination card, participation in vaccination campaigns and barriers to seeking vaccination were assessed for children 12-23 months of age. Vaccination cards were presented for 47% of refugees and 37% of Lebanese. More than half (59%) of Syrian refugee children and 77% of Lebanese host community children were received measles vaccination through a campaign in the preceding year. Smaller proportions (51%) of Syrian refugee children and 67% of Lebanese host community children received polio vaccination through a campaign in the preceding year. A majority of refugee and host community households, 59% and 85% respectively, reported no difficulties in obtaining immunizations; among refugees, the primary barriers were not knowing where vaccinations were provided and distance.
- ❖ **Antenatal Care and Deliveries:** Overall, 87% of refugees and 95% of Lebanese received antenatal care during their last pregnancy with an average of 6.1 and 8.6 visits during the pregnancy for refugees and Lebanese, respectively. Antenatal care was received in the first trimester by 53% of refugees and 79% of Lebanese. Refugees sought antenatal care most often in primary health centers (55%) and private clinics (42%) whereas Lebanese favored private clinics (87%). Most deliveries occurred in private hospitals (44% of refugees and 66% of Lebanese) followed by public hospitals (39% of refugees and 25% of Lebanese). Approximately one-third of both groups (31% of refugees, 34% of Lebanese) reported cesarean sections. A majority of refugees (94%) and Lebanese (91%) had out-of-pocket payments for deliveries and the median amounts were 150,000 LBP (US\$100) and 300,000 LBP (US\$199).

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Introduction

The Syrian Civil War, which began in March 2011, has caused widespread displacement with more than 7.6 million Syrians internally displaced and exodus of refugees to host countries throughout the region.¹ In July 2015, more than 4 million Syrian refugees were registered or awaiting registration with UNHCR, in addition to an unregistered population that is unknown in size.² The largest Syrian refugee populations are in Turkey, Lebanon, Jordan, and to a lesser extent - Iraq and Egypt. Despite the increasing border controls and visa restrictions in neighboring states, the flow of new refugees continues and the Syrian refugee population is projected to increase as the conflicts in Iraq and Syria persist.

Lebanon kept its border open to Syrians fleeing the unrest through 2014; restrictions on the entry of Syrian refugees were tightened in early 2015.³ As of July 2015 there were over 1.17 million Syrian refugees registered with UNHCR in Lebanon.⁴ Refugees reside in a variety of settings ranging from rented accommodations to informal tented settlements (ITS) or staying with host families or other transitional housing in towns and cities. There are no formal Syrian refugee camps in Lebanon. As the Syrian refugee population in Lebanon continues to grow, Lebanon's capacity to absorb refugees has become increasingly strained. The impact of the Syrian refugee influx on the economy, demographics, political instability, and security in Lebanon is pervasive as Syrian and Palestinian refugees now comprise more than one quarter of the country's total population.

The Lebanese health system has been characterized as a complex combination of public and private sector facilities with a fragmented financing system consisting of public, semi-public, and private coverage models, and an overemphasis on secondary and tertiary levels curative services.^{5,6,7} The private sector, including private clinics, hospitals, pharmacies, and laboratories accounts for 82% of available health services and is much more widely utilized than the public sector. The private sector is highly decentralized and lacks regulation which contributes to wide variations in both the quality and cost of care.⁷ The public sector, which is comprised mostly of primary health care centers and dispensaries, has limited capacity when compared to the private sector in terms of tertiary care infrastructure and financial resources. Primary healthcare centers offer a variety of services including general medicine, pediatric care, dental care, family planning and reproductive health services and chronic disease prevention and treatment programs and are divided among a number of operators including the Ministry of Public Health, the Ministry of Social Affairs, nongovernmental organizations, and municipalities.^{Error! Bookmark not defined.} Owing to relatively low utilization of primary care and high rates of cares seeking for curative services at the secondary and tertiary levels, the Lebanese health care system is also characterized by high levels of spending on health. The majority of health expenditures in Lebanon are for hospital-based curative care. More than half of health

¹ Assessment Capacities Project (ACAPs). Syria Regional Analysis. December 2014. Accessed June 23, 2015. URL: <http://www.acaps.org/en/pages/syria-snap-project>

² UNHCR. Syria Regional Response. Accessed July 14, 2015. URL: <http://data.unhcr.org/syrianrefugees/regional.php>

³ IRIN News. A Timeline of Syria's Border Closings. Accessed June 24, 2015. URL: <http://newirin.irinnews.org/syrian-refugees-restrictions-timeline/>

⁴ UNHCR. Lebanon Country Profile. Accessed July 5, 2014. URL: <http://www.unhcr.org/pages/49e486676.html>

⁵ Ammar, W. Health System and Reform in Lebanon. 2003. Accessed June 8, 2015. URL: http://www.who.int/hac/crises/lbn/Lebanon_Health_System_and_reform_September2005.pdf

⁶ Salti, N, Chaaban, J, Raad, F. Health Equity in Lebanon: A Microeconomic Analysis. 2010. International Journal for Equity in Health Services. 9(11).

⁷ Institute of Health Management and Social Protection (IGSPS). National Health Statistics Report in Lebanon. 2012. Accessed June 8, 2015. URL: <http://www.igsps.usj.edu.lb/docs/recherche/recueil12en.pdf>

expenditures in Lebanon are from private sources, and out-of-pocket payments, at 75% of private expenditures, are a significant source of health sector revenue.⁶ The high out-of-pocket expenditures for households, in particular large and unanticipated payments for secondary care and hospitalizations, can be catastrophic for vulnerable refugee and Lebanese households that have limited incomes and savings and struggle to meet basic needs.

Syrian refugees have access to most basic services in Lebanon, including health care and education, through public sector institutions. However, the capacity of these systems to meet the needs of the growing refugee population is limited. The burden on the health system, including demand for trauma care, surgery, maternal health, and chronic disease care, has increased dramatically as a result of the influx of Syrian refugees. Lebanese host communities are also adversely affected by the refugee influx, including increased competition for housing and jobs, declining wages, and greater difficulty accessing services, in particular healthcare in the public sector, owing to the additional refugee caseload. The situation continues to worsen as displacement extends, savings are further depleted, and humanitarian assistance is reduced, leading to a progressive increase in the vulnerability of the refugee population.

Humanitarian agencies, the Government of Lebanon (GOL), and host communities have been struggling to meet the needs of the rapidly growing refugee population while facing significant funding shortfalls. The Regional Refugee and Resilience Plan (3RP) included a US\$4.5 billion regional appeal for 2015-2016, of which US\$ 1.97 billion was requested for Lebanon. However, as of July 2015 the Lebanon appeal was only 17% funded and the health sector response was only 10% funded (with US\$ 369 million requested in the regional appeal and US\$39 million received).⁸

To date, the focus of humanitarian agencies has been on meeting urgent and life threatening needs. A number of needs assessments of Syrian refugees have been undertaken in Lebanon; however, few include a nationally representative sample or focus on health and access to health services. In early 2014 a Multi Sector Needs Analysis (MSNA) identified a series of important data and information gaps in the humanitarian health response in Lebanon. One of the primary data needs arising from this exercise was for a national health access survey to be conducted to provide up-to-date information on the drivers and determinants of access to health care services for refugee and host community populations.⁹ The assessment reported here fills that gap and reflects the health status, unmet needs, access to, and utilization of health services among Syrian refugees in Lebanon and their host communities.

⁸ Regional Quarterly Update: 3RP Achievements, March 2015. Accessed May 31, 2015.

<http://data.unhcr.org/syrianrefugees/regional.php>

⁹ Multi-sector Needs Assessment (MSNA) Phase One Report. 2014. Accessed July 14, 2015.

<http://reliefweb.int/sites/reliefweb.int/files/resources/13June2014-FINALMSNAPHASE1REPORT.pdf>

Methods

Objective

The objective of the survey was to characterize the care-seeking behaviors of Syrian refugees and affected host Lebanese populations and to better understand issues related to health care access among Syrian refugee and Lebanese host communities. This information can inform humanitarian assistance and health service planning at local, national, and regional levels. In addition, the assessment can help assistance actors better understand the burden of the Syrian refugee population on the health sector in Lebanon and serve as a basis for advocacy.

Sample Size Calculations

The sample size calculations were based on the study objectives of assessing health status and access to health care among Syrian refugees and host communities in the region. A high level of precision in point estimates was not required given that the primary purpose of the study was to inform humanitarian programming. Given this and the challenges of data collection in urban Syrian refugee populations, a modest sample size was identified. The sample size calculations were based on the most conservative prevalence of 50% and assumed 80% power ($1-\beta$) and a design effect of 2.0 to account for a cluster sample design. The minimum and maximum planned sample sizes were increased to account for a 10% non-response rate and the possibility of incomplete reporting. The minimum sample size identified was 900 Syrian refugee households, which would allow for the characterization of prevalence rates for health access and status with $\pm 5\%$ precision. Increased precision of point estimates and additional power for comparisons between registered and unregistered Syrian refugees, Syrian refugees in different sub-national regions, and between Syrian refugee and host households were considered desirable and a decision was made to increase the sample size. Data collection was planned with a sample size of 1400 Syrian refugee households and 700 host Lebanese households (2:1 ratio of refugee vs. host communities) with a final planned sample of 2,100 households. The planned sample size was sufficient to allow for detection of differences greater than 11% between Syrian refugees in different regions and differences greater than 8% between Syrian refugee and Lebanese host communities households for dichotomous variables.

Sample Design

A multi-stage cluster survey design with probability proportional to size sampling was used to attain a nationally representative sample. A 100 cluster x 21 household (14 Syrian refugee households and 7 host Lebanese households per cluster) design was chosen because the costs of visiting many locations was relatively low given the small geographic size of Lebanon and the concentration of the Syrian refugee population. In addition to the statistical benefits of having a large number of clusters that are small in size, the design presented logistical benefits where the smaller cluster size increased the feasibility of completing, in one day or less, clusters in areas with low density of Syrian refugees—where identifying Syrian refugee households living within host communities can be a time consuming process.

Most Syrian households live within Lebanese communities but, aside from Syrian refugees registered with UNHCR, there are no publically available records of their specific location or address in Lebanon. Probability proportional to size sampling was used to assign the number clusters to sub-districts using UNHCR registration data, assuming that non-registered Syrian refugees had similar housing patterns. Lebanese host community households were sampled using a neighborhood approach (i.e. households were selected based on proximity to included Syrian households) so that

the sample reflected Lebanese households from communities most affected by the influx of Syrian refugees. It is important to note that sample of Lebanese host community households was not designed to be nationally representative of the Lebanese population as whole, but rather as representative of communities whose health services access was most likely to be affected by the crisis.

A multi-stage cluster design was used: clusters were first allocated by governorate, then by district, and then by cadastral (similar to municipality and the lowest level administrative unit where UNHCR registration data was available). An overview of the registered Syrian refugee population and the final cluster allocation by governorate is summarized in Table 1 and Figure 1. The original sample was planned using the UNHCR registered population and assumed that all cadastrals were accessible.

The research team was unable to attain permission to conduct the survey in certain security sensitive areas as planned, which necessitated a re-draw of the 28 clusters that were originally assigned to 22 cadastrals. Clusters were re-assigned using probability proportional to size sampling methods based on a revised population residing in accessible areas. Figure 2 presents the administrative units that were accessible and included in the survey. Detailed information on the UNHCR registered population, cluster allocation and sampling by cadastral is presented in Annex Table 1. The final sample encompassed all five governorates, 18 of 26 districts and 76 of 126 cadastrals; according to UNHCR registration data used for survey planning, 52.8% of registered refugees resided in cadastrals included in the survey coverage area (inclusive of two clusters in two cadastrals in the South which were later excluded from the analysis).

Once clusters were assigned to the cadastrals, ARC GIS software was used to randomly allocate cluster start points. Multiple potential start points were identified per each cluster and reviewed in the listed order. Those falling in remote areas where no structures were identified when reviewing Google Maps imagery were excluded as potential cluster starting points. Coordinates in areas with development were used and the nearest intersection to the identified start point, usually within a half kilometer, was used as the cluster start location because it was feasible for teams to identify

Table 1. Final Cluster Allocation by Governorate

	Registered Refugees (%)	Clusters	
		N	%
Beirut	3%	4	4%
Bekaa	35%	34	34%
Mt Lebanon	25%	25	25%
North	25%	35	35%
South	12%	2	2%
Total	100%	100	100%

Figure 1. Cluster Assignment by Governorate



Figure 2. Survey Coverage Area (by cadastral)



during field work.

Teams were provided with coordinates to locate each cluster's start point and maps with satellite imagery of the area at differing resolutions. Team leaders were instructed to navigate to the cluster using mapping software such as Google Maps and to report the cluster coordinates of the start location prior to initiating data collection. At the start point, interviewer pairs were sent in different directions to locate households. As the interviewers walked in the assigned direction, they approached the nearest business likely to be used by Syrian households such as a food shop, pharmacy, or cell phone shop and asked to be referred to nearby Syrian households. Other key informants, notably community residents, were used when no shops were near the start point. When interviewers reached a Syrian household that consented to participate, the first interview in the cluster was conducted; upon completion of the interview, respondents were asked to provide a referral and if possible an introduction, to the nearest Syrian household. This referral process was used until 14 Syrian refugee interviews were completed. Following each two completed interviews with Syrian refugee households, interviewers proceeded to the nearest Lebanese household and completed an interview so that seven Lebanese interviews were completed for the cluster. To improve the representativeness and geographic coverage of the sample, no more than three households were included from within the same apartment building.

In cases in which cluster start points were near an informal tented settlement, interviewers proceeded according to the directions above, moving in different directions to find households. If there were no Syrian households living outside of the tented settlement, more than one team worked in the settlement with team leaders coordinating sampling areas for each interview. To sample informal tented settlements, the study team objectively determined the size and area of the settlement by walking transects and/or the perimeter. When necessary, the settlement was into sub-areas of similar size that were assigned to different interviewers. Interviewers located the middle of the settlement and spun a pen to randomly select a direction to proceed. Interviewers then walked in the direction indicated by the pen-spin, counting the number of shelters that they passed before reaching the edge of the area. At the edge of the area, they randomly selected a number between 1 and the total number of shelters passed and walked back towards the center until they reached the shelter number randomly selected. For example, if there were 23 shelters and the number 11 was randomly selected, interviewers counted as they walked back to the area, stopping to interview the 11th household they passed. This process was repeated until the necessary number of interviews was completed. Referrals were not requested in the case of informal settlements; instead the study team randomly identified households to reduce the potential for sampling bias.

Only Syrian households arriving in Lebanon in 2011 or later were eligible to participate in the survey, as the aim of the survey was to capture the experiences of those displaced by the conflict (which began in early 2011); however, only one of the households approached for interview arrived in Lebanon before 2011. Families with both Lebanese and Syrian members were considered Syrian refugees for the purpose of this survey if they arrived in Lebanon in 2011 or later and lived in Syria prior to this time; families who had never lived in Syria were considered as Lebanese host community households for the survey.

Questionnaire Design

The questionnaire was initially developed for use in Jordan by consensus between WHO, UNHCR and JHSPH with the aim of providing a comprehensive assessment of the health of Syrian refugees that could inform humanitarian assistance planning at local, national and regional levels. As such, UNHCR and WHO preferences for priority content areas were taken into account. To the extent possible, existing questionnaire content from WHO surveys, UNHCR assessments and other surveys of Syrian refugee populations were adapted for use to improve the validity of the tool and comparabil-

ity of results. The questionnaire went through numerous drafts with feedback from UN agency headquarter staff in Geneva and technical staff in the Jordan country offices prior to use in Jordan. The Jordan questionnaire was adapted to the Lebanese context by consensus between JHSPH, MdM, International Medical Corps, UNHCR, and ECHO. The final questionnaire focused on health service utilization, access and barriers to care, children's health and chronic medical conditions.

Translation of the Jordan questionnaire to Arabic was initially conducted by a professional company with prior translation experience for UN agencies and NGOs and reviewed by local study partners. Translation updates for the revised Lebanon version of the questionnaire were conducted by all team members and MdM staff. Following translation, a pilot test was conducted in February 2015 to identify major issues in content, translation, and interview flow and to estimate interview duration. The questionnaire was modified further based on the results of pilot testing and additional feedback from partner organizations. Subsequent to content modifications, the translation was reviewed and discussed by in-country researchers and local technical staff, and a consensus translation was agreed upon. This version of the questionnaire was pilot tested immediately before the survey was conducted and final changes were made based on feedback from interviewers.

Survey Implementation

The survey was conducted by faculty at Johns Hopkins School of Public Health (JHSPH), Médecins du Monde (MdM) staff, and hired Lebanese interviewers. MdM staff oversaw the hiring of interviewers. In total 16 interviewers and three team leaders were trained; most interviewers and all team leaders had prior experience conducting health survey research in Lebanon. The study team received two days of classroom training that focused on the questionnaire, e-data collection using tablets, interview techniques, basic principles of human subjects' protections and sampling methods. Following classroom training, two additional days of training were held to provide the full interviewer team with the opportunity to practice locating households and conducting interviews with the target population.

Data was collected between March 12 and April 15, 2015 by three teams supervised by study team members from MdM and the JHSPH Field Coordinator. Each team consisted of approximately five to six interviewers, both male and female, and one team leader. Team leaders were responsible for navigating to the cluster starting location, coordinating their teams, including managing the number of interviews completed in a cluster. In some cases more than 21 households were interviewed per cluster because the final interviews were being completed simultaneously. In addition to managing interviewers, team leaders completed a short cluster summary form and also took GPS coordinates at a central location for the cluster (i.e., not at the household level) to facilitate mapping and spatial analysis of results. To account for the time required for identifying households using the referral method, the sample size was limited to 21 households per cluster with each team completing two clusters per day (a total of 42 full interviews per day per team). In cadastrals with fewer registered Syrian refugees or areas more geographically difficult to access, teams were scheduled to complete only one cluster per day.

Households identified for participation in the survey were approached and an adult household member was asked if they were willing to participate in the survey. Interviews were conducted with either the head of household or the caretaker/health decision maker. The household head was prioritized as the respondent for some sections of the questionnaire; however, questions related to pregnancy and child health were asked directly to the woman or the mother of the child in question, or a suitable adult proxy, if this person was not available. Questions about hospitalizations and chronic diseases were asked directly to the afflicted individual selected, if that person was available, or, if not, another household member familiar with the person's condition or hospitalization. If households were encountered that were child-headed or had a child caretaker/health decision

maker, the individual was interviewed so that this vulnerable population sub-group was not excluded. Because these individuals are acting as adults, the same informed consent process was used as in other households. If no one was at home in the identified household, a second referral from the previously interviewed household was approached. If no interview could be conducted due to absence of an appropriate household decision maker, refusal to participate, or if the household was already interviewed, this household was recorded with the appropriate reason for not completing an interview and referral to another Syrian household was requested.

Interviews were conducted in three different manners: (1) by two interviewers (one male, one female) in each household, (2) by one male interviewer (in households with males present), or (3) by one female interviewer (in households with only females present). Interviews lasted an average of 40 minutes and typically ranged from 30 to 60 minutes depending on the household size, number of children, and number of individuals with chronic medical conditions. Interviews were conducted in a place that allowed confidentiality of responses. Respondents had the option of completing the interview inside or outside their home. In some instances, respondents were more comfortable completing the interview inside the home whereas in other cases, such as a female-headed household or interview conducted when the husband is not at home, it was preferred that the interview be conducted outside or in view of another household or family member.

To protect the anonymity of respondents, no information was recorded on that could be used to identify the household or individual (including names, phone numbers, address, or other uniquely identifying characteristics). Interviewers obtained verbal informed consent from all participants by reading a consent form in Arabic outlining the purpose of the assessment, intended use of results, confidentiality, and the voluntary nature of participation. Potential respondents were informed that no identifying information would be recorded on the survey instrument or reported and that they had the right to decline to participate, stop the interview at any time, or to decline to answer any question. Potential respondents were also informed that the decision to take part or to refuse to take part would have no influence on their access to humanitarian assistance or protection. Interviewers were provided with information for participants on available services within the area and UNHCR registration in case this was requested.

Data Management and Analysis

Data was collected on tablets using Magpi, a mobile data platform by Datadyne LLC (Washington, DC). The template forms were developed online by the study team and subsequently downloaded onto each tablet during training. During data collection, team leaders transmitted records to the JHSPH Magpi account immediately following completion of each cluster. In the event that records could not be sent directly after cluster completion, they were downloaded directly by JHSPH study coordinator as soon as possible. An internet connection was not required for data collection, only for transmission of data to the server in cases where 2/3G coverage was available.

JHSPH and MDM study team members actively supervised interviewers in the field to ensure data collection procedures were adhered to and that data quality was maintained. Team leaders reviewed all questionnaires for completion and quality before submitting data and leaving the cluster location. Using Magpi's dashboard feature, real-time review of the data being collected was conducted to ensure that adequate data quality was maintained and that an acceptable number of interviews were completed on a daily basis. Study coordinators used the dashboard feature to identify questions and interviewers with problematic reporting and immediate action was taken to address concerns including follow up targeted training and increased supervision. Upon completion of data collection, data files were merged and cleaned. Data was analyzed using the Stata 13 (College Station, TX) software package. Descriptive statistics presented in the report include frequencies, means, medians, confidence intervals and ranges; cross tabulations with statistical tests (chi-square

or ANOVA) for comparison between Syrian refugee and host communities and among regions and/or sector of health care provider were also conducted. The Stata 'svy' command was used to account for the cluster survey design so that the standard errors of the point estimates were adjusted for survey design effects. Financial indicators are presented to the nearest Lebanese Pound (LBP) or U.S. Dollar (US\$) using an exchange rate of 1,507.5 LBP/US\$.¹⁰ All variables reporting monetary values for income or expenditures were assessed for outliers using visual inspection and the general guidance that points falling three or more standard deviations from the mean should be considered as potential outliers. Outliers that appeared to be the result of misreporting or recording errors were corrected or removed from the data set; the remaining outliers were replaced with the highest plausible value in the distribution (i.e. winsorized). Preliminary analysis and findings discussed by all the collaborating organizations prior to finalization of results to ensure their accuracy and the best possible interpretation of findings within the Lebanese context.

Two clusters from the South governorate were removed for data analysis. Only two cadastrals in the South were accessible to the survey team and presenting data from only these locations would not sufficiently representative of the governorate and would also be a violation of cluster sampling design assumptions. It was also determined that these results should not be presented in conjunction with other results from other regions; as such, data from these two locations were omitted from the analysis. Results were not adjusted by cluster size. Given that increases in the planned cluster size were small, distributed across geographic areas, and did not appear to bias the sample or have an impact on point estimates based on a sensitivity analysis, the decision was made to include extra interviews in the final analysis. While 97% of clusters included complete interviews for the planned number of 21 households, the number of households in the remaining 3% (3) of clusters ranged from 22 to 23. It was not deemed necessary to weight results by cluster size because clusters with additional households were not disproportionately concentrated in any geographic area and the distribution of the final sample was representative of the Syrian refugee population and affected Lebanese host community populations on the cadastral level.

Approvals

The study was approved by the Institutional Review Board at the American University of Beirut. The Johns Hopkins University Bloomberg School of Public Health Institutional Review Board also reviewed the protocol and determined that members of the JHSPH research team were not involved in human subjects research because they did not have direct contact with participants or access to personal identifiers.

¹⁰ The World Bank. Official exchange rate (LCU per US\$, period average). Accessed June 28, 2015. <http://data.worldbank.org/indicator/PA.NUS.FCRF>.

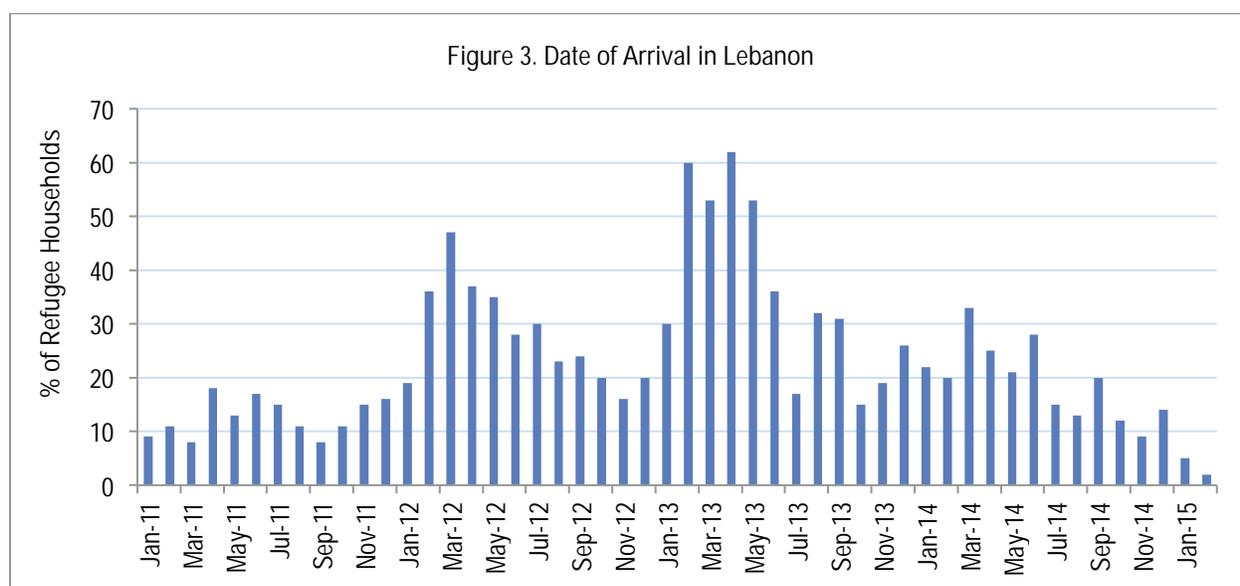
Results

A total of 2,165 households were approached to participate in the survey. Of these households, 1.9% (n=40) were not at home or not available, 0.2% (n=4) were already interviewed for the survey, 0.05% (n=1) was ineligible for participation, and 2.7% (n=58) declined to be interviewed. The final sample included 2,062 households (1,376 Syrian refugee and 686 host Lebanese households), which equates to a response rate of 93.6%.

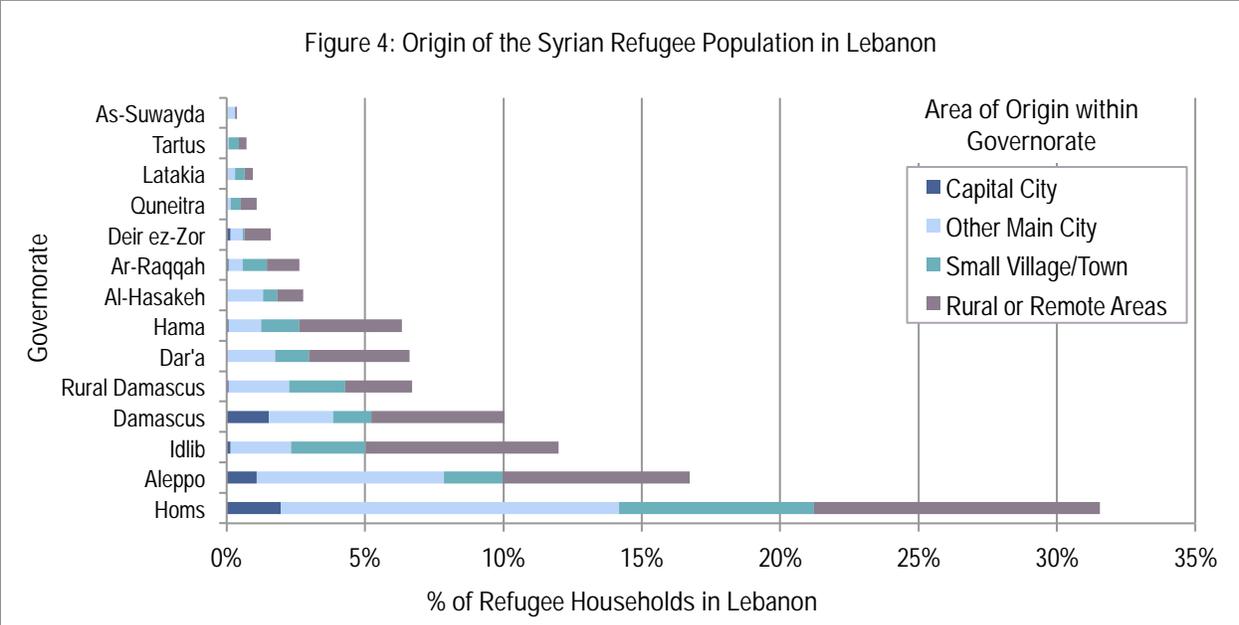
Study Population Characteristics

Timeframe of Arrival and Experiences in Syria among Refugees

Only Syrian households arriving in Lebanon in 2011 or after were eligible to participate in the survey; households arriving prior to 2011 were not directly affected by the conflict, were likely to have migrated for other reasons and/or have been in Lebanon for an extended time period, and were unlikely to meet the definition of a refugee. Of the Syrian refugee households included in the survey, 15.1% (CI: 12.9-17.6) arrived in 2011, 29.7% (CI: 27.0-32.4) arrived in 2012, 36.6% (CI: 33.5-39.7) arrived in 2013, 18.0% (CI: 15.7-20.5) arrived in 2014, and 0.6% (CI: 0.2-1.2) arrived within the first two months of 2015.



An overview of the Syrian location of origin of Syrian refugee households in Lebanon is presented in Figure 4. The most frequent governorates of origin included Homs (31.5%, CI: 25.8-37.8), Aleppo (16.7%, CI: 13.4-20.6), Idlib (12.0%, CI: 9.4-15.2), and Damascus (10.0%, CI: 7.7-13.0). Other governorates that were represented included Rural Damascus (6.7%, CI: 4.8-9.2), Dar'a (6.6%, CI: 4.7-8.5), and Hama (6.3%, CI: 4.7-8.5). Significant differences were observed by region with respect to governorate of origin ($p < 0.001$) with households from Homs concentrated in the North of Lebanon, accounting for 58.2% (CI: 49.7-66.3) of households in the region. Those from Aleppo were concentrated in Beirut/Mount Lebanon (26.3%, CI: 20.5-33.0) of households in the region). Within their respective governorates of origin, households reported being from the rural or remote areas (42.9%, CI: 39.4-46.4), a main city outside of the governorate's capital (31.6%, CI: 28.5-34.9), a small village or town (20.4%, CI: 18.0-23.1), and the governorate's capital city (5.1%, CI: 4.0-6.5).



Approximately three-quarters (73.1%, CI: 72.9-79.1) reported that the household or a household member experienced a violent event in Syria. Types of violent events experienced included destruction of the home (67.2%, CI: 63.6-70.6), conflict related injury (22.1%, CI: 19.8-24.7), conflict related death of a household member (21.4%, CI: 19.1-23.8), imprisonment of a household member (17.1%, CI: 15.0-19.4), and/or a kidnapped or missing household member (14.2%, CI: 12.5-16.0). Risk of experiencing a violent event varied significantly by governorate of origin in Syria ($p=0.006$) with the greatest proportions of households experiencing violent events origination from the governorates Rural Damascus (91.3%), Homs (85.0%), and Damascus (75.4%).

Demographics

Syrian Refugees

More than half of Syrian refugee respondents were female (59.3%, CI: 55.9-62.78) with an average age of 35.6 years (median=34, range: 16-95). Educational attainment among Syrian refugee respondents was low with a minority completing secondary education. The highest level of schooling completed by respondents was as follows: no formal schooling 17.4%, (CI: 14.5-20.8), primary school (34.1%, CI: 30.9-37.5), preparatory school (31.1%, 28.3-34.0), secondary school (11.8%, CI: 9.8-14.0), institute or technical degree (3.0%, CI: 2.1-4.2) and university or higher (2.6%, CI: 1.9-3.7). The majority of Syrian refugee households were male-headed (91.0%, CI: 89.2-92.6) with an average household head age of 39 years (CI: 38.4-39.7). Household head educational attainment was similarly low with the following highest level of schooling completed by household heads: no formal schooling 17.1%, (CI: 14.4-20.3), primary school (36.4%, CI: 33.3-39.6), preparatory school (32.5%, 29.8-35.4), secondary school (8.9%, CI: 13.7-19.6), institute or technical degree (2.5%, CI: 1.8-3.6) and university or higher (2.5%, CI: 1.8-3.6).

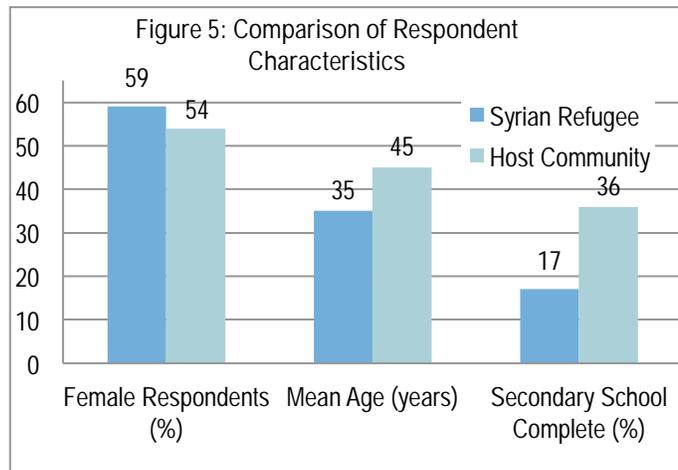
A total of 1,376 Syrian refugee households participated in the survey with 8,258 household members. Household members were defined as people who share a living space (such as an apartment, basement, room in or attached to a house, or tent) and share meals, regardless of biological relation; short-term visitors staying in Lebanon for less than one month were not counted as household members. The average household size was 6.0 (CI: 5.8-6.2) and ranged from 1 to 32. No significant differences in household size were observed among Syrian refugees by governorate ($p=0.090$). The

age distribution of the Syrian refugee population was as follows: 7.5% under 2 years, 13.5% 2 to less than 5 years, 32.0% 5-17 years, 33.1% 18-39 years, 11.1% 40-59 years and 2.9% 60+ years. In total 52.9% of the survey population were children 17 years and younger and most households (89.4%, CI: 87.3-91.2) had children. Overall, 36.8% (CI: 34.1-39.6) of Syrian refugee households had one or more children under 2 years, 54.0% (CI: 51.0-57.1) in the 2-5 age range, and 69.0% (CI: 66.4-71.4) had children between 6-17 years of age. The mean number of children in each age category was 0.4 (0-2 years), 0.8 (2-5 years), and 1.9 (6-17 years). Older adults, defined as age 60 years or above, were reported in 14.9% (CI: 12.8-17.3) of Syrian refugee households and there was a mean of 0.2 older adults per household in the Syrian refugee survey population.

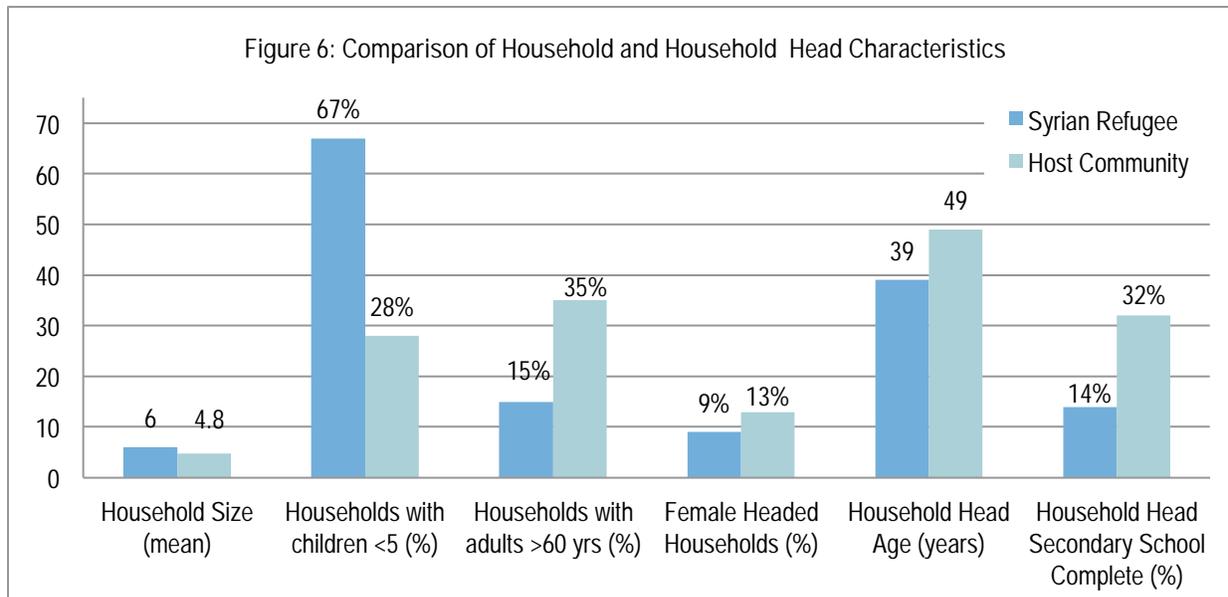
Lebanese Host Community

More than half of Lebanese host community survey respondents were female (54.2%, CI: 49.8-58.6). Respondent age was significantly greater among Lebanese host community respondents (mean=45.2 years, CI: 43.7-46.6; median=43, range: 17-95) than Syrian refugee respondents overall (mean=35.6, CI: 34.8-36.3; median=34; range: 16-95) ($p<0.001$), however this difference was not significant at the regional level. Educational attainment among Lebanese host community respondents was low with a minority of respondents completing secondary education. The highest level of schooling completed by respondents was as follows: no formal schooling 12.1%, (CI: 9.3-15.5), primary school (24.7%, CI: 21.1-28.7), preparatory school (27.6%, 24.0-31.4), secondary school (18.8%, CI: 15.7-22.4), institute or technical degree (6.9%, CI: 5.0-9.3), and university or higher (9.9%, CI: 7.7-12.7). Respondent education level differed significantly between Syrian refugee and Lebanese host community respondents ($p<0.001$) and is presented in Annex Table 4. A comparison of Syrian and Lebanese respondent characteristics is presented in Figure 5.

The majority of Lebanese host community households were male-headed (86.7%, CI: 83.7-89.3); however, this proportion was significantly lower than in Syrian refugee households ($p=0.008$). When compared by region, refugee and host community differences in household head gender were statistically similar in all areas except Beirut/Mount Lebanon (94.6% vs. 85.2%, $p=0.004$). As with respondent age, the average Lebanese host community household head age significantly differed from that of Syrian refugee households ($p<0.001$). The average Lebanese host community household head age was 49 years (CI: 47.7-50.5), which was significantly older when compared to Syrian refugee households ($p<0.001$). Household head educational attainment was relatively low among Lebanese host community with the following highest level of schooling completed by household heads: no formal schooling 13.6%, (CI: 10.9-16.7), primary school (29.6%, CI: 33.6), preparatory school (25.4%, 22.4-28.6), secondary school (16.5%, CI: 13.7-19.6), institute, technical degree or diploma (5.1%, CI: 3.8-6.9) and university or higher (9.9%, CI: 7.6-12.8). Lebanese host community household head education was significantly higher than observed in Syrian refugees overall ($p<0.001$) and in the regions of Beirut/Mount Lebanon ($p<0.001$) and Bekaa ($p<0.001$) (Annex Table 3). A comparison of household head characteristics is presented in Figure 6.

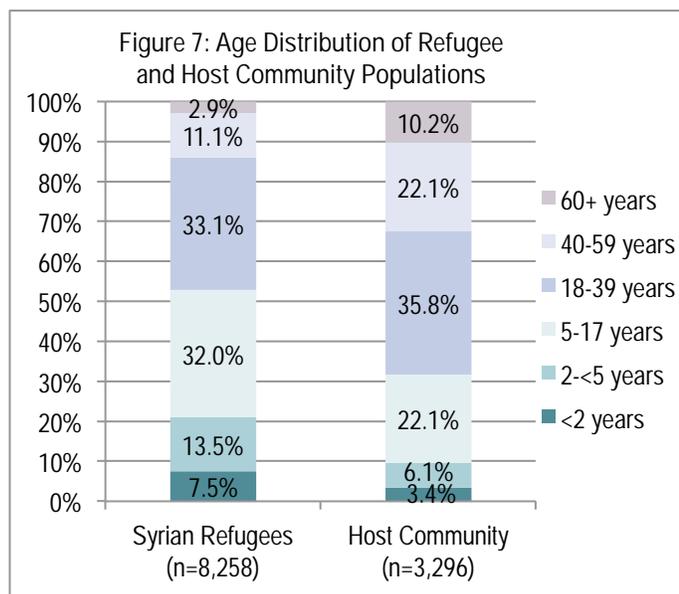


A total of 686 Lebanese host community households participated in the survey with a total of 3,287 household members. The average household size among Lebanese host community respondents was 4.8 (CI: 4.6-5.0) and ranged from 1 to 15. Host community households were significantly smaller than refugee households (mean difference of 1.2 fewer members, $p < 0.001$); this difference was significantly different in all three regions (see Annex Table 3).



The age distribution of the Lebanese host community population was as follows: 3.4% under 2 years, 6.1% 2 to less than 5 years, 22.1% 5-17 years, 35.9% 18-39 years, 22.2% 40-59 years and 10.3% 60+ years. Given the older age distribution of the population compared to Syrian refugee households, it follows that a significantly smaller proportion of Lebanese host community households (60.9%, CI: 56.3-65.4) had children 17 years and younger ($p < 0.001$). Overall, 14.6% (CI: 12.1-17.5) of Lebanese host community households had one or more children under 2 years, 20.9% (CI: 17.7-24.4) in the 2-5 age range, and 48.5% (CI: 43.8-53.3) had children between 6-17 years of age. The mean number of children in each age category was 0.2 (0-2 years), 0.3 (2-5 years), and 1.1 (6-17 years). Older adults were reported in 35.1% (CI: 31.1-39.4) of Lebanese host community households and there was a mean of 0.5 older adults per household in the Lebanese host community.

Age distribution was significantly different between Syrian refugee and host Lebanese host community households ($p < 0.001$). The Syrian refugee population was younger as compared to the Lebanese host community with Syrian refugees reporting a higher average number of children and a smaller number of older adults than Lebanese host community households (Figure 7). Working age adults comprised 44.2% and 57.9% of refugee and host community populations, respectively ($p < 0.001$).

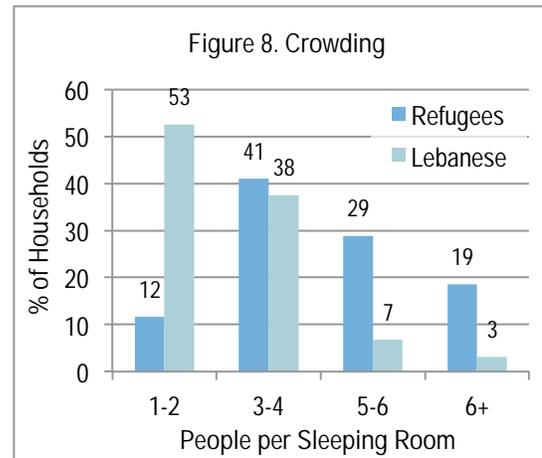


Living Conditions

Syrian Refugees

Approximately half of surveyed Syrian refugee households (50.3%, CI: 45.1-55.4) lived in apartments or houses. Other types of accommodations included a room within an apartment or house (19.5%, CI: 16.6-22.7); tent, shacks, or other temporary structures (15.6%, CI: 11.1-21.5); additions to houses (8.9%, CI: 7.1-11.1); and unfinished buildings or construction sites (4.9%, CI: 3.6-6.5). Almost all households rented their accommodations (86.3%, CI: 82.5-89.4). A smaller proportion were staying in exchange for work (6.3%, CI: 4.3-9.2) or were hosted by families without making payments; approximately three percent reported other types of arrangements (4.3%, CI: 2.8-6.4) which included paying to occupy land, staying without permission, and ownership. A significantly larger proportion of Syrian refugees in Bekaa lived in tents/temporary shelters as compared to those in Beirut/Mount Lebanon and the North who lived mostly in apartments or homes ($p < 0.001$). While the majority of Syrian refugees living in all geographic areas paid rent for their residence, a significantly higher proportion of Syrian refugees in Beirut/Mount Lebanon were staying in exchange for work than those in Bekaa or North Lebanon ($p < 0.001$).

Crowding, defined as the number of household members per sleeping room, was assessed as a potential proxy for socioeconomic status and living conditions. Households reported an average of 1.4 rooms (median=1, range: 0-4) used for sleeping and there was a mean of 4.6 (median=4, range: 1-15) people per sleeping room. Significant differences in the number of people per sleeping room were observed by region, with higher mean values in Bekaa (mean=4.8) and lower values in Beirut/Mount Lebanon (4.2) ($p = 0.024$). The distribution of people per sleeping room is presented in Figure 8. The cutoff for crowding was defined as five or more people per sleeping room and 43.6% (CI: 36.9-47.4) of households fell within this category.¹¹



Lebanese Host Community Comparison

Most of the surveyed Lebanese host community households (95.9%, CI: 94.0-97.2) lived in apartments or houses and most households owned their accommodations (76.2%, CI: 71.1-80.7). A smaller proportion of Lebanese host community households rented accommodations (20.6%, CI: 16.4-25.5). This is significantly different from Syrian refugee households, which reported a wider range of residence types ($p < 0.001$) and among which the majority of households (86.3%) rented their accommodations ($p < 0.001$). Differences in residence type and arrangement between Syrian refugees and Lebanese host community households differed significantly in all regions ($p < 0.001$).

Lebanese host community households reported an average of 2.1 rooms (median=1, range: 1-7) used for sleeping and there was a mean of 2.8 (median=2.5, range: 1-15) people per sleeping room. Significantly more sleeping rooms and, as such, significantly fewer people per sleeping room were observed in Lebanese host community households than in Syrian refugee households overall and in

¹¹ Five or more persons per sleeping room was used as the definition of crowding to maintain consistency with the cutoff identified for the Syrian Refugee Health Access Survey in Jordan.

all regions individually ($p < 0.001$). The highest average number of people per sleeping room among Syrian refugee respondents was observed in Bekaa (4.8, CI: 4.4-5.1); however, the highest among Lebanese host community respondents was reported in the North (2.8, CI: 2.5-3.1) (Syrian refugee $p = 0.024$, Lebanese host community $p = 0.003$). The distribution of people per sleeping room is presented in Figure 8. The cutoff for crowding was defined as five or more people per sleeping room and 8.9% (CI: 6.6-11.9) of Lebanese host community households fell within this category, which was significantly fewer than among Syrian refugee households (43.6%, CI: 36.9-47.4) ($p < 0.001$).

Household Welfare

Household Economy

Syrian Refugees

Household economic status was characterized by both income and expenditures. Expenditures are believed to be a more valid measure of socioeconomic status in this context because of difficulties associated with accurately collecting income data as a result of sensitivities related to Syrian refugees not being able to work legally and misconceptions that households reporting low income will be targeted for humanitarian assistance. As such, average monthly expenditures may be a more accurate reflection of household economic status and household wealth, notably available savings.

Mean and median monthly Syrian refugee household incomes, excluding humanitarian assistance, were 475,689 LBP (CI: 428,639-522,738) or US\$316 (CI: 284-347) and 400,000 LBP (US\$265), respectively. Due to the sensitive nature of income, respondents were not queried about income sources. Median monthly income in the top quartile was 900,000 LBP (US\$597) as compared to 0 LBP/US\$ in the bottom quartile. Significant differences in mean household income were observed by region, with households in Beirut/Mount Lebanon reporting the highest income (717,826 LBP or US\$476), followed by the North (379,008 LBP or US\$251) and households in Bekaa reporting the lowest income (364,739 LBP or US\$242) ($p < 0.001$), which is consistent with the variation in household expenditures by region. Detailed information on expenditures and income by region is presented in Annex Table 9. Expenditure and income data by quartile is presented in Table 2 and Figures 9 and 10 to illustrate variation in spending across the refugee population.

The mean monthly expenditure by Syrian refugee households was 1,081,989 LBP (CI: 1,039,589-1,124,389) or US\$718 (CI: 690-746) and the median was 986,750 LBP (US\$655).¹² Significant differences in mean household expenditures were observed by region, with refugee households in Beirut/Mount Lebanon reporting the highest expenditures (1,196,030 LBP or US\$793), followed by the North (1,067,272 LBP or US\$708) and households in Bekaa (999,721 LBP or US\$663) ($p < 0.001$). Median monthly expenditures by Syrian refugees in the top quartile were 1,700,805 LBP (US\$1,128) compared to 542,000 LBP (US\$360) in the lowest quartile. Categories accounting for the highest proportion of spending included food (35.7%), housing (26.9%), health (17.7%) and fuel (6.3%). Proportional expenditures by category were relatively similar across quartiles.

Borrowing, indicative of financial distress, was observed in 84.5% (CI: 82.0-86.8) of refugee households in the three months preceding the survey. As with money from sold assets, borrowed money was most often used for food (39.3%), rent (33.4%), and health (22.4%). Asset sales, another indicator of financial distress, were reported by 52.0% (CI: 47.2-56.8) of Syrian refugee households in the three months preceding the survey. Refugee households in the North (59.8%) reported selling

¹² In the month preceding the survey; large occasional expenditures were estimated on an annual basis and an average monthly expenditure was determined.

assets significantly more often than those in Bekaa (54.4%) and Beirut/Mount Lebanon (39.9%) (p<0.001). Money from sold assets was spent most often on food (38.1%), followed by rent (28.5%), and health (23.8%)(Figure 11).

Table 2. Household Income and Expenditures by Population (Lebanese Pounds)*

	Syrian Refugees (n=1,376)		Lebanese Host Community (n=686)			Refugee vs. host comm. n-value
	Median	Mean [95% CI]	Median	Mean [95% CI]		
Total Expenditures (past month)	986,750	1,081,989 [1039589,1124389]	1,625,000	1,979,701 [1854683,2104719]		< 0.001
Expenditures by Quartile						
Top quartile	1,700,805	1,818,717 [1773758,1863676]	3,600,000	3,853,883 [3663083,4044683]		< 0.001
3rd quartile	1,150,000	1,155,772 [1143738,1167807]	1,975,778	1,993,343 [1954681,2032006]		< 0.001
2nd quartile	844,000	847,209 [839118,855300]	1,382,000	1,368,578 [1344173,1392983]		< 0.001
Bottom quartile	542,000	506,257 [487996,524517]	748,000	710,344 [675753,744934]		< 0.001
Expenditures by category						
Housing/rent	300,000	291,515 [266461,316568]	0	88,992 [67032,110952]		< 0.001
Electricity	40,000	44,226 [40763,47689]	90,000	110,256 [100839,119674]		< 0.001
Fuel (cooking/heating)	40,000	67,955 [59864,76045]	40,000	106,551 [91117,121986]		< 0.001
Water	15,000	21,336 [18619,24052]	25,000	33,727 [29718,37735]		< 0.001
Food	350,000	386,112 [372707,399518]	600,000	671,680 [634918,708442]		< 0.001
Transportation	20,000	41,679 [38269,45088]	100,000	161,514 [141165,181863]		< 0.001
Health	100,000	191,934 [176944,206925]	200,000	391,257 [345024,437490]		< 0.001
Household items	15,000	27,298 [24249,30346]	35,000	61,632 [53979,69284]		< 0.001
Education	0	23,653 [20134,27173]	25,000	299,768 [245269,354268]		< 0.001
Clothes	0	18,075 [15078,21071]	0	97,649 [82915,112383]		< 0.001
Other large expenses	0	20,298 [15907,24690]	0	95,621 [69347,121895]		< 0.001
Total Household Income	400,000	475,689 [428639,522738]	1,000,000	1,436,718 [1316830,1556607]		< 0.001
Income by Quartile						
Top quartile	900,000	1,048,356 [988096,1108616]	3,000,000	3,254,513 [3037054,3471973]		< 0.001
3rd quartile	500,000	525,696 [518678,532715]	1,400,000	1,373,604 [1344719,1402490]		< 0.001
2nd quartile	300,000	300,670 [291782,309559]	850,000	855,487 [837434,873540]		< 0.001
Bottom quartile	0	44,980 [37779,52181]	400000	348,538 [312170,384907]		< 0.001
Borrowed money, past 3 months (%)		84.5 [82.0,86.8]		52.0 [47.2,56.8]		< 0.001
Borrowed money used for ***						
Rent		33.4 [29.8,37.2]		5.0 [3.2,7.9]		
Food		39.3 [35.6,43.1]		34.7 [29.8,40.1]		
Health		22.4 [19.8,25.1]		28.3 [24.4,32.5]		< 0.001
Education		1.0 [0.6,1.8]		13.7 [10.4,17.9]		
Other		4.0 [2.9,5.4]		18.2 [14.0,23.4]		
Sold assets, past 3 months (%)		18.9 [16.7,21.4]		11.2 [8.7,14.3]		< 0.001
Money from sold assets used for ****						
Rent		28.5 [22.3,35.5]		9.1 [4.6,17.3]		
Food		38.1 [31.9,44.7]		22.1 [14.3,32.5]		
Health		23.8 [18.2,30.5]		31.2 [21.7,42.5]		< 0.001
Education		1.2 [0.4,3.6]		18.2 [11.1,28.4]		
Other		8.5 [5.8,12.2]		19.5 [11.0,32.2]		

*exchange rate = 1507.5 LBP/1 US\$

**excluding humanitarian assistance

***as percent of those who borrowed money in the last 3 months

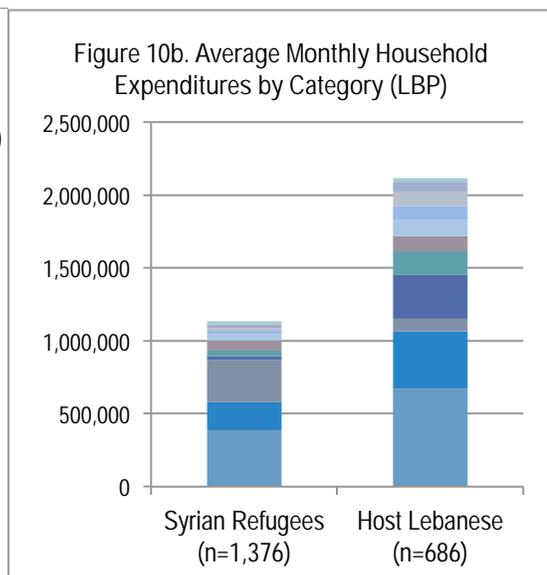
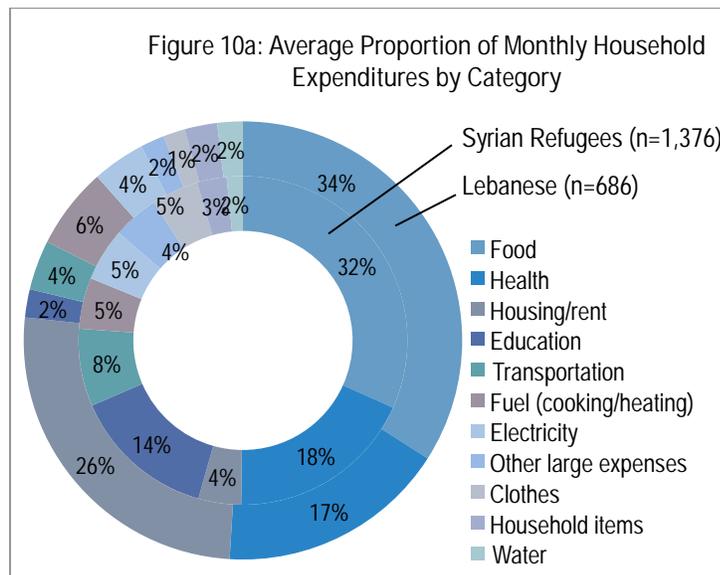
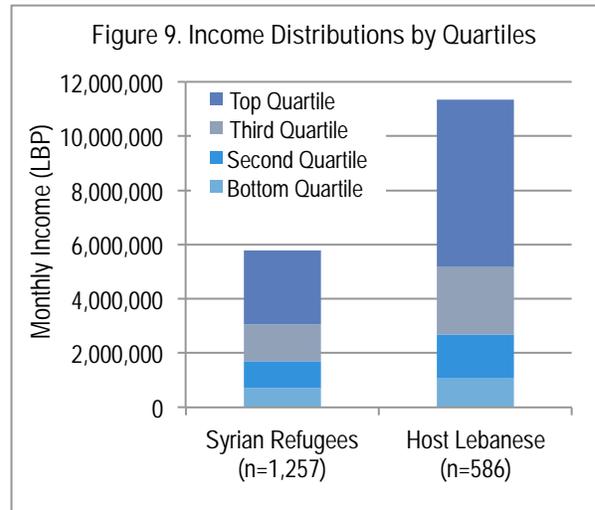
****as percent of those who sold assets in the last 3 months

Lebanese Host Community Comparison

Mean and median monthly household incomes in Lebanese house communities were 1,436,718 LBP (CI: 1,316,830-1,556,607) or US\$953 (CI: 874-1,033) and 1,000,000 LBP (US\$663), respectively. Median monthly income in the top quartile was 3,000,000 LBP (US\$1,990) and 400,000 LBP (US\$263) in the bottom quartile. The mean household income among Syrian refugees was significantly lower than Lebanese host communities as was mean income within in each quartile

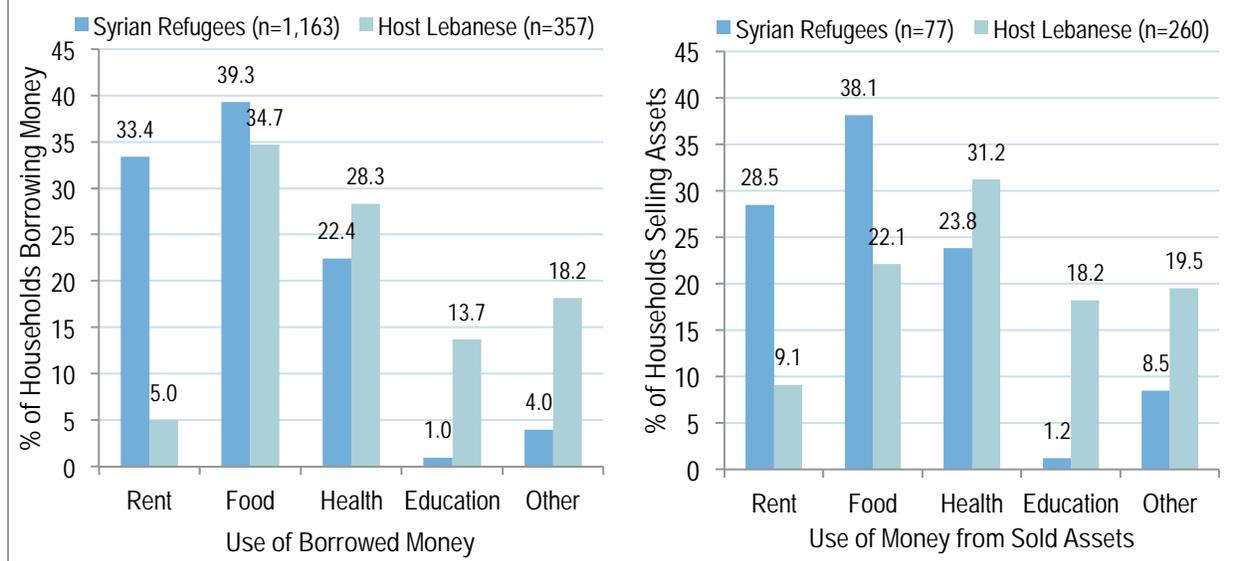
($p < 0.001$) (Figure 9). Detailed information on expenditures and income by population and region is presented in Annex Table 9.

The mean monthly expenditure by Lebanese host community households was 1,979,701 LBP (CI: 1,854,683-2,104,719) or US\$1,313 (CI: 1,230-1,396); the median was 1,625,000 LBP (US\$1,078). Median monthly expenditures by host community households in the top quartile were 3,600,000 LBP (US\$2,388) compared to 748,000 LBP (US\$496) in the lowest quartile. Categories accounting for the highest proportion of spending included food (33.9%), health (19.8%), and education (15.1%), which were similar to refugee expenditure patterns (Figure 10a). Absolute differences between refugees and host communities' expenditures were not significant ($p = 0.294$) (Figure 10b).



Borrowing money was reported by 52.0% of Lebanese host community households in the three months preceding the survey, which was significantly lower than the 84.5% rate observed in refugee households ($p < 0.001$). Lebanese host community households borrowed money most often for food (34.7%) and health (28.3%) expenses. Lebanese households were less likely than refugees to use borrowed funds to pay for rent (5.0% vs. 33.4%) and more likely to use funds borrowed funds for education (13.7% vs. 1.0%) and other expenses (18.2 vs. 4.0%). A small proportion of Lebanese host community households (11.2%, CI: 8.7-14.3) reported asset sales, in the three months preceding the survey, significantly fewer than the 52.0% observed among Syrian refugee households ($p < 0.001$). Among the Lebanese host community, money from asset sales was most often used for health (31.2%) and food (22.1%). The Lebanese host community was less likely than Syrian refugees to use proceeds from asset sales to purchase food (9.1% vs. 28.5%) and more likely to spend proceeds on education (18.2% vs. 1.2%) and other expenses (19.5% vs. 8.5%). Use of money generated from borrowing and asset sales is summarized in Figure 11.

Figure 11. Use of Borrowed Money and Funds from Sold Assets



Refugee Registration and Receipt of Humanitarian Assistance

Overall, 75.9% (CI: 73.2-78.5) of Syrian refugee households reported that all members were currently registered with UNHCR or waiting for initial registration or renewal appointments. As defined by UNHCR, registered households included those waiting for an appointment for new registration (7.1%, CI: 5.8-8.6) and those previously registered that were waiting for a renewal appointment (2.0% CI: 1.2-3.1). Registration rates were similar across regions ($p=0.345$). Among the 15.0% (CI: 12.8-17.4) of households that did not have a current valid registration for all members, 70.4% (CI: 63.1-76.8) indicated they wanted to register with UNHCR. Reasons for not registering all household members included ineligibility (35.0%, CI: 26.8-44.1),¹³ insufficient benefits (17.5%, CI: 12.3-24.2), and not knowing about UNHCR or how to register (15.5%, CI: 10.6-22.1).

All surveyed refugee households reported receiving cash or vouchers from the United Nations (UN) or a non-government organization (NGO) in the month preceding the survey. Receipt of humanitarian assistance is summarized in Table 3 (following page). The mean value of cash/voucher assistance received by refugee households in the month prior to the survey was 159,882 LBP (CI: 146,409-173,355 LBP; median=142,000 LBP, range: 0- 1,335,000 LBP) or US\$106 (CI: US\$97-115; median= US\$94; range: US\$0-886). The average values of all cash/voucher assistance for households were similar across regions ($p=0.112$). Households in which all members are currently registered with UNHCR reported higher average values of all cash/value assistance (179,948 LBP, CI: 165,322-194,574; median=150,000 LBP or US\$100, CI: 110-129; median=US\$99) than households in which some or none of the members are registered with UNHCR (96,531 LBP, CI: 76,572-116,489; median=0 LBP or US\$64, CI: 51-77; median=US\$0), though these differences were of marginal statistical significance ($p=0.074$).

¹³ UNHCR's eligibility criteria for registration ensures that only civilian Syrian individuals in need of international protection are registered.

Table 3. Receipt of Humanitarian Assistance in the Past Month*

	Receipt			Value (Lebanese Pounds)**			regional comparison p-value ***
	%	[95% CI]	N	Median	Mean	[95% CI]	
Cash from the UN or NGO							
Overall	3.8%	[2.8,5.2]	52	150,000	198,975	[148,004-249,946]	
By Region							
Beirut/Mt Lebanon	2.2%	[1.2,4.2]	9	100,000	102,875	[38,407-167,343]	0.029 ¹
Bekaa	3.2%	[0.2,8.9]	15	150,000	156,333	[112,882-199,785]	0.010 ²
North	5.9%	[2.8,5.2]	28	260,000	251,139	[177,433-324,845]	
Food Vouchers from the UN or NGO							
Overall	67.9%	[64.1,71.5]	933	120,000	166,646	[160,591-172,700]	
By Region							
Beirut/Mt Lebanon	57.0%	[49.25,64.5]	231	170,000	168,977	[157,153-180,801]	0.178 ¹
Bekaa	71.4%	[67.3,75.3]	340	170,000	167,568	[156,655-178,481]	0.799 ²
North	73.4%	[67.2,78.9]	362	150,000	164,285	[155,346-173,225]	
Vouchers from the UN or NGO							
Overall	17.5%	[14.0,21.7]	240	120,000	162,826	[150,581-175,071]	
By Region							
Beirut/Mt Lebanon	9.4%	[5.4,15.8]	38	120,000	149,263	[118,891-179,636]	< 0.001 ¹
Bekaa	31.1%	[24.5,38.6]	148	120,000	156,788	[143,865-169,711]	0.128 ²
North	11.0%	[7.3,16.2]	54	120,000	188,696	[158,137-219,254]	
Receipt of food, household items, or other types of aid from religious/community group							
Overall	9.4%	[7.7,11.4]	129	50,000	96,001	[73,666-118,335]	
By Region							
Beirut/Mt Lebanon	6.7%	[4.2,10.5]	27	65,000	137,840	[86,567-189,114]	0.102 ¹
Bekaa	9.5%	[6.9,12.9]	45	50,000	82,341	[50,577-114,105]	0.154 ²
North	11.6%	[8.9,14.9]	57	50,000	81,538	[51,062-112,014]	
Any UN or NGO Cash or Voucher Receipt and Combined Total of All Assistance							
Overall	100%		1374	142,000	159,882	[146,409-173,355]	
By Region							
Beirut/Mt Lebanon	100%		405	114,000	124,455	[102,266-146,643]	
Bekaa	100%		476	168,000	182,049	[159,908-204,190]	0.112 ²
North	100%		493	142,000	167,726	[146,687-188,766]	

*exchange rate = 1507.5 LBP/1 US\$

** among households reporting receipt of assistance

*** ¹denotes p-value for comparison of percentages and ²denotes p-value for comparison of means

The majority of humanitarian assistance was in the form of food vouchers, which were received by 67.9% (CI: 64.1-71.5) of refugee households. The average value of food vouchers per household was 166,646 LBP (CI: 160,591-172,700 LBP; median= 120,000 LBP) or US\$111 (CI: US\$107-115; median= US\$80). Other voucher assistance (for winterization programs, shelter, etc.) was less common and reported by 17.5% (CI: 14.0-21.7) of refugee households. A greater proportion of households in Bekaa (31.1%) reported non-food voucher assistance than households in the North (11.0%) or in Beirut/Mount Lebanon (9.4%) and these differences were statistically significant (p<0.001). The value of non-food vouchers also did not significantly differ across regions (p=0.128).

Cash payments by NGOs and UN agencies were uncommon: 3.8% (CI: 2.8-5.2) of refugee households reported receiving cash assistance. The mean value of cash assistance received in the month preceding the survey was 198,975 LBP (CI: 148,004-249,946 LBP; median=150,000 LBP, range: 23,000- 650,759 LBP) or US\$132 (CI: US\$98-166; median= US\$100; range: US\$15-432). Significant differences in the proportion of households receiving cash assistance (p=0.029) and in the value of cash assistance (p=0.010) were observed by region. The greatest proportion of households receiving cash assistance was reported in the North (5.9%), as was the highest mean value (251,139 LBP or US\$167). Among surveyed households in Bekaa, 3.2% reported receiving cash with an average value of 158,333 LBP (or US\$104) and 2.2% of households in Beirut/Mount Lebanon reported cash

assistance with an average value of 102,875 LBP (or US\$68). In addition to the humanitarian assistance reported above, 9.4% (CI: 7.7-11.4) of households reported receiving material aid (including food, household and non-food items and other types of assistance) within the past month from Islamic charities, mosques, and other religious or community groups.

Household Health Care Perceptions and Spending

To better understand overall access to health at the household level, a series of questions on perceptions of access to care and household expenditures on health in the preceding month was asked. This household-level overview information is presented in these sections. More detailed questions on health care seeking and utilization were subsequently collected for different population sub-groups including children, adults, individuals with chronic health conditions, women with recent pregnancies and recent hospitalizations. Results for each of the specific population sub-groups are presented separately in subsequent sections of the report.

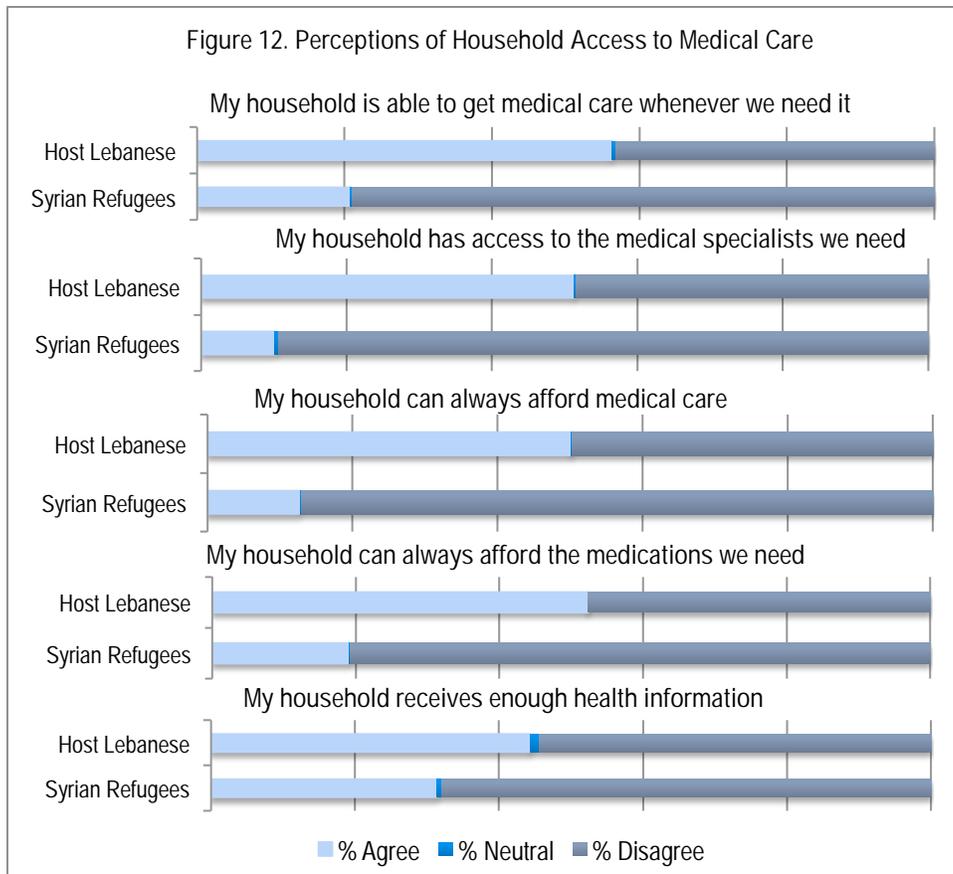
Perceptions of Health Access in Lebanon

Syrian Refugees

Household perceptions on five different components of access to medical care were assessed. These included the perceived ability to access medical care and medical specialists, affordability of medical care and medications, and receipt of health information (Figure 12). Of the different measures assessed, access to health information was perceived most favorably with 35.7% of refugee households agreeing with the statement *“my household receives enough information to stay healthy;”* 0.8% were neutral and 63.5% disagreed. Ability to access medical care was perceived as more challenging with only 32.5% of households agreeing with the statement *“my household is able to get medical care whenever needed;”* 0.3% were neutral and 67.1% disagreed. Perceptions of affordability of health services and medications were less positive. A large number of households (74.6%) felt health services were not affordable and disagreed with the statement *“my household can always afford medical care;”* 0.2% were neutral and 25.3% agreed. Perceptions on the affordability of medications were similar with 69.7% of households disagreeing with the statement *“my household can always afford medication;”* 0.1% were neutral and 30.2% agreed. Access medical specialists was perceived as most challenging, with only 23.8% of households agreeing with the statement *“my household has access to the medical specialists we need;”* 0.4% were neutral and 75.8% disagreed.

Lebanese Host Community Comparison

Of the five measures of access to medical care for which Lebanese host community perceptions were assessed, ability to access medical care was perceived most favorably with 56.2% of Lebanese host community households agreeing with the statement *“my household receives enough information to stay healthy;”* 0.6% were neutral and 43.2% disagreed. Perceptions of affordability of health services and medications were less positive. A large number of households (49.7%) felt health services were not affordable and disagreed with the statement *“my household can always afford medical care;”* 0.1% were neutral and 50.1% agreed. Perceptions on the affordability of medications were similar, though slightly more positive with 47.7% of households disagreeing with the statement *“my household can always afford medication;”* no respondents were neutral and 52.4% agreed. Access medical specialists was perceived as more challenging with only 51.3% of households agreeing with the statement *“my household is able to get medical care whenever needed;”* 0.3% were neutral and 48.4% disagreed. Access to health information was perceived as most challenging, with only 44.3% of households agreeing with the statement *“my household has access to the medical specialists we need;”* 1.3% were neutral and 54.4% disagreed.



Differences between Syrian refugees and Lebanese host communities' perceived access to health and health information were statistically significant at the $p < 0.05$ level for each of the access five measures. Overall, the perceived access to care was significantly worse among Syrian refugees as compared to the Lebanese host community.

Household Spending on Health

Syrian Refugees

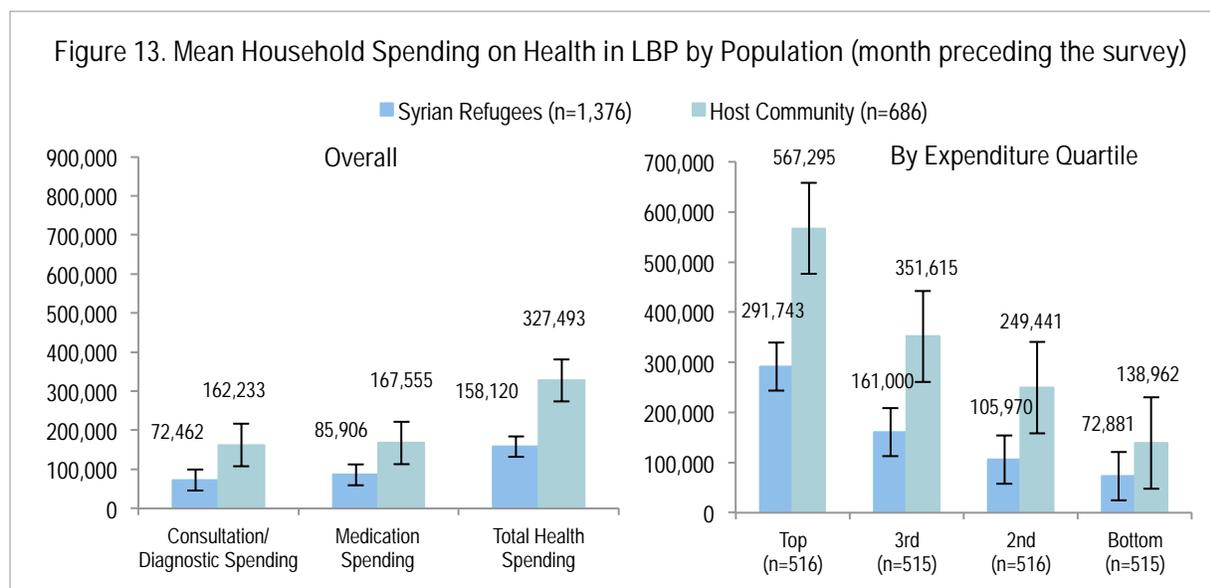
In the month preceding the survey, mean Syrian refugee household spending on health was 158,120 LBP (CI: 146,040-170,200 LBP; median=100,000 LBP; range: 0- 1,081,609 LBP) or US\$105 (CI: US\$97-113; median=US\$66; range: US\$0-717) (Figure 13), which included spending on consultation and diagnostic fees and medication. Spending on consultation and diagnostics fees 72,462 LBP (CI: 63,894-81,030 LBP; median=25,000 LBP; range: 0- 852,087 LBP) or US\$48 (CI: US\$42-54; median= US\$17; range: US\$0-717) and spending on medications averaged 85,906 LBP (CI: 80,376-91,437 LBP; median=52,000 LBP; range: 0- 403,373 LBP) or US\$57 (CI: US\$53-61; median= US\$35; range: US\$0-268). When assessed as a percent of reported income, Syrian refugee households spent an average of 17.7% (CI: 17.0-18.4, median 10.1%) of monthly income on health.

Lebanese Host Community Comparison

In the month preceding the survey, mean Lebanese host community household spending on health was 327,493 LBP (CI: 292,501-362,486 LBP; median=200,000 LBP; range: 0-2,408,058 LBP) or US\$217 (CI: US\$194-240; median= US\$133; range: US\$0-1,597). Household spending on consultation and diagnostics averaged 162,233 LBP (CI: 137,741-186,724 LBP; median=60,000 LBP; range:

0-1,956,459 LBP) or US\$108 (CI: US\$91-240; median= US\$40; range: US\$0-1,298). Spending on medications averaged 167,555 LBP (CI: 152,096-183,015 LBP; median=100,000 LBP; range: 0-849,173 LBP) or US\$111 (CI: US\$101-121; median= US\$116; range: US\$0-563). When assessed as a percent of reported income, Lebanese host community households spent an average of 19.8% (CI: 18.6-20.8, median=12.3%) of monthly income on health.

Average Lebanese host community household spending on health was significantly higher than that observed in Syrian refugee households for both consultations and diagnostic testing (Syrian refugees mean=72,462 LBP or US\$48; Lebanese host community mean=162,233 LBP or US\$108; $p<0.001$) and medication (Syrian refugees mean=85,906 LBP or US\$57; Lebanese host community mean=167,555 LBP or US\$111; $p<0.001$). Consequently, Lebanese host community spending on health was also significantly higher than Syrian refugees (Syrian refugees mean= 158,120 LBP or US\$105; Lebanese host community mean=327,493 LBP or US\$217; $p<0.001$) (Figure 13).



Adult Health

Health Care Seeking Among Adults

Syrian Refugees

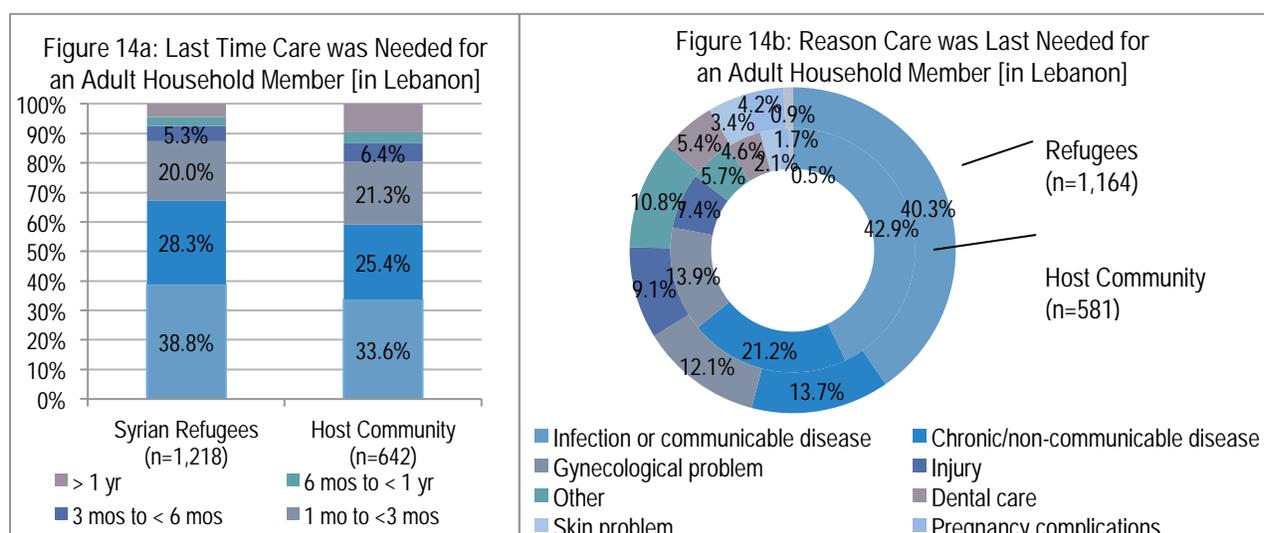
Among Syrian refugee households in which medical care was ever needed for an adult in Lebanon, the distribution of the last time such care was needed was as follows: <2 weeks ago, 38.8% (CI: 36.1-41.7); between two weeks and one month ago, 28.3% (CI: 25.6-31.2); 1 to less than 3 months ago, 20.0% (CI: 17.8-22.5); 3 to less than 6 months ago, 5.3% (CI: 4.2-6.8); 6 months to less than one year ago, 3.0% (CI: 2.3-4.0); and more than one year ago, 4.4% (CI: 3.2-6.0) (Figure 14a). Overall, medical care for adult refugees was needed [in Lebanon] by 95.6% of Syrian households (CI: 94.0-96.8) in the year preceding the survey. The primary reasons for needing medical care in Lebanon for an adult household member among Syrian refugee households included infection or communicable disease (40.3%), chronic medical conditions and non-communicable diseases (13.7%), gynecological problems (12.1%), and injuries (9.1%)(Figure 14b).

A total of 69.3% (CI: 65.6-72.9) of Syrian refugee households reported that medical attention was sought and received the last time an adult household member needed care [in Lebanon] and 8.2%

(CI: 6.2-10.6) reported that medical attention was sought but not received (Figure 15a). Among the 22.5% (CI: 20.0-25.2) of households that did not seek care for an adult the last time it was needed, the primary reason was cost: 86.3% (CI: 75.4-92.9) reported they could not afford to seek medical services. Other reasons included not being able to afford transportation costs (2.1%, CI: 0.5-8.2), inadequate provider equipment or drugs (2.1%, CI: 0.5-8.2), long wait time during previous visit(s) (2.1%, CI: 0.5-8.2), and family deciding care should not be sought (2.1%, CI: 0.5-8.2) (Figure 15b).

Lebanese Host Community Comparison

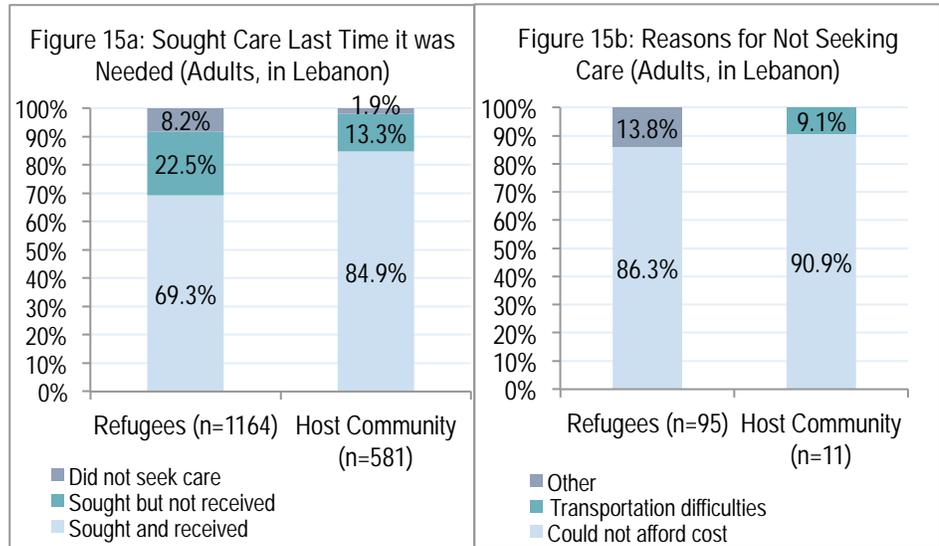
Among Lebanese host community households, the most recent time an adult household member needed medical care was as follows: <2 weeks ago, 33.6% (CI: 30.1-37.4); between two weeks and one month ago, 25.4% (CI: 21.6-29.5); 1 to less than 3 months ago, 21.3% (CI: 18.1-25.0); 3 to less than 6 months ago, 6.4% (CI: 4.8-8.4); 6 months to less than one year ago, 3.7% (CI: 2.5-5.5); and more than one year ago, 9.5% (CI: 7.2-12.4). Overall, medical care for adult host community members was needed by 90.5% of Lebanese households (CI: 87.6-92.8) (Figure 14a).



A statistically significant difference in timing of needing adult health care was observed between Syrian refugee and Lebanese host community households, where adult Syrian refugees were more likely to need medical care within a shorter time period than adult Lebanese host community members ($p < 0.001$). These differences were regionally significant in Bekaa ($p = 0.001$) and the North ($p = 0.002$) (Annex Table 12).

The primary reasons reported by Lebanese host community households for the last time medical care was needed for an adult household member include infection or communicable disease (42.9%, CI: 38.3-47.6), chronic medical conditions and non-communicable diseases (21.2%, CI: 17.7-25.1), gynecological problems (13.9%, CI: 11.1-17.4), and injuries (7.4%, CI: 5.5-9.8) (Figure 14b). Differences in the reasons for needing adult medical care were statistically significant between refugees and host community members overall ($p = 0.001$) and in the Beirut/Mt Lebanon region ($p = 0.049$). In general, host community members were more likely to report needing care for chronic medical conditions (21.2%, CI: 17.7-25.1 host community vs. 13.7%, CI: 11.7-15.9 refugee) whereas refugees were more likely to report needing care for pregnancy related complications (12.1%, CI: 10.4-14.0 refugee vs. 1.7%, CI: 0.9-3.1 host community) and other problems (10.8%, CI: 9.1-12.8 refugee vs. 5.7%, CI: 4.0-8.0 host community).

Overall, of Lebanese host community households, 84.9% (CI: 81.9-87.4) reported that care was sought and received the last time an adult household member needed it. This is a significantly larger proportion than among refugees (69.3%, $p < 0.001$) (Figure 15a). Additionally, 1.9% (CI: 1.0-3.7) of host Lebanese reported that medical attention was sought but not received, compared to 8.2% of refugee respondents ($p < 0.001$). A statistically significantly higher proportion of host Lebanese (84.9%) reported care-seeking than Syrian refugees (69.3%) ($p < 0.001$)



Among the 22.5% (CI: 20.0-25.2) of Lebanese host community households that did not seek care for an adult the last time it was needed, the primary reason was cost: 90.9% (CI: 59.6-98.5) reported they could not afford to seek medical services; the other reason reported was no transportation/difficulty accessing facility (9.1%, CI: 1.5-40.4) (Figure 15b). Although both Syrian refugee and Lebanese host community households cited cost as the most common barrier to care-seeking, significantly more reasons for not accessing care were reported by Syrian refugees ($p = 0.009$). This may reflect the small number of Lebanese non-care seekers ($n = 11$) compared to Syrian refugee non-care seekers ($n = 95$). Reasons for not seeking care are presented in Annex Table 12.

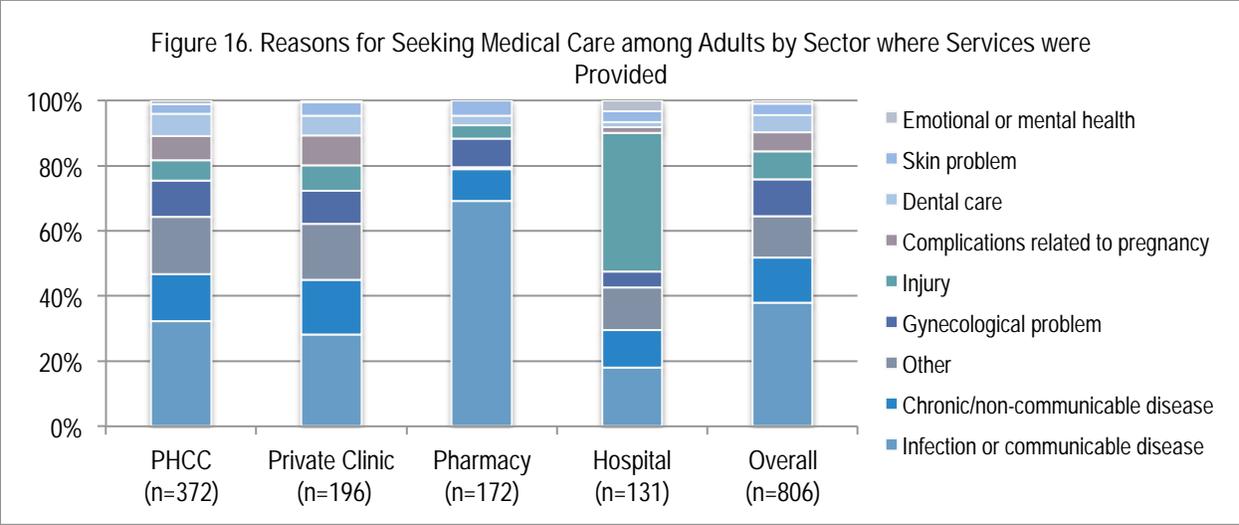
Among the 22.5% (CI: 20.0-25.2) of Lebanese host community households that did not seek care for an adult the last time it was needed, the primary reason was cost: 90.9% (CI: 59.6-98.5) reported they could not afford to seek medical services; the other reason reported was no transportation/difficulty accessing facility (9.1%, CI: 1.5-40.4) (Figure 15b). Although both Syrian refugee and Lebanese host community households cited cost as the most common barrier to care-seeking, significantly more reasons for not accessing care were reported by Syrian refugees ($p = 0.009$). This may reflect the small number of Lebanese non-care seekers ($n = 11$) compared to Syrian refugee non-care seekers ($n = 95$). Reasons for not seeking care are presented in Annex Table 12.

Care-seeking and Service Utilization among Adults

Syrian Refugees

Among adult household members that most recently sought care, slightly less than half (46.1%, CI: 42.2-50.1) sought care in primary health care centers. Another 24.3% (CI: 20.8-28.1) sought care in private clinics and 21.3% (CI: 18.0-25.0) sought care in pharmacies; a small proportion (7.6%, CI: 5.8-9.8) sought care at a hospital emergency room. Differences in adult refugee care-seeking locations were marginally significant across regions ($p = 0.083$) are presented in detail in Annex Table 12; in Bekaa larger proportions sought care at primary health centers and emergency rooms as compared to other regions.

The most frequently reported reasons for the most recent visit to a health facility for adult refugees that sought care included infection or communicable diseases (38.0%, CI: 34.2-42.0), chronic medical conditions and non-communicable diseases (13.8%, CI: 11.6-16.3), gynecological problems (11.3%, CI: 9.3-13.6), and obstetric/gynecological problems (10.8%, CI: 9.1-12.8). Differences in the reason for care-seeking by region were statistically significant by facility type ($p < 0.001$); these differences are summarized in Figure 16 and presented in detail in Annex Table 13.

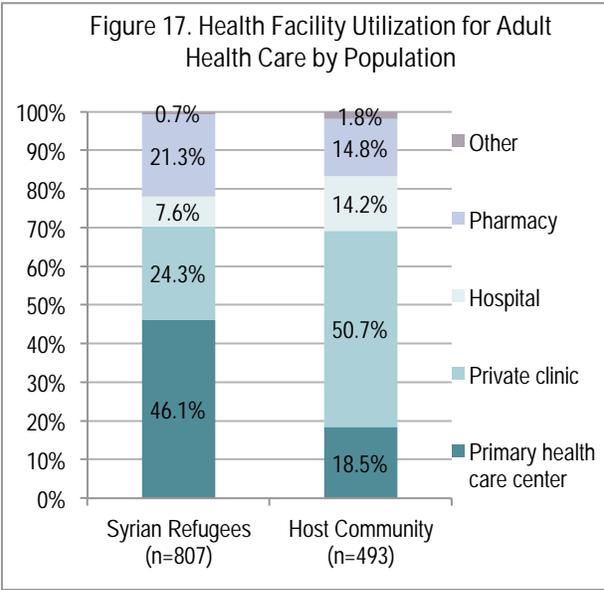


Among Syrian refugee households that received adult health care in Lebanon, 14.4% (CI: 12.3-16.8) were referred for additional services of which 61.2% (CI: 39.7-61.6) received the referred services. The most commonly referred services were lab tests (50.7%, CI: 24.1-61.6), followed by diagnostic tests (23.9%, CI: 15.6-34.9), specialist consultation (15.5%, CI: 8.8-25.7), and curative interventions (9.9%, CI: 4.8-19.0). Patients receiving referrals sought referral care most often at primary health care centers (31.0%, CI: 22.4-41.1), medical centers (28.2%, CI: 19.5-38.9), and hospitals (29.6%, CI: 19.9-41.5). No significant differences in referrals were observed by region ($p=0.620$).

Lebanese Host Community Comparison

Among adult Lebanese host community household members that most recently sought care, approximately half (50.7%, CI: 46.0-55.4) sought care in private clinics. Another 18.5% (CI: 14.7-22.9) sought care in primary health care centers, 14.2% (CI: 11.4-17.6) in hospitals, and 14.8% (CI: 11.6-18.7) in pharmacies. Health facility utilization significantly differed between Lebanese host community and Syrian refugee households overall ($p<0.001$) (Figure 17); differences in care seeking locations were also statistically significant at the regional level (Annex Table 12).

The most common reasons for the most recent visit to a health facility reported by Lebanese host community adults that sought care included infection or communicable diseases (39.1%, CI: 34.1-44.5), chronic medical conditions and non-communicable diseases (22.9%, CI: 19.2-27.2), gynecological problems (13.8%, CI: 10.9-17.3), and injury (7.5%, CI: 5.5-10.2). Differences in the reason for care were statistically significant overall ($p<0.001$) and in Beirut/Mount Lebanon ($p=0.020$). Differences in reason for needing care between Syrian refugee and host Lebanese households were also significant among those seeking care in primary health care centers ($p=0.016$), private clinics ($p=0.008$) and marginally significant among those seeking care in hospitals ($p=0.025$); these differences are presented in Annex Table 13.



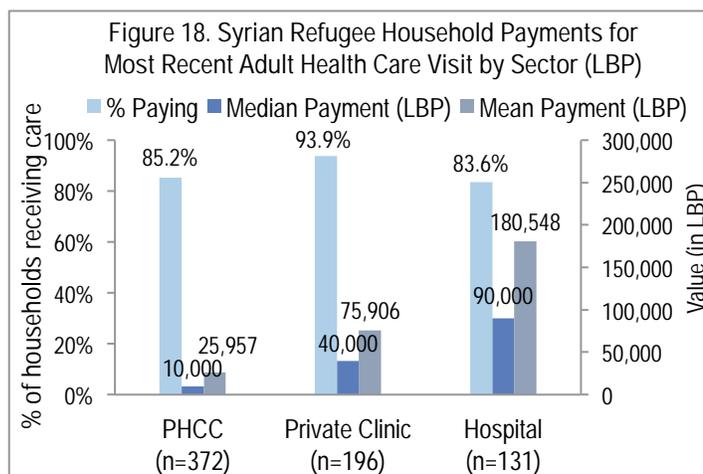
Among host community households that received adult health care, 18.5% (CI: 14.8-22.8) were referred for additional services. Among those referred for additional services, a statistically significantly greater proportion of host Lebanese (87.9%, CI: 79.8-93.0) reported receiving the referred services compared to Syrian refugees (61.2%; $p < 0.001$). The most commonly referred services were lab tests (56.2%, CI: 44.5-67.4), followed by diagnostic tests (18.8%, CI: 12.0-28.2), specialist consultation (12.5%, CI: 7.2-20.8), and curative interventions (8.8%, CI: 4.3-17.0). Patients receiving referrals sought referral care most often at hospitals (46.2%, CI: 35.4-57.4), medical centers (25.0%, CI: 16.3-36.3), and private clinics (16.2%, CI: 8.9-27.8).

Spending on Adult Health Care

Syrian Refugees

Among Syrian refugee adult care seekers, 30.9% (CI: 27.3-34.6) reported accessing medical care without an out-of-pocket payment. The proportion of adult care seekers that had out-of-pocket payments at their most recent visit varied significantly by facility type ($p = 0.003$). The highest proportion of patients with out-of-pocket payments was in private clinics (93.9%) compared to 85.2% of those receiving care in primary health care centers and 83.6% in hospitals.

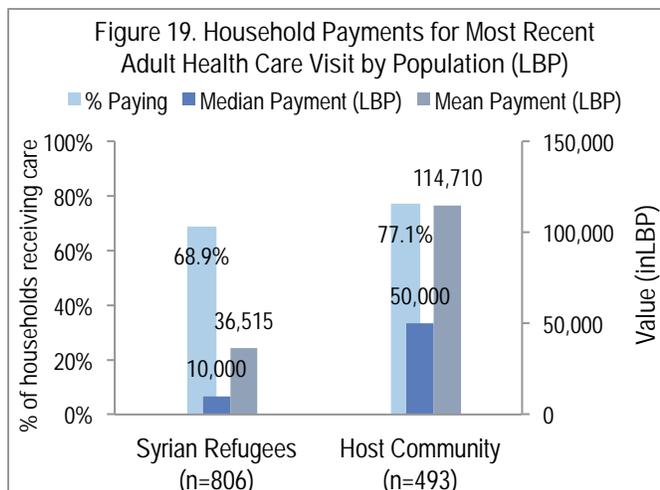
Household expenditures for the most recent adult refugee health visit are summarized by facility type in Figure 18, compared with the Lebanese population in Figure 19, and presented in detail in Annex Table 13. The average out-of-pocket cost to Syrian refugee households for the most recent adult care-seeking visit was 36,515 LBP (CI: 29,814-43,216 LBP; median=10,000 LBP; range: 0- 560,109 LBP) or US\$24 (CI: US\$20-29; median=US\$7; range: US\$0-372).¹⁴ Significant differences in mean out-of-pocket payment amount were observed by facility type and were as follows: 56,824 LBP (or US\$38) in private clinics, 20,242 LBP (or US\$13) in primary health care centers, and 180,548 LBP (or US\$120) in other hospitals ($p < 0.001$). The differences in mean cost among only households with out-of-pocket payments also differed significantly by facility type: 60,297 LBP (or US\$40) in private clinics, 23,810 LBP (or US\$16) in primary health care centers, and 213,710 LBP (or US\$142) in hospitals ($p < 0.001$).



¹⁴ Average out-of-pocket cost for only households that paid was 53,026 LBP (CI: 43,953-62,098 LBP, median=20,000 LBP) or US\$35 (CI: US\$29-41, median=US\$13).

Lebanese Host Community Comparison

Among adult care seekers in the Lebanese host community, 22.1% (CI: 18.4-26.3) reported accessing medical care without an out-of-pocket payment. Household expenditures for the most recent adult health visit are summarized in Figure 19 and presented in detail in Annex Table 13. The average out-of-pocket cost to Lebanese households for the most recent adult care-seeking visit was 114,710 LBP (CI: 86,230-143,190 LBP; median=50,000 LBP; range: 0- 1,564,993 LBP) or US\$76 (CI: US\$57-95; median=US\$33; range: US\$0-1,038).¹⁵



Lebanese host community households reported significantly higher out-of-pocket costs for adult health care (mean= 114,710 LBP or US\$76) than Syrian refugee households (mean=36,515 LBP or US\$24) ($p<0.001$). Regionally, significant differences in out-of-pocket payment were observed between Syrian refugees and Lebanese host community respondents in Bekaa (mean Syrian refugee cost=41,769 LBP or US\$28, mean Lebanese host community cost=165,169 LBP or US\$110; $p<0.001$), Beirut/Mount Lebanon (mean Syrian refugee cost=38,294 LBP or US\$25, mean Lebanese host community cost=97,888 LBP or US\$65, $p=0.009$), and North (mean Syrian refugee cost=31,121 LBP or US\$21, mean Lebanese host community cost=80,088 LBP or US\$53; $p=0.040$). Significant differences in payment amount were also observed by facility type. Mean out-of-pocket payments for the most recent adult health visit by facility type for host Lebanese households were as follows: private clinics, 97,799 LBP or US\$65; PHCC, 42,744 LBP or US\$28; and hospitals, 403,499 LBP or US\$268 ($p<0.001$). Among host Lebanese households with out-of-pocket payments, the mean payment was 102,879 LBP or US\$68 in private clinics, 50,618 LBP or US\$34 in PHCCs, and 461,142 LBP or US\$306 at hospitals ($p<0.001$).

Access to Medicines for Adults

Syrian Refugees

Among adult care seekers, 93.4% (CI: 91.3-95.1) reported being prescribed medication at their most recent visit to health facility. Among those prescribed medication, 88.7% (CI: 85.9-91.1) reported being able to obtain medicines. Most adult care seekers receiving medication (94.2%, CI: 91.8-95.9) reported out-of-pocket payments the average being 43,732 LBP (CI: 39,727-47,737 LBP; median=30,000 LBP; range: 0-308,262 LBP) or US\$29 (CI: US\$26-32; median=US\$20; range: US\$0-204). Significant differences in the proportion of households paying for medication were observed by region ($p=0.001$). The highest proportion of care seekers paying for medication was observed in the North (97.0%); 95.3% of adult care seekers in Beirut/Mount Lebanon and 89.4% in Bekaa reported out-of-pocket costs for medication. Among those that did not access medications, the primary reasons included that the household could not afford the medication (89.7%, CI: 78.6-95.3) and that medication was out of stock at the primary health care center (8.6%, CI: 3.5-19.5).

¹⁵ Average out-of-pocket cost for only households that paid was 148,503 LBP (CI: 113,722-183,283 LBP, median=50,000 LBP) or US\$99 (CI: US\$75-122, median=US\$33).

Lebanese Host Community

Among Lebanese host community adult care seekers, 92.7% (CI: 89.8-94.8) reported being prescribed medication at their most recent visit to health facility. There was no significant difference between the proportion of refugees and host community members that were prescribed medication. Of those prescribed medication 99.3% (CI: 98.0-99.8) attempted to obtain the prescribed medication, and 96.9% (CI: 94.8-98.2) of Lebanese host community patients prescribed medication were able to obtain all of the prescribed medications; this is a significantly higher proportion than among the refugee population (88.7%, $p < 0.001$). Most adult care seekers receiving medication (97.1%, CI: 95.2-98.2) reported paying for it and the average out-of-pocket medication cost to Lebanese host community households was 90,724 LBP (CI: 78,563-102,885 LBP, median=50,000 LBP, range: 0- 674,341 LBP) or US\$60 (CI: US\$52-68, median= US\$33, range: US\$0-447).¹⁶ Mean medication expenditures among Lebanese host community members were nearly double those of refugees ($p < 0.001$). Among Lebanese host community households that did not access medications, the primary reasons included that the household could not afford the medication (45.5%, CI: 19.9-73.6) and that the medication was out of stock (27.3%, CI: 8.9-59.1).

Hospitalizations in Lebanon

Syrian Refugees

In the year preceding the survey, 20.2% (CI: 18.1-22.5) of Syrian refugee households reported one or more hospitalizations of a household member in Lebanon for reasons other than childbirth. Among refugee households reporting a hospitalization there was an average of 1.7 (CI: 1.3-2.0; median=1; range: 1-38) hospitalizations in the year preceding the survey. Significant differences were observed in the proportion of households with a hospitalization by region with the greatest proportion of refugee households with at least one hospitalization were reported in Bekaa (23.1%), followed by the North (22.5%) and Beirut/Mount Lebanon (14.0%) ($p < 0.001$). The primary reasons for hospitalization included injury (19.9%, CI: 15.2-25.3), digestive problems (16.2%, CI: 12.1-21.3), respiratory conditions (12.9%, CI: 9.7-17.1), and other reasons (17.3%, CI: 13.7-21.5) (Figure 20).

Most households reported the most recent hospitalization in a private hospital (61.0%, CI: 54.3-66.9) with 37.1% (CI: 30.9-43.6) using public hospitals and 2.2% (CI: 1.0-4.7) unsure which type of hospital was visited. Common reasons for selecting the hospital included referral by a physician (28.1%, CI: 22.3-34.6), low cost services (23.0%, CI: 18.5-28.2), health emergency (23.0%, CI: 18.3-28.6), and closest to place of residence (14.0%, CI: 10.3-18.9). The average length of hospitalization was 4.5 days (CI: 2.9-6.1, median=2, range: 1-180).

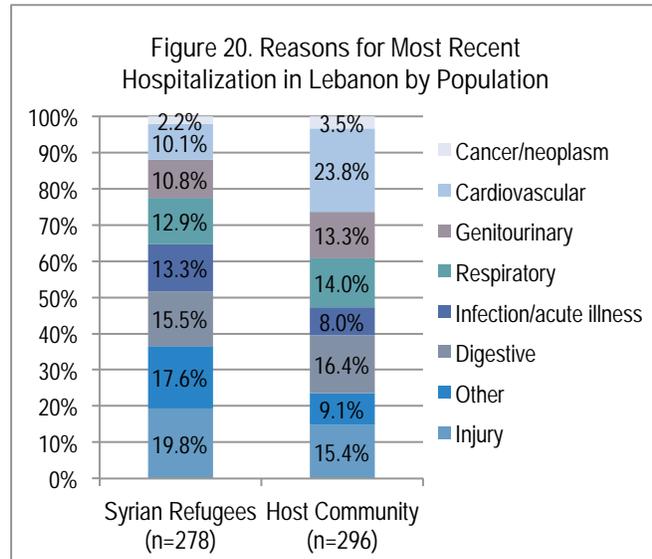
Out-of-pocket payments for the most recent hospitalization are presented in detail in Annex Table 17. In total, 89.6% (CI: 85.9-92.4) of refugee households reported on an out-of-pocket payment for the most recent hospitalization. The average out-of-pocket cost to refugee households for the most recent hospitalization was 495,623 LBP (CI: 416,425-574,821 LBP, median=300,000 LBP, range: 0-2,918,835 LBP) or US\$329 (CI: US\$276-381, median= US\$199, range: US\$0-1,936), and there was no difference in out-of-pocket spending by region (Figure 21).¹⁷ No significant differences in out-of-pocket payments were observed between refugee households with all members currently registered with UNHCR and those with only some or none of the household members registered.

¹⁶ Average out-of-pocket cost for only households that paid was 93,322 LBP (CI: 80,945-105,699, median=50,000) or US\$62 (CI: US\$54-70, median=US\$33).

¹⁷ Average out-of-pocket cost for only households that paid was 543,046 LBP (CI: 457,794-628,298 LBP, median=300,000 LBP) or US\$360 (CI: US\$304-417, median=US\$199)

Lebanese Host Community Comparison

In the year preceding the survey, 43.1% (CI: 39.2-47.2) of Lebanese host community households reported one or more hospitalizations of a household member for reasons other than childbirth. Overall, a significantly higher proportion of Lebanese host community households (43.1%) reported a hospitalization compared to Syrian refugees (20.2%) ($p < 0.001$); this difference was statistically significant in all regions. The proportions of refugee and host community households reporting a hospitalization were lower in Beirut/Mt Lebanon (14% and 37%, respectively) as compared to the Bekaa and North regions ($p < 0.001$ for refugees and $p = 0.097$ host community). Among Lebanese host community households reporting a hospitalization there was an average of 1.7 (CI: 1.5-2.0, median=1, range: 1-20) hospitalizations in the year preceding the survey. There was no significant difference overall in the average number of hospitalizations were observed between Syrian refugee and host community households (1.6 vs. 1.7, respectively, $p = 0.712$); however, in Bekaa; Syrian refugees reported a marginally significantly lower number of hospitalizations (1.3) than Lebanese host community households (1.7) ($p = 0.059$).

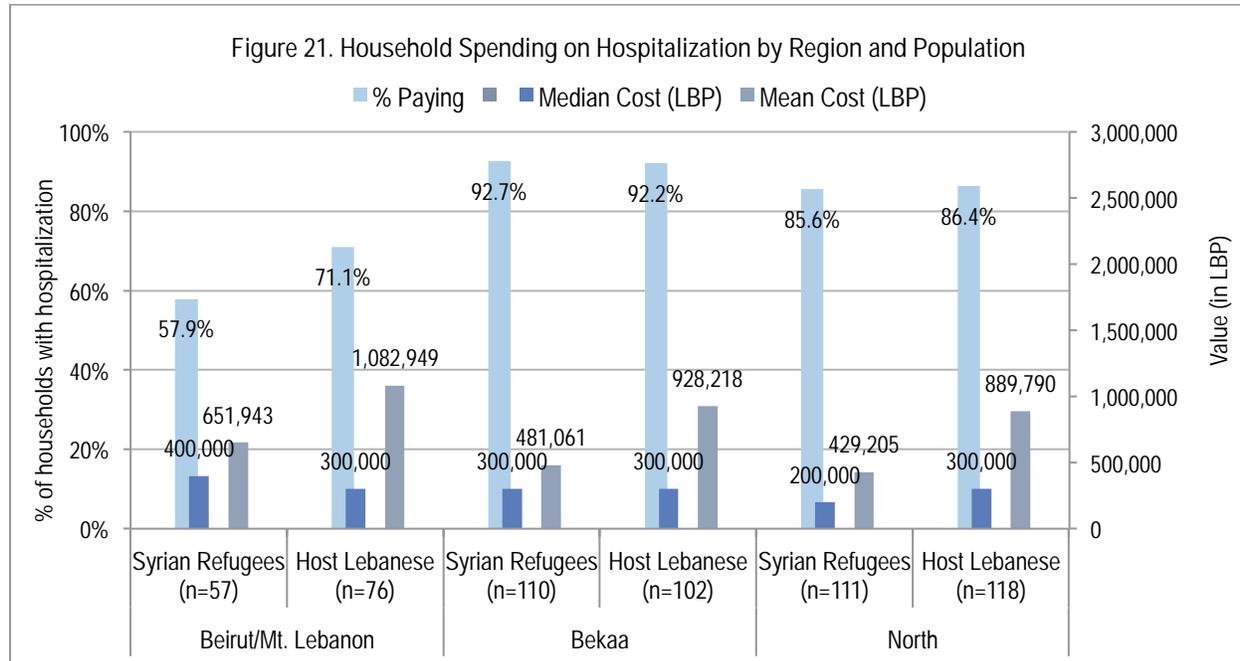


The primary reasons for hospitalization among Lebanese host community households included cardiovascular disease (23.0%, CI: 17.8-29.1), digestive problems (15.9%, CI: 12.3-20.2), and injury (14.9%, CI: 11.1-19.5). Causes of hospitalization are presented in Figure 20 and display the significant differences between Syrian refugee and Lebanese host community respondents ($p < 0.001$).

The most recent hospitalization for most Lebanese host community households was in a private hospital (77.0%, CI: 71.3-81.9) with 20.9% (CI: 16.2-26.6) using public hospitals and 2.0% (CI: 0.9-4.3) unsure which type of hospital was used. Although both Syrian refugees and Lebanese host community households were hospitalized most often at private facilities, a significantly higher proportion of Lebanese host community household index hospitalizations were hospitalized in private facilities compared to Syrian refugees (77.0% vs. 61%, $p = 0.037$). Common reasons for selecting the hospital where care was sought included being referral by a physician (30.4%, CI: 24.5-37.0), liked the staff or family doctor (20.3%, CI: 15.7-25.8), and medical emergency (18.6%, CI: 14.3-23.7); there were no significant differences in reasons for selecting hospitals between refugees and the Lebanese host community overall ($p = 0.236$) or in any of the regions. The average length of hospitalization of Lebanese host community patients was 4.9 days (CI: 4.0-5.8, median=3, range: 1-75), which was similar to that of refugees ($p = 0.631$).

Out-of-pocket payments for the most recent hospitalization are presented in detail in Annex Table 17. In total, 87.8% (CI: 83.6-91.1) of Lebanese host community households reported on an out-of-pocket payment for the most recent hospitalization. Significantly more Lebanese host community households (64.5%, CI: 58.6-70.0) reported that a portion of the cost of hospitalization was paid by an organization including health insurance, the Army, or humanitarian agencies than was observed among Syrian refugees (54.7%) ($p = 0.042$). The average out-of-pocket cost to Lebanese host com-

munity households for the most recent hospitalization was 926,174 LBP (CI: 757,507-1,094,841 LBP, median=300,000 LBP, range: 0- 6,248,818 LBP) or US\$614 (CI: US\$502-726, median= US\$199, range: US\$0-4,145),¹⁸ significantly higher than reported by Syrian refugees (495,623 LBP or US\$329)($p<0.001$). Out-of-pocket costs significantly differed between Syrian refugees and Lebanese host community households in Bekaa ($p=0.012$) and the North ($p=0.010$), but not in Beirut/Mt. Lebanon ($p=0.058$) and are presented in Figure 21. Differences in hospitalization cost between refugees and host Lebanese were significant among households seeking care in public facilities with Lebanese paying significantly more than Syrian refugees (1,004,307 LBP or US\$666 vs. 553,662 LBP or US\$367, $p<0.001$).



Chronic Health Conditions

To obtain information on access to health services and medications for chronic conditions, respondents were questioned regarding the five most prevalent conditions among the Syrian refugee population in Lebanon: hypertension, cardiovascular disease,¹⁹ diabetes, chronic respiratory disease,²⁰ and arthritis. Respondents were asked a series of questions about each of these conditions, beginning with the number of people in the household diagnosed with the condition organized into four age groups: under 17 years, 18-39 years, 40-59 years, and 60 years and over. For each condition, following inquiries to determine the prevalence, a series of questions regarding care-seeking, access, and utilization of health services were asked about the experiences of one randomly selected household member diagnosed with the condition in question. The following analysis is based on responses from household index cases for each of the five conditions.

¹⁸ Average out-of-pocket cost for only households that paid was 1,058,990 LBP (CI: 880,259-1,237,721 LBP, median=400,000 LBP) or US\$702 (CI: US\$584-821, median=US\$265).

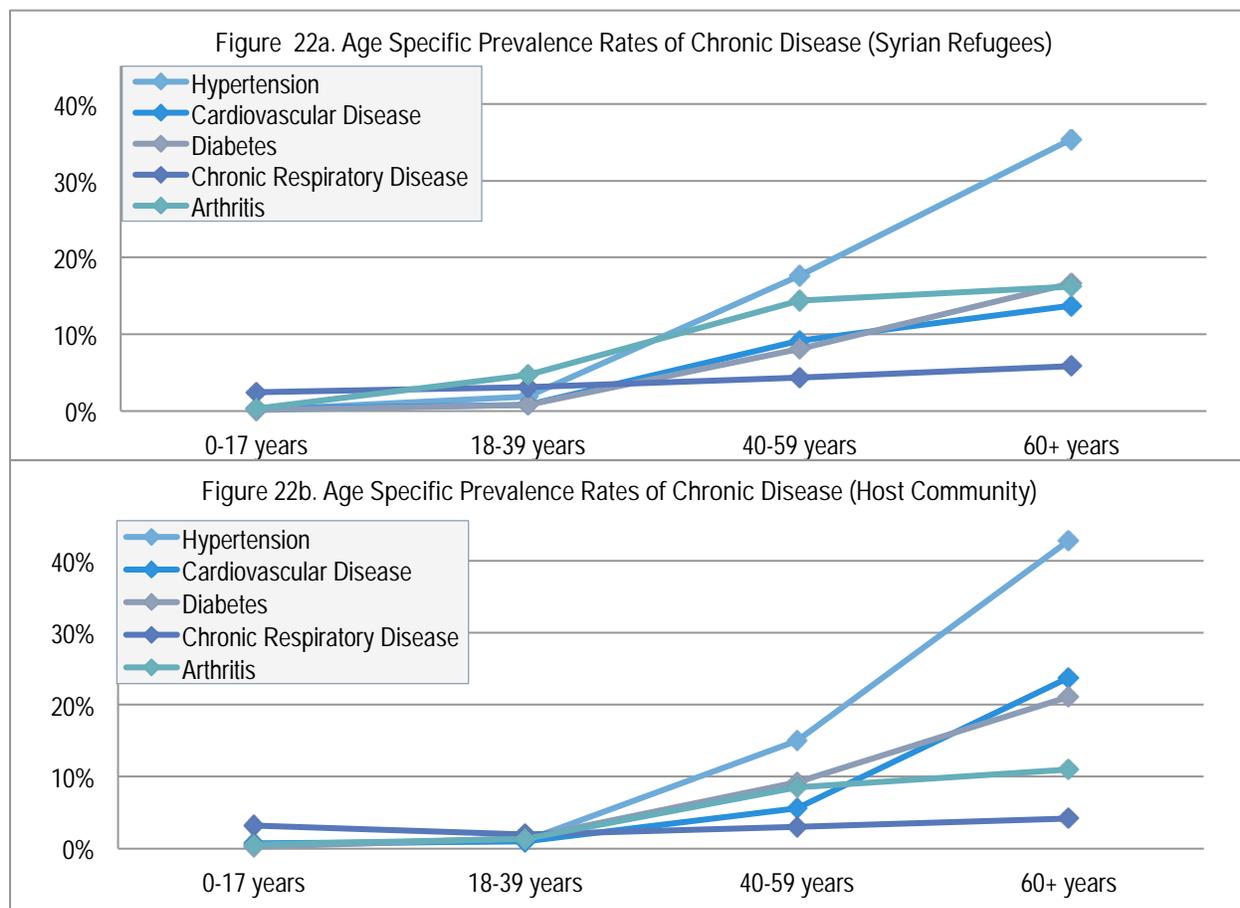
¹⁹ Includes heart failure, angina, arrhythmias [irregular heartbeats], a previous heart attack, or previous stroke

²⁰ Includes asthma, chronic bronchitis, emphysema, and chronic obstructive pulmonary disease

Prevalence of Chronic Health Conditions in Adults

Syrian Refugees

Just over half (50.4%, CI: 47.3-53.6) of Syrian refugee households reported that one or more household member(s) had been previously diagnosed with one of the five chronic health conditions included in the survey. Among adult household members (those over 17 years old), arthritis had the highest overall prevalence (7.9%, CI: 6.8-9.0), followed by hypertension (7.4%, CI: 6.6-8.3), chronic respiratory disease (3.8%, CI: 3.0-4.5), cardiovascular disease (3.3%, CI: 2.7-3.9), and diabetes (3.3% (CI: 2.6-3.9). Few individuals under 17 years old reported diagnosis with a chronic condition. Among 0-17 year olds, the most prevalent reported chronic condition was chronic respiratory diseases (2.4%, CI: 1.8-3.1). Arthritis (4.7%, CI: 3.9-5.5) and chronic respiratory diseases (3.2%, CI: 2.5-3.8) were most prevalent among those 18 to 39 years old. Prevalence of all chronic conditions was dramatically higher in those 40 years old and over, and hypertension was most the prevalent chronic condition among the older age groups. Age-specific prevalence of each condition is provided in Figure 22a, Figure 23 and Annex Table 19.

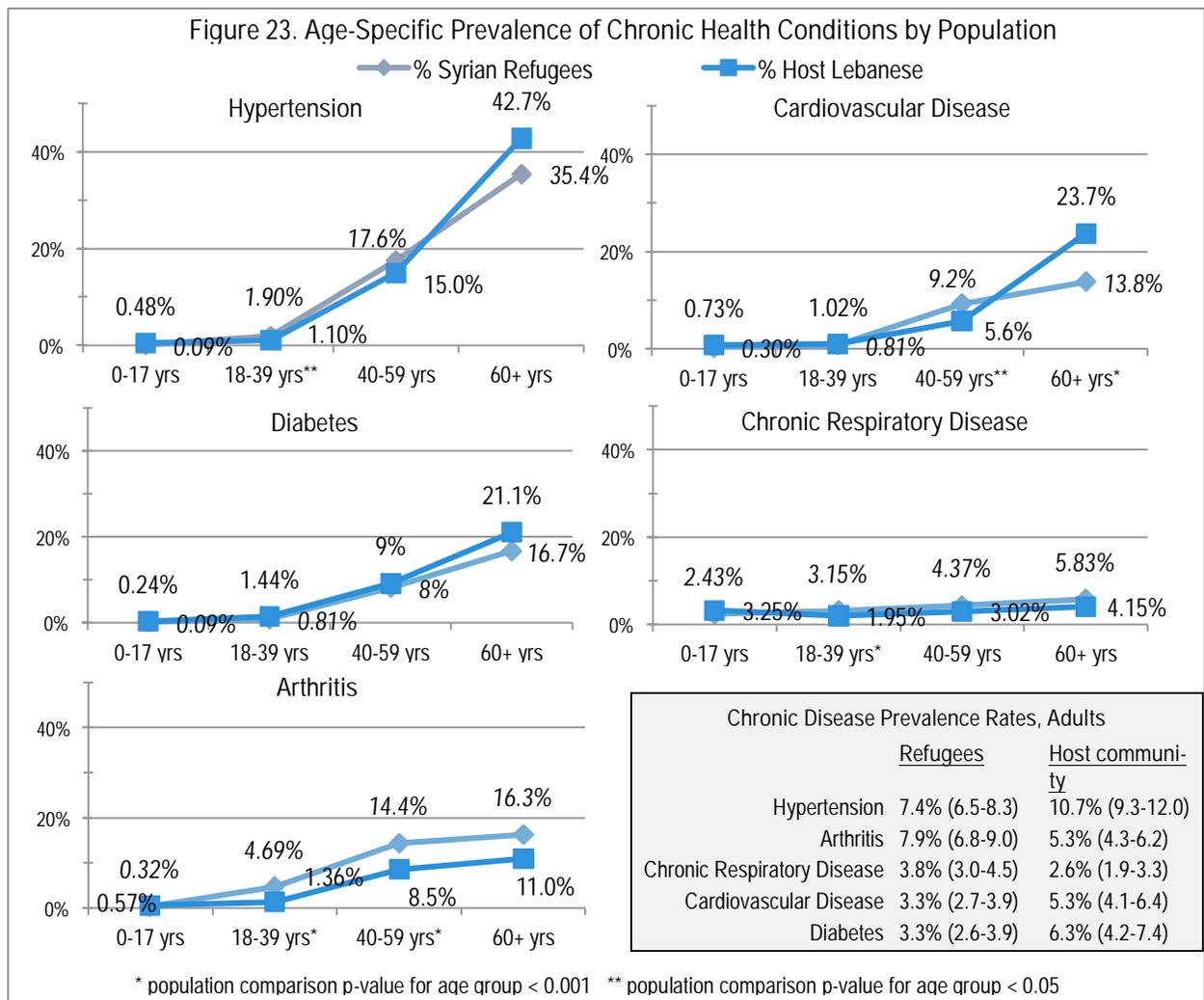


Lebanese Host Community Comparison

Just over half (60.2%, CI: 59.5-63.8) of host community households reported that one or more household members had been previously diagnosed with one of the five chronic health conditions included in the survey. Among adult household members (those over 17 years old), hypertension had the highest overall prevalence (10.7%, CI: 9.3-12.0), followed by diabetes (6.3%, CI: 5.2-7.4), cardiovascular disease (5.3%, CI: 4.2-6.4), arthritis (5.2%, CI: 4.3-6.2), and chronic respiratory dis-

ease (2.6%, CI: 1.9-3.3). Few individuals under 17 years old reported diagnosis with a chronic condition. Among 0-17 year olds, the most prevalent reported chronic condition was chronic respiratory diseases (3.3%, CI: 1.9-4.6). Among those 18 to 39 years old, chronic respiratory disease (2.0%, CI: 1.1-2.8) and diabetes (1.4%, CI: 0.5-2.4) were most prevalent conditions. Prevalence of all chronic conditions was dramatically higher in those age 40 years and above, and hypertension was most prevalent condition in both the 40-59 year and 60 and above groups at 14.6% (CI: 12.5-17.5) and 42.7% (CI: 37.4-48.1), respectively. Age-specific prevalence of each condition for the host community is provided in Figures 22b and 23, and in Annex Table 19.

Health Seeking and Service Utilization for Chronic Health Conditions

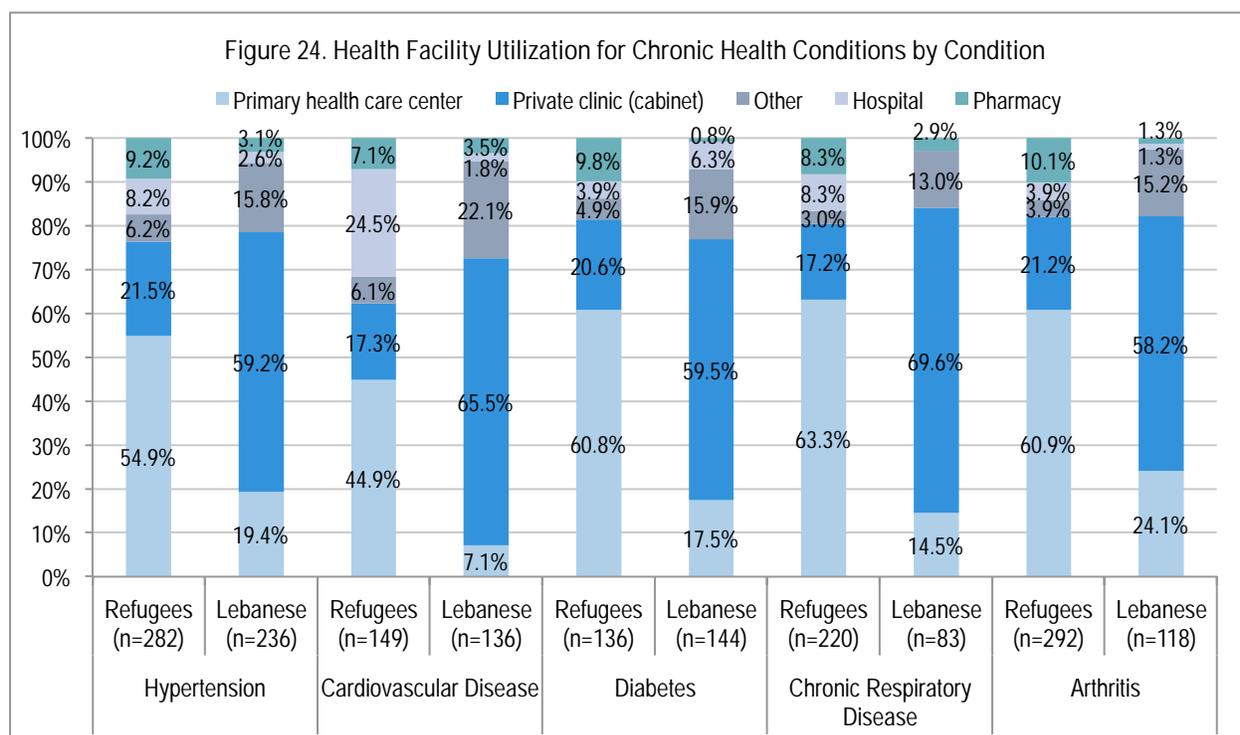


Syrian Refugees

Care-seeking for chronic health conditions among Syrian refugees was high across all conditions. Of the 1,079 Syrian refugee index cases with a diagnosis of a chronic health condition, 82.9% (CI: 80.2-85.2) reported receiving care in Lebanon. The distribution among care-seeking cases for the last time medical care was received for the condition was as follows: <1 month ago, 24.7% (CI: 21.4-28.2); 1 to less than 3 months ago, 25.9% (CI: 23.1-29.0); 3 to less than 6 months ago, 13.1% (CI:

10.8-15.7); 6 months to less than one year ago, 5.2% (CI: 4.1-6.6) and more than one year ago, 14.1% (CI: 11.7-16.8).

Among the 743 Syrian refugees who sought care for chronic health conditions in Lebanon, over half received care in primary health care centers (57.7%, CI: 53.2-62.1). Private clinics were utilized by 19.8% (CI: 16.9-23.0) of refugee patients seeking care for chronic health conditions. A small proportion of Syrian refugee patients also sought care at hospitals (8.7%, CI: 6.6-11.4) and pharmacies (9.0%, CI: 6.6-12.2). The remaining patients (4.7%, CI: 3.0-7.2) sought care from a number of other sources including MMUs and home-based providers. Utilization of facilities by chronic condition is presented in Figure 24. Cardiovascular patients reported the lowest proportion utilizing primary health care centers for care (44.9%, CI: 36.0-54.1), but the highest proportion utilizing hospitals (24.5%, CI: 17.4-33.3). Of all chronic conditions, chronic respiratory disease had the highest proportion of Syrian refugee cases that utilized primary health care centers (63.3%, CI: 55.3-70.6) for care and the lowest utilizing private clinics (17.2%, CI: 12.1-23.8); conversely, hypertension care at private clinics (21.5%, CI: 16.6-27.5) was greatest out of the five conditions among Syrian refugees. Pharmacies were utilized the most among Syrian refugee patients with arthritis (10.1%, CI: 5.9-16.7) and least among index cases of cardiovascular disease (7.1%, CI: 3.6-13.8).



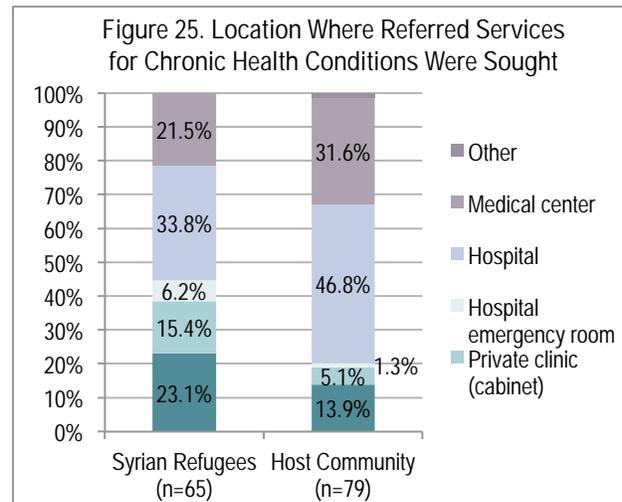
Referrals were given to a total of 13.7% of refugee cases that received care for a chronic health condition in Lebanon; 8.7% of care seekers received referred services and 5.0% were given referrals but did not receive referral care. The most commonly referred services among Syrian refugee respondents were lab tests (55.4%, CI: 43.8-66.4) and referral care was most often sought at hospitals (33.8%, CI: 21.6-48.7), primary health care centers (23.1%, CI: 12.6-38.5), and medical centers (21.5%, CI: 11.1-37.6) (Figure 25). Significant differences in perceptions of access to health specialists were observed between refugee households in which any member has a chronic health condition and households with no chronic health conditions; 8.5% and 11.5% of households, respectively perceived specialist care as accessible (p=0.003).

Lebanese Host Community Comparison

Care-seeking for chronic health conditions among Lebanese host community households was high across all conditions. Of the 749 Lebanese host community index cases with a diagnosis of a chronic health condition, 97.7% (CI: 96.3-98.6) reported receiving care in Lebanon, significantly higher than the 82.9% of Syrian refugee cases receiving care in Lebanon for chronic health conditions ($p < 0.001$). This difference was significant on a regional level in all three regions (Beirut/Mt. Lebanon $p < 0.001$; Bekaa $p < 0.001$; North $p < 0.001$) (Annex Table 20). The distribution among care-seeking cases for the last time medical care was received for the condition was as follows: <1 month ago, 23.5% (CI: 20.1-27.3); 1 to less than 3 months ago, 31.2% (CI: 27.7-35.0); 3 to less than 6 months ago, 17.8% (CI: 15.1-20.8); 6 months to less than one year ago, 8.4% (CI: 6.5-10.8) and more than one year ago, 16.8% (CI: 13.8-20.3). Time since care was last needed was also significantly different between Syrian refugee and host community households ($p < 0.001$). The most notable difference in timing of care is the higher proportion of Syrian refugees reporting that care was not needed in Lebanon (16.2%, CI: 13.9-18.9), likely a result of the length of time most Syrian refugees have been in Lebanon compared to host Lebanese households.

Among the 606 Lebanese host community who sought care for chronic health conditions in Lebanon, over half (62.4%, CI: 56.6-67.8) received care in private clinics. Fewer patients utilized primary health care centers (16.7%, CI: 13.3-20.7) and hospitals (16.0%, CI: 12.4-20.4) and a small proportion of Lebanese host community patients sought care at pharmacies (2.6%, CI: 1.4-4.9) and other facility types (2.3%, CI: 1.1-4.7) including MMUs and home-based providers. Utilization of facilities by chronic condition is presented in Figure 24. Lebanese host community cardiovascular patients reported the lowest proportion utilizing primary health care centers for care (7.1%, CI: 3.6-13.5) and arthritis patients reported the highest proportion seeking care in PHCCs (24.1%, CI: 16.2-34.2). Of all chronic conditions, chronic respiratory disease had the highest proportion of cases that utilized primary health care centers (69.6%, CI: 57.9-79.1) for care and arthritis patients had the lowest proportion (58.2%, CI: 47.6-68.2). Among all chronic conditions included in the survey, the lowest proportion of cases utilizing hospitals was observed in chronic respiratory disease, for which no care was sought in hospitals; conversely, diabetes care at hospitals (6.3%, CI: 3.3-12.0) was highest out of the five conditions. Pharmacies were utilized the most among Lebanese host community patients with cardiovascular disease (3.5%, CI: 1.3-9.1) and least among index cases of arthritis (1.3%, CI: 0.2-8.8).

Of all host community cases that received care for a chronic health condition, 14.8% were referred for additional services; 13.6% of care seekers received referred services and 1.2% were given referrals but did not receive referral care. As was observed in refugee cases, the most commonly referred services among host community respondents were lab tests (66.4%, CI: 55.1-79.2). Referral care was most often sought at hospitals (46.8%, CI: 34.9-59.2) and medical centers (31.6%, CI: 20.9-44.8). Location where referred services were sought significantly differed between refugees and host communities and these differences are provided in Figure 25 ($p = 0.018$). Unlike Syrian refugee respondents, no significant differences in perceptions of access to health specialists were observed



between Lebanese host community households in which any member has a chronic health condition and households with no chronic health conditions ($p=0.846$).

Hypertension

Syrian Refugees

Among index cases of hypertension in surveyed refugee households, most saw a doctor for hypertension in Lebanon (80.9%, CI: 75.2-85.5). Approximately half of the index hypertension cases reported needing care within the past three months (51.4%, CI: 45.1-57.7). Of refugees receiving care for hypertension, over half were treated in primary health care centers (54.9%, CI: 47.6-61.9); private clinics provided care for 21.5% (CI: 16.6-27.5), hospitals for 8.2% (CI: 5.1-12.9), pharmacies for 9.6% (CI: 5.6-14.8), and other facilities provided care for 6.2% (CI: 3.0-12.3).

Very few (10.3%) refugee cases that received hypertension care in Lebanon were referred for additional services; 6.2% of care seekers were referred and received the services and 4.1% were referred but did not receive the referred services. The most commonly referred services were lab tests (83.3%, CI: 51.6-95.9 of households receiving referrals). Syrian refugee patients receiving referral care did so most often at hospitals (41.7%, CI: 18.2-55.8).

Lebanese Host Community Comparison

Almost all index cases of hypertension in surveyed Lebanese host community households saw a doctor for hypertension in Lebanon (98.3%, CI: 95.6-99.4), significantly higher than observed in Syrian refugees (80.9%; $p<0.001$). Just over half of the index hypertension cases reported needing care within the past three months (55.1%, CI: 48.4-61.6). Significant differences in the timing of care-seeking for all chronic health conditions were observed between Syrian refugees and Lebanese host community as mentioned previously and are presented in Annex Table 20 ($p=0.008$).

Of host community cases receiving care for hypertension, over half were treated in private clinics (59.2%, CI: 51.0-69.9); primary health care centers provided care for 19.4% (CI: 14.3-25.7), hospitals for 15.8% (CI: 11.4-21.6), pharmacies for 2.6% (CI: 1.0-6.1), and other facilities provided care for 3.1% (CI: 1.2-7.5). There was no significant difference in care seeking location for hypertension between refugees and the host community ($p=0.092$).

A small proportion (11.7%) of Lebanese host community cases that received hypertension care were referred for additional services which was similar to proportion for refugees ($p=0.799$); 10.2% of care seekers were referred and received the services and 1.5% were referred but did not receive the referred services. The most commonly referred services were lab tests (85.0%, CI: 61.1-95.3 of households receiving referrals). Host community patients receiving referrals sought referral care most often at medical centers (45.0%, CI: 23.1-69.0) and hospitals (40.0%, CI: 22.2-60.9).

Cardiovascular Disease

Syrian Refugees

The lowest percentage of cases seeking care was observed in cardiovascular disease patients; however, among index cases of cardiovascular disease in interviewed households, the majority had sought care for the condition in Lebanon (82.6%, CI: 74.8-88.3). Most cardiovascular disease cases reported needing care within the past three months (40.9%, CI: 32.0-50.5). Among refugee patients receiving care for cardiovascular disease, 44.9% (CI: 36.0-54.1) were treated in primary health care centers. Another 24.5% (CI: 17.4-33.3) sought care in hospitals, 17.3% (CI: 11.5-25.2) in private clinics, 7.1% (CI: 3.6-13.8) in pharmacies, and 17.3% (CI: 11.3-25.6) at other facility types.

Among refugee cases that received cardiovascular disease care in Lebanon, 22.4% were referred for additional services; 15.3% of care seekers were referred and received the services and 7.1% were referred but did not receive the referred services. The most commonly referred services were lab tests (40.0%, CI: 20.0-64.0 of households receiving referrals), diagnostic tests (33.3%, CI: 13.9-60.7), and special consultations (13.3%, CI: 3.2-41.6). Syrian refugee patients receiving referrals sought referral care most often at hospitals (46.7%, CI: 22.4-72.6), medical centers (20.0%, CI: 6.3-48.1), and primary health care centers (20.0%, CI: 6.3-48.1).

Lebanese Host Community Comparison

Nearly all index cases of cardiovascular disease in Lebanese host community households saw a doctor for the condition (98.5%, CI: 94.3-99.6). This is significantly higher than the 82.6% of Syrian refugees who reported receiving care ($p<0.001$). More than half of cardiovascular disease cases reported needing care within the past three months (54.4%, CI: 45.8-62.7). A significantly higher proportion of Lebanese reported needing care than was observed among Syrian refugee households overall (40.9%; $p<0.001$) and on a regional level in Beirut/Mount Lebanon ($p=0.003$).

Among refugee patients receiving care for cardiovascular disease, 65.5% (CI: 54.8-74.8) were treated in private clinics. Another 22.1% (CI: 14.7-31.9) sought care in hospitals, 7.1% (CI: 3.6-13.5) in primary health care centers, 1.8% (CI: 0.4-6.9) in pharmacies, and 3.5% (CI: 1.3-9.1) at other facility types. There was no significant difference in care seeking location for cardiovascular disease between refugees and the host community ($p=0.239$).

A small proportion (12.4%) of Lebanese host community cases that received cardiovascular disease care were referred for additional services; 11.5% of care seekers were referred and received the services and 0.9% were referred but did not receive the referred services. The most commonly referred services were lab tests (46.2%, CI: 22.0-72.2 of households receiving referrals) and diagnostic tests (30.8%, CI: 11.8-59.6). Host community patients receiving referrals sought referral care most often at hospitals (38.5%, CI: 16.7-66.1) and medical centers (30.8%, CI: 11.8-59.6).

Diabetes

Syrian Refugees

Among index cases of diabetes in refugee households, most saw a doctor for the condition in Lebanon (88.2%, CI: 81.8-92.6). Significant differences in care-seeking for diabetes were observed by region with all surveyed cases in Beirut/Mount Lebanon reporting care-seeking and a higher proportion of cases care-seeking in the North (87.5%) than in Bekaa (80.0) ($p=0.024$). More than half of diabetes cases reported needing care within the past three months (61.8%, CI: 53.7-69.2).

Over half of refugee diabetes care seekers were treated in primary health care centers (60.8%, CI: 50.7-70.1). Another 20.6% (CI: 13.7-29.7) sought care in private clinics. Other less frequently sought sources of care for diabetes included pharmacies (9.8%, CI: 5.5-16.8), hospitals (3.9%, CI: 1.5-9.9), and other facilities (4.9%, CI: 2.1-11.1).

Among refugee cases that received diabetes care in Lebanon, 12.7% were referred for additional services; 8.8% of care seekers were referred and received the services and 3.9% were referred but did not receive the referred services. The most commonly referred services were lab tests (85.9%, CI: 49.1-98.5 of households receiving referrals) and diagnostic tests (11.1%, CI: 1.5-50.9). Syrian refugee patients receiving referrals sought referral care most often at hospitals (33.3%, CI: 10.9-67.2), medical centers (33.3%, CI: 10.9-67.2), and primary health care centers (22.2%, CI: 5.5-58.6).

Lebanese Host Community Comparison

Among index cases of diabetes in Lebanese host community households, most saw a doctor for the condition in Lebanon (97.2%, CI: 92.9-98.9). Significant differences in care-seeking for diabetes were observed with a greater proportion of Lebanese host community seeking care for diabetes compared to Syrian refugees (88.2%)($p=0.004$). More than half of diabetes cases reported needing care within the past three months (66.0%, CI: 58.3-72.9).

Over half of host community diabetes care seekers were treated in private clinics (59.5%, CI: 51.2-67.3). Another 17.5% (CI: 12.1-24.5) sought care in primary health care centers and 15.9% (CI: 10.7-22.8) sought care in hospitals. Other less frequently sought sources of care for diabetes included pharmacies (6.3%, CI: 3.3-12.0) and other facility types (0.8%, CI: 0.1-5.6). Significant differences were observed in facility type utilized by Syrian refugees and Lebanese host community with refugees seeking at primary health centers most often (60.8%) as compared to Lebanese host community, which were more likely to seek care in private clinics ($p=0.005$).

Approximately one-fifth (19.9%) of host community cases that received diabetes care were referred for additional services which was similar to proportion for refugees ($p=0.406$); 18.3% of care seekers were referred and received the services and 1.6% were referred but did not receive the referred services. The most commonly referred services were lab tests (93.1%, CI: 70.3-97.9 of households receiving referrals) and curative interventions (8.7%, CI: 2.1-29.7). Syrian refugee patients receiving referrals sought referral care most often at hospitals (47.8%, CI: 27.1-69.3) and medical centers (30.4%, CI: 15.3-51.4).

Chronic Respiratory Disease

Syrian Refugees

Syrian refugee patients with chronic respiratory disease reported the highest percentage of cases seeking care. A substantial proportion of those diagnosed with chronic respiratory disease saw a doctor for the condition in Lebanon (89.1%, CI: 84.1-92.6). Most of the individuals with chronic respiratory disease reported needing care within the past three months (60.0%, CI: 53.2-66.5). Of refugees receiving care for chronic respiratory disease, 63.3% (CI: 55.3-70.6) were treated in primary health care centers. Another 17.2% (CI: 12.1-23.8) sought care in private clinics. Other less frequently utilized sources of care for chronic respiratory disease included hospitals (8.3%, CI: 4.9-13.7), pharmacies (8.3%, CI: 4.9-13.7), and other facility types (3.0%, CI: 1.0-8.1).

Among refugee cases that received chronic respiratory disease care in Lebanon, 11.2% were referred for additional services; 7.1% of care seekers were referred and received the services and 4.1% were referred but did not receive the referred services. The most commonly referred services were diagnostic tests (33.3%, CI: 12.8-62.9 of households receiving referrals), followed by specialist consultations (33.3%, CI: 12.8-62.9), lab tests (25.0%, CI: 8.1-55.8), and curative interventions (8.3%, CI: 1.1-42.2). Syrian refugee patients receiving referrals sought referral care most often at private clinics (33.3%, CI: 12.8-62.9), hospitals (25.0%, CI: 8.1-55.8), primary health care centers (25.0%, CI: 8.1-55.8), and hospital emergency rooms (16.7%, CI: 4.1-48.4).

Lebanese Host Community Comparison

Among all chronic conditions included in the survey, the lowest proportion of cases seeking care was observed in host community household members with chronic respiratory disease (92.8%, CI: 84.7-96.7). More than half of the individuals with chronic respiratory disease reported needing care within the past three months (56.6%, CI: 45.4-67.3). There was no significant difference in the timeframe when care was last sought for chronic respiratory disease between refugees and the host community ($p=0.853$).

Of host community cases receiving care for chronic respiratory disease, 69.6% (CI: 57.9-79.1) were treated in private clinics. Other less frequently sought sources of care for chronic respiratory disease included primary health care centers (14.5%, CI: 7.5-26.0), hospitals (13.0%, CI: 7.1-22.8), and other facility types (2.9%, CI: 0.7-11.3). There were significant differences in facility type utilized by Syrian refugees and Lebanese host community; refugees most often sought care at primary health centers (63.6%) as compared to host community members that more often sought care at private clinics (69.6%) ($p < 0.001$). At the regional level, a significant difference in refugee and host community care seeking locations was observed only in Beirut/Mount Lebanon ($p = 0.034$).

As compared to Syrian refugees, a similarly small proportion (8.7%) of host community cases that received chronic respiratory disease care were referred for additional services ($p = 0.193$), all of which received the referred services. The most commonly referred services were diagnostic tests (66.7%, CI: 32.8-89.1 of households receiving referrals), followed by diagnostic tests (16.7%, CI: 2.1-65.6), and curative interventions (16.7%, CI: 3.2-54.4). Host community patients receiving referrals sought referral care most often at hospitals (83.3%, CI: 45.6-96.8) or hospital emergency rooms (16.7%, CI: 3.2-54.4).

Arthritis

Syrian Refugees

Among index arthritis cases interviewed, most saw a doctor for arthritis in Lebanon (78.1%, CI: 73.0-82.4). Many of the index arthritis cases reported needing care within the past three months (42.5%, CI: 36.6-48.5). Among Syrian refugees receiving arthritis care, 60.9% (CI: 53.9-67.5) were treated at primary health care centers. Another 21.2% (CI: 15.9-27.8) sought care in private clinics. Other less frequently sought sources of care for chronic respiratory disease included pharmacies (10.1%, CI: 5.9-16.7), hospitals (3.9%, CI: 1.9-7.9), and other types of facilities (3.9%, CI: 1.9-7.9).

Among refugees that received arthritis care in Lebanon, 15.6% were referred for additional services; 6.1% of care seekers were referred and received the services and 6.1% were referred but did not receive the referred services. The most commonly referred services were lab tests (52.9%, CI: 28.6-75.9 of households receiving referrals), followed by diagnostic tests (29.4%, CI: 13.3-53.0), and specialist consultations (17.6%, CI: 6.1-41.4). Patients receiving referrals sought referral care most often at medical centers (29.4%, CI: 12.3-55.3), hospitals (23.5%, CI: 9.5-47.3), primary health care centers (23.5%, CI: 8.8-49.6), and private clinics (23.5%, CI: 9.5-47.3).

Lebanese Host Community Comparison

All index arthritis cases in interviewed Lebanese host community households saw a doctor for arthritis. This is significantly higher than the proportion of Syrian refugee arthritis care seekers (78.1%; $p < 0.001$). Almost half of the index arthritis cases reported needing care within the past three months (43.2%, CI: 34.4-52.5); however the length of time since care was needed did not differ significantly between Syrian refugees and Lebanese ($p = 0.072$).

Among Syrian refugees receiving arthritis care, 58.2% (CI: 47.6-68.2) were treated at private clinics. Another 24.1% (CI: 16.2-34.2) sought care in primary health care centers. Other less frequently sought sources of care for chronic respiratory disease included hospitals (15.2%, CI: 8.9-24.7), pharmacies (1.3%, CI: 0.2-8.8), and other types of facilities (1.3%, CI: 0.2-8.8). Marginally significant differences in location of care-seeking were observed between Syrian refugees and Lebanese host community overall ($p = 0.057$). On a regional level, significant differences were observed in Bekaa where Syrian refugees most often sought care in primary health care centers (68.3%) while most Lebanese host community cases (65.4%) sought care in private clinics ($p = 0.033$).

Almost one-quarter (22.8%) of host community cases that received arthritis care in Lebanon were referred for additional services, a proportion that was similar to refugees ($p=0.206$); 21.5% of care seekers were referred and received the services and 1.3% did not receive the referred services. The most commonly referred services were diagnostic tests (41.2%, CI: 20.8-65.2 of households receiving referrals), followed by lab tests (35.3%, CI: 16.5-60.0), specialist consultations (11.8%, CI: 2.9-37.4), and curative interventions (11.8%, CI: 2.9-37.4). Host community patients receiving referrals sought referral care most often at hospitals (47.1%, CI: 25.2-70.1), medical centers (29.4%, CI: 12.6-54.6), primary health care centers (17.6%, CI: 5.7-43.3), and private clinics (5.9%, CI: 0.8-32.6).

Spending on Health Services for Chronic Health Conditions

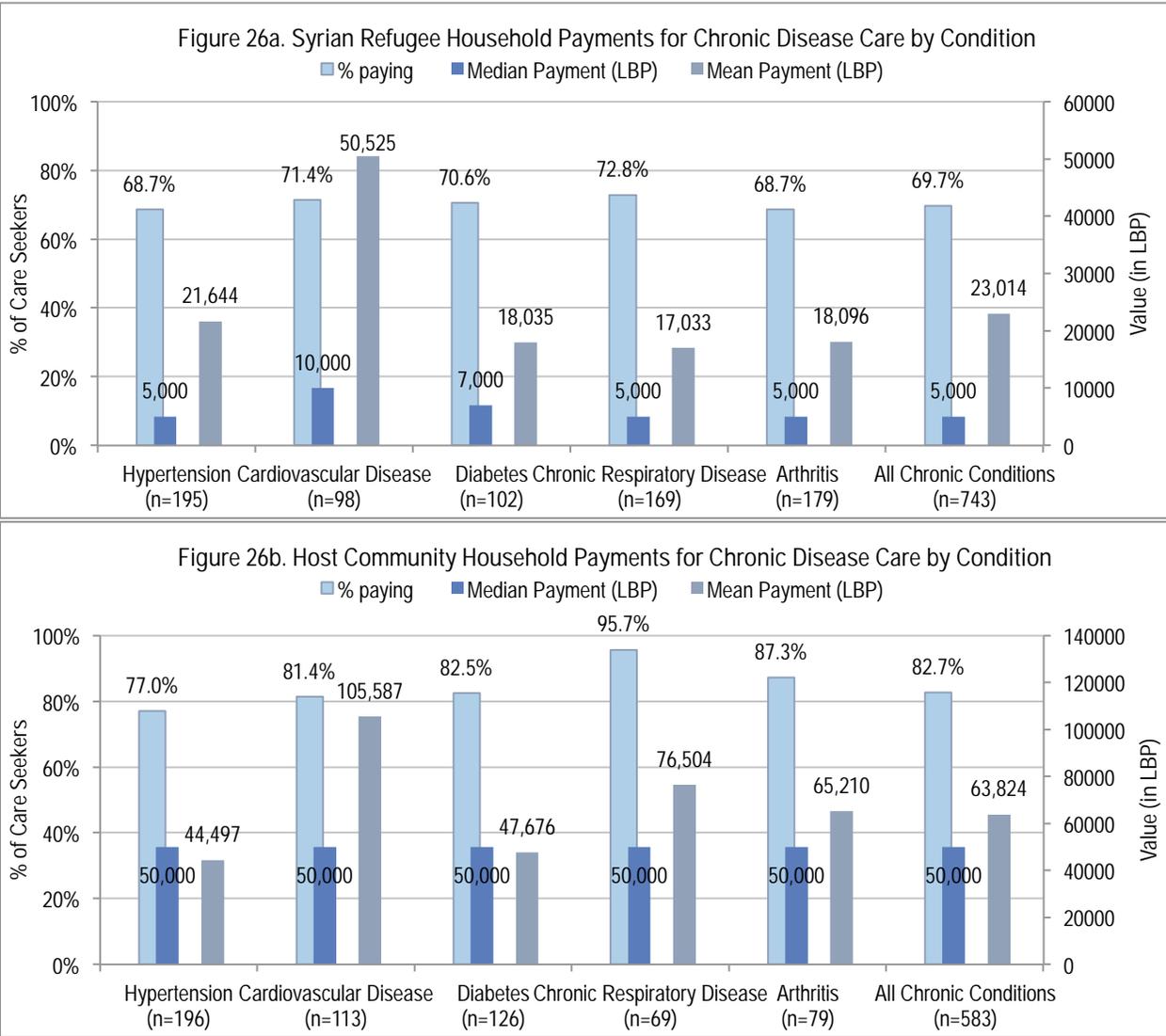
Syrian Refugees

Cost of health care for chronic conditions was measured for the most recent care seeking experience, excluding the cost of medications and anything paid on the patient's behalf by the United Nations or other organizations. Among Syrian refugees receiving care for chronic conditions in Lebanon, 69.7% (CI: 65.0-74.0) reported accessing medical care with an out-of-pocket payment. The average out of pocket cost for all Syrian refugee patients receiving care was 23,014 LBP (CI: 19,242-26,785 LBP; median= 5,000 LBP) or US\$15 (CI: US\$13-18; median= US\$3). Among Syrian refugee patients that paid for care, the average out of pocket cost was 33,187 LBP (CI: 27,995-38,379 LBP; median= 15,000 LBP) or US\$22 (CI: US\$19-25; median=US\$10). No significant regional differences were observed in the proportion patients with out-of-pocket payments or the mean out-of-pocket payment amount by chronic condition ($p=0.192$ and $p=0.207$, respectively).

Overall spending on health services at the most recent visit was similar among the five chronic health conditions queried. Among Syrian refugee respondents, hypertension (68.7%, CI: 61.4-75.2) and arthritis patients (68.7%, CI: 60.8-75.6) reported the lowest proportions paying for care visits compared to those receiving care for other chronic conditions. Conversely, chronic respiratory disease had the highest proportion of Syrian refugee care seekers who reported out-of-pocket payment for care (72.8%, CI: 64.7-79.6). The mean cost to Syrian refugee households for chronic disease care was the highest for cardiovascular disease (50,525 LBP, CI: 29,621-71,428 LBP or US\$34, CI: US\$20-47) and the lowest for chronic respiratory disease (17,033 LBP, CI: 12,520-21,545 LBP or US\$11, CI: US\$8-14). Differences in refugee health service for chronic conditions are presented in Figure 26a and in Annex Tables 20-25.

Lebanese Host Community Comparison

Cost of health care for chronic conditions was measured for the most recent care experience excluding the cost of medications and anything paid by a third party (such as the Army or health insurance) on the patient's behalf. Among Lebanese host community households receiving care for chronic conditions, 82.7% (CI: 77.9-86.6) reported accessing medical care with an out-of-pocket payment and the average out of pocket cost for all Lebanese households receiving care was 63,824 LBP (CI: 53,738-73,910 LBP; median= 50,000 LBP) or US\$42 (CI: US\$36-49; median= US\$33). Among Lebanese households that paid for care, the average out of pocket cost was 77,196 LBP (CI: 65,866-88,525 LBP; median= 50,000 LBP) or US\$51 (CI: US\$44-49; median= US\$33). A significantly higher proportion of Lebanese chronic condition care-seekers reported out-of-pocket payments than Syrian refugee care-seekers ($p=0.041$) and the cost of care was significantly higher for Lebanese than Syrian refugees ($p<0.001$). Differences in spending between Lebanese host community and Syrian refugee households are presented in Figure 26 and Annex Tables 20-25. Overall spending on health services was similar in host community cases across chronic conditions with the exception of hypertension, where a smaller proportion of host Lebanese patients (77.0%) paid than for those receiving care for other chronic conditions; conversely, chronic respiratory disease had the highest proportion of care seekers with an out-of-pocket payment (95.7%) ($p=0.031$).



Hypertension

Syrian Refugees

More than two-thirds (68.7%, CI: 61.4-75.2) of Syrian refugee hypertension care seekers in Lebanon had out-of-pocket payment for the most recent provider visit. The mean cost to Syrian refugee patients for hypertension care visits was 21,644 LBP (CI: 14,760-28,527 LBP) or US\$14 (CI: US\$10-19) and the median cost was 5,000 LBP or US\$3, suggestive of the 33.3% (CI: 26.6-40.9) of care seekers who did not pay for care. Significant differences in proportion of patients with out-of-pocket payments were observed by provider type (p=0.024). The highest proportion of Syrian refugee patients incurring out-of-pocket cost was reported among those seeking care at private clinics (85.7%, CI: 71.8-93.4) and the lowest among those seeking care in primary health care centers (73.8%, CI: 63.7-82.0).

Lebanese Host Community Comparison

More than three-quarters (77.0%, CI: 70.7-82.3) of Lebanese host community hypertension care seekers had out-of-pocket payment for the most recent provider visit. Out-of-pocket payments were most common in primary health care centers where 86.8% (CI: 71.7-94.5) of hypertension patients paid for care compared to 82.8% (CI: 74.6-88.7) in private clinics. The mean cost to Lebanese patients for hypertension care visits was 44,497 LBP (CI: 37,383-51,612 LBP) or US\$30 (CI: US\$25-34) and the median cost was 50,000 LBP or US\$33, significantly higher than the average cost reported by Syrian refugee respondents (21,644 LBP or US\$14) ($p < 0.001$). Significant differences in cost of hypertension care between Lebanese and Syrian refugee care-seekers were observed among those seeking care in primary health care centers where the mean cost was 28,395 LBP (CI: 15,258-41,531) or US\$19 (CI: US\$10-28) for Lebanese patients and 11,098 LBP (CI: 4,941-17,255) or US\$7 (CI: US\$3-11) for Syrian refugee patients ($p = 0.012$). Regionally, costs were significantly different between refugees and Lebanese in Bekaa ($p = 0.008$) and the North ($p < 0.001$).

Cardiovascular Disease

Syrian Refugees

The majority (71.4%, CI: 61.9-79.4) of Syrian refugee cardiovascular disease cases receiving care in Lebanon had out-of-pocket payments for their most recent care visit. Differences in the proportion of patients with out-of-pocket payment by facility type were significant ($p < 0.001$). The highest proportion of Syrian refugee patients that reported out-of-pocket payments for cardiovascular disease care was observed in primary health care centers where 84.1% (CI: 69.9-92.3) of cases had out-of-pocket payments. Hospitals had the lowest percentage of out-of-pocket payments with 70.8% (CI: 50.3-85.3) of the Syrian refugee patients receiving care incurring out-of-pocket costs.

Overall, the average cost to Syrian refugee households for cardiovascular disease care was 50,525 LBP (CI: 29,621-71,428 LBP) or US\$34 (CI: US\$20-47) and the median cost was 10,000 LBP or US\$7. Among only those paying for care, the mean cost was 71,329 LBP (CI: 43,975-98,683 LBP) or US\$47 (CI: US\$29-65). Significant cost differences were also observed for cardiovascular disease care-seeking by facility type ($p < 0.001$). Patients seeking care in hospitals paid the highest average out-of-pocket cost (146,592 LBP, CI: 78,550-215,354 LBP or US\$97, CI: US\$52-143) and those seeking care in primary health care centers paid the lowest (13,648 LBP, CI: 6,821-20,475 LBP or US\$9, CI: US\$5-14).

Lebanese Host Community Comparison

The majority (81.4%, CI: 72.6-87.8) of host Lebanese cardiovascular disease cases receiving care reported out-of-pocket payments for their most recent care visit. The average out-of-pocket cost for cardiovascular disease care was significantly higher for Lebanese respondents (105,587 LBP, CI: 66,295-144,879 LBP or US\$70, CI: US\$44-96) than Syrian refugees (50,525 LBP or US\$34) ($p = 0.022$). The mean cost to only host community cases reporting out-of-pocket payment was 129,051 LBP (CI: 82,794-175,308 LBP) or US\$86 (CI: US\$55-116). In the North, the mean out-of-pocket cost to host community cases (156,089 LBP or US\$104) was significantly higher than costs incurred by Syrian refugee cases (41,393 LBP or US\$27) ($p = 0.015$).

Diabetes

Syrian Refugees

A substantial proportion (70.6%, CI: 62.3-77.7) of Syrian refugee diabetes cases had out-of-pocket payments for their most recent care visit. Out-of-pocket payments were most common in private clinics (90.5%) and least common in hospitals (50%) and these differences were significant

($p=0.030$). The mean cost of diabetes care to refugee households was 18,035 LBP (CI: 12,381-23,689 LBP) or US\$12 (CI: US\$8-16) and the median cost was 7,000 LBP or US\$5; among only those paying for care, the mean cost was 25,765 LBP (CI: 18,039-33,490 LBP) or US\$17 (CI: US\$12-22).

Lebanese Host Community Comparison

Most Lebanese host community diabetes cases (82.5%, CI: 74.5-88.4) reported out-of-pocket payments for their most recent care visit, significantly higher overall than that observed among Syrian refugee respondents (70.6%) ($p=0.022$). Regionally, these differences were significant in the North where the average cost of care for host community cases (mean=47,676 LBP or US\$32) was more than twice as much as refugees (mean=18,035 LBP or US\$12) ($p<0.001$). When calculated for only those care seekers reporting out-of-pocket payment for care, the cost for Lebanese respondents (mean=58,270 LBP or US\$39) remained significantly higher than for Syrian refugees (mean=25,765 LBP or US\$17) ($p<0.001$). The difference in the average cost of care between Syrian refugees and Lebanese regionally was significant in all regions and are presented in Annex Table 23.

Chronic Respiratory Disease

Syrian Refugees

Among Syrian refugee chronic respiratory disease patients who received care in Lebanon, 72.8% (CI: 64.7-79.6) incurred out-of-pocket payments for the most recent provider visit. Out-of-pocket payments were most common in private clinics (86.2%, CI: 67.5-95.0) and least common in hospitals (64.3%, CI: 36.2-85.1). The mean cost of care was 17,033 LBP (CI: 12,520-21,545 LBP) or US\$11 (CI: US\$8-14) and median cost was 5,000 LBP or US\$3. Significant differences in cost of care for chronic respiratory disease were observed among facility types; hospitals had the highest average cost (45,094 LBP, CI: 23,138-67,050 LBP) or US\$30 (CI: US\$15-44) and primary health care centers had the lowest (10,218 LBP, CI: 6,317-14,120 LBP or US\$7 (CI: US\$4-9) ($p=0.004$).

Lebanese Host Community Comparison

Among host Lebanese chronic respiratory disease patients who received care, 95.7% (CI: 87.5-98.6) had out-of-pocket payments for the most recent provider visit. This is significantly higher than the proportion of Syrian refugee respondents reporting out-of-pocket costs for chronic respiratory disease care (72.8%) ($p<0.001$). Out-of-pocket payments were also significantly higher among Lebanese respondents (mean=76,604 LBP, CI: 58,877-96,131 LBP, median=50,000 LBP or US\$51, CI: US\$39-64, median= US\$33) than Syrian refugee respondents (mean=17,033 LBP or US\$11) ($p<0.001$). The difference in the average cost of care between Syrian refugees and Lebanese regionally was significant in all regions and is presented in Annex Table 24.

Arthritis

Syrian Refugees

Of the index cases of arthritis that received care in Lebanon, 66.7% (CI: 60.8-75.6) had out-of-pocket payments for the most recent provider visit. Out-of-pocket payments were most common in private clinics (89.5%, CI: 75.0-96.0) and least common in hospitals (42.9% CI: 14.0-77.5) ($p<0.001$). The mean cost arthritis care was 18,096 LBP (CI: 14,358-21,833 LBP) or US\$12 (CI: US\$10-14) and the median cost was 5,000 LBP or US\$3; only among those paying, the mean cost was 26,402 LBP (CI: 21,635-31,169 LBP) or US\$18 (CI: US\$14-21).

Lebanese Host Community Comparison

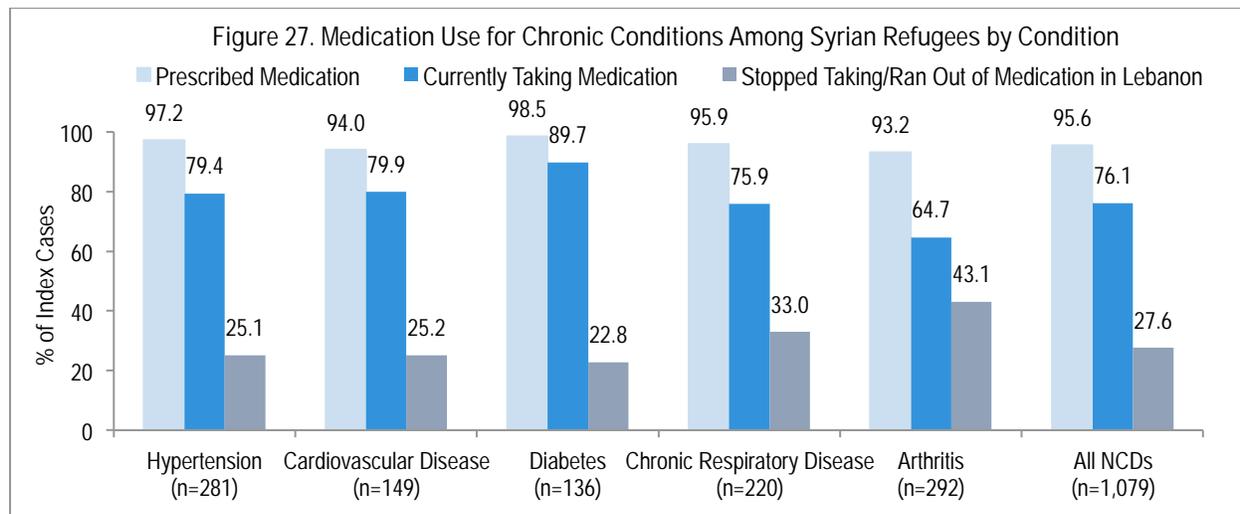
Of the index cases of arthritis from Lebanese host community respondents that received care, 87.3% (CI: 77.8-93.1) incurred out-of-pocket payments for the most recent provider visit. While the proportion of care seekers with out-of-pocket costs was similar for Lebanese and Syrian refugees,

the average cost arthritis care was significantly higher for the Lebanese (mean=65,210 LBP, CI: 41,644-88,776 LBP, median=50,000 LBP or US\$43, CI: US\$28-59, median= US\$33) than for Syrian refugees (mean=18,096 LBP or US\$12)($p<0.001$). Overall, the mean out-of-pocket cost for Lebanese patients paying for care was 73,969 LBP (CI: 48,093-99,846 LBP) or US\$49 (CI: US\$32-66), significantly higher than for refugees (26,402 LBP or US\$18)($p<0.001$).

Access to Medicines for Chronic Health Conditions

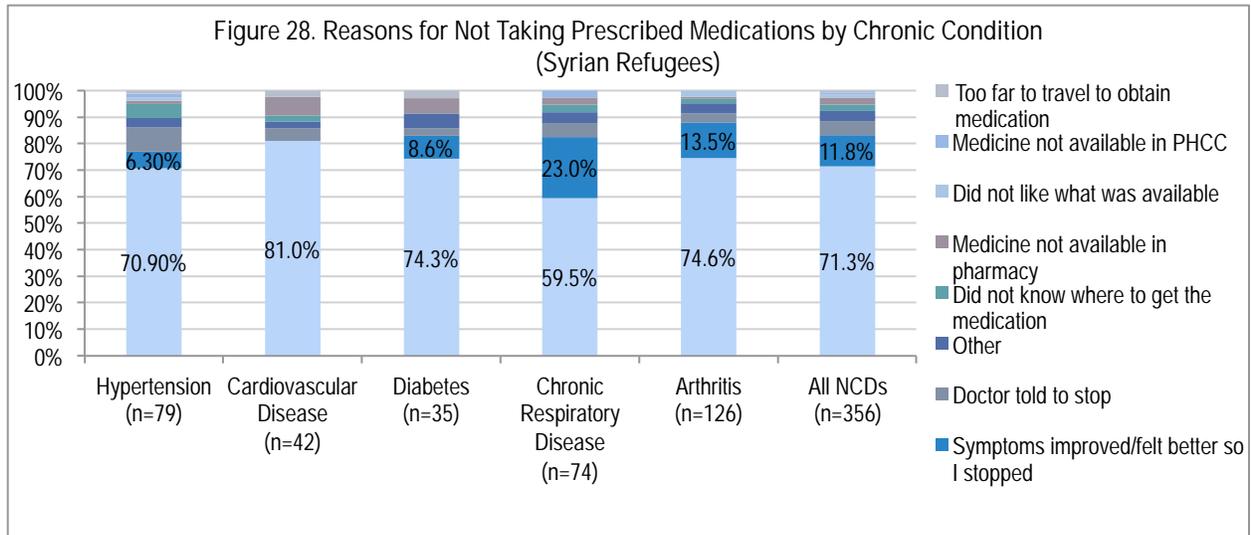
Syrian Refugees

Among all Syrian refugee household index cases of chronic diseases, most (95.6%, CI: 93.9-96.8) were prescribed medication for the condition either in Syria (34.4%, CI: 30.4-38.6) or in Lebanon (61.2%, CI: 57.0-65.1). Approximately three-quarters (76.1%, CI: 72.3-79.05) of cases reported currently taking the prescribed medication for their condition. Medication use stopped, or medication ran out, for longer than two weeks in the past year for 31.6% (CI: 27.4-36.0) of Syrian refugee index chronic disease cases. Of refugees who reported stopping or running out of medication, 8.1% (CI: 5.2-12.5) stopped in Syria and 91.9% (CI: 87.5-94.8) stopped in Lebanon (Figure 27).



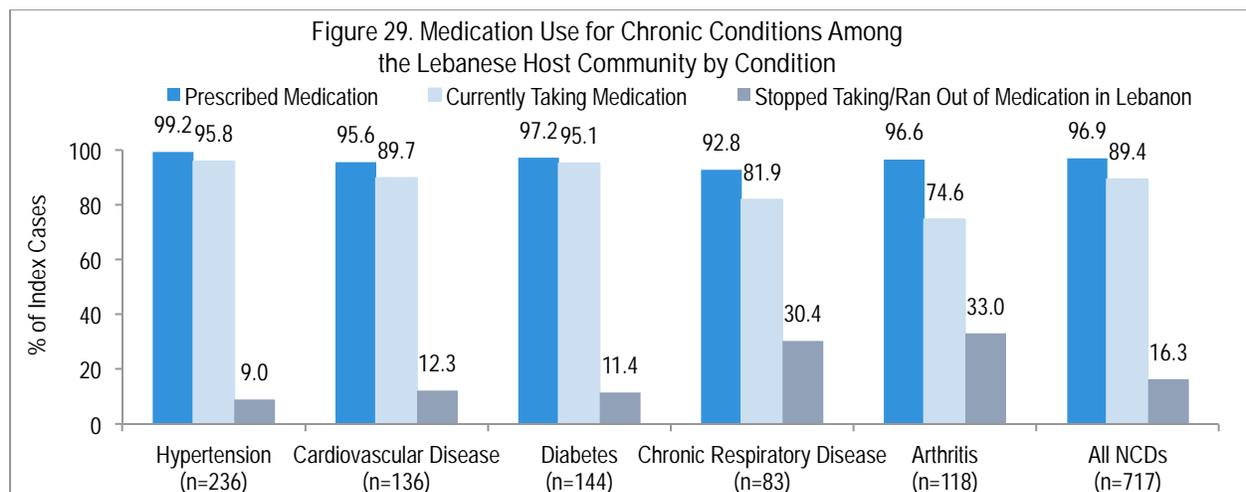
Significant differences were observed in prescription of medication ($p<0.001$) by condition. The highest proportion of index cases prescribed medication in Syria was observed among those with cardiovascular disease (40.3%) and the lowest among those with arthritis (93.2%); these differences were marginally significant ($p=0.051$). Prescriptions in Lebanon were reported most often in Syrian refugees with chronic respiratory disease (75.5%) and least often in those with cardiovascular disease (53.7%). Significant differences by condition were also observed in current medication use ($p<0.001$). The highest proportion of Syrian refugee cases currently taking medication was reported for diabetes (89.7%) and the lowest among cases of arthritis (64.7%).

Similar trends were observed in stopping medication use across conditions ($p < 0.001$) with arthritis cases most often stopping medication in Lebanon or in Syria (49.4%, CI: 42.2-56.6) and those with mental health conditions least likely (23.3%, CI: 11.5-41.6). Reasons for stopping medication differed significantly by condition ($p = 0.006$) and are presented in Figure 28. The most common reason reported across conditions for refugees stopping chronic disease medication use was inability to afford medications (71.3%, CI: 66.3-75.9).



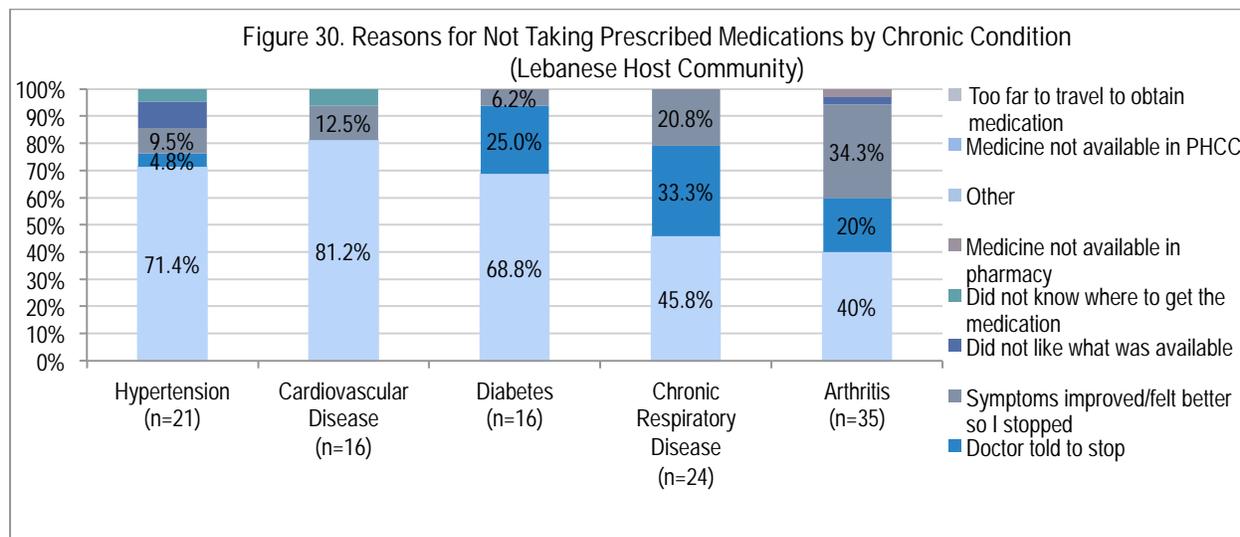
Lebanese Host Community Comparison

Among all Lebanese host community household index cases of chronic diseases, most (96.4%, CI: 94.8-97.5) were prescribed medication for the condition. Most cases (88.4%, CI: 85.3-90.9) also reported currently taking medication for their condition. Medication use stopped, or medication ran out, for longer than two weeks in the past year for 17.2% (CI: 14.3-20.5) of Lebanese host community chronic disease cases (Figure 29). The Lebanese host community had a significantly higher proportion of cases currently taking medication (88.4%) than Syrian refugees (75.7%) ($p < 0.001$). Additionally, a significantly larger proportion of Syrian refugees (31.2%) reported stopping medication for two weeks or more compared to Lebanese chronic disease cases (17.2%) ($p < 0.001$).



Significant differences in stopped medication by condition between Syrian refugees and Lebanese host community were observed in all conditions except chronic respiratory disease ($p = 0.365$). Rea-

sons for stopping medication reported by Lebanese host community respondents differed significantly by condition ($p=0.013$). Figure 30 provides the distribution of reported reasons for stopping medication for Lebanese respondents. The most common reason reported across conditions for stopping medication was inability to afford the cost (55.3%, CI: 44.6-65.5). Marginally significant differences in reasons for stopping medication were observed between Syrian refugee and Lebanese host community respondents ($p=0.053$) (Annex Table 26).



Hypertension

Syrian Refugees

Of 282 Syrian refugee index cases of hypertension interviewed, medication for hypertension was prescribed for 97.2% (CI: 94.4-98.6); 38.8% (CI: 31.9-46.2) of hypertension cases were prescribed medication in Syria and 58.4% (CI: 50.9-65.4) in Lebanon. A high proportion of cases reported currently taking medication for hypertension (79.4%, CI: 74.4-83.6). Almost one-third (30.6%, CI: 24.9-37.0) of all hypertension cases reported having to stop taking their medication for two weeks or longer in the past year. Of those who stopped or ran out of their medication, 12.7% (CI: 6.4-23.5) stopped in Syria and 87.3% (CI: 76.5-93.6) in Lebanon. The most common reason for refugees for stopping hypertension medication was inability to afford medication (70.9%, CI: 61.6-78.7).

Lebanese Host Community Comparison

Of 236 Lebanese host community index cases of hypertension interviewed, medication for hypertension was prescribed for 99.2% (CI: 96.6-99.8). Most cases reported currently taking medication for hypertension (95.8%, CI: 91.9-97.8). A small proportion (9.0%, CI: 6.0-13.3) of hypertension cases in Lebanese host community households reported having to stop taking their hypertension medication for two weeks or longer in the past year. The most common reason reported for stopping hypertension medication was inability to afford the medication (71.4%, CI: 48.4-87.0). Differences between Syrian refugees and Lebanese host community hypertension cases were significant with regard to prescription of medication ($p<0.001$), current medication use ($p<0.001$), and stopping medication ($p<0.001$).

Cardiovascular Disease

Syrian Refugees

Among the Syrian refugee cardiovascular disease cases interviewed (n=149), 94.0% (CI: 88.3-97.0) were prescribed medication for the condition; 40.3% (CI: 32.7-48.3) were prescribed medication in Syria and 53.7% (CI: 46.2-61.0) in Lebanon. Most cases (79.9%, CI: 71.6-86.2) reported currently taking medication for cardiovascular disease. Of all cases, 30.4% (CI: 22.2-40.2) reported having to stop taking their medication for longer than two weeks in the past year. Of all patients that stopped medication, 14.3% (CI: 6.7-28.0) stopped or ran out in Syria and 85.7% (CI: 72.0-93.3) in Lebanon. As with all chronic conditions, the most frequently reported reason for stopping medication for cardiovascular disease was inability to afford the medication (81.0%, CI: 61.7-91.8).

Lebanese Host Community Comparison

Among the Lebanese host community cardiovascular disease cases interviewed (n=136), 95.6% (CI: 90.7-98.0) were prescribed medication for the condition. Most cases (89.7%, CI: 83.1-93.9) reported currently taking medication for cardiovascular disease. Of all cases, 12.3% (CI: 7.7-19.1) reported having to stop taking their medication for longer than two weeks in the past year. As with all chronic conditions, the most frequently reported reason for stopping medication for cardiovascular disease was inability to afford the medication (81.2%, CI: 54.2-94.1). Differences between Syrian refugees and Lebanese host community were significant with regard to prescription of medication (p<0.001), current medication use (p=0.042), and stopping medication (p=0.002), but there were no significant differences in reasons for stopping medication use (p=0.695).

Diabetes

Syrian Refugees

Many (98.5%, CI: 94.2-99.6) of the 136 Syrian refugee diabetes cases interviewed were prescribed medication for the condition either in Syria (33.1%, CI: 25.9-41.1) or in Lebanon (65.4%, CI: 57.4-72.7). Most (89.7%, CI: 83.0-93.9) reported currently taking diabetes medication. Of all diabetes cases, 26.3% (CI: 19.5-34.6) reported having to stop taking their medication for longer than two weeks in the past year. Of diabetes cases having to stop medication, 11.4% (CI: 4.4-26.4) stopped or ran out of their medication in Syria and 88.6% (CI: 73.6-95.6) stopped medication in Lebanon. Again, the most common reason for stopping medication for diabetes was the household's inability to afford the medication (74.3%, CI: 56.5-86.5).

Lebanese Host Community Comparison

Many (97.2%, CI: 92.9-98.9) of the 144 Syrian refugee diabetes cases interviewed were prescribed medication for the condition. Most (95.1%, CI: 90.4-97.6) reported currently taking diabetes medication. Of all diabetes cases, 11.4% (CI: 7.2-17.7) reported having to stop taking their medication for longer than two weeks in the past year. Again, the most common reason for stopping medication for diabetes was the household's inability to afford the medication (68.8%, CI: 42.9-86.6); however, unlike in cases of hypertension and cardiovascular disease, one-quarter (25.0%, CI: 9.5-51.3) of diabetes cases stopped taking medication as per their doctor's orders. Significant differences between Syrian refugees and Lebanese host community with diabetes were observed in prescription of medication (p<0.001) and stopping medication (p=0.007).

Chronic Respiratory Disease

Syrian Refugees

Medication for chronic respiratory disease was prescribed in Syria (20.5%, CI: 15.9-25.9) or in Lebanon (75.5%, CI: 69.6-80.5) for most (95.9%, CI: 91.9-98.0) of the 220 Syrian refugee chronic respiratory disease cases interviewed. A lower proportion of cases reported currently taking medication (75.9%, CI: 69.3-81.4). Of all cases, 35.8% (CI: 29.5-42.6) reported having to stop taking their medication for longer than two weeks in the past year. A higher proportion of Syrian refugee cases stopping medication stopped or ran out of it in Lebanon (94.6%, CI: 86.3-98.0) than in Syria (5.4%, CI: 2.0-13.7). The most common reasons for stopping chronic respiratory disease medication were the household's inability to afford the medication (59.5%, CI: 46.5-71.2) and improvement in symptoms (23.0%, CI: 14.8-39.9).

Lebanese Host Community Comparison

Medication for chronic respiratory disease was prescribed for most (92.8%, CI: 84.7-96.7) of the 83 Lebanese host community chronic respiratory disease cases interviewed. A smaller proportion of cases reported currently taking medication (81.9%, CI: 70.9-89.4). Of all cases, 30.4% (CI: 21.4-41.2) reported having to stop taking their medication for longer than two weeks in the past year. The most common reasons for stopping chronic respiratory disease medication were the household's inability to afford the medication (45.8%, CI: 27.3-65.6), under doctor's orders (33.3%, CI: 18.5-52.4), and improvement in symptoms (20.8%, CI: 9.1-41.0). Lebanese host community reported a significantly higher proportion of chronic respiratory disease cases prescribed medication (92.8%) compared to Syrian refugees (20.5%) ($p=0.042$).

Arthritis

Syrian Refugees

Among the Syrian refugee arthritis cases interviewed ($n=292$), 93.2% (CI: 89.7-95.5) were prescribed medication for the condition (38.0% [CI: 32.3-44.1] in Lebanon and 55.1% [CI: 49.5-60.7] in Syria). Current medication use was reported by 64.7% (CI: 58.6-70.4) of arthritis cases, the lowest proportions of any chronic condition. Of all cases, 49.4% (CI: 42.3-56.6) reported stopping their medication for longer than two weeks in the past year, the highest proportion observed among all chronic conditions. Of individuals stopping arthritis medication, 96.0% (CI: 90.7-98.4) stopped or ran out of it in Lebanon and 4.0% (CI: 1.6-9.3) in Syria. The most common reason for stopping arthritis medication was the household's inability to afford the medication (74.6%, CI: 66.0-81.6).

Lebanese Host Community Comparison

Among Lebanese host community arthritis cases interviewed ($n=118$), 96.6% (CI: 91.2-98.7) were prescribed medication for the condition. Current medication use was reported by 74.6% (CI: 67.0-80.9) of arthritis cases, the lowest proportions of any chronic condition other than mental health. Of all cases, 33.0% (CI: 24.8-42.5) reported stopping their medication for longer than two weeks in the past year, a higher proportion than all other chronic conditions except for mental health conditions. The most common reason for stopping arthritis medication was the household's inability to afford the medication (40.0%, CI: 24.6-57.7), improved symptoms (34.3%, CI: 21.3-50.2), and doctor's orders (20.0%, CI: 9.9-36.3). No significant differences were observed between Syrian refugees and Lebanese host community with regard to reasons for stopping medication use; however differences were significant in medication prescription ($p<0.001$), current medication use ($p=0.022$), and medication stopping ($p=0.007$).

Mental Health Care

Prevalence of Mental Health Conditions²¹

The majority of households did not report a prior diagnosis of a mental health condition for household members. A small percentage (3.1%, CI: 2.3-4.1) of refugee households reported that one or more household members had been previously diagnosed with a mental health condition.

A slightly higher proportion of host community households (4.7%, CI: 3.4-6.5) reported a household member with a mental health condition diagnosis. There was no significant difference in prevalence of mental health conditions between Syrian refugees and the Lebanese host community ($p=0.142$). Age-specific prevalence of mental health conditions is provided in Annex Table 27. As mental health condition prevalence figures require a formal diagnosis, individuals with undiagnosed conditions were not captured. Despite extensive psychosocial programs and recent efforts to improve mental health care in Lebanon, historically limited access to formal mental health services and diagnostics greatly reduces the number of respondents with a formal diagnosis and thus may have contributed to under estimation of prevalence rates.²²

Care-seeking, Medication Use and Cost for Mental Health Conditions

Syrian Refugees

Among refugee index cases with mental health conditions ($n=42$), most saw a doctor for mental health care in Lebanon (81.0%, CI: 65.2-90.6) and many reported needing care within the past three months (47.6%, CI: 33.1-62.6). Of Syrian refugees receiving care for a mental health condition in Lebanon, 60.0% (CI: 39.4-77.6) were treated at primary health care centers; another 16.7% (CI: 7.0-34.7) sought care in private clinics. Other less frequently sought sources of care for mental health conditions included hospitals (6.7%, CI: 1.6-23.9) and other facilities (16.7%, CI: 6.3-37.3). Few (6.7%, CI: 1.6-23.9) refugee mental health care seekers were referred for additional services. The most commonly received mental health service reported by Syrian refugee households with a mental health condition was treatment by a psychologist or psychiatrist (73.5%, CI: 57.6-85.0). Other reported mental health care services included care from a social worker (14.7%, CI: 6.5-29.8), group sessions (2.9%, CI: 0.4-18.9), and other forms of treatment (11.8%, CI: 4.6-27.1). One-third (33.3%, CI: 18.8-52.0) of Syrian refugee index cases of mental health conditions had out-of-pocket payments for their most recent care visit in Lebanon. The mean cost of mental health care was 9,700 LBP (CI: 864-18,537 LBP) or US\$6 (CI: US\$1-12) and the median cost was 0 LBP, reflective of the 66.7% (CI: 46.9-81.9) of care seekers who did not pay for the visit.

Medication for mental health conditions was prescribed in Syria (19.0%, CI: 9.6-34.3) or in Lebanon (57.1%, CI: 41.9-71.2) for most (76.2%, CI: 62.0-86.2) of the 42 Syrian refugee index cases of mental health conditions interviewed. A slightly lower proportion of cases reported currently taking medication (66.7%, CI: 52.4-78.4). Of all cases, 23.3% (CI: 11.5-41.6) reported having to stop taking their medication for longer than two weeks in the past year; all cases stopping medication did so in Syria. The most common reason for stopping medication for mental health conditions was inability to afford the medication (57.1%, CI: 22.5-86.0).

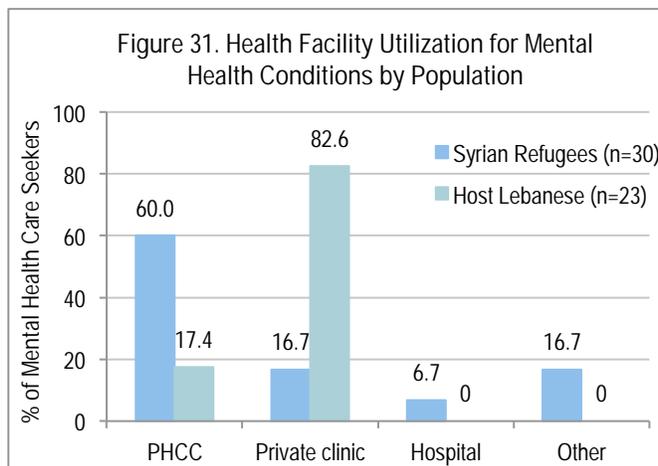
²¹ Reported age-specific prevalence is weighted by the number of household members in each age group. Adult prevalence is weighted by the number of household members over 17 years old reported by respondents.

²² El Chammay, R, Kheir, W, Alaouie, H. UNHCR Assessment of Mental Health and Psychosocial Services for Syrian refugees in Lebanon. <http://data.unhcr.org/syrianrefugees/download.php?id=4575>. Accessed June 28, 2015.

Lebanese Host Community Comparison

Among Lebanese host community index cases with mental health conditions (n=32), 96.9% (CI: 81.3-99.6) saw a doctor for mental health care, significantly higher than care-seeking reported by Syrian refugees (81.0%; p=0.039). Many of the index mental health cases reported needing care within the past three months (40.6%, CI: 25.0-58.4). The distribution of timeframes for lasting needing mental health care was similar between refugees and the host community (p=0.097).

Of Lebanese host community receiving care for a mental health condition in Lebanon, most (82.6%, CI: 60.8-93.6) were treated at private clinics; another 17.4% (CI: 6.4-39.2) sought care in primary health care centers. Significant differences in location of care-seeking between Syrian refugees and host Lebanese, which were more likely to seek care in a private facility, are presented in Figure 31 (p<0.001). Few host community (4.3%, CI: 0.6=26.1) mental health care seekers were referred for additional services. The most commonly received mental health service reported by Lebanese host community households with a mental health condition was treatment by a psychologist or psychiatrist (64.5%, CI: 45.6-79.8). Group sessions (9.7%, CI: 3.1-26.6) and other forms of treatment (9.7%, CI: 3.1-26.6) were also reported by Lebanese households, though much less often; treatment from a social worker was not reported by Lebanese.



The majority of (95.7%, CI: 73.9-99.4) of index cases of mental health conditions among the Lebanese host community had out-of-pocket payments for their most recent care visit, significantly more than observed among Syrian refugee cases (33.3%; p<0.001). The mean cost of mental health care for host Lebanese was 53,130 LBP (CI: 42,819-63,442 LBP) or US\$35 (CI: US\$28-42) and the median cost was 50,000 LBP or US\$33; out-of-pocket costs were significantly higher for Lebanese than Syrian refugees (9,700 LBP or US\$6; p<0.001).

Medication for mental health conditions was prescribed for most (84.4%, CI: 67.6-93.3) of the 32 Lebanese host community index cases; a slightly lower proportion of cases reported currently taking medication (65.6%, CI: 46.0-81.1). Of all cases, 42.3% (CI: 25.1-61.6) reported having to stop taking their medication for longer than two weeks in the past year. The most common reasons for stopping medication for a mental health condition were inability to afford medication (36.4%, CI: 14.1-66.6), doctor's orders (36.4%, CI: 14.1-66.6), and improved symptoms (18.2%, CI: 4.5-51.4).

Children's Health

Health Care-seeking and Service Utilization for Children

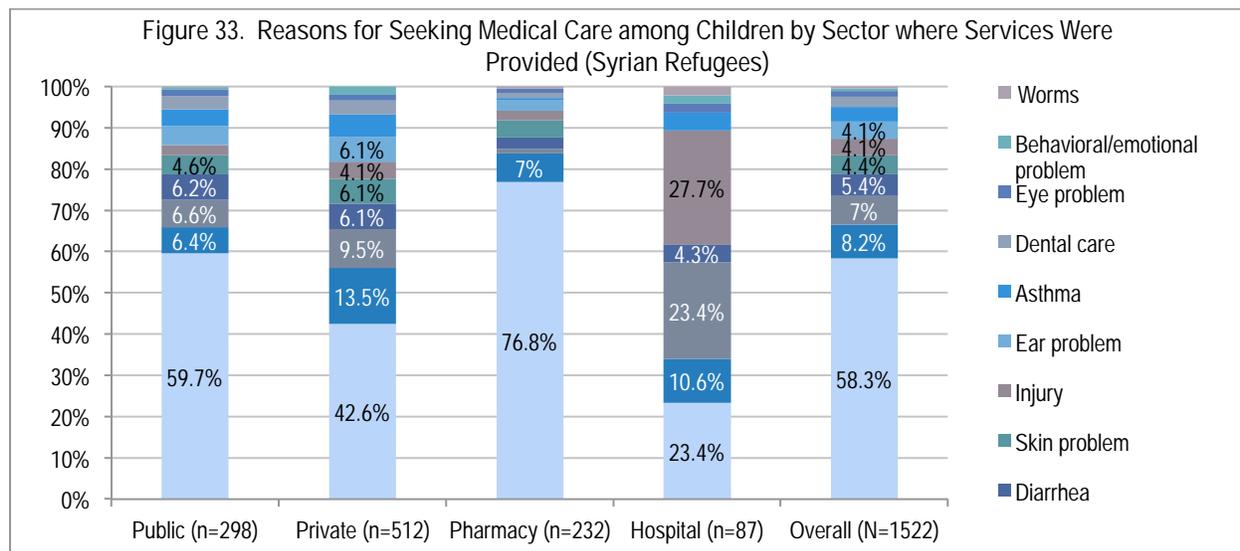
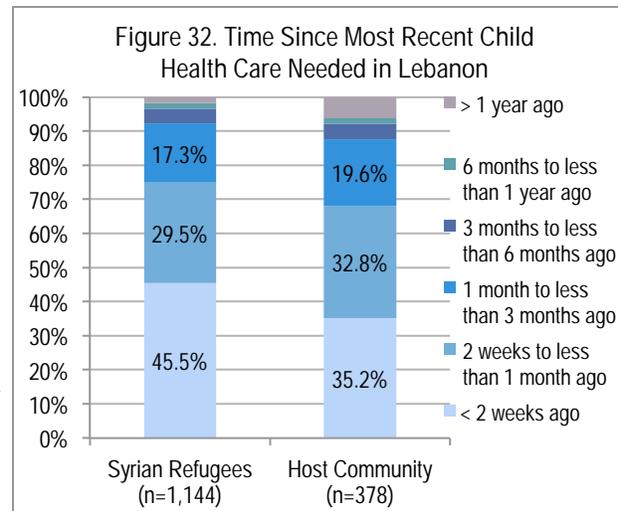
Syrian Refugees

The illnesses for which most Syrian refugee children under 18 years old reported needing medical care were respiratory problems (61.0%, CI: 58.0-63.9), fever (8.1%, CI: 6.6-10.0), and diarrhea (5.0%, CI: 3.8-6.6). A majority of Syrian refugee households with children reported needing medical care for a child within the month preceding the survey (70.0%, CI: 66.5-73.2). The distribution among households for the last time medical care was needed for a child was as follows: <2 weeks ago, 45.5% (CI: 41.9-49.1); between 2 weeks and 1 month ago, 29.5% (CI: 26.6-32.7); 1 to less than

3 months ago, 17.3% (CI: 14.9-20.0); 3 to less than 6 months ago, 4.4% (CI: 3.3-5.8); 6 months to less than one year ago, 1.6% (CI: 1.0-2.4); and more than one year ago, 1.8% (CI: 1.1-3.0).

Overall, 74.2% (CI: 70.2-77.8) of Syrian refugee households reported that medical attention for a child household member was sought and received the last time it was needed in Lebanon; 18.6% (CI: 15.8-21.8) sought but did not receive care. Among the 7.1% (CI: 5.4-9.4) of Syrian refugee households that did not seek care for a child the last time it was needed, the primary reason was cost: 96.2% (CI: 88.6-98.8) of households reported they could not afford to seek medical services for the child. Other reasons included long wait time during previous visit(s) (1.2%, CI: 0.2-8.6), not knowing where to go (1.2%, CI: 0.2-8.6), and 1.2% (CI: 0.2-8.6) were waiting for an appointment.

The most common reasons reported for the most recent visit to a health facility among Syrian refugee children for whom care was sought included respiratory problems (58.3%, CI: 54.4-62.2), fever (8.2%, CI: 6.3-10.6), diarrhea (5.4%, CI: 4.0-7.2), and other reasons (7.0%, CI: 5.4-8.9). Differences in the reason for care-seeking were not statistically significant by region ($p=0.792$) but were statistically significant by facility type ($p<0.001$) as illustrated in Figure 33.



Among Syrian refugee households for which care was sought for a sick child, approximately half (52.7%, CI: 48.1-57.2) sought care in primary health care centers. Another 22.2% (CI: 18.7-26.2) of Syrian refugee households sought care in pharmacies and 17.8% (CI: 15.0-21.0) in private clinics. The remaining Syrian refugee households sought care in hospitals (5.6%, CI: 4.1-7.6) or other facilities including mobile medical units (MMUs) and home-based providers. Differences in sources of child health care are presented in detail in Annex Table 29.

Among Syrian refugee households that received child health care in Lebanon, 10.2% (CI: 8.0-12.9) were referred for additional services of which 65.9% (CI: 54.4-75.7) received the referred services. The most commonly referred services were lab tests (46.4%, CI: 32.0-61.4) of Syrian refugee house-

holds receiving referrals), followed by diagnostic tests (17.9%, CI: 10.0-29.9), specialist consultation (17.9%, CI: 9.7-30.7), and curative interventions (16.1%, CI: 8.2-29.2). Syrian refugee patients receiving referrals sought referral care most often at hospitals (35.7%, CI: 23.1-50.7), primary health care centers (25.0%, CI: 15.0-38.7), medical centers (17.9%, CI: 8.7-33.3), and private cabinets (16.1%, CI: 8.4-28.5).

Lebanese Host Community Comparison

The illness for which most Lebanese host community children under 18 years old were reported to need medical care was respiratory problems (60.5%, CI: 55.9-64.9). Other less frequently reported reasons include diarrhea (8.5%, CI: 6.2-11.6) and fever (7.6%, CI: 5.2-11.1). A large proportion of refugee households with children reported needing medical care for a child within the month preceding the survey (62.4%, CI: 57.0-67.5); this is significantly lower than the proportion of refugee households reporting care needed in the same period (70.0%) ($p=0.008$). The distribution among households for the last time medical care was needed for a child was as follows: <2 weeks ago, 35.2% (CI: 29.9-40.8); between 2 weeks and 1 month ago, 32.8% (CI: 28.5-37.5); 1 to less than 3 months ago, 19.6% (CI: 15.4-24.5); 3 to less than 6 months ago, 4.5% (CI: 2.8-7.1); 6 months to less than one year ago, 1.6% (CI: 0.6-4.0); and more than one year ago, 6.3% (CI: 4.1-9.7). This was also significantly different from that observed in Syrian refugee households (Figure 34) ($p<0.001$).

Care-seeking among host community respondents was significantly higher than among refugees ($p<0.001$). Overall, 89.0% (CI: 84.9-92.0) of Lebanese host community households reported that medical attention was sought and received the last time a child needed medical care (compared to 74.2% among refugees); 2.5% (CI: 1.2-5.4) sought but did not receive care. Among the 8.5% (CI: 5.9-11.9) of Lebanese host community households that did not seek care the last time care was needed for a child, the primary reason was cost: 77.8% (CI: 44.7-93.8) of households reported they could not afford to seek medical services for the child. Other reasons included no transportation or difficulty accessing location (11.1%, CI: 1.4-52.4), and the family deciding care was not needed (11.1%, CI: 1.8-45.5).

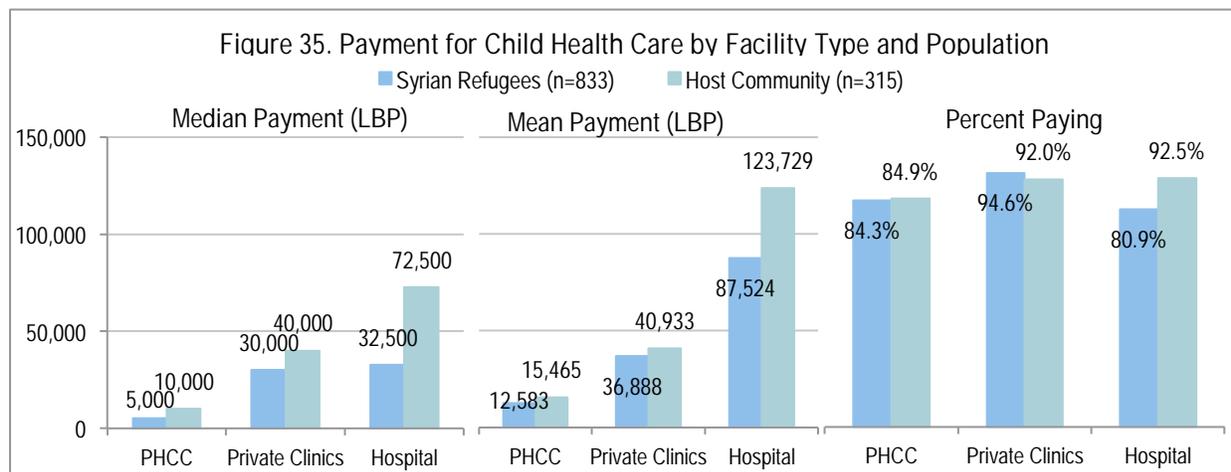
The most common reasons reported for the most recent visit to a health facility among refugee children for whom care was sought included respiratory problems (60.0%, CI: 54.8-65.0), diarrhea (8.9%, CI: 6.4-12.3), and fever (7.3%, CI: 4.7-11.1) and other (6.0%, CI: 3.9-9.3). Among host community households for which care was sought for a sick child, approximately half (47.6%, CI: 41.8-53.5) sought care in private clinics. Another 23.2% (CI: 18.1-29.1) sought care in primary health care centers, 14.9% (CI: 11.3-19.5) in pharmacies, and 12.7% (CI: 9.3-17.1) in hospitals. As with care-seeking in most other areas included in the survey, significant differences ($p=0.003$) were observed between Lebanese host community and Syrian refugees in location of child care-seeking with Lebanese host community households reported seeking care in private clinics more often and refugees seeking child care predominantly in primary health care centers.

A significantly smaller proportion of host Lebanese households reported referrals during the most recent child care visit compared to Syrian refugees ($p=0.019$). Among Lebanese who received child care, 7.3% (CI: 4.7-11.2) were referred for additional services at the most recent visit of which 95.7% (CI: 73.4-99.4) received the referred services. The most commonly referred services were lab tests (45.5%, CI: 27.9-64.2 of households receiving referrals), followed by curative interventions (27.3%, CI: 12.6-49.5), diagnostic tests (13.6%, CI: 4.8-33.1), and specialist consultation (9.1%, CI: 2.5-27.9). Host Lebanese patients receiving referrals sought referral care most often at hospitals (54.5%, CI: 33.8-73.8), medical centers (22.7%, CI: 10.2-43.1), primary health care centers (13.6%, CI: 4.2-36.1), and private cabinets (9.1%, CI: 2.6-27.9).

Spending on Child Health

Syrian Refugees

Among Syrian refugee children for whom care was sought, most households (34.0%, CI: 30.1-38.1) reported accessing care without an out-of-pocket payment. The proportion of child consultations with out-of-pocket payments varied significantly by facility type ($p < 0.001$), but not by region ($p = 0.759$). Out-of-pocket payments were most common among refugee households receiving care in private clinics (94.6%), primary health care centers (84.3%), and hospitals (80.9%) as compared to pharmacies (2.2%).



Household expenditures for the most recent Syrian refugee child health visit are presented in Figure 35 and in detail in Annex Table 30. The average out-of-pocket cost to the household for the most recent child consultation was 18,151 LBP (CI: 15,077-21,226 LBP, median=5,000 LBP) or US\$12 (CI: US\$10-14; median= US\$3).²³ Mean out-of-pocket payments for the most recent child health visit for all households varied significantly by facility type ($p < 0.001$) and were as follows: primary health care centers, 12,583 LBP (CI: 9,831-15,335 LBP, median=5,000 LBP) or US\$8 (CI: US\$7-10, median= US\$3); private clinics, 36,888 LBP (CI: 31,604-42,172 LBP, median=30,000 LBP) or US\$24 (CI: US\$21-28, median= US\$20); and hospitals, 87,524 LBP (CI: 63,383-111,664 LBP, median=32,500 LBP) or US\$58 (CI: US\$42-74, median= US\$22). No significant differences in the out-of-pocket payment amount were observed by region ($p = 0.075$).

Lebanese Host Community Comparison

Among host Lebanese children for whom care was sought, almost one-quarter of households (23.5%, CI: 19.1-28.5) reported accessing medical care without an out-of-pocket payment. Household expenditures for the most recent refugee child health visit are presented in Figure 35 and in detail in Annex Table 30. The average out-of-pocket cost to Lebanese host community households for the most recent child consultation was 38,931 LBP (CI: 32,550-45,311 LBP, median=30,000 LBP) or US\$26 (CI: US\$22-30, median= US\$20),²⁴ significantly higher than reported by Syrian refugee households (18,151 LBP or US\$12) ($p < 0.001$). No significant differences in payment amount

²³ Average out-of-pocket cost for only households that paid was 27,559 LBP (CI: 23,179-31,939 LBP, median=10,000 LBP) or US\$18 (CI: US\$15-21, median=US\$7).

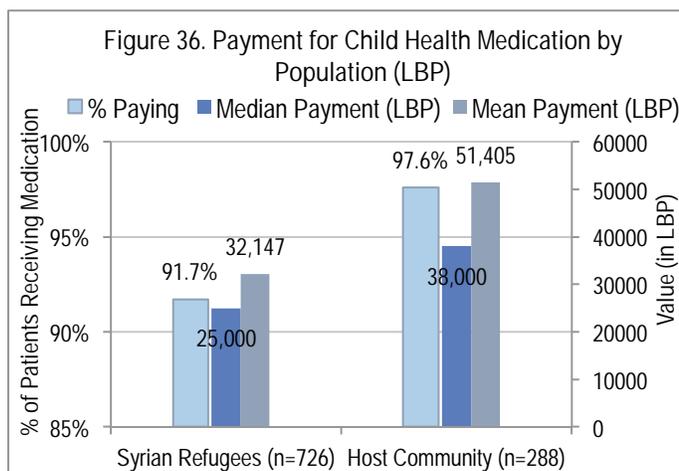
²⁴ Average out-of-pocket cost for only households that paid was 51,066 LBP (CI: 43,385-58,788 LBP, median=40,000 LBP) or US\$34 (CI: US\$29-39, median=US\$27).

were observed between the two groups when analyzed by provider type. Mean out-of-pocket payments for the most recent child health visit by provider sector for all host community care-seeking households were as follows: primary health care centers, 15,465 LBP or US\$10; private clinics, 40,933 LBP or US\$27; and hospitals, 123,729 LBP or US\$82 ($p < 0.001$).

Access to Medicines for Children

Syrian Refugees

Among Syrian refugee households who sought care for children, 95.1% (CI: 93.3-96.4) reported being prescribed medication at their most recent visit to a health facility. The proportion of children receiving a prescription did not vary significantly by region; however, it did vary by facility type ($p = 0.011$). The distribution of prescriptions by facility type was as follows: 96.4% of those who sought care in primary health care centers; 96.2% in pharmacies; 93.2% in private clinics; and 83.0% in hospitals. Of Syrian refugee index child care-seeking cases prescribed medication, 98.9% (CI: 97.7-99.4) attempted to obtain medication and 92.7% (CI: 90.4-94.5) were able to obtain all prescribed medications. Among the 7.3% of Syrian refugee households not able to obtain all prescribed medications, the most common reasons were not being able to afford medications (86.0%, CI: 73.1-93.3) and out of stock medications at facilities (12.3%, CI: 5.5-25.3).



Among Syrian refugee households that were able to obtain all prescribed medications, 91.7% (CI: 88.9-93.9) reported an out-of-pocket payment. The average payment was 32,147 LBP (CI: 29,531-34,764 LBP, median=25,000) or US\$21 (CI: US\$20-23, median= US\$17) (Figure 36). The proportion of refugee households with out-of-pocket medication payments varied significantly by region ($p = 0.036$) with those in Beirut/Mount Lebanon (95.5%) more likely to pay compared to the North (92.4%) and Bekaa (87.6%).

Lebanese Host Community Comparison

Among host community households who sought care for children, 94.6% (CI: 91.6-96.6) reported being prescribed medication at their most recent visit to a health facility. Distribution of prescriptions for Lebanese host community children by sector were as follows: 97.3% of those who sought care in primary health care centers; 93.6% in pharmacies; 92.7% in private clinics; and 94.4% in hospitals. Of those prescribed medication, nearly all (99.7%, CI: 97.6-100.0) attempted to obtain the medication and 97.0% (CI: 94.4-98.4) were able to obtain all of the prescribed medications. No significant differences between refugees and Lebanese host community were observed in the proportion of households attempting to obtain prescribed medication ($p = 0.184$); however, a significantly greater proportion of Lebanese host community (97.0%) was able to obtain medication compared to refugees (92.7%) ($p = 0.007$).

Among Lebanese host community households that were able to obtain all prescribed medications, 97.6% (CI: 95.0-98.8) had an out-of-pocket payment, significantly greater than the 91.7% of refugees reporting out-of-pocket payments ($p = 0.002$). The average payment for Lebanese host community households was 51,406 LBP (CI: 44,635-58,175 LBP, median=38,000) or US\$34 (CI: US\$30-39, median= US\$25), also significantly higher than reported by refugees (mean= 32,147 LBP or

US\$21)($p < 0.001$). The average cost among only households paying for medication was also significantly higher for Lebanese host community (mean=52,713 LBP, CI: 45,868-59,558 LBP, median=40,000 LBP or US\$35, CI: US\$30-40, median= US\$27) than Syrian refugees (mean=35,070 LBP or US\$23) ($p < 0.001$) (Figure 36).

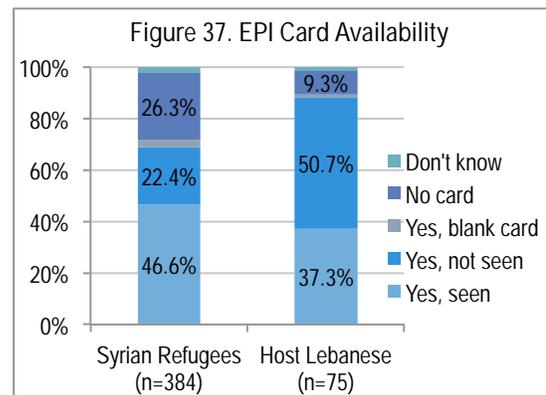
Children's Vaccinations

For each household with a child aged 12-23 months, respondents were asked to present the child's EPI vaccination card. EPI cards from both Syria and Lebanon were accepted. If there were more than two children aged 12-23 months in the household, one child was selected at random. Respondents for children with and without vaccination cards were asked about receipt of vaccinations during campaigns.

Syrian Refugees

Only 27.9% of Syrian refugee households reported a child between 12 and 23 months, and of these 46.6% (CI: 41.1-52.2) were able to present the child's EPI card; 22.4% (CI: 18.6-26.7) said the child had an EPI card but the card was not available; 2.9% (CI: 1.5-5.3) presented a blank EPI card; 26.3% (CI: 21.8-31.4) said the child did not have an EPI card; 1.8% (CI: 0.9-3.7) did not know whether the child had an EPI card or not (Figure 37). No significant differences in card availability were observed by region for refugees ($p = 0.227$).

Several mass vaccination campaigns were conducted in Lebanon in the past year for measles and polio (see Annex Table 34 for details and coverage figures). Respondents with children aged 12-23 months were asked whether this child received measles or polio vaccines through one of the national campaigns. More than half of Syrian refugee respondents with a child age 12-23 months (59.4%, CI: 54.2-64.4) reported measles vaccination through a campaign. Among those who were vaccinated for measles through a campaign, 33.3% (CI: 25.7-42.0) were vaccinated at home and 66.7% (CI: 58.0-74.3) were vaccinated in a primary health care center. Location of measles campaign vaccination was significantly different by region with refugees vaccinated most often at primary health care centers in Beirut/Mount Lebanon (90.1%) and Bekaa (62.5%) and refugees in the North most often vaccinated at home (52.2%) ($p < 0.001$).



A similar proportion of Syrian refugees (50.7%, CI: 39.2-62.1) reported polio vaccination through a campaign. Most refugees vaccinated for polio through a campaign did so at a primary health care center (55.4%, CI: 48.3-62.3) or at home (36.5%, CI: 29.9-43.6) and a small proportion (8.1%, CI: 5.5-11.9) was vaccinated at the UNHCR registration office. Location of campaign polio vaccination differed significantly by region with refugees in Beirut/Mount Lebanon receiving vaccinations significantly more often at a primary health care center (75.3%) than those in Bekaa (50.5%) ($p < 0.001$). Unlike in Beirut/Mount Lebanon and in Bekaa, refugees in the North received campaign polio vaccination more often at home (51.0%).

In addition to vaccinations, respondents were asked to recall whether children age 12-23 months received vitamin A drops in the past 12 months. 52.3% (CI: 47.1-57.5) of Syrian refugee respondents said the child received vitamin A drops, 37.5% (CI: 32.9-42.3) said the child had not, and 10.2% (CI: 7.5-13.5) said they did not know. No significant difference in vitamin A recall was observed by region among Syrian refugees ($p = 0.668$).

All respondents in Syrian refugee households with a child aged 12-23 months were asked whether they experienced difficulties obtaining vaccinations for their children. More than half of Syrian refugee respondents (59.1%, CI: 53.7-64.3) said they experienced no difficulties; 10.2% (CI: 7.5-13.6) of respondents said they did not know where or when to take their child for vaccinations; 7.8% (CI: 5.5-11.0) said the vaccination location was too far away; and 4.9% (CI: 3.2-7.6) said vaccines were not available. There were no significant differences in vaccination difficulties by region ($p=0.247$).

Lebanese Host Community Comparison

A significantly smaller proportion of Lebanese host community households (10.9%) reported a child aged 12-23 months compared to Syrian refugee households (27.9%; $p<0.001$). Among Lebanese host community respondents with children between 12 to 23 months, 37.3% (CI: 27.6-48.2) were able to present the child's EPI card; 50.7% (CI: 39.8-61.5) said the child had an EPI card but the card was not available; 1.3% (CI: 0.2-9.2) presented a blank EPI card; 9.3% (CI: 4.2-19.4) said the child did not have an EPI card; and 1.3% (CI: 0.2-9.2) did not know whether the child had an EPI card or not. The difference between refugees and Lebanese host community in availability of EPI cards was statistically significant ($p<0.001$) (Figure 37).

The proportion of children vaccinated through a campaign was higher among Lebanese host community respondents among which 77.1% (CI: 71.8-81.6) reported measles vaccination through a campaign. Among those who were vaccinated for measles through a campaign, 73.7% (CI: 55.8-86.1) were vaccinated at a primary health care center and 26.3% (CI: 13.9-44.2) were vaccinated at home. A smaller proportion of host community children (66.7%, CI: 56.9-75.2) reported polio vaccination through a campaign. Among those children, polio vaccination was received most often at a primary health care center (70.2%, CI: 58.0-82.7) or at home (28.0%, CI: 17.3-42.0).

In addition to vaccinations, respondents were asked to recall whether children aged 12-23 months had received vitamin A drops in the past 12 months. 62.7% (CI: 51.2-72.9) of Lebanese host community respondents said the child had received vitamin A drops, 22.7% (CI: 14.1-34.3) said the child had not, and 14.7% (CI: 8.2-24.8) said they did not know. No significant difference in vitamin A recall was observed between Syrian refugees and the Lebanese host community ($p=0.579$).

All respondents in households with a child aged 12-23 months were asked whether they experienced difficulties obtaining vaccinations for their children. Most Lebanese host community respondents (85.3%, CI: 75.4-91.7) said they experienced no difficulties; 4.0% (CI: 1.3-11.9) of respondents said that the caretaker could not take child to health facility (for example, because they were too busy or sick); 2.7% (CI: 0.6-10.4) plan to take the child in the future; and another 2.7% (CI: 0.7-10.0) said the child was brought to facility but not given a vaccination (possibly because the child had an illness that prevented the ability to vaccinate at the time of the visit). A significantly more varied distribution of vaccination difficulties was observed in refugees than in Lebanese host community households ($p=0.017$).

Antenatal Care and Deliveries

Antenatal Care

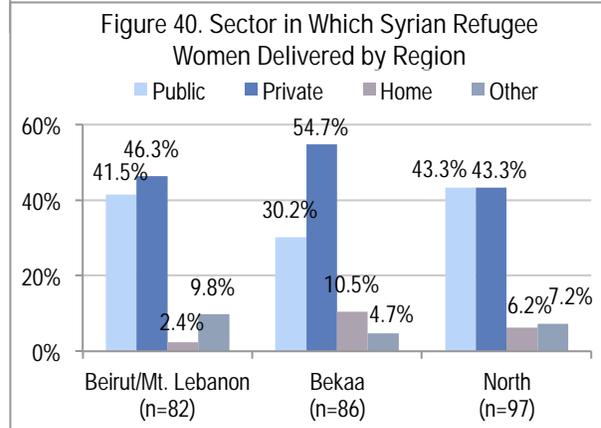
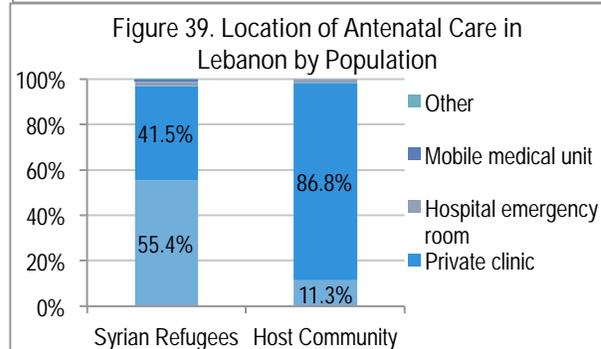
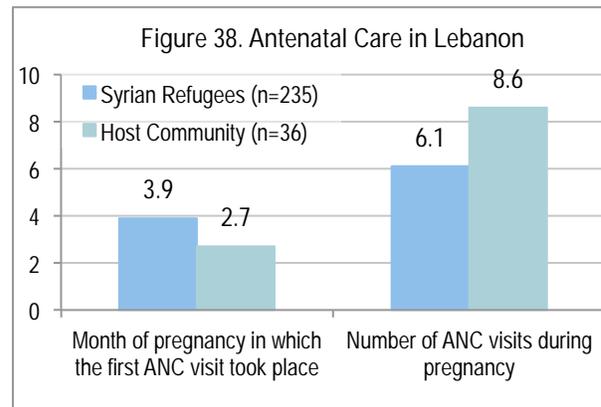
Syrian Refugees

When asked about recent deliveries and antenatal care (ANC), 22.4% (CI: 20.0-25.0) of Syrian refugee respondents reported that a woman in the household had given birth in the past year. Of those women, 86.0% (CI: 80.9-90.0) delivered in Lebanon. Most women who delivered in Lebanon (88.7%, CI: 83.5-92.4) received ANC in Lebanon while pregnant. Syrian refugee women receiving ANC made an average of 6.1 (CI: 4.6-7.6, median=4) ANC visits in Lebanon throughout their pregnancy (Figure 38); refugee ANC care-seeking was similar by region. Among Syrian refugee women who received ANC while pregnant in Lebanon, 53.3% (CI: 46.4-60.1) had their first ANC visit in the first trimester. On average, the first ANC visit occurred at month 3.9 (CI: 3.5-4.2, median=3.9).

The most common locations for receiving ANC among Syrian refugee households were a primary health care center (55.4%, CI: 48.3-62.2) or private clinic (41.5%, CI: 34.6-48.8) (Figure 39). For women who were pregnant but did not receive ANC while in Lebanon, the primary reasons were cost (61.7%, CI: 45.5-75.7), family deciding ANC should not be sought (6.4%, CI: 2.1-17.6), long wait times during previous visit(s) (4.3%, CI: 1.1-15.3), and various other reasons (23.4%, CI: 12.7-39.0).

Lebanese Host Community Comparison

When asked about recent deliveries and antenatal care (ANC), 8.2% (CI: 6.3-10.6) of Lebanese host community respondents said a woman in the household had given birth in the past year, significantly lower than the 22.4% of refugee households reporting births in the past year ($p < 0.001$). Most women who delivered (94.6%, CI: 84.7-93.3) received ANC while pregnant. Host community women receiving ANC made an average of 8.6 ANC visits throughout their pregnancy (CI: 5.0-12.1, median=7). Among Lebanese host community women who received ANC while pregnant, 79.3% (CI: 65.5-88.5) had their first ANC visit in the first trimester, significantly more women than were observed in refugee households (53.3%) ($p = 0.001$). ANC was typically first received in the 3rd month of pregnancy in host community households (mean=2.7 CI: 2.0-3.4, median=2), significantly earlier than reported by refugee households in which ANC was typically first received in the 4th month of pregnancy ($p = 0.004$).



The most common location for receiving ANC among Lebanese host community households was private clinics (86.8%, CI: 74.6-93.6), followed by primary health care centers (11.3%, CI: 5.0-23.7). Differences in ANC location differed significantly between refugees and Lebanese host community ($p < 0.001$) with refugees most often receiving ANC in primary health care centers and host community women most often receiving ANC in private clinics (Figure 39). For the two Lebanese host community women who were pregnant but did not receive ANC, the reason for doing so was family deciding that care should not be sought.

Deliveries

Syrian Refugees

Almost half of all deliveries reported by Syrian refugee women took place in a private hospital (43.8%, CI: 36.7-45.8) or a public hospital (38.5%, CI: 31.7-45.8); only 6.4% (CI: 3.2-12.4) of births took place at home (Figure 40). The primary reasons for choosing the delivering location were cost (59.7%, CI: 53.0-66.0 for low cost delivery; 6.9%, CI: 4.1-11.2 for free delivery), proximity to their place of residence (16.9%, CI: 11.7-23.8), and liking the staff or quality of treatment at the facility (5.6%, CI: 3.5-9.0). Syrian refugee respondents were significantly more likely to cite cost as the primary reason for choosing the delivery location if the woman gave birth at a public hospital (66.7%, CI: 56.7-75.3) or at home (52.0%, CI: 42.6-61.2) than at a private clinic (52.0%, CI: 42.6-61.2) ($p = 0.046$).

Most Syrian refugee households incurred an out-of-pocket payment for the delivery (93.6%, CI: 89.9-96.0). The average out-of-pocket payment was 234,294 LBP (CI: 206,329-262,258 LBP, median=150,000 LBP) or US\$155 (CI: US\$137-174, median= US\$100) among all deliveries and 237,162 LBP (CI: 209,170-265,155 LBP) or US\$157 (CI: US\$139-176) among only households that paid for deliveries (Figure 44). The highest proportion of women reporting out-of-pocket costs was observed at private clinics and was 96.1% (CI: 91.1-98.3); 94.1% (CI: 65.4-99.3) for women delivering at home, 90.2% (CI: 82.1-94.9) in primary health care centers, and 94.1% (CI: 65.4-99.3) in other locations.

Among Syrian refugee women who gave birth in Lebanon in the past year, 30.6% (CI: 25.4-36.5) had a cesarean section. The mean cost of delivery was higher for those with a cesarean section (355,626 LBP, CI: 300,281-410,970 LBP, median=300,000 LBP or US\$236, CI: US\$199-273, median= US\$199) than for those without a cesarean section (163,352 LBP, CI: 141,117-185,586 LBP, median=120,000 LBP or US\$108, CI: US\$94-123, median= US\$80). No significant differences in delivery cost were observed between refugee households with all members registered with UNHCR and those with some or none of the members registered ($p = 0.717$); however, a greater proportion of refugees with all household members registered reported having a portion of the delivery cost paid on their behalf by an organization such as a humanitarian organization (77.4%) compared to households with some or none of the members registered (65.7%) and these differences were marginally significant ($p = 0.059$).

In order to obtain a birth certificate, refugees must follow a three-step process by first obtaining a birth notification from an authorized doctor or midwife, then obtaining a birth certificate from a village leader near the place of birth, finally the birth certificate must be registered with the Personal Status Department. To finalize the birth certificate, it must be registered with the local registry office nearest to where the child was born and with the Governorate Foreigners' Register. Most Syrian refugee women who gave birth received a birth notification (89.1%, CI: 83.9-92.7). Women were more likely to receive a birth notification if they delivered at a private clinic (94.5%, CI: 89.1-97.3) than if they delivered at a public hospital (88.2%, CI: 77.6-94.2), at other facilities (78.9%, CI: 52.5-92.7), or at home (64.7%, CI: 38.5-84.3), and this difference was statistically significant

($p=0.038$). A significantly higher proportion of refugee households in which all members are currently registered with UNHCR reported receiving a birth notification (92.8%) compared to households in which some or none of the members are currently registered (78.6%) ($p=0.005$).

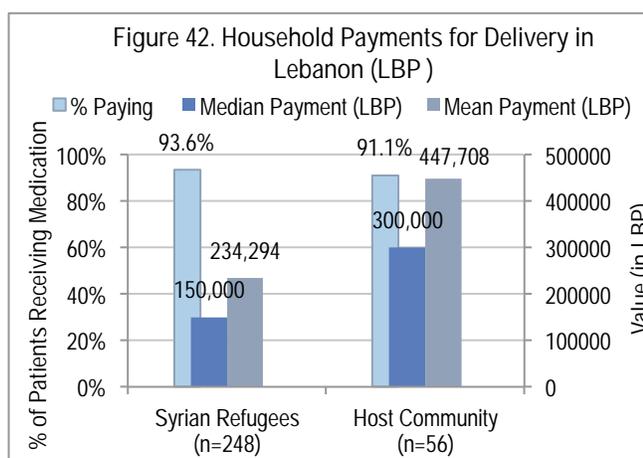
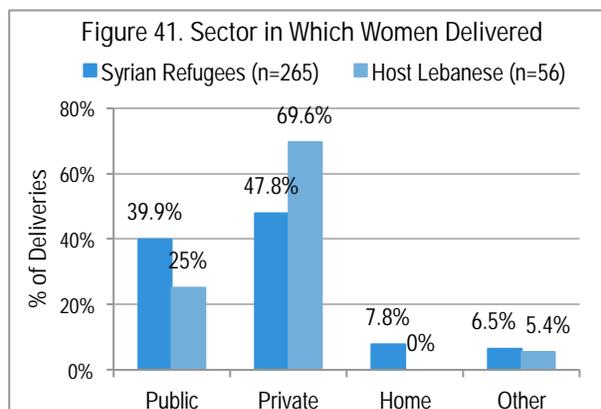
Lebanese Host Community Comparison

More than half of deliveries by Lebanese host community women took place in a private hospital (67.9%, CI: 53.6-79.4) with fewer Lebanese host community women delivering in a public hospital (25.0%, CI: 14.1-40.3)(Figure 41). None of the deliveries reported by Lebanese host community women took place at home.

Unlike refugee households in which the primary reasons for choosing the delivering location was cost, the reason for delivery location most commonly reported by Lebanese host community women was liking the staff, quality, or that their family doctor was at the facility (44.6%, CI: 31.9-58.1) ($p<0.001$). Additional reasons for delivery location reported by Lebanese host community households include proximity to their place of residence (23.2%, CI: 13.7-36.5), and low cost delivery (21.4%, CI: 12.5-34.3). As observed in refugee households, host community respondents were more likely to cite cost as the primary reason for choosing the delivery location if the woman gave birth at a public facility (42.9%, CI: 21.2-67.6) as opposed to a private facility (20.5%, CI: 9.9-37.7) where the main reason cited by Lebanese host community was liking the staff/quality or family doctor (61.5%, CI: 45.6-75.4) and this difference was statistically significant ($p=0.003$).

Most Lebanese host community households incurred an out-of-pocket payment for the delivery (91.1%, CI: 80.5-96.2). There were no significant differences in payment for deliveries between Syrian refugees and Lebanese host community ($p=0.479$); however, a significantly smaller proportion of Lebanese host community respondents (30.4%, CI: 19.6-43.8) reported having a portion of the delivery cost paid on their behalf by an organization such as the Army, an insurance company, or other assistance organizations compared to 74.3% (CI: 66.9-80.6) of Syrian refugees ($p<0.001$).

The average out-of-pocket payment to host community households was 447,708 LBP (CI: 292,780-602,637 LBP, median=300,000 LBP) or US\$297 (CI: US\$194-400, median=US\$199) among all deliveries and 491,601 LBP (CI: 328,487-654,715 LBP; median=400,000 LBP) or US\$326 (CI: US\$218-434, median= US\$265) among only households that paid for deliveries. Lebanese host community women paid significantly higher out-of-pocket costs than refugees when analyzed for all women giving birth ($p=0.008$) and among only those who had out-of-pocket payments ($p=0.003$) (Figure 42).



Among Lebanese host community women who gave birth in Lebanon in the past year, 33.9% (CI: 22.6-47.4) had a cesarean section, a similar proportion to that reported by Syrian refugees (30.6%, CI: 25.4-36.5, $p=0.660$). The mean cost of delivery was higher for those with a cesarean section

(637,561 LBP, CI: 279,296-995,827 LBP, median=400,000 LBP or US\$423 (CI: US\$185-661 , median=US\$265) than for those without a cesarean section (350,216 LBP, CI: 223,011-477,421 LBP, median= 300,000 LBP or US\$232 (CI: US\$148-317, median= US\$199), though this difference was not statistically significant ($p=0.136$). Among those that paid for the delivery, the mean cost of delivery was also higher for those with a cesarean section (702,278 LBP, CI: 0-2,272,084 LBP or US\$466, CI: US\$0-1,507) than for those without a cesarean section (218,636 LBP, CI: 77,704-359,569 LBP or US\$145, CI: US\$52-239), but not significantly so ($p=0.374$).

Most Lebanese host community women who gave birth received a documentation of the birth (96.4%, CI: 86.4-99.1), a significantly higher proportion than that reported by Syrian refugees (89.1%, CI: 83.9-92.7) ($p=0.027$).

Limitations

As with all studies, it is necessary to consider the limitations when interpreting results. With respect to sampling, reliance on UNHCR registration data for sample design and cluster allocation may have resulted in sampling bias if the geographic distribution of registered and unregistered refugees is different. Reallocation of clusters in areas controlled by militarily and political factions where permission to conduct the survey was not secured resulted in large area of the country being excluded. In particular, the South, Southern suburbs of Beirut and northern areas of Bekaa, including Balbek and Aarsal, were not accessible; the survey coverage area included only 53% of registered refugees and thus is not representative of the entire Syrian refugee population in Lebanon. Another sampling limitation was the 2:1 ration of refugee to host community households. The primary aim of the assessment was to characterize health access for Syrian refugees; budget limitations precluded a larger sample size and a decision was made to prioritize a larger refugee sample to enable regional comparisons. The smaller host community sample was a limitation in instances of rare occurrences (such as referrals, reasons for not taking medications or seeking care, mental health etc.). A larger sample size may have resulted in statistically significant differences for comparison across regions within Lebanon as well as comparisons of refugees and the host community.

The within cluster referral process also presents the potential for bias, as respondents may not have always referred the interview team to the nearest household. Referral procedures ensured that households were referred by different respondents and small clusters may have helped to attenuate within-cluster similarities and the associated design effect. Replacement sampling, which was done for logistical purposes, also could contribute to bias if there are systematic differences between households in which no one was at home compared with those in which someone was present. Finally, the Lebanese host community sample was selected using a neighborhood approach and thus is reflective of those communities hosting the greatest number of refugees. As such, findings on the Lebanese host community population should not be generalized to the Lebanese population more broadly because they are representative of only a subset of the Lebanese population, which is like to be of lower economic status and of a different geographic distribution, than the Lebanese population as whole.

Finally, interviews were conducted by Lebanese which could have resulted in a higher refusal rate, hesitation or influence on the part of Syrian refugees in responding to certain questions than if interviews had been conducted by Syrians. As such, sensitive topics such as income or experiences in Syria may be susceptible to bias as a result of the interviewer nationalities.

Discussion

Sociodemographic Characteristics and Household Welfare

The majority of Syrian refugee households arrived in Lebanon during 2012 (29.7%) and 2013 (36.6%), coming mainly from Homs (31.5%), Aleppo (16.7%), Idlib (12.0%), and Damascus (10.0%). Compared to the Syrian refugee population included in the Jordan Health Access survey, refugees in Lebanon came from a more diverse range of governorates and a larger proportion were from rural areas (42.9%) or small cities (31.6%). Of refugee households included in the survey, 76% were registered with UNHCR; this compares to a registration rate of 96% among Syrian refugees in the Jordan Health Access Survey. Receipt of humanitarian assistance was ubiquitous with refugee households receiving an average of 159,882 LBP (US\$106) in the month preceding the survey. Households in the North received the most assistance and those in Beirut/Mt Lebanon the least. This compares to 94% of Syrian refugees in Jordan who reported receiving humanitarian assistance and an average assistance value of 201 JD (US\$284) in the month preceding the survey.

The Syrian refugee population in Lebanon is very young, consistent with the demographics of the Syrian refugee population in Jordan and also with what would be expected in a refugee migration. The proportion of the population aged 17 and under in Lebanon was 52.9% compared to 53.8% in the Jordan survey. Refugee populations in both countries are substantially younger when compared to the Syrian population as a whole, of which 39.7% are estimated to be children.²⁵ Among Syrian refugees in Lebanon, 2.9% were age 60 and above which compares to an estimate of 5.9% for the Syrian population as a whole. The Lebanese host community population was older than the Syrian refugee population in Lebanon, where only 31.6% of household members were children and 10.2% were adults age 60 and older. There were fewer female headed households among refugees (9%) as compared to the host community (13%).

The household economy information indicates that Syrian refugee households in Lebanon are under considerable financial stress. There was a substantial gap between the reported median monthly expenditure of 986,750 LBP (US\$655) and the reported median income of 400,000 LBP (US\$265) (excluding humanitarian assistance). Even including the median in-kind and cash assistance received, which was 142,000 LBP (US\$94) there is still a substantial gap with median expenditures accounting for 182% of the combined median values for income and humanitarian assistance. In contrast to refugee households, the Lebanese host community was more affluent. Median household income among Lebanese host community households was 1,000,000 LBP (US\$663) which was 250% of the median refugee income and median monthly expenditures were also much higher at 1,625,000 LBP (US \$ 1,078), or 165% of the median refugee expenditures.

While our estimates fall within the range of figures from other recent studies which reported average monthly non-assistance income between US\$140-278^{26,27,28} and average monthly expenditures

²⁵ US Census Bureau, International Program. Accessed October 16, 2014. URL: www.census.gov/population/international/data/idb/region.php?N=%20Results%20&T=15&A=separate&RT=0&Y=2014&R=-1&C=SY.

²⁶ UNHCR. Health Access and Utilization Survey Among Non-Camp Syrian Refugees, Lebanon. 2014. URL: <http://data.unhcr.org/syrianrefugees/download.php?id=7111>. Accessed June 29, 2015.

²⁷ International Rescue Committee. An Impact Evaluation of the 2013-2014 Winter Cash Assistance Program for Syrian Refugees in Lebanon. 2014. Accessed June 29, 2015. <http://reliefweb.int/sites/reliefweb.int/files/resources/Emergency%20Economies%20Evaluation%20090914.pdf>.

²⁸ International Labour Organization (ILO). Assessment of the impact of Syrian refugees in Lebanon and their employment profile. 2014. Accessed June 26, 2015. http://reliefweb.int/sites/reliefweb.int/files/resources/wcms_240134.pdf

between US\$562-762.^{29,30} It is likely that reported income and expenditure figures are not entirely accurate. Refugees being unable to work legally may have resulted in unreported income; anticipation of further humanitarian assistance if low incomes were reported may have also biased reporting. Remittances from extended family, pensions, and rental income were not captured in the survey; it is possible these may have contributed to incomes in some households.

As compared to the Lebanese host community, larger portions of refugee households reported borrowing and selling assets, both of which are indicate financial distress. Borrowing and asset sales rates were 85% and 52%, respectively, among refugees in the three months preceding the survey as compared to 52% and 11%, respectively, among Lebanese host community households. Refugees spent a larger proportion of expenditures and income from borrowing and asset sales on food and rent as compared to Lebanese households. These figures align with results from the 2014 Vulnerability Assessment of Syrian Refugees (VASyR) in Lebanon, which found that 82% of refugees borrowed money or received credit in the preceding three months and most of the borrowed money was used for food and housing costs.³⁰ Continued support for rent vouchers and shelter programming in addition to improved food assistance could help stabilize financial security of refugees.

Health Service Utilization

Syrian refugees reported needing medical care more often than Lebanese host community members; one possible reason for this difference is that poor living conditions among refugees are associated with increased morbidity, where half of refugee households in Lebanon lived in a single rented room, informal tented settlements or other transitional housing and crowding was common. When considered in the context of refugee living conditions, where on average 4.6 persons shared a room for sleeping and large a minority of refugees lived in temporary housing, these findings are not unexpected. The primary reasons for seeking care were similar among refugees and host community members and included infections and communicable diseases among adults (40-43%) and respiratory problems among children (~60%).

Syrian refugees in Lebanon perceived access to health services as more difficult than both the Lebanese host community and Syrian refugees in Jordan. Reported information on care seeking aligns with poor perceptions of health access. Most refugee households reported that they were able to access the health care in Lebanon that their household members needed, however, health care was less accessible for Syrian refugees in Lebanon than for the Lebanese host community and Syrian refugees in Jordan. Among Syrian refugees in Lebanon, 69% of adults and 74% of children received care last time it was needed. This compares to 85% of both adults and children in the Lebanese host community and 84% of adults and 91% of children among Syrian refugees in Jordan. Overall, 38% of refugee adults and 31% of refugee children did not receive needed care or medicines, rates which were significantly higher than those observed for the Lebanese host community at 18% for adults and 12% for children.

Syrian refugees relied much more heavily on primary health care facilities, which accounted for approximately 50% of visits, than the Lebanese host community, who were more likely to seek care in the private sector. Refugees most often cited cost (free or reduced consultations) as the reason for selecting care providers while host community care seekers most often selected providers based on

²⁹ Handicap International. Livelihoods Assessment Report. 2013. Accessed June 29, 2015.

<http://reliefweb.int/sites/reliefweb.int/files/resources/HILivelihoodsAssessmentReport.pdf>.

³⁰ World Food Programme (WFP), the United Nations High Commission for Refugees (UNHCR) and the United Nations Children's Fund (UNICEF). Vulnerability Assessment for Syrian Refugees (VASyR) in Lebanon. 2014. Accessed June 26, 2015. http://documents.wfp.org/stellent/groups/public/documents/op_reports/wfp274481.pdf

history with the provider (family doctor). Cost was the primary barrier to care and was reported as the reason for not seeking care in more than 85% of refugee and host community households.

Hospitalizations, defined as a stay of at least one night for reasons other than childbirth in the year preceding the survey, were reported by 20% of refugee households; this compares to 43% of host community households and 21% of Syrian refugee households in Jordan. Although regional data are not readily available for comparison, these findings are substantially above OECD figures.³¹ Unsurprisingly, as 82% of hospitals in Lebanon are private³² (including many of those within the UNHCR network), the majority of hospitalizations were in the private sector, including 61% among refugees and 77% among the host community. Most refugee households (90%) reported out-of-pocket payments for hospitalization (mean= 495,623 LBP or US\$329, median= 300,000 LBP or US\$199). It was difficult to compare survey findings to available data on hospitalization costs because only out-of-pocket expenditures could be reliably reported in the survey. UNHCR reports an average total cost of US\$ 590 per hospitalization referral; however, out-of-pocket payments as a proportion of the total cost are not reported by UNHCR.³³

The most common reason for refugee hospitalization was injury (19.9%), which warrants further study; other common reasons for refugee hospitalization were digestive problems (16.2%) and respiratory conditions (12.9%). While the top three causes for hospitalization reported in the survey are similar to those reported by UNHCR, the proportions and rank order are somewhat inconsistent with UNHCR data on hospitalization. Unlike this survey, UNHCR hospitalization referral data includes obstetric cases, possibly impeding comparability of data. However, when calculated excluding obstetric cases, 13.0% of UNHCR referral cases were for trauma and other injuries, after respiratory infections (14.5%) and similar to gastrointestinal conditions (13.2%), placing injuries as the third most common reasons for non-obstetric hospitalizations.³³ One possible reason for the difference in proportions is the use of different numbers of reporting categories. Another potential explanation for the difference in order of the top three causes of hospitalization between survey data and UNHCR figures relates to seasonality, where UNHCR figures cover a six month time period (January-June 2014) and survey figures enquire about the most recent hospitalization in the preceding year. Given the likely seasonal variation in hospitalization rates for respiratory infections, it is possible that differential reporting periods resulted in a wider range of estimates for the proportion of respiratory condition hospitalizations as compared to conditions where seasonal variation is not expected.

Spending on Health

Overall, Lebanese reported higher average expenditures at the last health facility visit than refugees; however, this is due in part due to different care seeking patterns. Refugees relied more heavily on primary health centers, which offered low cost services, in addition to pharmacies, which do not charge for consultations, compared to the Lebanese host community who are not offered subsidized costs for services and are more likely to seek care in the private sector. Approximately 33% of Syrian refugees and 23% of Lebanese host community members reported no out-of-pocket payment at their most recent care seeking visits. In public sector primary health care centers, approximately 84% of both refugees and Lebanese host community members reported out-of-pocket pay-

³¹ OECD Health Data 2006: Statistics and Indicators for 30 Countries. OECD, 2006.

³² Institute of Health Management and Social Protection (IGSPS). National Health Statistics Report in Lebanon. 2012. Accessed June 8, 2015. <http://www.igsps.usj.edu.lb/docs/recherche/recueil12en.pdf>

³³ UNHCR. Syrian Refugees in Lebanon: Secondary and tertiary health care at a glance. January – June, 2014. 2014. Accessed July 6, 2015. http://reliefweb.int/sites/reliefweb.int/files/resources/referraldatasummaries_2014H1v4.pdf

ments. The average out-of-pocket payment amount at public sector facilities was significantly less for refugee adults (20,242 LBP or US\$ 13) as compared to Lebanese adults (42,744 LBP or US\$ 28) and was similar for children, averaging around 14,000 LBP (US\$9) for both refugees and Lebanese.

In the month preceding the survey, mean Syrian refugee household spending on health was 158,120 LBP (US\$105), equating to 33% of monthly income; this is consistent with information reported for average monthly expenses with 18% of expenditures related to health. Lebanese host community household spending on health was higher, averaging 327,493 LBP (US\$437) and accounting for 23% of reported incomes; this is also consistent with information reported for average monthly expenditures where 20% of expenses were health related. Given the tenuous state of many household economies in Lebanon, it is easy to see how a relatively modest sum could be a barrier to health service utilization.

Lowering user fees and increasing access to free or subsidized medication are two possible approaches to improving access to care for both refugees and the Lebanese host community, however, within the context of current funding shortfalls neither may be feasible at the levels required to substantially improve access and care seeking behaviors. It would be useful to know for planning purposes why refugees are seeking care in private facilities despite the higher associated costs. Anecdotal evidence suggests that perceived quality of care in the private sector may be higher and could be influencing these decisions. To offer more comprehensive and integrated care is a recommendation of this report. This would necessitate expanded support to the Lebanese Ministry of Public Health, but would improve continuity of care, which could improve patient outcomes, especially for chronic health conditions.

Access to Medicines

Prescribed medications were obtained in approximately 90% or more of cases surveyed, however, both children and adults in the Lebanese host community were more likely to obtain medicines than their refugee counterparts. Out-of-pocket payments for medicines at the most recent visit remained substantial averaging 43,732 LBP (US\$29) and 90,724 LBP (US\$60) for refugee and host community adults, respectively, and 32,147 LBP (US\$21) and 51,405 LBP (US\$34) for refugee and host community children, respectively. A sizeable proportion of households sought medications directly at pharmacies rather than visiting a health facility for consultation. Again, cost was the primary reason for not obtaining medicines, and refugees reported lower out-of-pocket payments for medicines than the Lebanese host community.

Medicines procured through the MoPH/YMCA program are mostly available in primary health care centers, the majority of these medications are procured as generics.³⁴ One possible reason for the high medication payments reported is patient preference for specific brands of medication rather than the generics provided in essential medicines packages; another possible reason is that medicines being prescribed are not on the essential medicines list. However, this has not been verified and further investigation into payment for medications and purchasing practices is recommended. Identifying obstacles to generic substitution and prescribing and educating both refugee and host communities about the quality and benefits of lower-cost generic medicines could improve patient access to medications and reduce many of the financial barriers. Additionally, training and support of treatment and prescription guidelines is recommended for providers. Increasing subsidies for

³⁴ Health Action International (HAI). Lebanon: Prices, availability, affordability, and price components of medicines to treat non-communicable diseases. 2013. Accessed June 29, 2015.

essential medicines and expanding essential medicine lists to include more medications could also reduce cost barriers and increase access to medicines among both refugees and the Lebanese.

Chronic Health Conditions

Non-communicable diseases were a challenge faced by many households with 50% of Syrian refugee households and 60% of Lebanese host community households reporting that one or more household members with a chronic disease. The most prevalent chronic conditions among Syrian refugees were arthritis (7.9%) and hypertension (7.4%); hypertension (10.7%) was most prevalent chronic disease among host community adults. Prevalence rates for most chronic conditions rose rapidly after age 40, which is expected. Potential reasons for the relatively low reported prevalence rates include that under-reporting by household respondents that may not have been informed of the diagnosis, or under diagnosis due to poor quality of care or failure to seek care.

Public sector facilities face a heavy burden serving over half of refugees receiving care for chronic health conditions. A majority of refugees (58%) sought care at primary health clinics which differs from the Lebanese host community, most of whom (62%) sought care at private clinics. For both refugees and the host community, cost was the primary barrier to seeking care and obtaining medications for chronic diseases; only 76% of refugees and 88% of Lebanese were currently taking prescribed chronic disease medicines. Among refugees receiving care for a chronic condition in Lebanon, 70% had an out-of-pocket payment at their last visit compared to 83% of Lebanese; average out-of-pocket costs were 23,014 LBP (US\$15) for refugees and 63,824 LBP (US\$42) for Lebanese [who were more likely to seek care at private facilities]. Differences in facility utilization and medication adherence between refugees and host communities are presumably due to the lower costs and also the accessibility of low cost medicines through the National Chronic Drugs Program where in partnership with the MoPH, the Young Men's Christian Association (YMCA) works with over 400 clinics and dispensaries to provide 63 low cost medications for chronic health condition to eligible individuals. Refugees are expected to pay a dispensing fee of 1,000 LBP (US\$ 0.66);³⁵ YMCA medication is available free of charge to eligible Lebanese in participating centers and dispensaries.³⁴

If the current displacement is protracted, this impending burden could entail substantial medical costs to UNHCR and others, as well as increased utilization of Lebanese primary and secondary care and referral hospitals by refugees with chronic health conditions. The observed pattern of refugees not seeking care because of costs, not understanding their disease, and being poorly compliant with treatment, increases the probability of more expensive inpatient and specialist care in future years. Furthermore, all of the five conditions queried in this survey have effective prevention strategies available. Investing now in more aggressive health promotion, accessible care at primary and secondary health facilities and expanded subsidies of chronic disease medications could more than pay for itself in future savings from hospital care avoided or postponed.

Antenatal Care and Deliveries

Antenatal care is a critical preventative health service and utilization rates were high with 87% of refugees and 95% of Lebanese received antenatal care during their last pregnancy; this compares 82% of Syrian refugees who sought antenatal care in Jordan. The mean number of antenatal care visits during the pregnancy was higher among the Lebanese host community (8.6) than refugees (6.1); however, the number of visits in both groups was adequate. The proportion of refugees re-

³⁵ UNHCR. Lebanon Operational Guidance. 2013. Accessed June 29, 2015.

<http://reliefweb.int/sites/reliefweb.int/files/resources/HealthoperationalguidanceLebanonJune2013.pdf>

ceiving antenatal care and the number of visits reported are higher than UNHCR data, which indicate that 70.5% of pregnant refugee women received antenatal care during their pregnancy and only 48.3% of pregnant refugees attended four or more antenatal care visits.²⁶

As was the case with hospitalization data, survey results for antenatal care among refugee respondents differs from UNHCR data, most notably in our higher ANC coverage estimate and greater number of ANC visits during pregnancy. ANC indicators were analyzed by registration status to better understand these discrepancies; however, no significant differences in most ANC variables were observed by registration status. One potential reason for the difference in estimates is that private facility use is not captured by the humanitarian community, causing their estimates to be lower. It is also possible that women are making visits at different centers, especially early in the pregnancy when trying to identify a regular source of care, which may contribute to under-reporting of the number of visits during a course of pregnancy when facility data is used (the UNHCR information source). Antenatal care was received in the first trimester by 53% of refugees and 79% of Lebanese, suggesting that messaging to ensure the first antenatal care visit occurs in the first trimester could be strengthened. This study did not evaluate quality of care, so while coverage rates are high, the ability to draw conclusions about the adequacy of care remains limited.

Most deliveries occurred in private hospitals (44% of refugees and 66% of Lebanese) or public hospitals (39% of refugees and 25% of Lebanese). The vast majority of refugees (94%) and Lebanese (91%) had out-of-pocket payments for deliveries and these averaged 234,294 LBP (US\$155) and 447,708 LBP (US\$297), respectively. However, cost did not appear to prevent families from choosing hospital births where only 6% of refugee births and no Lebanese births occurred at home; all home births were attended. According to UNHCR hospitalization data, total delivery costs for registered refugees average US\$355 for normal delivery and US\$655 for cesarean section delivery.³³ The out-of-pocket payment figures for deliveries reported in the survey are high considering the coverage provided by UNHCR, where registered refugees pay 25% of the cost out-of-pocket up to a maximum of US\$ 50 for a regular delivery.³⁶ One potential explanation for the high reported out-of-pocket costs is that UNHCR covers only delivery costs and not any additional services or tests performed in the same visit as the delivery, whereas out-of-pocket payments reflect the total household out-of-pocket expenditure for the visit.

Summary and Recommendations

Findings from this assessment show that the Syrian refugee populations in Lebanon are under considerable financial stress. On all economic measures, they are worse off than their Lebanese host community counterparts despite universal humanitarian assistance coverage. Continued support for housing costs and food assistance are recommended to help stabilize the financial security of refugee households. Improvements in the living conditions of refugees could reduce morbidity and the frequency of care seeking, thereby lessening the burden on the health system. A sustained focus on increasing childhood vaccination coverage and community based hygiene promotion could also reduce the communicable disease burden.

The Lebanese host community is more likely to seek and receive health care than Syrian refugees. Cost is the primary barrier to accessing health services and medications in both the Syrian refugee and Lebanese host community populations. Refugees have full access to health services, but due to the costs associated with seeking care, a sizeable percentage of the refugee population do not seek

³⁶ Huster, K, Patterson, N, Schliperoord, M, Spiegel, P. Cesarean Sections Among Syrian Refugees in Lebanon from December 2012/January 2013 to June 2013: Probable Causes and Recommendations. *Yale J Biol Med.* 2014 Sep; 87(3): 269-288.

care. Investment in strengthening the capacity of public health sector infrastructure would be prudent given the likelihood of prolonged displacement, the need to ensure adequate service provision to a growing refugee population and as strategy for maintaining service quality and reducing tensions between Lebanese host communities and Syrian refugees. Expanding the access to basic health services and medication in the public sector via lower user fees, strengthening preventative health services including vaccination and health education for those with chronic disease should be priorities of any health care system as promoted by the World Health Organization.³⁷

Increased subsidies for vulnerable groups coupled with capacity building efforts in the public sector and greater regulation in the private sector are effective strategies to promote access to quality health services. Improving access to comprehensive primary health care in the network of Primary Health Care Centers through low user fees and provision of free essential medicines would likely be a cost-effective approach. Within Primary Health Care Centers, access to care and medication for chronic conditions is of particular concern and should be scaled up urgently. Reductions in out-of-pocket expenses should be coupled with training of health providers on the rational use of medication and for patients on the equal effectiveness of generic medicines compared to more expensive branded medication. Additional community outreach and education that focuses on appropriate homecare options and decision making on when to seek care for minor illnesses could reduce out-of-pocket spending on and alleviate some of the caseload presenting at primary care facilities.

Ensuring adequate access to health services for Syrian refugees in Lebanon and Lebanese host communities given the protracted nature of the crisis in Syria requires coordinated commitment on behalf of all actors – NGOs, UN agencies, donors, and government and local authorities. In the current environment of declining funds for the Syria humanitarian response, greater investment in primary care and increased access and coverage would likely be both a short- and long-term cost-effective approach that could improve the health and wellbeing of refugees and host communities. Additional efforts to expand health education outreach and prevent the necessity of high out-of-pocket expenses would benefit both refugee and host community households alike. In particular, there is need to address the very high out-of-pocket expenses related to hospitalizations, which can be ‘catastrophic payments’ to households, and ensure that the humanitarian response is sufficiently funded so that life saving hospital care is accessible for refugees. Enhancing investment in primary health care and preventive approaches, specifically strengthening the capacity of public health sector infrastructure given the protracted nature of the crisis would increase access to services and provide protection against high out-of-pocket expenses for refugees and vulnerable Lebanese. At the same time, these investments would, over the long-term, provide savings for the Government of Lebanon and donors by reducing the costs of poor health.

³⁷ World Health Organization (WHO). Health Systems. Accessed July 14, 2015. <http://www.who.int/healthsystems/about/en/>

Annex I: Descriptive Statistics by Region and Provider Sector

Table 1. Initial Cluster Allocation by Governorate, District, and Cadastral*

Governorate	# Clusters Allocated	District	Cadastral	% Refugee Population	# Clusters Allocated	% Clusters Allocated	# Clusters Sampled
Beirut	3				3		3
		Beirut	Bachoura	0.7%	1	1%	1
			Mazraa	1.1%	1	1%	1
			Moussaytbeh	0.3%	1	1%	1
Bekaa	35				35		24
		Baalbek	Al-Nabi Chite	0.3%	1	1%	0
			Al-Qa El-Benjakie	0.9%	1	1%	1
			Arsale	3.6%	4	4%	0
			Baalbek	2.0%	2	2%	0
			Bednayel	0.3%	1	1%	0
			Brital	0.6%	1	1%	0
			Douress	0.3%	1	1%	0
		El-Hermel	Hermel	0.5%	1	1%	0
		Rachaya	Dahr El-Ahmar	0.2%	1	1%	1
		West Bekaa	Al-Marje	1.3%	1	1%	1
			Al-Sawireh	0.5%	1	1%	1
			El-Karaoun	0.3%	1	1%	1
			Ghazze	1.2%	1	1%	1
			Haouche-el-Harimeh	0.4%	1	1%	1
			Jib Jehnine	0.7%	1	1%	1
		Zahle	Bar-Elias	3.0%	3	3%	3
			Chtaura	0.4%	1	1%	1
			Delhamieh	0.5%	1	1%	1
			Jditah	0.3%	1	1%	1
			Kab Elias	2.4%	2	2%	2
			Kfar Zabed	0.9%	1	1%	1
			Maallaka (Terres)	0.5%	1	1%	1
			Mejdel-Anjar	1.5%	1	1%	1
			Rayak	0.6%	1	1%	1
			Saeid Neil	1.4%	1	1%	1
			Talabaya	1.0%	1	1%	1
			Zahleh Maallaka Kerek	0.5%	1	1%	1
			Zahleh Midan	1.3%	1	1%	1
Mt. Lebanon	24				24		18
		Aley	Aley	0.6%	1	1%	2
			Aramoun	0.9%	1	1%	1
			Chouaifat Amroussyat	1.7%	2	2%	2
			Chouaifat Qobbat	0.5%	1	1%	1
		Baabda	Borge el Baragenat	2.1%	2	2%	0
			Chiah	4.4%	4	4%	1
			Haret Horaeik	0.4%	1	1%	0
			Laylaki	0.3%	1	1%	0

Governorate	# Clusters Allocated	District	Cadastral	% Refugee Population	# Clusters Allocated	% Clusters Allocated	# Clusters Sampled
		Chouf	Barja	0.7%	1	1%	1
			Chehime	0.5%	1	1%	1
			Damour	0.3%	1	1%	1
			El Jiyeh	0.2%	1	1%	1
			Naamat	0.5%	1	1%	1
		El Meten	Baouchariat	0.6%	1	1%	1
			Borge Hammoud	1.6%	2	2%	2
			Dekouanet	0.3%	1	1%	1
			Senn el Fil	0.3%	1	1%	1
		Kesrwane	Djounieh Ghadir	0.2%	1	1%	1
North	25				25		25
		Akkar	Akroum	0.5%	1	1%	1
			Al-Khraibeh	0.2%	1	1%	1
			Al-Mehamra	0.6%	1	1%	1
			Bebnine	0.5%	1	1%	1
			Berkayel	0.3%	1	1%	1
			Deir-Daloum	0.2%	1	1%	1
			El-Bireh	0.5%	1	1%	1
			Halba	0.9%	1	1%	1
			Machta Hammoud	0.2%	1	1%	1
			Ouadi Khaled	1.4%	1	1%	1
		El Batroun	Batroune	0.4%	1	1%	1
			Chekka	0.3%	1	1%	1
		El Koura	Ras Maska	0.2%	1	1%	1
		El Minieh-Dennie	Al-Beddaoui	1.5%	2	2%	2
			Al-Minieh	1.5%	2	2%	2
			Sir	0.7%	1	1%	1
		Tripoli	Al-Kalmoune	0.3%	1	1%	1
			Al-Mina Jardins	0.4%	1	1%	1
			Tripoli Al-Kobbeh	0.9%	1	1%	1
			Tripoli Al-Tabbaneh	0.6%	1	1%	1
			Tripoli Zeitoun	1.6%	2	2%	2
		Zgharta	Mehriata	0.2%	1	1%	1
South	13				13		2
		Bent Jbeil	Bint Jbail	0.1%	1	1%	0
		El Nabatieh	Kfar Remmane	0.2%	1	1%	0
			Nabatieyh El-Faouka	0.2%	1	1%	0
			Nabatieyh El-Tahta	0.3%	1	1%	0
		Hasbaya	Chabaaa	0.3%	1	1%	0
		Marjaayoun	EL-Khiam	0.2%	1	1%	0
		Saida	Bissariat	0.4%	1	1%	0
			Ghazyat	0.5%	1	1%	0
			Saeida Ville	1.3%	1	1%	1
			Sarafend	0.3%	1	1%	1
			Abbassyat	0.2%	1	1%	0
			Borge El-Chehmali	0.2%	1	1%	0
			Sour (Tyr)	0.8%	1	1%	0
Total					100	100%	72

*Highlighted cadastrals were excluded from data collection

Table 2. Allocation of 28 Replacement Clusters in Permitted Areas by Governorate, District, and Cadastral

Governorate	# Clusters Allocated	District	Cadastral	% Refugee Population in Permitted Areas	% Clusters Allocated	# Clusters Sampled
Beirut	1			3.8%	4%	1
		Beirut	Moussaytbeh	0.4%	4%	1
Bekaa	10			33.7%	36%	10
		West Bekaa	Haouche-el-Harimeh	0.6%	4%	1
			Ghazzeh	1.7%	4%	1
			Kherbet Kanafar	0.1%	4%	1
		Zahle	Delhamieh	0.7%	4%	1
			Kfar Zabed	1.3%	4%	1
			Mejdel-Anjar	2.1%	4%	1
			Saeid Neil	2.0%	4%	1
			Talabaya	1.4%	4%	1
			Tanaeil	0.4%	4%	1
			Zahleh Midan	1.9%	4%	1
Mt. Lebanon	7			25.1%	25%	7
		Aley	Aley	0.8%	4%	1
			Bhamdoun (Village)	0.3%	4%	1
		Chouf	Baakline	0.1%	4%	1
			Cehime	0.8%	4%	1
		El Meten	Jal-el-Dib	0.1%	4%	1
			Senn el Fil	0.4%	4%	1
		Kesrwane	Faraya	0.2%	4%	1
North	10			35.3%	36%	10
		Akkar	Akkar El-Atika	0.2%	4%	1
			Bebnine	0.7%	4%	1
			Deir-Daloum	0.3%	4%	1
			Tikrite	0.1%	4%	1
		El Batroun	Tannourine Foka	0.1%	4%	1
		El Koura	Enfeh	0.2%	4%	1
		El Minieh-Dennie	Bakhoune	0.3%	4%	1
			Sir	1.0%	4%	1
		Tripoli	Al-Kalmoune	0.5%	4%	1
			Tripoli Jardins	0.3%	4%	1
South	0			2.2%	0%	0
Total				100.0%	100.0%	28

Table 3. Final Allocation of Survey Clusters by Governorate, District, and Cadastral

Governorate	# Clusters Allocated	District	Cadastral	% Refugee Population	% Clusters Allocated	% Households Sampled	# Clusters Sampled
Beirut	4			2.1%	4%	4%	4
		Beirut	Bachoura	0.7%	1%	1%	1
			Mazraa	1.1%	1%	1%	1
			Moussaytbeh	0.3%	2%	2%	2
Bekaa	34			20.4%	34%	33.9%	34
		Baalbek	Al-Qa El-Benjakie	0.9%	1%	1%	1
		Rachaya	Dahr El-Ahmar	0.2%	1%	1%	1
		West Bekaa	Al-Marje	1.3%	1%	1%	1
			Al-Sawireh	0.5%	1%	1%	1
			El-Karaoun	0.3%	1%	1%	1
			Ghazzeh	1.2%	2%	2%	2
			Haouche-el-Harimeh	0.4%	2%	2%	2
			Jib Jehnine	0.7%	1%	1%	1
			Kherbet Kanafar	0.1%	1%	1%	1
			Zahle	Bar-Elias	3.1%	3%	3%
		Chtaura		0.4%	1%	1%	1
		Delhamieh		0.5%	2%	2%	2
		Jditah		0.3%	1%	1%	1
		Kab Elias		2.4%	2%	2%	2
		Kfar Zabed		0.9%	2%	2%	2
		Maallaka (Terres)		0.5%	1%	1%	1
		Mejdel-Anjar		1.5%	2%	2%	2
		Rayak		0.6%	1%	1%	1
		Saeid Neil		1.4%	2%	2%	2
		Talabaya		1.0%	2%	2%	2
		Tanaeil		0.3%	1%	1%	1
		Zahleh Maallaka Kerek		0.5%	1%	1%	1
		Zahleh Midan		1.3%	2%	2%	2
Mt. Lebanon	25			14.0%	25%	25%	25
		Aley	Aley	0.6%	2%	2%	2
			Aramoun	0.9%	1%	1%	1
			Bhamdoun (Village)	0.2%	1%	1%	1
			Chouaifat Amroussyat	1.7%	2%	2%	2
			Chouaifat Qobbat	0.5%	1%	1%	1
		Baabda	Chiah	4.4%	1%	1%	1
		Chouf	Baakline	0.1%	1%	1%	1
			Barja	0.7%	1%	1%	1
			Cehime	0.5%	2%	2%	2
			Damour	0.3%	1%	1%	1
			El Jiyeh	0.2%	1%	1%	1
			Naamat	0.5%	1%	1%	1

Governorate	# Clusters Allocated	District	Cadastral	% Refugee Population	% Clusters Allocated	% Households Sampled	# Clusters Sampled
		El Meten	Baouchariat	0.6%	1%	1%	1
			Borge Hammoud	1.6%	2%	2%	2
			Dekouanet	0.3%	1%	1%	1
			Jal-el-Dib	0.1%	1%	1%	1
			Senn el Fil	0.3%	2%	2%	2
		Jbeil	Jbeil	0.1%	1%	1%	1
		Kesrwane	Djounieh Ghadir	0.2%	1%	1%	1
			Faraya	0.1%	1%	1%	1
North	35			14.8%	35%	35.1%	35
		Akkar	Akkar El-Atika	0.1%	1%	1%	1
			Akroum	0.5%	1%	1%	1
			Al-Khraibeh	0.2%	1%	1%	1
			Al-Mehamra	0.6%	1%	1%	1
			Bebnine	0.5%	2%	2%	2
			Berkayel	0.3%	1%	1%	1
			Deir-Daloum	0.2%	2%	2%	2
			El-Bireh	0.5%	1%	1%	1
			Halba	0.9%	1%	1%	1
			Machta Hammoud	0.2%	1%	1%	1
			Ouadi Khaled	1.4%	1%	1%	1
			Tikrite	0.1%	1%	1%	1
			El Batroun	Batroune	0.4%	1%	1%
		Chekka		0.3%	1%	1.1%	1
		Tannourine Foka		0.1%	1%	1%	1
		El Koura	Enfeh	0.1%	1%	1%	1
			Ras Maska	0.2%	1%	1%	1
		El Minieh-Dennie	Al-Beddaoui	1.5%	2%	2%	2
			Al-Minieh	1.5%	2%	2%	2
			Bakhoune	0.2%	1%	1%	1
			Sir	0.7%	2%	2%	2
		Tripoli	Al-Kalmoune	0.3%	2%	2%	2
			Al-Mina Jardins	0.4%	1%	1%	1
			Tripoli Al-Kobbeh	0.9%	1%	1%	1
			Tripoli Al-Tabbaneh	0.6%	1%	1%	1
			Tripoli Jardins	0.2%	1%	1%	1
			Tripoli Zeitoun	1.6%	2%	2%	2
		Zgharta	Mehriata	0.2%	1%	1%	1
South	2			1.6%	2%	2%	2
		Saida	Saeida Ville	1.3%	1%	1%	1
			Sarafend	0.3%	1%	1%	1
Total				52.8%		100%	100

Table 4. Respondent Characteristics

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Point [95% CI]	N
Sex						
Syrian Refugees	n=407	n=476	n=493	0.389	n=1376	
Male	44.4 [37.3,51.8]	37.4 [33.2,41.8]	39.6 [33.8,45.6]		40.2 [36.9,43.7]	553
Female	55.1 [47.8,62.1]	62.0 [57.5,66.2]	60.2 [54.3,65.9]		59.3 [55.9,62.7]	815
Host Community	n=203	n=238	n=245	0.332	n=686	
Male	50.2 [43.3,57.2]	41.0 [34.1,48.3]	45.5 [37.5,53.7]		45.3 [41.0,49.8]	311
Female	49.8 [42.8,56.7]	58.6 [51.1,65.7]	53.7 [45.4,61.7]		54.2 [49.8,58.6]	372
p-value	0.138	0.373	0.253		0.041	
Age						
Syrian Refugees	Median 33 [32,35]	34 [33,35]	33.5 [32,35]	---	34 [33,35]	1253
Mean	34.7 [33.6,35.9]	36.2 [34.7,37.6]	35.7 [34.6,36.7]	0.267	35.6 [34.8,36.3]	1376
Host Community	Median 45 [41,50]	43 [42,45]	42 [40,45]	---	43 [42,45]	
Mean	47.1 [44.1,50.1]	44.3 [42.6,46.1]	44.4 [41.9,47.0]	0.266	45.2 [43.7,46.6]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Highest level of education completed						
Syrian Refugees				0.004		
None	12.0 [8.8,16.3]	23.6 [18.3,29.8]	16.1 [11.4,22.4]		17.4 [14.5,20.8]	218
Primary	34.7 [29.3,40.6]	32.2 [27.0,37.9]	35.5 [29.8,41.6]		34.1 [30.9,37.5]	427
Preparatory	30.5 [25.7,35.9]	32.7 [27.8,38.0]	30.0 [25.7,34.6]		31.1 [28.3,34.0]	389
Secondary	16.7 [13.5,20.5]	7.2 [5.0,10.4]	11.8 [8.7,15.9]		11.8 [9.8,14.0]	147
Institute/technical degree/diploma	3.7 [1.8,7.2]	1.9 [1.0,3.5]	3.4 [2.0,5.6]		3.0 [2.1,4.2]	37
University or higher	2.3 [1.2,4.7]	2.3 [1.3,4.2]	3.2 [1.9,5.2]	2.6 [1.9,3.7]	33	
Host Community				0.001		
None	9.8 [5.9,15.9]	7.9 [4.7,12.9]	17.7 [12.6,24.3]		12.1 [9.3,15.5]	72
Primary	20.2 [15.2,26.3]	25.7 [20.1,32.3]	27.3 [20.8,34.9]		24.7 [21.1,28.7]	147
Preparatory	23.1 [17.2,30.3]	32.2 [27.2,37.6]	26.8 [20.5,34.3]		27.6 [24.0,31.4]	164
Secondary	21.4 [15.0,29.5]	22.3 [17.2,28.3]	13.6 [9.9,18.6]		18.8 [15.7,22.4]	112
Institute/technical degree/diploma	12.1 [8.3,17.3]	5.0 [2.9,8.4]	4.5 [2.2,9.3]		6.9 [5.0,9.3]	41
University or higher	13.3 [8.8,19.6]	6.9 [4.0,11.7]	10.0 [6.9,14.3]	9.9 [7.7,12.7]	59	
p-value	< 0.001	< 0.001	0.031		< 0.001	

Table 5. Household Demographics

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Point [95% CI]	N
Household Size						
Syrian Refugees	n=407	n=476	n=493		n=1376	
Median	5 [5,6]	6 [5,6]	6 [5,6]	---	6 [5,6]	1376
Mean	5.6 [5.2,6.0]	6.2 [5.9,6.6]	6.1 [5.8,6.4]	0.090	6.0 [5.8,6.2]	1374
Host Community	n=203	n=238	n=245		n=686	
Median	4 [4,4]	5 [4,5]	5 [5,5]	---	5 [4,5]	686
Mean	4.2 [3.9,4.5]	4.9 [4.6,5.2]	5.2 [4.7,5.7]	< 0.001	4.8 [4.6,5.0]	686
p-value	< 0.001	< 0.001	0.010		< 0.001	
Children < 2 yrs						
Syrian Refugees						
Median	0 [0,0]	0 [0,0]	0 [0,0]	---	0 [0,0]	1376
Mean	0.5 [0.4,0.6]	0.5 [0.4,0.5]	0.4 [0.3,0.5]	0.172	0.4 [0.4,0.5]	1374
% of all households w/ child < 2	38.8 [33.0,44.8]	37.2 [32.7,41.9]	34.9 [31.2,38.8]	0.521	36.8 [34.1,39.6]	506
Host Community						
Median	0 [0,0]	0 [0,0]	0 [0,0]	---	0 [0,0]	686
Mean	0.1 [0.1,0.2]	0.1 [0.1,0.2]	0.2 [0.2,0.3]	0.002	0.2 [0.1,0.2]	686
% of all households w/ child < 2	10.8 [7.1,16.3]	11.7 [8.9,15.3]	20.5 [15.7,26.4]	0.004	14.6 [12.1,17.5]	100
p-value (mean comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
p-value (% comparison)	< 0.001	< 0.001	0.001		< 0.001	
Children 2 - 5 yrs						
Syrian Refugees						
Median	1 [0,1]	1 [1,1]	1 [0,1]	---	1 [1,1]	1376
Mean	0.8 [0.7,0.9]	0.9 [0.8,1.0]	0.8 [0.7,0.9]	0.230	0.8 [0.8,0.9]	1374
% of all households w/ child < 5	66.7 [59.9,72.8]	68.3 [63.4,72.8]	64.7 [60.0,69.1]	0.614	66.5 [63.4,69.5]	914
Host Community						
Median	0 [0,0]	0 [0,0]	0 [0,0]	---	0 [0,0]	686
Mean	0.3 [0.2,0.4]	0.3 [0.2,0.4]	0.3 [0.2,0.4]	0.050	0.3 [0.2,0.4]	686
% of all households w/ child < 5	25.1 [20.2,30.8]	24.7 [19.3,31.0]	34.0 [27.5,41.2]	0.049	28.1 [24.6,31.9]	193
p-value (mean comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
p-value (% comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
Children 6 - 17 years						
Syrian Refugees						
Median	1 [1,2]	2 [2,2]	2 [2,2]	---	2 [2,2]	1376
Mean	1.6 [1.4,1.8]	2.0 [1.9,2.2]	2.1 [1.9,2.3]	0.004	1.9 [1.8,2.1]	1374
% of all households w/ child < 17	87.9 [82.3,91.9]	91.6 [88.5,93.9]	88.6 [85.8,91.0]	0.268	89.4 [87.3,91.2]	1229
Host Community						
Median	0 [0,0]	1 [0,1]	1 [0,1]	---	0 [0,1]	686
Mean	0.7 [0.6,0.9]	1.1 [0.9,1.3]	1.3 [1.0,1.5]	0.001	1.1 [0.9,1.2]	686
% of all households w/ child < 17	54.7 [45.6,63.4]	59.0 [52.2,65.5]	68.0 [60.2,75.0]	0.052	60.9 [56.3,65.4]	418
p-value (mean comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
p-value (% comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
18 - 39 years						
Syrian Refugees						
Median	2 [2,2]	2 [2,2]	2 [2,2]	---	2 [2,2]	1376
Mean	2.1 [1.9,2.3]	1.9 [1.8,2.1]	2.0 [1.9,2.1]	0.436	2.0 [1.9,2.1]	1374
Host Community						
Median	1 [1,2]	2 [1,2]	2 [2,2]	---	2 [1,2]	686
Mean	1.5 [1.3,1.7]	1.8 [1.6,1.9]	1.9 [1.6,2.1]	0.075	1.7 [1.6,1.8]	686
p-value	0.001	0.072	0.383		< 0.001	
40 - 59 years						
Syrian Refugees						
Median	0 [0,0]	1 [0,1]	0 [0,1]	---	0 [0,0]	1376
Mean	0.6 [0.5,0.7]	0.7 [0.6,0.8]	0.7 [0.6,0.7]	0.300	0.7 [0.6,0.7]	1374
Host Community						
Median	1 [1,1]	1 [1,1]	1 [1,1]	---	1 [1,1]	686
Mean	1.0 [0.9,1.1]	1.2 [1.1,1.3]	1.0 [0.9,1.1]	0.027	1.1 [1.0,1.1]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001	

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610)	Bekaa (n=714)	North (n=738)		Point [95% CI]	N
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	N
Over 60 years						
Syrian Refugees	Median 0 [0,0]	0 [0,0]	0 [0,0]	---	0 [0,0]	1376
	Mean 0.1 [0.1,0.2]	0.2 [0.1,0.2]	0.2 [0.2,0.2]	0.037	0.2 [0.1,0.2]	1374
% of all households w/ adult > 60	11.1 [8.5,14.4]	16.6 [12.2,22.2]	16.4 [13.6,19.8]	0.085	14.9 [12.8,17.3]	205
Host Community	Median 0 [0,0]	0 [0,0]	0 [0,0]	---	0 [0,0]	686
	Mean 0.5 [0.4,0.7]	0.4 [0.3,0.5]	0.5 [0.4,0.6]	0.334	0.5 [0.4,0.6]	686
% of all households w/ adult > 60	38.9 [31.4,47.0]	31.8 [25.7,38.6]	35.2 [28.3,42.8]	0.398	35.1 [31.1,39.4]	241
p-value (mean comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
p-value (% comparison)	< 0.001	< 0.001	< 0.001		< 0.001	
Head of Household Characteristics						
Sex						
Syrian Refugees	Male 94.6 [92.1,96.3]	89.9 [86.7,92.4]	89.2 [85.6,92.0]	0.017	91.0 [89.2,92.6]	1251
	Female 5.4 [3.7,7.9]	10.1 [7.6,13.3]	10.8 [8.0,14.4]		9.0 [7.4,10.8]	123
Host Community	Male 85.2 [78.7,90.0]	84.5 [78.4,89.1]	90.2 [86.4,93.0]	0.171	86.7 [83.7,89.3]	595
	Female 14.8 [10.0,21.3]	15.5 [10.9,21.6]	9.8 [7.0,13.6]		13.3 [10.7,16.3]	91
p-value	0.004	0.081	0.691		0.008	
Age						
Syrian Refugees	Median 37 [35,38]	37 [36,39]	37 [36,38]	---	37 [36,37]	1375
	Mean 38.2 [37.1,39.4]	39.8 [38.5,41.2]	38.9 [38.0,39.8]	0.212	39.0 [38.4,39.7]	1374
Host Community	Median 50 [45,54]	47 [45,50]	49 [46,50]	---	49 [47,50]	686
	Mean 50.7 [47.9,53.4]	47.9 [46.0,49.8]	49.0 [46.5,51.6]	0.268	49.1 [47.7,50.5]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Highest level of education completed						
Syrian Refugees				0.004		
None	10.4 [7.8,13.7]	21.8 [16.8,27.9]	18.1 [13.5,23.8]		17.1 [14.4,20.3]	235
Primary	37.8 [33.2,42.6]	33.4 [28.6,38.6]	38.1 [32.1,44.6]		36.4 [33.3,39.6]	500
Preparatory	32.8 [27.9,38.2]	33.6 [29.3,38.2]	31.2 [26.6,36.3]		32.5 [29.8,35.4]	447
Secondary	11.9 [9.7,14.4]	7.8 [5.7,10.5]	7.5 [5.3,10.5]		8.9 [7.5,10.5]	122
Institute/technical degree/diploma	3.5 [2.0,6.0]	2.1 [1.1,3.8]	2.2 [1.2,4.1]		2.5 [1.8,3.6]	35
University or higher	3.7 [2.2,6.2]	1.3 [0.6,2.6]	2.8 [1.7,4.7]	2.5 [1.8,3.6]	35	
Host Community				< 0.001		
None	13.8 [9.4,19.7]	7.5 [4.6,12.0]	19.3 [14.5,25.1]		13.6 [10.9,16.7]	93
Primary	21.2 [16.4,27.0]	28.5 [22.3,35.6]	37.7 [31.7,44.2]		29.6 [25.9,33.6]	203
Preparatory	23.2 [18.5,28.6]	31.0 [26.5,35.8]	21.7 [16.6,28.0]		25.4 [22.4,28.6]	174
Secondary	20.7 [15.9,26.5]	20.9 [16.2,26.6]	8.6 [5.7,12.8]		16.5 [13.7,19.6]	113
Institute/technical degree/diploma	5.9 [3.6,9.7]	5.4 [3.3,8.8]	4.1 [2.2,7.4]		5.1 [3.8,6.9]	35
University or higher	15.3 [10.5,21.7]	6.7 [3.7,11.9]	8.6 [5.7,12.8]	9.9 [7.6,12.8]	68	
p-value	< 0.001	< 0.001	0.133		< 0.001	

Table 6. Living Conditions

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Point [95% CI]	N
Residence type						
<i>Syrian Refugees</i>	n=407	n=476	n=493		n=1376	
Entire apartment or house	59.5 [51.3,67.2]	36.6 [28.4,45.6]	56.0 [48.1,63.6]		50.3 [45.1,55.4]	691
Room within an apartment or house	24.7 [19.2,31.1]	17.6 [12.8,23.8]	17.0 [13.3,21.6]		19.5 [16.6,22.7]	268
Addition to house	10.1 [7.5,13.5]	8.2 [5.5,12.1]	8.5 [5.3,13.4]		8.9 [7.1,11.1]	122
Tent / temporary shelter	3.0 [1.4,6.3]	32.4 [22.4,44.1]	9.7 [4.9,18.4]		15.6 [11.1,21.5]	214
Unfinished building, construction site, or warehouse	2.0 [0.8,4.6]	5.0 [3.3,7.7]	7.1 [4.7,10.5]		4.9 [3.6,6.5]	67
Collective center or communal shelter	0.7 [0.2,3.1]	0.2 [0.0,1.5]	1.4 [0.4,4.6]		0.8 [0.3,1.9]	11
Other	0	0	0.2 [0.0,1.4]	< 0.001	0.1 [0.0,0.5]	1
<i>Host Community</i>	n=203	n=238	n=245		n=686	
Entire apartment or house	93.6 [89.4,96.2]	96.7 [92.7,98.5]	97.1 [93.8,98.7]		95.9 [94.0,97.2]	658
Room within an apartment or house	3.9 [1.8,8.5]	1.7 [0.7,4.2]	0.8 [0.2,3.2]		2.0 [1.2,3.6]	14
Addition to house	2.0 [0.8,4.9]	0.8 [0.2,3.2]	0.8 [0.2,3.2]		1.2 [0.6,2.3]	8
Tent / temporary shelter	0.5 [0.1,3.4]	0.8 [0.2,3.2]	1.2 [0.3,5.1]		0.9 [0.3,2.2]	6
Unfinished building, construction site, or warehouse	0	0	0		0	0
Collective center or communal shelter	0	0	0		0	0
Other	0	0	0	0.260	0	0
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Residence arrangement						
<i>Syrian Refugees</i>						
Rent	81.0 [72.4,87.4]	89.7 [85.2,93.0]	87.4 [80.0,92.3]		86.3 [82.5,89.4]	1186
Pay to occupy land	1.0 [0.3,3.1]	3.6 [1.9,6.6]	0.8 [0.3,2.6]		1.8 [1.1,3.1]	25
Stay in exchange for work	14.1 [9.1,21.1]	3.4 [2.2,5.2]	2.8 [0.9,8.7]		6.3 [4.3,9.2]	87
Stay without permission (squat)	0.5 [0.1,1.9]	0.2 [0.0,1.5]	1.2 [0.4,3.3]	< 0.001	0.7 [0.3,1.4]	9
Hosted (permission but no payment)	3.2 [1.7,6.0]	2.9 [1.5,5.5]	6.5 [3.4,12.1]		4.3 [2.8,6.4]	59
Own	0.2 [0.0,1.7]	0.2 [0.0,1.5]	1.2 [0.6,2.5]		0.6 [0.3,1.1]	8
<i>Host Community</i>						
Rent	33.5 [25.3,42.8]	13.8 [8.7,21.2]	16.4 [10.4,24.8]		20.6 [16.4,25.5]	141
Pay to occupy land	1.5 [0.5,4.3]	0	0		0.4 [0.1,1.4]	3
Stay in exchange for work	1.5 [0.5,4.3]	1.3 [0.4,3.7]	0.8 [0.2,3.2]	0.044	1.2 [0.6,2.3]	8
Stay without permission (squat)	0	0.4 [0.1,2.9]	0.4 [0.1,2.9]		0.3 [0.1,1.2]	2
Hosted (permission but no payment)	2.0 [0.6,6.2]	0.8 [0.2,3.2]	1.2 [0.4,3.7]		1.3 [0.6,2.6]	9
Own	61.6 [52.0,70.3]	83.7 [76.3,89.1]	81.1 [72.3,87.7]		76.2 [71.1,80.7]	523
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Crowding (people per sleeping room)						
<i>Syrian Refugees</i>						
Median	4 [4,4]	4.3 [4,5]	4 [4,5]	---	4 [4,4]	1358
Mean	4.2 [4.0,4.5]	4.8 [4.4,5.1]	4.6 [4.4,4.9]	0.024	4.6 [4.4,4.7]	1374
<i>Host Community</i>						
Median	2 [2,2]	2 [2,2.5]	2.5 [2.3,2.5]	---	2 [2,2.3]	686
Mean	2.3 [2.1,2.4]	2.6 [2.4,2.9]	2.8 [2.5,3.1]	0.003	2.6 [2.4,2.7]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
% of all households w/ 5+ per room						
<i>Syrian Refugees</i>	36.5 [30.6,42.8]	47 [40.3,53.8]	46.1 [40.3,52.1]	0.046	43.6 [39.9,47.4]	591
<i>Host Community</i>	5.0 [2.3,10.4]	9.6 [6.4,14.2]	11.5 [7.2,17.9]	0.125	8.9 [6.6,11.9]	61
p-value	< 0.001	< 0.001	< 0.001		< 0.001	

Table 7. Arrival Timeframe and Location of Origin in Syria *

	By Region			regional comparison p-values	Survey Total (n=1,376)	
	Beirut/Mt. Lebanon (n=407)	Bekaa (n=476)	North (n=493)		% [95% CI]	N
	% [95% CI]	% [95% CI]	% [95% CI]			
Year of arrival in Lebanon						
2011	15.7 [12.1,20.2]	15.5 [11.7,20.3]	14.2 [10.8,18.4]	0.297	15.1 [12.9,17.6]	208
2012	27.3 [23.0,32.0]	28.2 [23.5,33.4]	33.1 [28.9,37.6]		29.7 [27.0,32.4]	408
2013	34.9 [30.1,40.0]	36.1 [30.6,42.1]	38.3 [33.1,43.8]		36.6 [33.5,39.7]	503
2014	20.9 [17.3,25.0]	19.7 [15.7,24.5]	13.8 [10.6,17.8]		18.0 [15.7,20.5]	247
2015	1.0 [0.3,3.1]	0.4 [0.1,1.6]	0.4 [0.1,1.6]		0.6 [0.3,1.2]	8
Governorate of Origin in Syria						
Al-Hasakeh	6.4 [3.6,11.1]	1.1 [0.3,3.7]	1.4 [0.3,7.4]	< 0.001	2.8 [1.6,4.8]	38
Aleppo	26.3 [20.5,33.0]	18.5 [12.8,25.9]	7.1 [4.2,11.8]		16.7 [13.4,20.6]	230
Damascus	9.1 [6.1,13.4]	17.2 [12.3,23.6]	3.9 [2.2,6.6]		10 [7.7,13.0]	138
Dar'a	9.1 [5.7,14.3]	10.3 [6.0,17.0]	1.0 [0.4,2.3]		6.6 [4.6,9.5]	91
Deir ez-Zor	2.0 [0.9,4.3]	2.3 [0.8,6.7]	0.6 [0.1,4.2]		1.6 [0.8,3.1]	22
Hama	7.9 [5.0,12.1]	1.5 [0.7,3.2]	9.7 [6.6,14.1]		6.3 [4.7,8.5]	87
Homs	14.5 [8.9,22.7]	18.5 [12.0,27.4]	58.2 [49.7,66.3]		31.5 [25.8,37.8]	434
Idlib	14.7 [10.2,20.8]	10.7 [6.6,17.0]	11.0 [7.0,16.8]		12.0 [9.4,15.2]	165
Latakia	0	0	2.6 [1.1,6.1]		0.9 [0.4,2.3]	13
Quneitra	2.7 [1.0,7.0]	0.8 [0.3,2.7]	0		1.1 [0.5,2.4]	15
Ar-Raqqah	2.7 [1.3,5.4]	4.8 [2.7,8.6]	0.4 [0.1,1.6]		2.6 [1.6,4.1]	36
Rural Damascus	3.2 [1.7,6.0]	14.3 [10.1,19.8]	2.2 [1.2,4.1]		6.7 [4.8,9.2]	92
As-Suwayda	1.2 [0.2,8.3]	0	0		0.4 [0.0,2.6]	5
Tartus	0.2 [0.0,1.7]	0	1.8 [0.7,4.7]		0.7 [0.3,1.8]	10
Area within Syrian governorate of origin						
Capital city	5.7 [3.8,8.3]	5.5 [3.7,7.9]	4.3 [2.6,6.9]	0.742	5.1 [4.0,6.5]	70
Other main city	33.7 [27.9,39.9]	28.6 [23.3,34.5]	32.9 [28.0,38.1]		31.6 [28.5,34.9]	435
Small village/town	18.9 [15.2,23.2]	20.8 [17.0,25.1]	21.3 [16.9,26.5]		20.4 [18.0,23.1]	281
Rural or remote area	41.8 [34.9,48.9]	45.2 [39.4,51.0]	41.6 [36.4,46.9]		42.9 [39.4,46.4]	590

* as percent of consenting Syrian refugee households

Table 8. Violence in Syria *

	By Region			regional comparison p-value	Survey Total (n=1,376)	
	Beirut/Mt. Lebanon (n=407) % [95% CI]	Bekaa (n=476) % [95% CI]	North (n=493) % [95% CI]		N	% [95% CI]
Households with family member that experienced a violent event in Syria	69.1 [63.9,73.9]	76.7 [71.0,81.6]	81.3 [75.8,85.8]	0.006	1046	76.1 [72.9,79.1]
Households experiencing specific violent event in Syria						
Destruction of home	59.3 [53.6,64.7]	67.4 [61.3,72.9]	73.2 [67.0,78.6]	< 0.001	892	67.2 [63.6,70.6]
Conflict related injury	18 [14.8,21.8]	22.2 [18.4,26.5]	25.4 [21.3,29.9]	0.085	294	22.1 [19.8,24.7]
Conflict related death	15.7 [12.2,19.8]	22 [18.5,25.9]	25.4 [21.6,29.5]	0.005	284	21.4 [19.1,23.8]
Kidnapped or missing family member	13.3 [10.6,16.5]	12.4 [9.5,16.0]	16.5 [13.8,19.6]	0.151	188	14.2 [12.5,16.0]
Imprisonment	11.2 [8.6,14.6]	16.7 [13.8,20.1]	22.1 [18.4,26.2]	0.004	227	17.1 [15.0,19.4]
Other violent event	0.8 [0.2,3.3]	0.9 [0.3,2.2]	1.9 [0.6,5.7]	0.792	16	1.2 [0.6,2.5]

* as percent of consenting Syrian refugee households

Table 9. Household Income and Expenditures (Lebanese Pounds)*

	By Region			regional comparison p-values	Survey Total (Syrian Refugee n=1,376 Host Community n=686)		
	Beirut/Mt. Lebanon (Syrian Refugee n=407 Host Community n=203) Mean [95% CI]	Bekaa (Syrian Refugee n=476 Host Community n=238) Mean [95% CI]	North (Syrian Refugee n=493 Host Community n=245) Mean [95% CI]		Median	Mean [95% CI]	N
Expenditures (past month)							
Total Household Expenditures							
Syrian Refugees	1196030 [1120815,1271246]	999721 [935009,1064434]	1067272 [1002000,1132543]	< 0.001	986750	1081989 [1039589,1124389]	1376
Host Community	2112337 [1900800,2323874]	1964345 [1730972,2197718]	1884720 [1690530,2078910]	0.294	1625000	1979701 [1854683,2104719]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Expenditures by Quartile							
Top Quartile							
Syrian Refugees	1840233 [1778744,1901722]	1769420 [1694368,1844473]	1836647 [1742360,1930933]	0.323	1700805	1818717 [1773758,1863676]	344
Host Community	3721751 [3462653,3980849]	3777459 [3438205,4116714]	4125157 [3748637,4501677]	0.213	3600000	3853883 [3663083,4044683]	171
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
3rd Quartile							
Syrian Refugees	1160749 [1135118,1186381]	1161114 [1144660,1177568]	1147592 [1128551,1166632]	0.533	1150000	1155772 [1143738,1167807]	344
Host Community	1992290 [1935729,2048851]	2007918 [1937698,2078137]	1978576 [1912325,2044827]	0.836	1975778	1993343 [1954681,2032006]	172
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
2nd Quartile							
Syrian Refugees	853188 [835292,871085]	835636 [824584,846688]	854351 [841604,867097]	0.063	844000	847209 [839118,855300]	344
Host Community	1400298 [1354943,1445652]	1380156 [1338044,1422268]	1339230 [1303202,1375258]	0.098	1382000	1368578 [1344173,1392983]	171
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Bottom Quartile							
Syrian Refugees	503690 [472552,534828]	507815 [477846,537783]	506034 [474166,537903]	0.982	542000	506257 [487996,524517]	344
Host Community	695990 [634111,757868]	722396 [670677,774115]	708772 [644772,772771]	0.811	748000	710344 [675753,744934]	172
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Expenditures by Category							
Housing/Rent							
Syrian Refugees	366303 [315956,416651]	240763 [205968,275559]	279126 [244358,313894]	< 0.001	300000	291515 [266461,316568]	1376
Host Community	152299 [110323,194276]	61517 [28251,94782]	63642 [31997,95287]	0.002	0	88992 [67032,110952]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Electricity							
Syrian Refugees	52337 [46945,57730]	43011 [38197,47824]	38770 [32307,45232]	0.004	40000	44226 [40763,47689]	1376
Host Community	113630 [100443,126816]	118520 [100301,136739]	99522 [84022,115023]	0.237	90000	110256 [100839,119674]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Fuel (cooking/heating)							
Syrian Refugees	48713 [37800,59625]	100819 [86863,114775]	52680 [44277,61083]	< 0.001	40000	67955 [59864,76045]	1376
Host Community	71786 [49473,94100]	169531 [142439,196623]	76674 [61358,91989]	< 0.001	40000	106551 [91117,121986]	686
p-value	0.085	< 0.001	< 0.001		< 0.001		
Water							
Syrian Refugees	29817 [24446,35188]	17878 [13516,22240]	17748 [14472,21023]	< 0.001	15000	21336 [18619,24052]	1376
Host Community	40645 [33039,48252]	32162 [25050,39273]	29571 [23908,35234]	0.072	25000	33727 [29718,37735]	686
p-value	0.004	< 0.001	< 0.001		< 0.001		
Food							
Syrian Refugees	424962 [395994,453930]	356340 [340873,371807]	382135 [363580,400690]	< 0.001	350000	386112 [372707,399518]	1376
Host Community	716589 [648109,785069]	656357 [591898,720816]	648326 [591730,704922]	0.284	600000	671680 [634918,708442]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Transportation							
Syrian Refugees	51616 [44978,58254]	34520 [29562,39477]	40363 [35595,45131]	< 0.001	20000	41679 [38269,45088]	1376
Host Community	191161 [151322,231000]	148196 [113795,182597]	150501 [120275,180726]	0.204	100000	161514 [141165,181863]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Health							
Syrian Refugees	167859 [144552,191167]	193342 [166293,220391]	210273 [185548,234998]	0.050	100000	191934 [176944,206925]	1376
Host Community	397876 [306507,489245]	385292 [314243,456340]	391371 [312802,469940]	0.977	200000	391257 [345024,437490]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Household Items							
Syrian Refugees	26304 [21845,30762]	20739 [15827,25651]	34495 [29452,39538]	0.001	15000	27298 [24249,30346]	1376
Host Community	54014 [40927,67102]	51588 [39477,63699]	77529 [65149,89910]	0.007	35000	61632 [53979,69284]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Education							
Syrian Refugees	29787 [23771,35803]	16869 [12395,21344]	25152 [18511,31793]	0.003	0	23653 [20134,27173]	1376
Host Community	340845 [237437,444254]	297058 [211801,382315]	268731 [174889,362573]	0.595	25000	299768 [245269,354268]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Clothes							
Syrian Refugees	25744 [19516,31971]	16208 [11534,20882]	13542 [9646,17438]	0.006	0	18075 [15078,21071]	1376
Host Community	98027 [78882,117173]	86244 [57471,115017]	108423 [83867,132978]	0.513	0	97649 [82915,112383]	686
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Other Large Expenses							
Syrian Refugees	26298 [16664,35933]	14979 [9898,20060]	20470 [12971,27969]	0.102	0	20298 [15907,24690]	1376
Host Community	84902 [48046,121758]	108061 [50308,165815]	92455 [56288,128622]	0.800	0	95621 [69347,121895]	686
p-value	0.004	0.003	< 0.001		< 0.001		

	By Region			regional comparison p-values	Survey Total (Syrian Refugee n=1,376 Host Community n=686)		
	Beirut/Mt. Lebanon (Syrian Refugee n=407 Host Community n=203) Mean [95% CI]	Bekaa (Syrian Refugee n=476 Host Community n=238) Mean [95% CI]	North (Syrian Refugee n=493 Host Community n=245) Mean [95% CI]		Median	Mean [95% CI]	N
Income (past month)**							
Total Household Income							
Syrian Refugees	n=377 717826 [648157,787496]	n=435 364739 [300257,429221]	n=445 379008 [334764,423252]	< 0.001	n=1257 400000 475689 [428639,522738]	1376	
Host Community	n=175 1839241 [1584117,2094365]	n=202 1328842 [1167661,1490023]	n=209 1203941 [1067828,1340055]	< 0.001	n=586 1000000 1436718 [1316830,1556607]	686	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Income by Quartile							
Top Quartile							
Syrian Refugees	1108187 [1026080,1190293]	986459 [859642,1113277]	949836 [867047,1032626]	0.028	900000 1048356 [988096,1108616]	312	
Host Community	3690985 [3406824,3975146]	3153763 [2765549,3541977]	2796169 [2465123,3127214]	< 0.001	3000000 3254513 [3037054,3471973]	146	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
3rd Quartile							
Syrian Refugees	526663 [514372,538955]	523428 [509773,537083]	526607 [515782,537432]	0.924	500000 525696 [518678,532715]	308	
Host Community	1416957 [1362940,1470973]	1334745 [1293136,1376354]	1369512 [1321682,1417342]	0.065	1400000 1373604 [1344719,1402490]	134	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
2nd Quartile							
Syrian Refugees	311774 [292351,331197]	298287 [282918,313656]	297677 [284905,310449]	0.457	300000 300670 [291782,309559]	314	
Host Community	845394 [802196,888592]	861397 [837709,885086]	854082 [821019,887144]	0.802	850000 855487 [837434,873540]	150	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Bottom Quartile							
Syrian Refugees	52662 [27937,77387]	38896 [28873,48918]	50732 [39661,61802]	0.246	0 44980 [37779,52181]	323	
Host Community	387158 [324847,449468]	325778 [254845,396710]	342466 [287871,397060]	0.395	400000 348538 [312170,384907]	156	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Households that borrowed money in the past 3 months (%)							
Syrian Refugees	n=377 78.1 [73.0,82.5]	n=435 90.3 [86.7,93.0]	n=445 84.2 [80.3,87.4]	0.221	n=1257 84.5 [82.0,86.8]	1163	
Host Community	n=175 39.9 [32.4,47.9]	n=202 54.2 [46.1,62.1]	n=209 60 [52.3,67.2]	0.005	n=586 52.0 [47.2,56.8]	357	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Borrowed money used for ***							
Syrian Refugees	n=407	n=476	n=493		n=1376		
Rent	42.1 [34.7,49.9]	28.4 [23.0,34.4]	31.8 [26.7,37.4]	0.001	33.4 [29.8,37.2]	388	
Food	28.6 [23.4,34.5]	47.4 [41.7,53.2]	39.0 [33.0,45.4]		39.3 [35.6,43.1]	457	
Health	23.0 [18.2,28.6]	18.8 [15.3,23.0]	25.5 [21.4,30.2]		22.4 [19.8,25.1]	260	
Education	1.6 [0.7,3.5]	1.2 [0.5,2.6]	0.5 [0.1,1.9]		1.0 [0.6,1.8]	12	
Other	4.7 [2.7,8.0]	4.2 [2.6,6.7]	3.1 [1.6,6.0]		4.0 [2.9,5.4]	46	
Host Community	n=203	n=238	n=245	0.003	n=686		
Rent	11.1 [6.0,19.8]	1.6 [0.4,5.9]	4.8 [2.4,9.1]		5.0 [3.2,7.9]	18	
Food	17.3 [11.4,25.4]	39.5 [31.4,48.3]	40.1 [32.5,48.3]		34.7 [29.8,40.1]	124	
Health	28.4 [21.6,36.3]	27.9 [20.5,36.8]	28.6 [23.6,34.1]		28.3 [24.4,32.5]	101	
Education	14.8 [7.9,26.1]	14.7 [9.7,21.7]	12.2 [7.7,18.9]		13.7 [10.4,17.9]	49	
Other	28.4 [19.6,39.2]	16.3 [9.3,26.9]	14.3 [9.4,21.1]		18.2 [14.0,23.4]	65	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Households that sold assets in the past 3 months (%)							
Syrian Refugees	n=407 12.8 [9.7,16.6]	n=476 18.5 [15.8,21.6]	n=493 24.3 [20.1,29.1]	< 0.001	n=1376 18.9 [16.7,21.4]	260	
Host Community	n=203 5.4 [2.7,10.7]	n=238 10.9 [7.2,16.2]	n=245 16.3 [11.8,22.2]	0.240	n=686 11.2 [8.7,14.3]	77	
p-value	0.003	0.005	0.011		< 0.001		
Money from sold assets used for ****							
Syrian Refugees	n=52	n=88	n=120		n=260		
Rent	26.9 [16.2,41.3]	23.9 [16.2,33.7]	32.5 [22.3,44.7]	0.516	28.5 [22.3,35.5]	74	
Food	30.8 [19.7,44.6]	47.7 [37.2,58.4]	34.2 [25.2,44.5]		38.1 [31.9,44.7]	99	
Health	32.7 [20.6,47.6]	19.3 [10.8,32.1]	23.3 [15.8,33.1]		23.8 [18.2,30.5]	62	
Education	1.9 [0.3,12.8]	1.1 [0.2,8.1]	0.8 [0.1,5.9]		1.2 [0.4,3.6]	3	
Other	7.7 [3.1,17.9]	8.0 [4.3,14.4]	9.2 [5.2,15.7]		8.5 [5.8,12.2]	22	
Host Community	n=11	n=26	n=40	0.475	n=77		
Rent	9.1 [1.1,46.6]	11.5 [4.6,26.3]	7.5 [2.5,20.5]		9.1 [4.6,17.3]	7	
Food	27.3 [6.1,68.5]	15.4 [6.2,33.5]	25.0 [15.2,38.2]		22.1 [14.3,32.5]	17	
Health	18.2 [3.2,59.9]	23.1 [9.5,46.2]	40.0 [27.8,53.6]		31.2 [21.7,42.5]	24	
Education	9.1 [1.8,35.7]	23.1 [11.3,41.4]	17.5 [8.0,34.1]		18.2 [11.1,28.4]	14	
Other	36.4 [11.4,71.7]	26.9 [11.3,51.7]	10.0 [3.5,25.3]		19.5 [11.0,32.2]	15	
p-value	0.053	0.003	0.045		< 0.001		

*exchange rate = 1507.5 LBP/1 US\$

**excluding humanitarian assistance

***as percent of those who borrowed money in the last 3 months

****as percent of those who sold assets in the last 3 months

Table 10. UNHCR Registration

	By Region			regional comparison p-values	Survey Total (n=1,376)	
	Beirut/Mt. Lebanon (n=407) % [95% CI]	Bekaa (n=476) % [95% CI]	North (n=493) % [95% CI]		% [95% CI]	N
Current UNHCR registration *						
All members currently registered	74.0 [69.0,78.4]	75.6 [70.0,80.5]	77.9 [73.8,81.5]	0.345	75.9 [73.2,78.5]	1045
Some members currently registered	8.4 [6.0,11.6]	10.7 [7.8,14.5]	8.1 [6.3,10.5]		9.1 [7.6,10.8]	125
No members currently registered	17.7 [13.7,22.5]	13.7 [10.3,17.9]	14 [10.8,17.9]		15.0 [12.8,17.4]	206
Households waiting for appointment for UNHCR registration *						
New registration	7.1 [4.9,10.3]	8.0 [5.7,11.1]	6.3 [4.7,8.3]	0.476	7.1 [5.8,8.6]	98
Renewal of existing registration	1.2 [0.5,2.8]	2.7 [1.3,5.7]	1.8 [0.9,3.5]		2.0 [1.2,3.1]	27
Households with members previously registered with UNHCR **	n=67	n=44	n=45		n=156	
	14.9 [7.4,27.9]	27.3 [16.0,42.5]	60.0 [43.5,74.5]	0.001	31.4 [23.3,40.9]	49
Primary reason for not having current valid UNHCR registration for entire household **	n=72	n=65	n=69		n=206	
Lack of time	6.9 [3.3,14.0]	6.2 [1.9,18.4]	8.7 [3.4,20.4]	< 0.001	7.3 [4.2,12.2]	15
Do not know how/did not know about UNHCR	20.8 [13.1,31.5]	18.5 [9.3,33.3]	7.2 [3.1,15.9]		15.5 [10.6,22.1]	32
Not enough benefits/not worth the time	31.9 [20.6,46.0]	7.7 [2.8,19.5]	11.6 [6.0,21.3]		17.5 [12.3,24.2]	36
Too far away	9.7 [5.7,16.2]	4.6 [1.5,13.0]	1.4 [0.2,9.9]		5.3 [3.1,9.0]	11
UNHCR refused registration	9.7 [4.2,20.8]	47.7 [34.3,61.4]	49.3 [35.3,63.3]		35.0 [26.8,44.1]	72
Missing or problem with papers	0	4.6 [1.1,17.3]	1.4 [0.2,9.9]		1.9 [0.6,6.3]	4
Do not want to register	4.2 [1.4,11.6]	1.5 [0.2,10.8]	7.2 [2.9,16.9]		4.4 [2.2,8.5]	9
Fear	2.8 [0.7,10.8]	3.1 [0.8,11.3]	0		1.9 [0.7,5.1]	4
Other	13.9 [8.8,21.3]	6.2 [2.4,15.2]	13 [6.0,26.0]		11.2 [7.4,16.5]	23
Households that want to register with UNHCR**	51.4 [41.0,61.7]	86.2 [72.7,93.6]	75.4 [64.1,84.0]		< 0.001	70.4 [63.1,76.8]

* as percent of all refugee households; includes households waiting for registration appointment

** as percent of households not currently registered with UNHCR

Table 11. Household Health Expenditures in the Past Month (Lebanese Pounds)

	By Region			regional comparison p-values	Survey Total (n=2,062)		N
	Beirut/Mt. Lebanon (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Median	Mean [95% CI]	
Household Spending on Health in the Past Month							
Consultation/ Diagnostic Fees							
Syrian Refugees	68703 [53307,84099]	78047 [62814,93280]	70182 [56486,83878]	0.652	25000	72462 [63894,81030]	1376
Host Community	146613 [104179,189047]	174125 [130959,217292]	163402 [122618,204186]	0.664	60000	162233 [137741,186724]	686
p-value	0.005	< 0.001	< 0.001			< 0.001	
Medications							
Syrian Refugees	78276 [66833,89720]	84644 [75875,93412]	93252 [85146,101358]	0.093	52000	85906 [80376,91437]	1376
Host Community	178179 [148274,208085]	154613 [130847,178379]	171188 [144832,197544]	0.432	100000	167555 [152096,183015]	686
p-value	< 0.001	< 0.001	< 0.001			< 0.001	
Total Health Spending							
Syrian Refugees	145824 [124200,167448]	162978 [141740,184215]	163562 [144193,182932]	0.416	100000	158120 [146040,170200]	1376
Host Community	321446 [256028,386864]	331439 [269812,393066]	328700 [273244,384155]	0.975	200000	327493 [292501,362486]	686
p-value	< 0.001	< 0.001	< 0.001			< 0.001	
Health Spending by Household Spending Quartile *							
Top Quartile							
Syrian Refugees	242044 [194098,289991]	345526 [283517,407534]	304905 [252424,357386]	0.030	200000	291743 [258275,325212]	344
Host Community	518356 [384114,652597]	605847 [448588,763105]	586983 [424436,749529]	0.672	400000	567295 [480580,654009]	171
p-value	< 0.001	0.002	0.004			< 0.001	
3rd Quartile							
Syrian Refugees	116821 [85548,148094]	177731 [149083,206378]	183128 [153739,212517]	0.005	103000	161000 [142656,179344]	344
Host Community	324841 [196777,452905]	324509 [237299,411718]	399033 [325612,472454]	0.366	225000	351615 [297381,405849]	172
p-value	0.005	0.002	< 0.001			< 0.001	
2nd Quartile							
Syrian Refugees	103701 [71930,135472]	102056 [84297,119816]	111098 [94950,127245]	0.745	75000	105970 [93981,117958]	344
Host Community	217000 [154069,279931]	253490 [206315,300666]	267750 [201512,333988]	0.515	170000	249441 [212929,285954]	171
p-value	0.005	< 0.001	< 0.001			< 0.001	
Bottom Quartile							
Syrian Refugees	63372 [48808,77936]	80846 [60720,100972]	69282 [50848,87716]	0.386	45000	72881 [61557,84205]	344
Host Community	146674 [115571,177777]	143082 [94362,191801]	129185 [96791,161580]	0.735	100000	138962 [115869,162054]	172
p-value	< 0.001	0.032	0.003			< 0.001	

* quartiles based on total household expenditures in the month preceding the survey

Table 12. Health Care Seeking for Adults in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,860)	
	Beirut/Mt. Lebanon (n=546) % [95% CI]	Bekaa (n=632) % [95% CI]	North (n=682) % [95% CI]		% [95% CI]	N
Most recent reason for needing health services for an adult in the household (while in Lebanon) *						
<i>Syrian Refugees</i>	n=331	n=396	n=437		n=1164	
Injury	10.6 [7.5,14.7]	8.1 [6.0,10.8]	8.9 [6.4,12.4]	0.364	9.1 [7.5,11.0]	106
Infection or communicable disease	37.5 [32.4,42.8]	41.7 [36.3,47.3]	41.2 [35.5,47.1]		40.3 [37.1,43.6]	469
Chronic/non-communicable disease	13.3 [9.6,18.1]	14.6 [11.5,18.5]	13.0 [10.2,16.5]		13.7 [11.7,15.9]	159
Dental care	7.3 [4.8,10.7]	5.1 [3.3,7.7]	4.3 [2.7,6.8]		5.4 [4.2,6.9]	63
Skin problem	4.5 [2.8,7.2]	2.0 [1.1,3.7]	3.9 [2.6,5.9]		3.4 [2.6,4.6]	40
Emotional or mental health	0.6 [0.1,4.1]	1.0 [0.5,2.6]	1.1 [0.5,2.6]		0.9 [0.5,1.8]	11
Complications related to pregnancy	5.1 [3.6,7.3]	5.3 [3.5,8.0]	2.5 [1.4,4.4]		4.2 [3.2,5.4]	49
Gynecological problem	11.2 [8.3,14.9]	12.9 [10.1,16.3]	12.1 [9.4,15.5]		12.1 [10.4,14.0]	141
Other	10.0 [7.0,14.0]	9.3 [6.9,12.6]	12.8 [9.9,16.5]		10.8 [9.1,12.8]	126
<i>Host Community</i>	n=176	n=192	n=212		n=581	
Injury	8.0 [4.8,12.9]	10.4 [7.0,15.0]	4.2 [2.2,8.1]	0.435	7.4 [5.5,9.8]	43
Infection or communicable disease	45.5 [38.0,53.1]	36.3 [29.2,44.0]	46.7 [38.6,55.0]		42.9 [38.3,47.6]	249
Chronic/non-communicable disease	19.3 [13.1,27.5]	24.9 [19.3,31.4]	19.3 [14.3,25.6]		21.2 [17.7,25.1]	123
Dental care	6.8 [3.6,12.6]	4.1 [2.1,8.2]	3.3 [1.5,7.1]		4.6 [3.1,7.0]	27
Skin problem	1.7 [0.6,5.1]	2.6 [1.1,5.9]	1.9 [0.6,5.9]		2.1 [1.1,3.7]	12
Emotional or mental health	0.6 [0.1,4.0]	0	0.9 [0.2,3.7]		0.5 [0.2,1.6]	3
Complications related to pregnancy	1.1 [0.3,4.4]	2.6 [1.1,5.8]	1.4 [0.5,4.2]		1.7 [0.9,3.1]	10
Gynecological problem	12.5 [7.7,19.6]	13.5 [8.8,20.1]	15.6 [11.4,21.0]		13.9 [11.1,17.4]	81
Other	4.5 [2.1,9.7]	5.7 [3.2,10.0]	6.6 [4.0,10.7]		5.7 [4.0,8.0]	33
p-value	0.179	0.020	0.081		< 0.001	
Last time care was needed *						
<i>Syrian Refugees</i>	n=355	n=412	n=451		n=1218	
Less than two weeks ago	35.2 [30.6,40.1]	38.6 [34.1,43.3]	41.9 [37.3,46.7]	0.150	38.8 [36.1,41.7]	473
2 weeks to less than 1 month ago	25.9 [21.1,31.4]	28.2 [24.2,32.5]	30.4 [25.6,35.6]		28.3 [25.6,31.2]	345
1 month to less than 3 months ago	22.5 [18.1,27.7]	21.6 [18.2,25.4]	16.6 [13.4,20.5]		20.0 [17.8,22.5]	244
3 months to less than 6 months ago	5.9 [3.8,9.0]	4.9 [3.0,7.8]	5.3 [3.7,7.6]		5.3 [4.2,6.8]	65
6 months to less than 1 year ago	3.7 [2.4,5.5]	2.9 [1.7,4.8]	2.7 [1.6,4.4]		3.0 [2.3,4.0]	37
More than 1 year ago	6.8 [4.2,10.6]	3.9 [2.1,7.0]	3.1 [1.8,5.3]		4.4 [3.2,6.0]	54
<i>Host Community</i>	n=191	n=220	n=231		n=642	
Less than two weeks ago	35.6 [28.4,43.6]	29.5 [24.0,35.7]	35.9 [30.6,41.7]	0.795	33.6 [30.1,37.4]	216
2 weeks to less than 1 month ago	25.7 [19.8,32.6]	27.3 [21.0,34.6]	23.4 [17.1,31.1]		25.4 [21.6,29.5]	163
1 month to less than 3 months ago	21.5 [16.1,27.9]	20.5 [16.7,24.8]	22.1 [15.6,30.3]		21.3 [18.1,25.0]	137
3 months to less than 6 months ago	5.2 [2.9,9.2]	6.4 [3.9,10.3]	7.4 [4.8,11.1]		6.4 [4.8,8.4]	41
6 months to less than 1 year ago	4.2 [2.1,8.2]	4.1 [2.3,7.2]	3.0 [1.4,6.5]		3.7 [2.5,5.5]	24
More than 1 year ago	7.9 [4.6,13.1]	12.3 [8.0,18.3]	8.2 [5.2,12.9]		9.5 [7.2,12.4]	61
p-value	0.987	0.001	0.027		< 0.001	
Received attention last time care was needed *						
<i>Syrian Refugees</i>	n=331	n=396	n=437		n=1164	
Yes, sought and received care	69.2 [60.9,76.4]	64.9 [58.6,70.7]	73.5 [68.0,78.3]	0.096	69.3 [65.5,72.9]	807
Did not seek care	19.9 [15.6,25.1]	27.0 [22.4,32.1]	20.4 [16.9,24.4]		22.5 [20.0,25.2]	262
Sought, but did not receive care	10.9 [6.6,17.5]	8.1 [5.3,12.2]	6.2 [4.0,9.5]		8.2 [6.2,10.6]	95
<i>Host Community</i>	n=176	n=193	n=212		n=581	
Yes, sought and received care	83.0 [77.7,87.2]	88.1 [83.1,91.7]	83.5 [78.0,87.8]	0.399	84.9 [81.9,87.4]	493
Did not seek care	14.2 [10.4,19.2]	11.4 [7.8,16.4]	14.2 [9.9,19.8]		13.3 [10.8,16.1]	77
Sought, but did not receive care	2.8 [1.2,6.4]	0.5 [0.1,3.7]	2.4 [0.7,7.3]		1.9 [1.0,3.7]	11
p-value	< 0.001	< 0.001	0.027		< 0.001	
Location of most recent care in Lebanon **						
<i>Syrian Refugees</i>	n=229	n=257	n=321		n=807	
Primary health care center	42.4 [37.0,48.0]	51.4 [44.0,58.7]	44.5 [38.0,51.3]	0.083	46.1 [42.2,50.1]	372
Private clinic (cabinet)	23.6 [19.3,28.5]	21.8 [15.2,30.2]	26.8 [21.2,33.2]		24.3 [20.8,28.1]	196
Hospital	7.0 [3.9,12.3]	10.9 [7.8,15.0]	5.3 [3.3,8.4]		7.6 [5.8,9.8]	61
Pharmacy	26.2 [21.0,32.2]	15.2 [10.3,21.8]	22.7 [17.4,29.1]		21.3 [18.0,25.0]	172
Other	0.9 [0.2,3.4]	0.8 [0.2,3.0]	0.6 [0.2,2.5]		0.7 [0.3,1.6]	6
<i>Host Community</i>	n=146	n=170	n=177		n=493	
Primary health care center	13.7 [8.7,20.9]	15.9 [11.5,21.5]	24.9 [17.4,34.2]	0.012	18.5 [14.7,22.9]	91
Private clinic (cabinet)	52.1 [43.3,60.6]	55.9 [48.6,62.9]	44.6 [36.9,52.7]		50.7 [46.0,55.4]	250
Hospital	13.7 [9.1,20.2]	18.8 [14.0,24.8]	10.2 [6.2,16.3]		14.2 [11.4,17.6]	70
Pharmacy	17.8 [11.9,25.8]	8.2 [4.5,14.5]	18.6 [13.5,25.2]		14.8 [11.6,18.7]	73
Other	2.7 [1.1,6.9]	1.2 [0.3,4.5]	1.7 [0.6,4.9]		1.8 [1.0,3.4]	9
p-value	< 0.001	< 0.001	< 0.001		< 0.001	

	By Region			regional comparison p-values	Survey Total (n=1,860)	
	Beirut/Mt. Lebanon (n=546) % [95% CI]	Bekaa (n=632) % [95% CI]	North (n=682) % [95% CI]		% [95% CI]	N
Reason for deciding not to seek care ***						
<i>Syrian Refugees</i>	n=36	n=32	n=27	0.379	n=95	
Could not afford provider costs	88.9 [66.5,97.0]	87.5 [70.1,95.4]	81.5 [56.3,93.8]		86.3 [75.4,92.9]	82
No transportation/difficult to access	0	0	0		0	0
Could not afford transportation costs	2.8 [0.4,17.9]	0	3.7 [0.5,22.0]		2.1 [0.5,8.2]	2
Provider's equipment or drugs are inadequate	2.8 [0.4,18.8]	3.1 [0.4,19.3]	0		2.1 [0.5,8.3]	2
Disliked provider/staff attitudes on previous visit(s)	0	0	3.7 [0.5,23.4]		1.1 [0.1,7.4]	1
Disliked long wait time on previous visit(s)	0	0	7.4 [1.7,26.9]		2.1 [0.5,8.4]	2
Could not take time off work/other commitments	0	3.1 [0.4,20.4]	0		1.1 [0.1,7.4]	1
Family decided care should not be sought	5.6 [1.3,21.0]	0	0		2.1 [0.5,8.3]	2
Appointment scheduled/still waiting	0	3.1 [0.4,19.3]	0		1.1 [0.1,7.3]	1
Other	0	3.1 [0.4,20.4]	3.7 [0.5,22.0]		2.1 [0.5,8.3]	2
<i>Host Community</i>	n=5	n=1	n=5		n=11	
Could not afford provider costs	Insufficient sample size for regional comparison			90.9 [59.6,98.5]	10	
No transportation/difficult to access				9.1 [1.5,40.4]	1	
Could not afford transportation costs				0	0	
Provider's equipment or drugs are inadequate				0	0	
Disliked provider/staff attitudes on previous visit(s)				0	0	
Disliked long wait time on previous visit(s)				0	0	
Could not take time off work/other commitments				0	0	
Family decided care should not be sought				0	0	
Appointment scheduled/still waiting				0	0	
Other				0	0	
p-value						

* as percent of household index cases that reported needing care in Lebanon

** as percent of household index cases that received care the last time it was needed

*** as percent of household index cases that did not seek care the last time it was needed

Table 13. Access to Medical Care for Adult Health in Lebanon

	By Region			regional comparison p-values	By Facility Type				facility comparison p-values	Survey Total (n=1,860)	
	Beirut/Mt. Lebanon (n=546)	Bekaa (n=632)	North (n=682)		PHCC (n=463)	Private Clinic (n=446)	Pharmacy (n=245)	Hospital (n=131)		Point [95% CI]	N
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	N
Received medical attention the last time care was needed *											
Syrian Refugees	n=329 69.2 [60.9,76.4]	n= 396 64.9 [58.6,70.7]	n=437 73.5 [68.0,78.3]	0.096						n=1162 69.3 [65.5,72.9]	807
Host Community	n=176 83.0 [77.7,87.2]	n=193 88.1 [83.1,91.7]	n=212 83.5 [78.0,87.8]	0.399						n=581 84.9 [81.9,87.4]	493
p-value	< 0.001	< 0.001	0.226							<0.001	
Reason for most recent careseeking **											
Syrian Refugees	n=228	n=257	n=321		n=372	n=196	n=172	n=61		n=806	
Injury	10.9 [7.7,15.3]	8.2 [5.5,11.9]	7.5 [5.3,10.4]		6.2 [4.2,9.1]	7.7 [4.6,12.4]	4.1 [1.9,8.5]	42.6 [29.9,56.4]		8.7 [7.0,10.6]	70
Infection or communicable disease	36.7 [30.5,43.4]	35.4 [28.4,43.1]	41.1 [35.1,47.4]		32.5 [27.5,38.0]	28.1 [21.8,35.3]	69.2 [60.5,76.7]	18 [9.5,31.5]		38.0 [34.2,42.0]	307
Chronic/non-communicable disease	10.9 [7.7,15.2]	14.4 [10.8,19.0]	15.3 [11.6,19.8]		14.8 [11.5,18.8]	16.8 [12.6,22.1]	10.5 [6.2,17.1]	11.5 [5.0,24.2]		13.8 [11.6,16.3]	111
Dental care	5.7 [3.1,10.1]	5.4 [3.2,9.0]	5.0 [3.2,7.7]		6.7 [4.7,9.6]	6.1 [3.4,10.9]	2.9 [1.2,6.8]	1.6 [0.2,10.9]		5.3 [4.0,7.1]	43
Skin problem	5.2 [2.9,9.3]	2.7 [1.4,5.4]	3.1 [1.6,5.8]	0.492	3.0 [1.7,5.2]	4.1 [2.1,7.9]	4.7 [2.3,9.0]	3.3 [0.8,11.8]		3.6 [2.5,5.2]	29
Emotional or mental health	0.9 [0.1,5.8]	1.2 [0.4,3.5]	0.6 [0.2,2.4]		1.1 [0.4,2.8]	0.5 [0.1,3.6]	0	3.3 [0.8,12.6]		0.9 [0.4,2.0]	7
Complications related to pregnancy	7.0 [4.8,10.1]	7.8 [5.2,11.5]	3.1 [1.7,5.7]		7.5 [5.2,10.9]	9.2 [5.9,14.0]	0	1.6 [0.2,10.2]		5.7 [4.3,7.4]	46
Gynecological problem	10.5 [7.0,15.3]	12.5 [8.9,17.1]	10.9 [8.2,14.4]		17.5 [13.9,21.7]	17.3 [12.9,22.9]	0.6 [0.1,4.1]	4.9 [1.6,14.4]		11.3 [9.3,13.6]	91
Other	12.2 [8.5,17.2]	12.5 [9.1,16.9]	13.4 [10.0,17.8]		10.8 [7.8,14.7]	10.2 [6.8,15.1]	8.1 [4.7,13.6]	13.1 [6.9,23.4]		12.8 [10.6,15.3]	103
Host Community	n=146	n=170	n=177		n=91	n=250	n=73	n=70		n=493	
Injury	8.9 [5.4,14.4]	9.4 [6.0,14.4]	4.5 [2.2,9.2]		5.5 [2.3,12.7]	6.0 [3.6,9.8]	1.4 [0.2,9.3]	24.3 [15.2,36.5]		7.5 [5.5,10.2]	37
Infection or communicable disease	41.1 [33.0,49.7]	32.9 [24.7,42.4]	43.5 [34.8,52.6]		37.4 [29.6,45.8]	32.8 [26.6,39.7]	79.5 [67.6,87.7]	21.4 [12.8,33.7]		39.1 [34.2,44.0]	193
Chronic/non-communicable disease	21.2 [14.4,30.1]	26.5 [20.1,33.9]	20.9 [15.5,27.6]		24.2 [16.9,33.3]	25.6 [20.2,31.8]	9.6 [4.6,19.0]	30 [20.3,41.8]		22.9 [19.2,27.2]	113
Dental care	7.5 [4.0,13.9]	4.7 [2.4,9.1]	3.4 [1.4,8.1]		0	9.6 [6.3,14.5]	1.4 [0.2,9.3]	0		5.1 [3.3,7.7]	25
Skin problem	2.1 [0.7,6.2]	2.9 [1.3,6.7]	2.3 [0.7,7.0]	0.646	6.6 [2.7,15.2]	2.0 [0.8,4.7]	0	0		2.4 [1.3,4.4]	12
Emotional or mental health	0.7 [0.1,4.9]	0	0.6 [0.1,4.0]		0	0.4 [0.1,2.9]	1.4 [0.2,9.3]	1.4 [0.2,9.8]		0.4 [0.1,1.6]	2
Complications related to pregnancy	1.4 [0.3,5.3]	2.9 [1.3,6.5]	1.7 [0.5,5.1]		2.2 [0.6,8.3]	3.2 [1.6,6.2]	0	0		2.0 [1.1,3.7]	10
Gynecological problem	11.6 [7.5,17.7]	14.1 [9.2,21.1]	15.3 [10.7,21.4]		13.2 [7.8,21.4]	7.6 [4.7,12.2]	2.7 [0.7,10.3]	0.0		13.8 [10.9,17.3]	68
Other	5.5 [2.5,11.5]	6.5 [3.6,11.2]	7.9 [4.9,12.6]		11 [6.3,18.4]	12.8 [8.7,18.4]	4.1 [1.3,12.5]	22.9 [14.3,34.4]		6.7 [4.8,9.3]	33
p-value	0.091	0.006	0.375		0.016	0.003	0.242	0.025		< 0.001	
Reason for selecting provider **											
Syrian Refugees											
Free consultation services	21.0 [17.2,25.3]	21.8 [15.8,29.2]	23.1 [17.9,29.1]		12.1 [8.6,16.8]	3.1 [1.4,6.5]	72.7 [64.3,79.7]	1.6 [0.2,10.9]		22.1 [18.9,25.5]	178
Low cost consultation services	43.2 [36.5,50.2]	44.7 [37.5,52.3]	44.5 [38.6,50.7]		79.0 [74.2,83.2]	15.3 [10.6,21.6]	13.4 [8.6,20.1]	14.8 [7.8,26.2]		44.2 [40.4,48.2]	357
Closest to place of residence	12.7 [9.3,17.0]	9.3 [6.4,13.4]	10.3 [7.4,14.2]		5.6 [3.8,8.2]	19.4 [14.4,25.5]	9.3 [5.5,15.4]	18 [9.7,31.1]		10.7 [8.7,12.9]	86
No other facility nearby	2.2 [0.8,5.7]	3.1 [1.5,6.3]	1.9 [0.9,3.9]		0.3 [0.0,1.9]	4.6 [2.4,8.5]	2.3 [0.9,6.0]	8.2 [3.7,17.4]		2.4 [1.5,3.7]	19
Like staff/quality/family doctor	9.2 [5.9,14.0]	10.1 [6.7,15.1]	10.0 [6.7,14.6]		1.1 [0.4,2.8]	34.7 [28.1,41.9]	1.2 [0.3,4.6]	6.6 [2.5,16.3]		9.8 [7.7,12.4]	79
Free or reduced cost medications provided	0	0.4 [0.1,2.7]	0.3 [0.0,2.2]	0.836	0	0	0	1.6 [0.2,11.2]		0.2 [0.1,1.0]	2
Free or reduced cost diagnostic tests provided	0.4 [0.1,3.1]	0	0		0.3 [0.0,1.9]	0	0	0		0.1 [0.0,0.9]	1
Availability of needed services	3.5 [1.9,6.3]	3.5 [1.9,6.2]	5.3 [3.0,9.2]		0.5 [0.1,2.2]	13.8 [9.3,20.0]	0	8.2 [3.5,17.9]		4.2 [2.9,6.0]	34
Medical emergency	6.1 [3.3,11.0]	7.0 [4.2,11.4]	4.0 [2.2,7.3]		1.1 [0.4,2.8]	8.2 [4.6,14.0]	0	39.3 [27.1,53.1]		5.6 [4.0,7.7]	45
Short waiting time	0.4 [0.1,3.0]	0	0.3 [0.0,2.2]		0	1.0 [0.3,4.0]	0	0		0.2 [0.1,1.0]	2
Other	1.3 [0.4,4.1]	0	0.3 [0.0,2.2]		0	0	1.2 [0.3,4.5]	1.6 [0.2,10.9]		0.5 [0.2,1.3]	4
Host Community											
Free consultation services	11.6 [7.5,17.7]	8.2 [5.1,13.1]	13.0 [9.0,18.4]		13.2 [7.9,21.3]	0.8 [0.2,3.2]	54.8 [44.2,65.0]	0		11.0 [8.6,13.9]	54
Low cost consultation services	11.0 [6.5,17.8]	9.4 [5.8,15.0]	22.0 [16.2,29.2]		53.8 [43.6,63.7]	4.4 [2.5,7.6]	4.1 [1.3,12.1]	11.4 [5.4,22.6]		14.4 [11.3,18.2]	71
Closest to place of residence	19.2 [13.7,26.2]	21.2 [16.4,26.9]	13.6 [9.9,18.3]		17.6 [11.3,26.2]	12.8 [9.3,17.3]	24.7 [16.2,35.6]	31.4 [22.0,42.7]		17.8 [15.0,21.1]	88
No other facility nearby	0.7 [0.1,4.9]	2.4 [0.9,5.8]	2.8 [1.2,6.4]		0	2.8 [1.4,5.7]	1.4 [0.2,9.3]	2.9 [0.7,10.4]		2.0 [1.1,3.7]	10
Like staff/quality/family doctor	41.8 [33.2,50.9]	41.8 [34.4,48.4]	31.6 [24.9,39.2]		14.3 [8.3,23.4]	59.6 [52.5,66.3]	4.1 [1.0,15.9]	25.7 [15.9,38.9]		38.1 [33.8,42.7]	188
Free or reduced cost medications provided	0	0	0	0.196	0	0	0	0		0	0
Free or reduced cost diagnostic tests provided	0	0	0.6 [0.1,4.1]		0	0	0	0		0.2 [0.0,1.5]	1
Availability of needed services	8.9 [5.1,15.1]	9.4 [5.3,16.2]	10.2 [6.5,15.5]		1.1 [0.2,7.2]	15.6 [11.1,21.5]	1.4 [0.2,9.3]	5.7 [2.2,14.3]		9.5 [7.1,12.8]	47
Medical emergency	3.4 [1.5,7.6]	7.1 [3.9,12.4]	3.4 [1.4,8.0]		0	2.8 [1.4,5.7]	0	22.9 [14.3,34.4]		4.7 [3.0,7.1]	23
Short waiting time	1.4 [0.4,5.1]	0	1.1 [0.3,4.3]		0	0	5.5 [2.1,13.4]	0		0.8 [0.3,2.1]	4
Other	2.1 [0.7,6.0]	0.6 [0.1,4.1]	1.7 [0.6,4.9]		0	0.8 [0.2,3.2]	4.1 [1.3,12.1]	0		1.4 [0.7,2.9]	7
p-value	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.001	0.032		< 0.001	

	By Region			regional comparison p-values	By Facility Type				facility comparison p-values	Survey Total (n=1,860)	
	Beirut/Mt. Lebanon (n=546)	Bekaa (n=632)	North (n=682)		PHCC (n=463)	Private Clinic (n=446)	Pharmacy (n=245)	Hospital (n=131)		Point [95% CI]	N
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	N
Paid for provider visit **											
Syrian Refugees											
Yes	68.1 [62.8,73.0]	71.2 [63.0,78.2]	67.6 [61.5,73.2]		85.2 [80.3,89.1]	93.9 [90.2,96.2]	---	83.6 [72.9,90.6]	0.003	68.9 [65.1,72.5]	556
No	31.9 [27.0,37.2]	28.4 [21.5,36.5]	32.1 [26.6,38.1]	0.786	14.8 [10.9,19.7]	5.6 [3.4,9.2]	---	14.8 [8.1,25.4]		30.9 [27.3,34.6]	249
Don't know	0	0.4 [0.1,2.7]	0.3 [0.0,2.2]		0	0.5 [0.1,3.7]	---	1.6 [0.2,10.9]		0.2 [0.1,1.0]	2
Host Community											
Yes	72.6 [65.0,79.1]	84.1 [76.6,89.6]	74.0 [67.5,79.6]		83.5 [74.8,89.7]	94.8 [91.2,97.0]	---	85.7 [75.5,92.1]	0.008	77.1 [72.9,80.8]	380
No	26.7 [20.1,34.5]	14.1 [9.0,21.5]	26.0 [20.4,32.5]	0.016	15.4 [9.5,23.9]	4.8 [2.7,8.4]	---	11.4 [5.7,21.5]		22.1 [18.4,26.3]	109
Don't know	0.7 [0.1,4.6]	1.8 [0.6,5.2]	0		1.1 [0.1,7.7]	0.4 [0.1,2.8]	---	2.9 [0.7,10.7]		0.8 [0.3,2.1]	4
p-value	0.211	0.003	0.265		0.123	0.910		0.757		0.001	
Cost to household for visit (Lebanese Pounds) **											
Syrian Refugees											
Median	10000 [6760,13480]	10000 [7000,15000]	6500 [5000,10000]		8000 [5000,10000]	40000 [30000,40000]	---	90000 [50000,124736]		10000 [7000,10000]	
Mean	38294 [27889,48699]	41769 [27434,56105]	31121 [21677,40564]	0.399	20242 [12666,27818]	56824 [43615,70033]	---	180548 [134555,226540]	< 0.001	36515 [29814,43216]	807
Host Community											
Median	50000 [30000,50000]	50000 [50000,50000]	30000 [20000,40000]		15000 [10000,20000]	50000 [50000,50000]	---	155000 [90000,300000]		50000 [50000,50000]	
Mean	97888 [57795,137982]	165169 [109816,220523]	80088 [36343,123832]	0.055	42744 [10994,74495]	97799 [67392,128205]	---	403499 [274217,532782]	< 0.001	114710 [86230,143190]	493
p-value	0.009	< 0.001	0.040		0.176	0.011		0.003		< 0.001	
Cost to household for visit (Lebanese Pounds) ***											
Syrian Refugees											
Median	n=153 20000 [15000,28237]	n=177 20000 [15000,25000]	n=215 20000 [19231,20000]		n=312 10000 [10000,10000]	n=180 40000 [35000,43320]	---	n=49 100000 [75684,222948]		n=545 20000 [20000,20000]	556
Mean	56140 [42596,69684]	58843 [39481,78206]	46020 [33080,58960]	0.436	23810 [14862,32758]	60297 [46524,74069]	---	213710 [162919,264500]	< 0.001	53026 [43953,62098]	556
Host Community											
Median	n=104 50000 [50000,62596]	n=141 50000 [50000,60000]	n=125 50000 [40000,50000]		n=76 19500 [14938,20000]	n=231 50000 [50000,50000]	---	n=56 275000 [124956,316815]		n=370 50000 [50000,50000]	380
Mean	134597 [81532,187661]	193283 [132026,254540]	109560 [51661,167459]	0.139	50618 [13428,87809]	102879 [71451,134307]	---	461142 [321149,601135]	< 0.001	148503 [113722,183283]	380
p-value	0.012	< 0.001	0.043		0.166	0.009		0.002		< 0.001	

* as percent of household index cases that reported needing care in Lebanon

** among household index cases that received care in Lebanon

*** among household index cases that paid for visit in Lebanon

Table 14. Referrals for Adult Health Care in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,300)	
	Beirut/Mt. Lebanon (n=375) % [95% CI]	Bekaa (n=427) % [95% CI]	North (n=498) % [95% CI]		% [95% CI]	N
Referred to another facility during most recent careseeking in Lebanon *						
<i>Syrian Refugees</i>	n=229	n=257	n=321	0.620	n=807	
Referred and received referred services	10.5 [7.1,15.4]	8.9 [5.9,13.4]	7.5 [5.2,10.6]		8.8 [7.0,11.0]	71
Referred but did not receive referred services	6.6 [4.1,10.3]	3.5 [1.7,6.9]	6.5 [4.2,10.1]		5.6 [4.2,7.5]	45
Not referred for additional care	82.5 [78.9,85.6]	87.5 [82.8,91.1]	86.0 [81.9,89.3]		85.5 [83.1,87.6]	690
<i>Host Community</i>	n=146	n=170	n=176	0.563	n=492	
Referred and received referred services	12.3 [6.8,21.4]	18.8 [12.9,26.6]	17.0 [12.1,23.4]		16.3 [12.8,20.4]	80
Referred but did not receive referred services	0.7 [0.1,4.7]	2.4 [0.9,5.9]	3.4 [1.6,7.0]		2.2 [1.3,3.9]	11
Not referred for additional care	86.3 [77.6,92.0]	78.8 [70.8,85.1]	79.5 [72.6,85.1]		81.3 [77.0,85.0]	400
p-value	0.847	0.015	0.002		< 0.001	
Referred services **						
<i>Syrian Refugees</i>	n=24	n=23	n=24	0.172	n=71	
Lab tests	66.7 [51.4,79.1]	43.5 [25.2,63.7]	41.7 [24.1,61.6]		50.7 [39.7,61.6]	36
Diagnostic tests	25.0 [14.0,40.6]	17.4 [5.3,44.0]	29.2 [15.0,48.9]		23.9 [15.6,34.9]	17
Specialist consultation	8.3 [2.0,28.5]	26.1 [13.3,44.8]	12.5 [4.0,32.7]		15.5 [8.8,25.7]	11
Curative intervention	0	13.0 [4.7,31.2]	16.7 [6.6,36.3]		9.9 [4.8,19.0]	7
Other	0	0	0		0	0
<i>Host Community</i>	n=18	n=32	n=30	0.784	n=80	
Lab tests	66.7 [43.1,84.1]	53.1 [32.8,72.5]	53.3 [37.4,68.6]		56.2 [44.5,67.4]	45
Diagnostic tests	11.1 [2.9,34.1]	18.8 [9.0,34.9]	23.3 [12.4,39.5]		18.8 [12.0,28.2]	15
Specialist consultation	16.7 [6.5,36.7]	15.6 [7.7,29.0]	6.7 [1.6,24.2]		12.5 [7.2,20.8]	10
Curative intervention	5.6 [0.8,30.4]	9.4 [3.2,24.5]	10.0 [3.3,26.4]		8.8 [4.3,17.0]	7
Other	0	3.1 [0.4,19.2]	6.7 [1.7,22.3]		3.8 [1.2,11.0]	3
p-value	0.357	0.742	0.517		0.416	
Location referred services sought/received **						
<i>Syrian Refugees</i>				0.617		
Primary health care center	37.5 [24.0,53.3]	21.7 [9.8,41.4]	33.3 [18.8,51.9]		31.0 [22.4,41.1]	22
Private clinic (cabinet)	8.3 [1.9,29.9]	17.4 [7.2,36.4]	8.3 [2.1,27.8]		11.3 [5.7,21.0]	8
Hospital	20.8 [9.0,41.1]	39.1 [20.3,61.8]	29.2 [15.0,48.9]		29.6 [19.9,41.5]	21
Medical center	33.3 [19.8,50.3]	21.7 [9.8,41.4]	29.2 [14.7,49.5]		28.2 [19.5,38.9]	20
Other	0	0	0		0	0
<i>Host Community</i>				0.067		
Primary health care center	11.1 [3.6,29.5]	9.4 [2.9,26.2]	16.7 [7.0,34.6]		12.5 [6.9,21.5]	10
Private clinic (cabinet)	11.1 [2.9,34.1]	31.2 [16.8,50.6]	3.3 [0.4,21.2]		16.2 [8.9,27.8]	13
Hospital	38.9 [23.1,57.5]	43.8 [27.5,61.4]	53.3 [34.1,71.6]		46.2 [35.4,57.4]	37
Medical center	38.9 [19.7,62.2]	15.6 [6.4,33.2]	26.7 [13.5,45.9]		25.0 [16.3,36.3]	20
Other	0	0	0		0	0
p-value	0.514	0.577	0.211		0.209	

* as percent of household index cases that received care in Lebanon

** as percent of household index cases referred for additional services during most recent careseeking in Lebanon

Table 15. Access to Medication for Adult's Health Problems in Lebanon*

	By Region			regional comparison p-values	Survey Total (n=1,300)	
	Beirut/Mt. Lebanon (n=375) Point [95% CI]	Bekaa (n=427) Point [95% CI]	North (n=498) Point [95% CI]		Point [95% CI]	N
Prescribed medication for adult health problem during most recent health care visit *						
Syrian Refugees	n= 229 92.6 [88.4,95.3]	n=257 93.4 [88.2,96.4]	n=321 94.1 [90.8,96.2]	0.803	n=807 93.4 [91.3,95.1]	754
Host Community	n= 146 91.1 [84.6,95.0]	n=170 95.3 [90.6,97.7]	n=177 91.5 [85.8,95.1]		0.645	
p-value	0.649	0.513	0.316		0.462	
By Facility Type						
PHCC **						
Syrian Refugees	90.7 [83.6,94.9]	93.2 [88.2,96.1]	91.6 [84.8,95.5]	0.769	91.9 [88.7,94.3]	342
Host Community	90.0 [86.0,97.7]	88.9 [73.8,95.8]	93.2 [79.8,97.9]	0.8	91.2 [83.3,95.6]	83
p-value	0.928	0.367	0.747		0.821	
Private clinic **						
Syrian Refugees	92.6 [83.0,97.0]	94.6 [83.6,98.4]	95.3 [88.1,98.3]	0.781	94.4 [90.1,96.9]	185
Host Community	93.4 [85.5,97.2]	95.8 [89.7,98.3]	89.9 [81.3,94.8]	0.602	93.2 [89.5,95.7]	233
p-value	0.840	0.772	0.328		0.633	
Hospital **						
Syrian Refugees	87.5 [66.9,96.0]	96.4 [78.8,99.5]	88.2 [64.1,96.9]	0.434	91.8 [82.4,96.4]	56
Host Community	80 [58.9,91.8]	100	83.3 [61.1,94.1]	0.023	90 [80.7,95.1]	63
p-value	0.55	0.282	0.629		0.700	
Pharmacy **						
Syrian Refugees	83.3 [62.9,93.6]	96.7 [79.9,99.5]	89.5 [67.0,97.3]	0.252	91.0 [81.9,95.8]	61
Host Community	83.3 [63.9,93.4]	97.1 [81.1,99.6]	81.0 [55.7,93.5]	0.137	88.6 [78.6,94.3]	70
p-value	1.000	0.932	0.445		0.631	
Attempted to obtain the prescribed medication ***						
Syrian Refugees	n=212 97.2 [94.1,98.7]	n=240 96.2 [92.5,98.2]	n=302 97.4 [94.3,98.8]	0.758	n=754 96.9 [95.3,98.0]	731
Host Community	n=133 100	n=162 99.4 [95.7,99.9]	n=160 98.8 [95.3,99.7]		0.425	
p-value	0.042	0.063	0.354		0.008	
Able to obtain all medications prescribed during most recent provider visit ***						
Syrian Refugees	n= 211 90.1 [83.3,94.3]	n=248 86.2 [80.2,90.7]	n=301 89.7 [86.3,92.4]	0.528	n=753 88.7 [85.9,91.1]	669
Host Community	n= 133 97.7 [93.6,99.2]	n=162 97.5 [93.8,99.0]	n=160 95.7 [90.8,98.0]		0.493	
p-value	0.030	0.002	0.089		< 0.001	
Able to obtain all medications prescribed during most recent provider visit ****						
Syrian Refugees	n= 206 92.7 [86.6,96.2]	n=231 89.6 [83.8,93.5]	n=294 92.2 [88.7,94.6]	0.605	n=731 91.5 [88.9,93.6]	669
Host Community	n= 133 97.7 [93.6,99.2]	n=161 98.1 [94.5,99.4]	n=160 96.9 [93.0,98.6]		0.733	
p-value	0.138	0.010	0.103		< 0.001	
Location where respondent attempted to obtain medication ****						
Syrian Refugees						
At the facility where provider was seen	10.7 [6.7,16.6]	13.9 [9.6,19.6]	7.1 [4.2,12.0]	0.635	10.3 [7.9,13.2]	75
At another facility	0	0.9 [0.2,3.2]	0		0.3 [0.1,1.1]	2
Private pharmacy	87.9 [81.4,92.3]	84.4 [79.0,88.7]	92.5 [87.7,95.5]		88.6 [85.6,91.1]	648
Syria	1.0 [0.2,3.8]	0.9 [0.2,3.3]	0.3 [0.0,2.4]		0.7 [0.3,1.6]	5
Via loca contractor/fixer	0.5 [0.1,3.4]	0	0		0.1 [0.0,1.0]	1
Other	0	0	0		0	0
Host Community						
At the facility where provider was seen	3.0 [1.2,7.2]	2.5 [1.0,6.2]	3.8 [1.3,10.7]	0.844	3.1 [1.7,5.5]	14
At another facility	0	0.6 [0.1,4.3]	0.6 [0.1,4.3]		0.4 [0.1,1.8]	2
Private pharmacy	97.0 [92.8,98.8]	96.9 [93.0,98.6]	95.0 [88.7,97.9]		96.3 [93.8,97.8]	437
Syria	0	0	0		0	0
Via loca contractor/fixer	0	0	0		0	0
Other	0	0	0.6 [0.1,4.2]		0.2 [0.0,1.6]	1
p-value	0.036	0.003	0.295		< 0.001	

Reason for not obtaining prescribed medication ****						
Syrian Refugees	n= 13	n=23	n=22		n=58	
Household could not afford the medication	84.6 [51.7,96.6]	91.3 [72.1,97.7]	90.9 [69.1,97.8]	0.633	89.7 [78.6,95.3]	52
Medication was out of stock at the facility	15.4 [3.4,48.3]	4.3 [0.6,25.0]	9.1 [2.2,30.9]		8.6 [3.5,19.5]	5
Household chose a different treatment	0	0	0		0	0
Household decided medicines were not needed	0	4.3 [0.6,25.0]	0		1.7 [0.2,11.4]	1
Purchasing medication was not a priority	0	0	0		0	0
Other	0	0	0		0	0.0
Host Community	n=3	n=3	n=5		n=11	
Household could not afford the medication	Insufficient sample size for regional comparison				45.5 [19.9,73.6]	5
Medication was out of stock at the facility					27.3 [8.9,59.1]	3
Household chose a different treatment					9.1 [1.2,44.8]	1
Household decided medicines were not needed					0	0
Purchasing medication was not a priority					9.1 [1.2,44.8]	1
Other					9.1 [1.2,44.8]	1.0
p-value					0.001	
Paid for medication *****						
Syrian Refugees	n= 191	n=207	n=271		n=669	
	95.3 [91.2,97.5]	89.4 [83.3,93.4]	97.0 [94.6,98.4]	0.001	94.2 [91.8,95.9]	630
Host Community	n= 130	n=158	n=155		n=443	
	96.2 [91.6,98.3]	96.2 [92.2,98.2]	98.7 [95.1,99.7]	0.634	97.1 [95.2,98.2]	430
p-value	0.685	0.022	0.384		0.083	
Cost to household for medication (Lebanese Pounds) *****						
Syrian Refugees						
Median	30000 [30000,36419]	30000 [25000,40000]	30000 [30000,35000]		30000 [30000,35000]	
Mean	41160 [35294,47027]	45074 [37506,52642]	44538 [37741,51335]		43732 [39727,47737]	669
Host Community						
Median	50000 [45000,60000]	60000 [50000,75000]	45000 [36796,50000]		50000 [50000,54355]	
Mean	92305 [65095,119514]	101432 [82890,119974]	78695 [61583,95807]		90724 [78563,102885]	443
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Cost to household for medication (Lebanese Pounds) *****						
Syrian Refugees	n= 179	n=177	n=259		n=615	
Median	30000 [30000,36419]	30000 [25000,40000]	30000 [30000,35000]	0.652	30000 [30000,35000]	
Mean	43000 [37240,48760]	50677 [42632,58722]	45570 [38543,52596]	0.206	46292 [42097,50486]	630
Host Community	n= 122	n=147	n=150		n=419	
Median	50000 [47974,61710]	60000 [50000,79403]	45000 [38000,50000]	0.314	50000 [50000,58053]	
Mean	96088 [68118,124057]	104882 [85950,123815]	79745 [62685,96804]	0.148	93322 [80945,105699]	430
p-value	< 0.001	< 0.001	< 0.001		< 0.001	

* as percent of household index cases that received adult health care in Lebanon
** as percent of household index cases that received care at this facility type
*** as percent of household index cases prescribed medication
**** as percent of households that attempted to obtain the prescribed medication

***** as percent of households that did not obtain prescribed medication
***** among households that obtained prescribed medication
***** among households that paid for medication

Table 16. Frequency of Hospitalizations in Lebanon

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Point [95% CI]	N
Households with any hospitalizations in the past year (%)						
<i>Syrian Refugees</i>	n=407 14.0 [11.1,17.5]	n=476 23.1 [19.5,27.1]	n=493 22.5 [19.3,26.1]	< 0.001	n=1376 20.2 [18.1,22.5]	278
<i>Host Community</i>	n=203 37.4 [30.5,44.9]	n=238 42.9 [36.3,49.7]	n=245 48.2 [41.8,54.6]		0.097	n=686 43.1 [39.2,47.2]
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Number of hospitalizations in Lebanon in the past 12 months						
<i>Syrian Refugees</i>						
Median	1 [1,1]	1 [1,1]	1 [1,1]	---	1 [1,1]	
Mean	2 [0.6,3.3]	1.3 [1.1,1.5]	1.8 [1.3,2.3]	0.143	1.7 [1.3,2.0]	278
<i>Host Community</i>						
Median	1 [1,1]	1 [1,1]	1 [1,1]	---	1 [1,1]	
Mean	1.4 [1.2,1.5]	1.7 [1.4,2.1]	2.0 [1.5,2.5]	0.021	1.7 [1.5,2.0]	296
p-value	0.389	0.059	0.657		0.712	
Location of most recent hospitalization in Lebanon*						
<i>Syrian Refugees</i>	n=57	n=110	n=111		n=278	
Private hospital	57.9 [44.7,70.1]	70.0 [61.5,77.3]	53.2 [42.5,63.5]	0.121	60.8 [54.3,66.9]	169
Public hospital	38.6 [26.0,53.0]	29.1 [22.1,37.3]	44.1 [33.7,55.1]		37.1 [30.9,43.6]	103
Hospital type unknown	3.5 [0.9,12.9]	0.9 [0.1,6.0]	2.7 [0.9,8.1]		2.2 [1.0,4.7]	6
<i>Host Community</i>	n=76	n=102	n=118		n=296	
Private hospital	78.9 [69.4,86.1]	81.4 [70.8,88.7]	72.0 [62.0,80.2]	0.510	77.0 [71.3,81.9]	228
Public hospital	18.4 [11.5,28.2]	17.6 [10.3,28.5]	25.4 [17.8,35.0]		20.9 [16.2,26.6]	62
Hospital type unknown	2.6 [0.7,9.2]	1.0 [0.1,6.6]	2.5 [0.9,7.2]		2.0 [0.9,4.3]	6
p-value	0.006	0.140	0.019		< 0.001	

* as percent of households with hospitalization in Lebanon in the year preceding the survey

Table 17. Hospitalizations in Lebanon*

	By Region			regional comparison p-values	By Sector			sector comparison p-values	Survey Total (n=574)	
	Beirut/Mt. Lebanon (n=133)	Bekaa (n=212)	North (n=229)		Public (n=397)	Private (n=165)	Unknown (n=12)		Point [95% CI]	N
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]					
Reason for most recent hospitalization (%)										
Syrian Refugees	n=57	n=110	n=111	0.251	n=169	n=103	n=6	0.846	n=278	
Cardiovascular	15.8 [8.1,28.5]	7.3 [3.9,13.0]	9.9 [5.8,16.5]		11.2 [7.4,16.7]	7.8 [4.2,13.9]	16.7 [2.2,64.0]		10.1 [7.1,14.1]	28
Digestive	14.0 [6.6,27.3]	13.6 [8.6,20.9]	19.8 [12.9,29.2]		17.2 [12.0,23.9]	14.6 [8.8,23.1]	16.7 [2.2,64.0]		16.2 [12.1,21.3]	45
Respiratory	12.3 [6.2,22.9]	18.2 [12.9,25.0]	8.1 [4.3,14.7]		13.0 [8.9,18.6]	12.6 [7.4,20.6]	16.7 [2.2,64.0]		12.9 [9.7,17.1]	36
Genitourinary	8.8 [3.9,18.6]	10.9 [6.0,19.0]	11.7 [7.0,18.8]		11.8 [7.5,18.2]	8.7 [4.6,15.9]	16.7 [2.2,64.0]		10.8 [7.6,15.1]	30
Injury	15.8 [9.6,24.8]	19.1 [12.1,28.9]	22.5 [14.9,32.5]		20.7 [15.2,27.6]	18.4 [11.9,27.5]	16.7 [2.2,64.0]		19.8 [15.2,25.3]	55
Infection or other acute illness	10.5 [5.2,20.0]	16.4 [11.1,23.5]	11.7 [7.3,18.3]		10.7 [7.0,15.8]	18.4 [12.5,26.3]	0		13.3 [10.1,17.3]	37
Cancer/neoplasm	0	2.7 [0.9,8.4]	2.7 [0.9,7.9]		1.2 [0.3,4.7]	3.9 [1.5,9.8]	0		2.2 [1.0,4.7]	6
Other	22.8 [15.1,32.9]	11.8 [7.8,17.6]	13.5 [8.8,20.1]		14.2 [9.9,19.9]	15.5 [9.7,23.9]	16.7 [2.2,64.0]		14.7 [11.5,18.7]	41
Host Community	n=76	n=102	n=118	0.184	n=228	n=62	n=6	0.494	n=296	
Cardiovascular	34.2 [23.3,47.0]	22.5 [14.4,33.4]	16.1 [9.6,25.7]		23.7 [18.1,30.4]	22.6 [13.4,35.4]	0		23.0 [17.8,29.1]	68
Digestive	14.5 [8.1,24.6]	18.6 [13.2,25.7]	14.4 [9.1,22.1]		13.6 [9.9,18.3]	24.2 [15.6,35.5]	16.7 [2.2,64.0]		15.9 [12.3,20.2]	47
Respiratory	15.8 [9.0,26.3]	10.8 [4.5,23.5]	14.4 [9.5,21.2]		14.9 [10.4,20.9]	8.1 [3.4,18.0]	16.7 [2.2,64.0]		13.5 [9.6,18.6]	40
Genitourinary	13.2 [7.7,21.5]	9.8 [5.1,18.1]	15.3 [9.5,23.6]		13.2 [9.3,18.2]	11.3 [5.0,23.7]	16.7 [2.2,64.0]		12.8 [9.4,17.3]	38
Injury	11.8 [6.1,21.7]	16.7 [11.0,24.4]	15.3 [9.3,24.0]		14.5 [10.7,19.4]	14.5 [8.2,24.4]	33.3 [8.2,73.8]		14.9 [11.1,19.5]	44
Infection or other acute illness	3.9 [1.3,11.2]	11.8 [7.4,18.2]	6.8 [3.6,12.3]		7.9 [5.1,11.9]	8.1 [3.5,17.5]	0		7.8 [5.4,11.0]	23
Cancer/neoplasm	2.6 [0.7,9.7]	2.0 [0.5,7.5]	5.1 [2.4,10.4]		3.5 [1.8,6.8]	1.6 [0.2,11.0]	16.7 [2.2,64.0]		3.4 [1.9,6.1]	10
Other	3.9 [1.3,11.7]	7.8 [4.1,14.4]	12.7 [7.7,20.4]		8.8 [5.6,13.4]	9.7 [4.3,20.3]	0		8.8 [6.0,12.7]	26
p-value	0.032	0.121	0.247		0.024	0.051	0.682		0.001	
Reason for selecting hospital (%)										
Syrian Refugees				0.489				0.331		
Referred by doctor	31.6 [21.3,44.1]	33.6 [23.8,45.1]	20.7 [13.7,30.1]		30.2 [23.0,38.5]	24.3 [16.0,35.0]	33.3 [8.2,73.8]		28.1 [22.3,34.6]	78
Free services	5.3 [1.8,14.4]	1.8 [0.5,7.1]	2.7 [0.9,8.0]		3.0 [1.2,7.0]	2.9 [0.9,8.9]	0		2.9 [1.5,5.6]	8
Low cost services	28.1 [18.2,40.6]	21.8 [14.7,31.1]	21.6 [15.6,29.2]		17.8 [12.5,24.6]	32.0 [23.7,41.7]	16.7 [2.2,64.0]		23.0 [18.5,28.2]	64
Closest to place of residence	7 [2.6,17.3]	17.3 [11.2,25.6]	14.4 [8.8,22.7]		18.3 [12.9,25.5]	6.8 [3.5,13.0]	16.7 [2.2,64.0]		14.0 [10.3,18.9]	39
No other facility nearby	0	0	0.9 [0.1,6.0]		0	1.0 [0.1,6.5]	0		0.4 [0.0,2.5]	1
Like staff/quality/family doctor	3.5 [0.9,12.3]	1.8 [0.5,7.1]	4.5 [2.0,9.7]		3.0 [1.3,6.8]	3.9 [1.5,9.4]	0		3.2 [1.7,6.0]	9
Availability of needed services	3.5 [1.0,12.0]	4.5 [1.6,11.9]	1.8 [0.5,6.9]		4.7 [2.4,9.0]	1.0 [0.1,6.9]	0		3.2 [1.6,6.4]	9
Medical emergency	19.3 [12.2,29.2]	16.4 [10.3,25.1]	31.5 [23.6,40.8]		20.1 [14.2,27.7]	27.2 [19.7,36.2]	33.3 [8.2,73.8]		23.0 [18.3,28.6]	64
Short waiting time	0	0	0		0	0	0		0	0
No space in hospital of choice	0	1.8 [0.3,11.8]	0		1.2 [0.2,8.0]	0	0		0.7 [0.1,5.0]	2
Other	1.8 [0.2,11.4]	0.9 [0.1,6.0]	1.8 [0.4,7.0]	1.8 [0.6,5.4]	1.0 [0.1,6.6]	0	1.4 [0.5,3.8]	4		
Host Community				0.025				< 0.001		
Referred by doctor	17.1 [11.0,25.7]	35.3 [25.7,46.2]	34.7 [24.4,46.8]		31.6 [25.3,38.6]	25.8 [17.0,37.1]	33.3 [8.2,73.8]		30.4 [24.5,37.0]	90
Free services	5.3 [1.6,15.8]	0	0.8 [0.1,6.0]		1.3 [0.4,4.0]	3.2 [0.8,12.5]	0		1.7 [0.6,4.7]	5
Low cost services	7.9 [3.8,15.8]	10.8 [5.3,20.8]	7.6 [4.0,14.2]		3.9 [1.7,9.0]	27.4 [17.2,40.7]	0		8.8 [5.8,13.1]	26
Closest to place of residence	9.2 [4.5,17.8]	22.5 [15.2,32.0]	9.3 [4.7,17.5]		13.2 [8.9,19.0]	16.1 [8.6,28.3]	16.7 [2.2,64.0]		13.9 [10.0,18.9]	41
No other facility nearby	2.6 [0.7,9.5]	1.0 [0.1,6.8]	1.7 [0.4,6.6]		2.2 [0.9,5.1]	0	0		1.7 [0.7,4.0]	5
Like staff/quality/family doctor	30.3 [21.0,41.5]	9.8 [4.8,19.0]	22.9 [15.8,31.9]		25.9 [19.9,32.9]	1.6 [0.2,11.0]	0		20.3 [15.7,25.8]	60
Availability of needed services	2.6 [0.7,9.9]	2.9 [1.0,8.4]	4.2 [1.8,9.4]		4.4 [2.4,7.9]	0	0		3.4 [1.9,6.0]	10
Medical emergency	23.7 [15.7,34.1]	14.7 [8.8,23.6]	18.6 [12.1,27.6]		16.2 [12.2,21.3]	24.2 [13.8,38.9]	50.0 [16.4,83.6]		18.6 [14.3,23.7]	55
Short waiting time	0	0	0		0	0	0		0	0
No space in hospital of choice	1.3 [0.2,9.3]	1.0 [0.1,6.6]	0		0.9 [0.2,3.5]	0	0		0.7 [0.2,2.7]	2
Other	0	2.0 [0.5,7.7]	0	0.4 [0.1,3.1]	1.6 [0.2,11.0]	0	0.7 [0.2,2.7]	2		
p-value	0.003	0.157	< 0.001		< 0.001	0.588	0.744		< 0.001	

	By Region			regional comparison p-values	By Sector			sector comparison p-values	Survey Total (n=574)	
	Beirut/Mt. Lebanon (n=133)	Bekaa (n=212)	North (n=229)		Public (n=397)	Private (n=165)	Unknown (n=12)		Point [95% CI]	Point [95% CI]
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	
Referred from another facility (%)										
Syrian Refugees	57.9 [45.5,69.4]	40.9 [31.9,50.5]	39.6 [31.6,48.2]	0.044	39.6 [32.3,47.5]	49.5 [39.7,59.3]	66.7 [26.2,91.8]	0.169	43.9 [38.2,49.7]	122
Host Community	38.2 [27.8,49.7]	46.1 [36.1,56.4]	46.6 [37.0,56.4]	0.490	42.5 [36.2,49.1]	48.4 [37.5,59.5]	66.7 [26.2,91.8]	0.333	44.3 [38.4,50.3]	131
p-value	0.006	0.407	0.319		0.532	0.875	1.000		0.926	
Hospitalization Length (days)										
Syrian Refugees										
Median	2 [1,3]	2 [2,3]	2 [2,3]		2 [2,3]	2 [1,4,2]	2 [1,1,7,7]		2 [2,2]	
Mean	3.9 [1,6,6.2]	3.3 [2,6,3,9]	6.2 [2,4,9,9]	0.299	4.2 [2,9,5,5]	5.2 [1,6,8,8]	3.3 [1,4,5,3]	0.633	4.5 [2,9,6,1]	278
Host Community										
Median	3 [3,4]	3 [2,3]	3 [3,4]		3 [3,3]	3 [2,4]	3 [2,1,3,9]		3 [3,3]	
Mean	6.0 [3,8,8.2]	4.3 [2,8,5,8]	4.8 [3,7,5,9]	0.479	4.9 [4,1,5,6]	5.4 [2,9,8,0]	3.0 [2,5,3,5]	0.002	4.9 [4,0,5,8]	296
p-value	0.186	0.220	0.504		0.383	0.913	0.771		0.671	
Paid for hospitalization (%)										
Syrian Refugees										
Yes	91.2 [82,9,95.7]	92.7 [85,6,96.5]	85.6 [79,9,89.8]		87.6 [81,7,91.8]	93.2 [87,2,96.5]	83.3 [36,0,97.8]		89.6 [85,9,92.4]	249
No	7.0 [3,0,15,6]	7.3 [3,5,14,4]	14.4 [10,2,20,1]	0.313	11.8 [7,7,17,7]	6.8 [3,5,12,8]	16.7 [2,2,64,0]	0.597	10.1 [7,3,13,7]	28
Don't know	1.8 [0,3,11,0]	0	0		0.6 [0,1,4,2]	0	0		0.4 [0,0,2,6]	1
Host Community										
Yes	84.2 [74,6,90,6]	92.2 [84,7,96,1]	86.4 [79,5,91,3]		89.0 [84,0,92,6]	87.1 [76,5,93,3]	50.0 [16,4,83,6]		87.8 [83,6,91,1]	260
No	15.8 [9,4,25,4]	7.8 [3,9,15,3]	13.6 [8,7,20,5]	0.219	11.0 [7,4,16,0]	12.9 [6,7,23,5]	50.0 [16,4,83,6]	0.019	12.2 [8,9,16,4]	36
Don't know	0	0	0		0	0	0		0	0
p-value	0.184	0.875	0.831		0.484	0.190	0.305		0.416	
Portion of hospitalization cost paid by organization (%) **										
Syrian Refugees	57.9 [45,3,69,5]	53.6 [42,8,64,1]	54.1 [44,2,63,6]	0.947	57.4 [48,8,65,6]	51.5 [42,4,60,4]	33.3 [8,2,73,8]	0.697	54.7 [48,3,60,9]	152
Host Community	71.1 [57,4,81,7]	56.9 [47,6,65,6]	66.9 [58,3,74,6]	0.343	66.7 [60,0,72,7]	56.5 [44,3,67,9]	66.7 [26,2,91,8]	< 0.001	64.5 [58,6,70,0]	191
p-value	0.157	0.598	0.112		0.125	0.580	0.206		0.062	
Cost to household for hospitalization (Lebanese Pounds)										
Syrian Refugees										
Median	400000 [399999,592037]	300000 [212019,362981]	200000 [150000,300000]		300000 [250000,367977]	300000 [200000,300000]	425000 [8500,965000]		300000 [225000,300000]	
Mean	651943 [439037,864850]	481061 [367111,595011]	429205 [317737,540673]	0.193	553662 [443334,663989]	404907 [305908,503905]	430833 [156955,704712]	0.135	495623 [416425,574821]	278
Host Community										
Median	300000 [185582,600000]	350000 [279298,500000]	300000 [250000,400000]		350000 [300000,400000]	250000 [198766,400000]	0 [0,600000]		300000 [300000,400000]	
Mean	1082949 [774419,1391480]	855048 [606911,1103184]	889790 [589583,1189996]	0.503	1004307 [797597,1211017]	712180 [370936,1053424]	150000 [-57319,357319]	< 0.001	926174 [757507,1094841]	296
p-value	0.058	0.012	0.010		< 0.001	0.105	0.195		< 0.001	
Cost to household for hospitalization (Lebanese Pounds) ***										
Syrian Refugees										
Median	425000 [300000,600000]	300000 [250000,375000]	250000 [200000,389441]		300000 [300000,450000]	300000 [200000,356734]	450000 [85000,1000000]		300000 [300000,375000]	
Mean	682015 [459517,904514]	503033 [382714,623353]	506206 [381237,631175]	0.345	619877 [503144,736610]	427955 [323564,532347]	517000 [247639,786361]	0.049	543046 [457794,628298]	257
Host Community										
Median	450000 [300000,828045]	400000 [300000,600000]	400000 [300000,404691]		400000 [350000,599621]	360000 [246747,406505]	375000 [150000,600000]		400000 [350000,450000]	
Mean	1292482 [952006,1632958]	928218 [673394,1183043]	1038088 [718772,1357404]	0.243	1133535 [917188,1349882]	817563 [444141,1190984]	375000 [57609,692391]	< 0.001	1058990 [880259,1237721]	262
p-value	0.014	0.006	0.005		< 0.001	0.054	0.552		< 0.001	

* as percent of households with hospitalization in Lebanon in the year preceding the survey

** includes UN/NGOs, Social Security, private insurance, and Army

*** among households that paid for hospitalization

Table 18. Prevalence of Chronic Conditions

	Hypertension		Cardiovascular Disease		Diabetes		Chronic Respiratory Disease		Arthritis		Any Chronic Condition	
	Point [95% CI]	N	Point [95% CI]	N	Point [95% CI]	N	Point [95% CI]	N	Point [95% CI]	N	Point [95% CI]	N
Households where any member(s) have condition (%)												
<i>Syrian Refugees</i>	20.5 [18.2,23.0]	282	10.8 [9.3,12.6]	149	9.9 [8.2,11.9]	136	16.0 [14.1,18.1]	220	21.2 [18.7,24.0]	292	50.4 [47.3,53.6]	694
<i>Host Community</i>	34.4 [30.8,38.1]	236	19.8 [17.0,23.0]	136	21.0 [18.2,24.1]	144	12.1 [9.8,14.8]	83	17.2 [14.6,20.2]	118	60.2 [56.5,63.8]	413
p-value	< 0.001		< 0.001		< 0.001		0.062		0.110		< 0.001	
Individuals with condition (mean) *												
<i>Syrian Refugees</i>	1.1 [1.0,1.1] 282		1.0 [1.0,1.0] 149		1.0 [1.0,1.1] 136		1.1 [1.0,1.2] 220		1.0 [1.0,1.1] 292		1.7 [1.6,1.7] 694	
<i>Overall</i>	1.1 [1.0,1.1] 282		1.0 [1.0,1.0] 149		1.0 [1.0,1.1] 136		1.1 [1.0,1.2] 220		1.0 [1.0,1.1] 292		1.7 [1.6,1.7] 694	
<i>By age:</i>												
0 - 17 years	0 [0.0,0.0]		0.1 [0.0,0.1]		0 [0.0,0.1]		0.5 [0.4,0.6]		0 [0.0,0.1]		0.2 [0.2,0.3]	
18 - 39 years	0.2 [0.1,0.2]		0.1 [0.1,0.2]		0.2 [0.1,0.2]		0.4 [0.3,0.5]		0.4 [0.4,0.5]		0.4 [0.4,0.5]	
40 - 59 years	0.6 [0.5,0.6]		0.6 [0.5,0.6]		0.5 [0.4,0.6]		0.2 [0.1,0.2]		0.5 [0.4,0.5]		0.7 [0.6,0.8]	
60+ years	0.3 [0.2,0.4]		0.2 [0.2,0.3]		0.3 [0.2,0.4]		0.1 [0.0,0.1]		0.1 [0.1,0.2]		0.3 [0.2,0.4]	
<i>Host Community</i>	1.1 [1.1,1.2] 236		1.0 [1.0,1.1] 136		1.0 [1.0,1.1] 144		1.0 [1.0,1.1] 83		1.0 [1.0,1.1] 118		1.9 [1.8,2.0] 413	
<i>Overall</i>	1.1 [1.1,1.2] 236		1.0 [1.0,1.1] 136		1.0 [1.0,1.1] 144		1.0 [1.0,1.1] 83		1.0 [1.0,1.1] 118		1.9 [1.8,2.0] 413	
<i>By age:</i>												
0 - 17 years	0 [-0.0,0.0]		0.1 [0.0,0.1]		0 [-0.0,0.0]		0.3 [0.2,0.4]		0 [-0.0,0.1]		0.1 [0.1,0.1]	
18 - 39 years	0.1 [0.0,0.1]		0.1 [0.0,0.1]		0.1 [0.0,0.2]		0.3 [0.2,0.4]		0.1 [0.1,0.2]		0.2 [0.2,0.2]	
40 - 59 years	0.5 [0.4,0.5]		0.3 [0.2,0.4]		0.5 [0.4,0.5]		0.3 [0.2,0.4]		0.5 [0.4,0.6]		0.7 [0.6,0.8]	
60+ years	0.6 [0.5,0.7]		0.6 [0.5,0.7]		0.5 [0.4,0.6]		0.2 [0.1,0.3]		0.3 [0.2,0.4]		0.8 [0.7,1.0]	
p-value	0.127		0.461		0.289		0.206		0.073		0.002	

* among households reporting member(s) with the condition only

Table 19. Age-Specific Chronic Disease Prevalence Rates

	Age Group								Adult Prevalence *						
	0-17 years		18-39 years		40-59 years		60+ years		% [95% CI]	N					
	%	95% CI	N	% [95% CI]	N	% [95% CI]	N	% [95% CI]	N						
Hypertension															
Syrian Refugees	0.09	[0.00,0.18]	0	1.9	[1.44,2.37]	11	17.6	[15.07,20.13]	78	35.42	[29.44,41.40]	62	7.44	[6.55,8.32]	298
Host Community	0.48	[-0.19,1.15]	2	1.1	[0.48,1.72]	5	14.95	[12.46,17.45]	41	42.73	[37.36,48.10]	71	10.66	[9.33,12.00]	266
p-value	0.487			0.043			0.137			0.077			< 0.001		
Cardiovascular Disease															
Syrian Refugees	0.3	[0.13,0.46]	0	0.81	[0.50,1.11]	7	9.18	[7.31,11.05]	24	13.75	[9.94,17.56]	23	3.28	[2.67,3.90]	139
Host Community	0.73	[0.12,1.33]	0	1.02	[0.41,1.62]	2	5.62	[3.86,7.40]	14	23.74	[19.35,28.13]	38	5.26	[4.17,6.36]	133
p-value	0.134			0.509			0.008			< 0.001			< 0.001		
Diabetes															
Syrian Refugees	0.09	[0.00,0.18]	1	0.81	[0.44,1.17]	0	8.09	[6.12,10.06]	33	16.67	[10.91,22.43]	32	3.25	[2.61,3.89]	136
Host Community	0.24	[-0.24,0.71]	1	1.44	[0.46,2.42]	3	9.19	[7.05,11.33]	29	21.07	[18.07,24.07]	38	6.28	[4.18,7.37]	155
p-value	0.966			0.241			0.431			0.161			< 0.001		
Chronic Respiratory Disease															
Syrian Refugees	2.43	[1.78,3.07]	6	3.15	[2.48,3.82]	8	4.37	[3.03,5.71]	24	5.83	[2.11,9.56]	10	3.75	[3.04,4.47]	140
Host Community	3.25	[1.87,4.63]	5	1.95	[1.12,2.78]	6	3.02	[1.70,4.33]	10	4.15	[1.98,6.32]	5	2.60	[1.86,3.34]	59
p-value	0.674			0.024			0.149			0.438			0.022		
Arthritis															
Syrian Refugees	0.32	[0.13,0.51]	0	4.69	[3.86,5.52]	10	14.43	[11.84,17.01]	60	16.25	[10.43,22.07]	30	7.88	[6.80,8.95]	299
Host Community	0.57	[-0.06,1.19]	1	1.36	[0.71,2.10]	3	8.5	[6.54,10.47]	30	10.98	[7.33,14.63]	19	5.23	[4.30,6.16]	115
p-value	0.556			< 0.001			< 0.001			0.143			< 0.001		

Table 20. Health Care Seeking for Chronic Health Conditions in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,796)		
	Beirut/Mt. Lebanon (n=504)	Bekaa (n=608)	North (n=684)		Point [95% CI]	N	
Last time care was needed for chronic health condition *							
Syrian Refugees	n=277	n=371	n=431		n=1079		
Less than one month ago	20.6 [16.5,25.3]	22.9 [17.0,30.2]	28.8 [23.8,34.3]	0.617	24.7 [21.4,28.2]	266	
1 - 2 months ago	27.4 [21.7,34.1]	24.8 [20.5,29.7]	26.0 [21.4,31.2]		25.9 [23.1,29.0]	280	
3 - 6 months ago	11.2 [7.0,17.3]	15.4 [11.5,20.2]	12.3 [9.4,15.9]		13.1 [10.8,15.7]	141	
7 months - 1 year ago	5.8 [3.6,9.2]	5.4 [3.5,8.3]	4.6 [3.2,6.7]		5.2 [4.1,6.6]	56	
More than 1 year ago	17.0 [12.0,23.5]	13.5 [9.6,18.6]	12.8 [9.7,16.6]		14.1 [11.7,16.8]	152	
Never needed/sought care in Lebanon for condition	17.3 [12.4,23.6]	17.3 [13.5,21.8]	14.4 [11.2,18.3]		16.1 [13.8,18.8]	174	
Host Community	n=227	n=237	n=253		n=717		
Less than one month ago	23.8 [17.7,31.2]	23.2 [17.0,30.8]	22.5 [17.7,28.2]	0.095	23.2 [19.7,27.0]	166	
1 - 2 months ago	29.5 [23.7,36.1]	31.2 [24.8,38.5]	35.6 [29.7,41.9]		32.2 [28.6,36.1]	231	
3 - 6 months ago	19.4 [14.1,26.0]	19.0 [14.7,24.2]	14.6 [11.0,19.2]		17.6 [14.9,20.6]	126	
7 months - 1 year ago	9.3 [6.4,13.3]	8.9 [5.5,14.0]	7.1 [4.4,11.3]		8.4 [6.5,10.7]	60	
More than 1 year ago	14.1 [9.1,21.2]	16.0 [11.0,22.7]	19.0 [14.6,24.2]		16.5 [13.5,19.9]	118	
Never needed/sought care in Lebanon for condition	0.9 [0.2,3.4]	0.4 [0.1,2.9]	0.8 [0.2,3.2]		0.7 [0.3,1.7]	5	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Saw a doctor for chronic health condition in Lebanon *							
Syrian Refugees	81.9 [75.7,86.9]	81.9 [77.3,85.8]	84.5 [80.8,87.5]	0.581	82.9 [80.3,85.3]	895	
Host Community	96.0 [92.3,98.0]	98.3 [95.7,99.3]	98.8 [96.3,99.6]	0.541	97.8 [96.3,98.7]	701	
p-value	< 0.001	< 0.001	< 0.001		< 0.001		
Location of most recent chronic health condition care in Lebanon **							
Syrian Refugees	n=180	n=254	n=309		n=743		
Primary health care center	51.1 [41.6,60.6]	61.8 [55.1,68.1]	58.3 [51.1,65.1]	0.105	57.7 [53.2,62.1]	429	
Private clinic (cabinet)	21.7 [15.0,30.3]	18.5 [14.4,23.4]	19.7 [15.7,24.5]		19.8 [16.9,23.0]	147	
Hospital	8.3 [5.3,13.0]	10.6 [7.3,15.2]	7.4 [4.3,12.7]		8.7 [6.6,11.4]	65	
Pharmacy	12.8 [7.6,20.7]	3.5 [1.5,8.1]	11.3 [7.5,16.7]		9.0 [6.6,12.2]	67	
Other	6.1 [2.8,12.9]	5.5 [2.9,10.3]	3.2 [1.4,7.5]		4.7 [3.0,7.2]	35	
Host Community	n=186	n=195	n=202			n=583	
Primary health care center	18.3 [12.6,25.7]	10.3 [6.1,16.7]	21.3 [15.1,29.1]	0.156	16.6 [13.2,20.8]	97	
Private clinic (cabinet)	59.7 [47.6,70.7]	72.3 [62.5,80.3]	53.0 [45.1,60.7]		61.6 [55.6,67.3]	359	
Hospital	15.1 [9.0,24.1]	14.4 [8.8,22.5]	20.3 [14.3,28.0]		16.6 [12.9,21.2]	97	
Pharmacy	4.3 [1.5,11.5]	1.0 [0.3,4.1]	3.0 [1.2,6.9]		2.7 [1.5,5.1]	16	
Other	2.7 [1.0,6.9]	2.1 [0.4,9.1]	2.5 [0.7,8.8]		2.4 [1.2,4.9]	14	
p-value	< 0.001	< 0.001	< 0.001			< 0.001	
Paid for provider visit (%) **							
Syrian Refugees	75.0 [65.5,82.6]	71.7 [62.9,79.0]	65.0 [58.2,71.3]	0.192	69.7 [65.0,74.0]	518	
Host Community	76.9 [66.8,84.6]	87.7 [81.3,92.1]	83.2 [74.6,89.2]	0.126	82.7 [77.9,86.6]	482	
p-value	0.607	0.001	< 0.001		< 0.001		
Cost to household for visit (Lebanese Pounds) **							
Syrian Refugees							
Median	9000 [5000,10000]	10000 [5000,10000]	5000 [3000,5000]	0.073	5000 [5000,8000]	895	
Mean	29671 [19731,39610]	23737 [17011,30463]	18514 [14881,22147]		23014 [19242,26785]		
Host Community							
Median	50000 [35000,50000]	50000 [50000,50000]	50000 [41179,50000]		50000 [50000,50000]		
Mean	66811 [45009,88612]	56281 [42085,70476]	68103 [52716,83490]		63824 [53738,73910]		
p-value	0.028	0.002	< 0.001				< 0.001
Cost to household for visit (Lebanese Pounds) ***							
Syrian Refugees	n=134	n=178	n=197		n=509		
Median	15000 [10000,20000]	15000 [15000,20000]	10000 [8471,15000]	0.269	15000 [10000,15000]	518	
Mean	39634 [27088,52181]	33338 [24554,42122]	28664 [22611,34717]		33187 [27995,38379]		
Host Community	n=138	n=159	n=166				n=463
Median	50000 [50000,55961]	50000 [50000,50000]	50000 [50000,50000]		50000 [50000,50000]		
Mean	87144 [61423,112865]	64776 [49830,79721]	80821 [63465,98177]		77196 [65866,88525]		
p-value	0.021	0.004	0.002				< 0.001
Payment for chronic health condition care by facility ****							
PHCC							
Syrian Refugees	n=92	n=157	n=180		n=429		
Median	8000 [5000,10000]	5000 [3000,8584]	5000 [3000,5000]	0.120	5000 [5000,5257]	429	
Mean	24505 [7790,41221]	12666 [8410,16921]	9313 [6351,12274]		13783 [9536,18031]		
% of households that paid for provider visit	94.6 [88.0,97.6]	74.5 [62.4,83.8]	75.0 [64.7,83.1]		79.0 [72.5,84.3]		339
Host Community	n=34	n=20	n=43				n=97
Median	14000 [10000,20000]	15000 [15000,20000]	15000 [10000,24282]		15000 [10000,15469]		
Mean	20588 [12266,28911]	21150 [11807,30493]	32143 [18300,45985]		25760 [18496,33025]		
% of households that paid for provider visit	76.5 [49.7,91.4]	90.0 [70.8,97.1]	83.7 [61.9,94.2]	82.5 [69.2,90.8]	80		
p-value	0.652	0.140	0.004		0.006		

	By Region			regional comparison p-values	Survey Total (n=1,796)	
	Beirut/Mt. Lebanon (n=504)	Bekaa (n=608)	North (n=684)		Point [95% CI]	N
Private Clinic						
Syrian Refugees	n=39	n=47	n=61		n=147	
Median	40000 [20000,50000]	40000 [21946,40000]	40000 [32196,50000]		40000 [30000,40000]	
Mean	33436 [25460,41412]	37778 [29795,45760]	64441 [34585,94297]	0.138	47594 [34395,60794]	147
% of households that paid for provider visit	82.1 [69.6,90.1]	85.1 [71.1,93.0]	90.2 [78.1,95.9]	0.489	86.4 [79.7,91.1]	127
Host Community	n=111	n=141	n=107		n=359	
Median	50000 [50000,50000]	50000 [50000,50000]	50000 [50000,60000]		50000 [50000,50000]	
Mean	53130 [44848,61411]	69179 [42815,95544]	65210 [55335,75084]	0.137	62983 [51935,74031]	359
% of households that paid for provider visit	83.8 [72.7,90.9]	90.8 [85.0,94.5]	94.4 [86.8,97.7]	0.131	89.7 [85.3,92.9]	322
p-value	0.006	0.042	0.963		0.088	
Hospital						
Syrian Refugees	n=15	n=25	n=22		n=62	
Median	50000 [11782,320913]	20000 [0,94792]	0 [0,51393]		30000 [0,50000]	
Mean	149531 [70078,228984]	84665 [41515,127816]	47229 [20528,73931]	0.046	87075 [55766,118383]	65
% of households that paid for provider visit	80.0 [50.9,93.9]	66.7 [48.9,80.7]	47.8 [29.4,66.9]	0.120	63.1 [50.3,74.2]	41
Host Community	n=27	n=23	n=39		n=89	
Median	50000 [23308,156768]	50000 [35000,100000]	50000 [30000,82201]		50000 [50000,62584]	
Mean	202664 [77125,328204]	73370 [45788,100951]	134484 [59505,209463]	0.069	139374 [87735,191014]	97
% of households that paid for provider visit	71.4 [44.8,88.5]	85.7 [65.7,94.9]	75.6 [62.0,85.5]	0.710	77.3 [66.3,85.5]	75
p-value	0.541	0.594	0.066		0.105	
Referrals						
Referred to another facility/provider for care of chronic condition **						
Syrian Refugees	n=180	n=254	n=309		n=743	
Referred and received referred services	8.9 [5.2,14.8]	7.9 [4.5,13.5]	9.4 [6.4,13.6]		8.7 [6.6,11.5]	65
Referred but did not receive referred services	3.3 [1.3,8.2]	4.7 [2.5,8.8]	6.1 [3.6,10.3]	0.798	5.0 [3.4,7.2]	37
Not referred for additional care	87.2 [81.1,91.6]	87.4 [81.7,91.5]	84.1 [78.8,88.3]		86.0 [82.9,88.6]	639
Host Community	n=186	n=195	n=202		n=583	
Referred and received referred services	9.1 [4.2,18.7]	11.8 [7.5,18.2]	19.3 [14.2,25.6]		13.6 [10.4,17.4]	79
Referred but did not receive referred services	2.7 [0.7,10.0]	0.5 [0.1,3.4]	0.5 [0.1,3.4]	0.067	1.2 [0.4,3.5]	7
Not referred for additional care	88.2 [76.0,94.6]	87.7 [80.8,92.3]	80.2 [74.1,85.1]		85.2 [80.9,88.8]	497
p-value	0.823	0.056	< 0.001		0.003	
Referred services ****						
Syrian Refugees	n=16	n=20	n=29		n=65	
Lab tests	62.5 [42.1,79.3]	45.0 [26.2,65.4]	58.6 [40.9,74.4]		55.4 [43.8,66.4]	36
Diagnostic tests	25.0 [10.0,50.1]	30.0 [14.3,52.4]	17.2 [7.2,35.9]		23.1 [14.1,35.3]	15
Specialist consultation	0	25.0 [11.1,47.0]	13.8 [6.3,27.7]	0.326	13.8 [7.8,23.4]	9
Curative intervention	6.2 [0.9,32.4]	0	10.3 [2.4,35.1]		6.2 [1.8,18.6]	4
Other	6.2 [0.9,32.4]	0	0		1.5 [0.2,10.3]	1
Host Community	n=17	n=23	n=39		n=79	
Lab tests	76.5 [52.8,90.4]	69.6 [39.2,89.0]	64.1 [47.3,78.1]		68.4 [55.1,79.2]	54
Diagnostic tests	11.8 [2.3,43.2]	13 [2.8,43.6]	23.1 [12.5,38.7]	0.713	17.7 [9.8,29.8]	14
Specialist consultation	5.9 [0.7,36.4]	0	5.1 [1.4,17.1]		3.8 [1.2,11.1]	3
Curative intervention	5.9 [1.6,19.0]	17.4 [3.9,52.2]	7.7 [1.7,28.1]		10.1 [4.0,23.5]	8
Other	0	0	0		0	0
p-value	0.573	0.069	0.665		0.190	
Location referred services sought/received *****						
Syrian Refugees						
Primary health care center	25.0 [9.1,52.5]	40.0 [16.5,69.2]	10.3 [3.3,28.4]		23.1 [12.6,38.5]	15
Private clinic (cabinet)	12.5 [2.8,41.1]	20.0 [7.8,42.6]	13.8 [6.0,28.8]		15.4 [8.7,25.8]	10
Hospital emergency room	6.2 [1.1,29.2]	0	10.3 [2.4,35.1]		6.2 [1.9,18.4]	4
Hospital	37.5 [17.8,62.5]	25.0 [7.3,58.6]	37.9 [20.9,58.6]	0.591	33.8 [21.6,48.7]	22
Medical center	18.8 [5.5,47.9]	15.0 [2.1,59.5]	27.6 [12.3,50.9]		21.5 [11.1,37.6]	14
Other	0	0	0		0	0
Host Community						
Primary health care center	17.6 [7.2,37.3]	26.1 [12.7,46.1]	5.1 [1.4,17.1]		13.9 [8.2,22.7]	11
Private clinic (cabinet)	0	8.7 [2.4,26.9]	5.1 [1.4,17.1]		5.1 [2.0,12.3]	4
Hospital emergency room	5.9 [1.6,19.0]	0	0		1.3 [0.2,7.7]	1
Hospital	52.9 [26.7,77.7]	43.5 [21.8,68.0]	46.2 [30.1,63.0]	0.094	46.8 [34.9,59.2]	37
Medical center	17.6 [6.9,38.2]	21.7 [7.2,49.9]	43.6 [27.0,61.7]		31.6 [20.9,44.8]	25
Other	5.9 [1.6,19.0]	0	0		1.3 [0.2,7.7]	1
p-value	0.470	0.632	0.231		0.096	

* as percent of index cases reporting diagnosis of any chronic condition

**** as percent of index cases receiving care in this facility type

** as percent of index cases receiving care in Lebanon for any chronic condition

***** as percent of index cases of any chronic condition referred for additional services

*** among index cases of any chronic condition that paid for care

Table 21. Health Care Seeking for Hypertension in Lebanon

	By Region			regional comparison p-values	Survey Total (n=518)	
	Beirut/Mt. Lebanon (n=146)	Bekaa (n=177)	North (n=195)		Point [95% CI]	N
Last time care was needed for hypertension *						
Syrian Refugees	n=68	n=97	n=117	0.148	n=282	
Less than one month ago	19.1 [13.3,26.7]	19.6 [12.8,28.7]	35.9 [27.4,45.4]		26.2 [21.3,31.9]	74
1 - 2 months ago	22.1 [13.2,34.4]	28.9 [21.4,37.7]	23.9 [16.7,33.1]		25.2 [20.4,30.7]	71
3 - 6 months ago	14.7 [8.1,25.2]	14.4 [8.0,24.6]	11.1 [6.5,18.5]		13.1 [9.4,18.0]	37
7 months - 1 year ago	2.9 [0.7,11.0]	9.3 [4.6,17.8]	1.7 [0.4,6.5]		4.6 [2.6,8.0]	13
More than 1 year ago	17.6 [10.1,29.0]	10.3 [4.7,21.1]	9.4 [5.3,16.2]		11.7 [8.1,16.6]	33
Never needed/sought care in Lebanon for condition	23.5 [15.6,33.8]	17.5 [10.1,28.8]	16.2 [9.7,26.0]	18.4 [13.8,24.2]	52	
Host Community	n=78	n=80	n=78	0.841	n=236	
Less than one month ago	26.9 [18.5,37.4]	23.8 [16.8,32.5]	24.4 [15.9,35.4]		25.0 [20.1,30.6]	59
1 - 2 months ago	24.4 [15.5,36.1]	33.8 [24.8,44.1]	32.1 [24.0,41.3]		30.1 [24.8,35.9]	71
3 - 6 months ago	17.9 [10.8,28.4]	20.0 [12.8,29.8]	15.4 [9.2,24.6]		17.8 [13.5,23.1]	42
7 months - 1 year ago	11.5 [6.5,19.7]	10.0 [4.5,20.7]	9.0 [4.8,16.1]		10.2 [6.9,14.7]	24
More than 1 year ago	16.7 [9.0,28.9]	11.2 [5.9,20.3]	17.9 [10.9,28.1]		15.3 [10.9,20.9]	36
Never needed/sought care in Lebanon for condition	0	0	1.3 [0.2,8.8]	0.4 [0.1,3.0]	1	
p-value	< 0.001	0.032	0.001		< 0.001	
Saw a doctor for hypertension in Lebanon *						
Syrian Refugees	76.5 [66.2,84.4]	82.5 [71.2,89.9]	82.1 [72.7,88.7]	0.615	80.9 [75.2,85.5]	228
Host Community	97.4 [90.7,99.3]	98.8 [91.4,99.8]	98.7 [91.2,99.8]	0.765	98.3 [95.6,99.4]	232
p-value	< 0.001	0.002	0.002		< 0.001	
Location of most recent hypertension care in Lebanon						
Syrian Refugees	n=40	n=70	n=85	0.117	n=195	
Primary health care center	37.5 [22.8,54.9]	62.9 [51.1,73.3]	56.5 [46.4,66.0]		54.9 [47.6,61.9]	107
Private clinic (cabinet)	25.0 [13.4,41.7]	21.4 [13.8,31.6]	20.0 [13.4,28.8]		21.5 [16.6,27.5]	42
Hospital	5.0 [1.3,17.2]	7.1 [3.3,15.0]	10.6 [5.5,19.5]		8.2 [5.1,12.9]	16
Pharmacy	20.0 [10.1,35.7]	4.3 [1.0,16.5]	8.2 [3.9,16.7]		9.2 [5.6,14.8]	18
Other	12.5 [3.1,38.6]	4.3 [1.3,12.9]	4.7 [1.8,11.5]		6.2 [3.0,12.3]	12
Host Community	n=63	n=70	n=63	0.113	n=196	
Primary health care center	25.4 [16.2,37.5]	11.4 [5.3,23.0]	22.2 [14.2,33.0]		19.4 [14.3,25.7]	38
Private clinic (cabinet)	58.7 [41.7,73.9]	71.4 [58.7,81.5]	46.0 [35.6,56.8]		59.2 [51.0,66.9]	116
Hospital	9.5 [4.8,18.1]	14.3 [7.8,24.8]	23.8 [15.2,35.3]		15.8 [11.4,21.6]	31
Pharmacy	3.2 [0.7,12.6]	0	4.8 [1.5,14.0]		2.6 [1.0,6.1]	5
Other	3.2 [0.8,11.6]	2.9 [0.4,17.5]	3.2 [0.8,12.2]		3.1 [1.2,7.5]	6
p-value	0.010	< 0.001	< 0.001		< 0.001	
Paid for provider visit (%) **						
Syrian Refugees	77.5 [56.3,90.2]	71.4 [57.6,82.1]	62.4 [53.2,70.7]	0.295	68.7 [61.4,75.2]	134
Host Community	69.8 [56.2,80.7]	81.4 [72.8,87.8]	79.4 [67.3,87.8]	0.424	77.0 [70.7,82.3]	151
p-value	0.736	0.109	0.025		0.018	
Cost to household for visit (Lebanese Pounds) **						
Syrian Refugees				0.666		
Median	8500 [2273,19454]	8000 [3000,13055]	3000 [2490,5000]		5000 [3000,8000]	
Mean	28551 [9278,47825]	21008 [9813,32202]	18869 [10121,27618]		21644 [14760,28527]	228
Host Community					0.023	
Median	22500 [10264,50000]	50000 [30000,50000]	50000 [29614,50000]	50000 [30000,50000]		
Mean	32845 [24353,41337]	45155 [33815,56494]	55017 [40859,69175]	44497 [37383,51612]		232
p-value	0.697	0.008	< 0.001			< 0.001
Cost to household for visit (Lebanese Pounds) ***						
Syrian Refugees	n=28	n=47	n=52	0.779	n=127	
Median	19000 [9278,27221]	15000 [10000,20000]	9000 [5000,20000]		15000 [10000,20000]	
Mean	40788 [14085,67491]	30394 [15283,45505]	30481 [15710,45253]		32721 [22513,42930]	130
Host Community	n=40	n=55	n=48		0.064	n=143
Median	50000 [32730,50000]	50000 [50000,50000]	50000 [50000,71569]	50000 [50000,50000]		
Mean	47625 [39726,55524]	55827 [44508,67147]	68771 [52583,84960]	57878 [50199,65556]		151
p-value	0.627	0.022	0.003			< 0.001
Payment for hypertension care by facility ****						
PHCC						
Syrian Refugees	n=15	n=44	n=48	0.509	n=107	
Median	9000 [3000,19644]	4000 [3000,10000]	3000 [3000,5000]		5000 [3000,5135]	
Mean	28868 [-5761,63498]	8216 [5848,10584]	8188 [1866,14509]		11098 [4941,17255]	107
% of households that paid for provider visit	93.3 [63.3,99.1]	70.5 [52.8,83.6]	70.8 [56.0,82.2]		73.8 [63.7,82.0]	79
Host Community	Insufficient sample size for regional comparisons				n=38	
Median					15000 [10000,17914]	
Mean					28395 [15258,41531]	38
% of households that paid for provider visit					86.8 [71.7,94.5]	33
p-value					0.012	

Private Clinic								
Syrian Refugees	Insufficient sample size for regional comparisons						n=40	
Median							35000 [20000,40000]	42
Mean							42926 [26394,59457]	
% of households that paid for provider visit							85.7 [71.8,93.4]	36
Host Community	n=35	n=49	n=27				n=111	
Median	50000 [20931,50000]	50000 [40684,50000]	50000 [50000,75000]				50000 [50000,50000]	
Mean	40429 [27822,53035]	46531 [38802,54259]	63519 [51251,75786]	0.027			48739 [42198,55280]	116
% of households that paid for provider visit	70.3 [51.6,84.0]	86.0 [75.3,92.5]	93.1 [76.2,98.3]	0.075			82.8 [74.6,88.7]	96
p-value							0.506	
Hospital								
Syrian Refugees	Insufficient sample size for regional comparisons						n=15	
Median							30000 [0,89310]	
Mean							73604 [16636,130571]	16
% of households that paid for provider visit							62.5 [38.9,81.4]	10
Host Community	Insufficient sample size for regional comparisons						n=28	
Median							50000 [0,73610]	
Mean							63840 [33155,94525]	31
% of households that paid for provider visit							64.5 [45.6,79.8]	20
p-value							0.764	
Referrals								
Referred to another facility/provider for care of hypertension **								
Syrian Refugees	n=40	n=70	n=85				n=195	
Referred and received referred services	7.5 [2.6,19.9]	4.3 [1.4,12.2]	7.1 [3.4,14.0]				6.2 [3.6,10.2]	12
Referred but did not receive referred services	2.5 [0.3,16.6]	4.3 [1.5,12.0]	4.7 [1.9,11.2]	0.894			4.1 [2.1,7.8]	8
Not referred for additional care	90.0 [76.8,96.1]	91.4 [83.3,95.8]	88.2 [80.1,93.3]				89.7 [85.0,93.1]	175
Host Community	n=63	n=70	n=63				n=196	
Referred and received referred services	7.9 [2.2,24.6]	8.6 [4.1,17.2]	14.3 [8.1,24.1]				10.2 [6.4,15.8]	20
Referred but did not receive referred services	1.6 [0.2,10.7]	1.4 [0.2,9.2]	1.6 [0.2,10.4]	0.805			1.5 [0.5,4.6]	3
Not referred for additional care	90.5 [74.8,96.8]	90.0 [79.5,95.4]	84.1 [74.5,90.6]				88.3 [82.3,92.4]	173
p-value	0.955	0.375	0.216				0.128	
Referred services *****								
Syrian Refugees	Insufficient sample size for regional comparisons						n=12	
Lab tests							83.3 [51.6,95.9]	10
Diagnostic tests							0	0
Specialist consultation							0	0
Curative intervention							16.7 [4.1,48.4]	2
Other							0	0
Host Community	Insufficient sample size for regional comparisons						n=20	
Lab tests							85.0 [61.1,95.3]	17
Diagnostic tests							10.0 [2.4,33.5]	2
Specialist consultation							0	0
Curative intervention							5.0 [0.7,29.3]	1
Other							0	0
p-value							0.355	
Location referred services sought/received *****								
Syrian Refugees	Insufficient sample size for regional comparisons							
Primary health care center							25.0 [8.1,55.8]	3
Private clinic (cabinet)							8.3 [1.1,42.2]	1
Hospital emergency room							0	0
Hospital							41.7 [18.2,69.7]	5
Medical center							25.0 [8.1,55.8]	3
Other							0	0
Host Community	Insufficient sample size for regional comparisons							
Primary health care center							10.0 [2.8,29.8]	2
Private clinic (cabinet)							0	0
Hospital emergency room							0	0
Hospital							40.0 [22.2,60.9]	8
Medical center							45.0 [23.1,69.0]	9
Other							5.0 [0.8,24.8]	1
p-value							0.333	

* as percent of index cases reporting diagnosis of hypertension

**** as percent of index cases of hypertension receiving care in this facility type

** as percent of index cases receiving care in Lebanon for hypertension

***** as percent of index cases of hypertension referred for additional services

*** among index cases of hypertension that paid for care

Table 22. Health Care Seeking for Cardiovascular Disease in Lebanon

	By Region			regional comparison p-values	Survey Total (n=285)	
	Beirut/Mt. Lebanon (n=87)	Bekaa (n=92)	North (n=106)		Point [95% CI]	N
Last time care was needed for cardiovascular disease *						
Syrian Refugees	n=40	n=49	n=60	0.512	n=149	
Less than one month ago	7.5 [2.6,20.1]	16.3 [5.7,38.5]	20.0 [11.7,32.1]		15.4 [9.5,24.0]	23
1 - 2 months ago	20.0 [9.3,37.7]	20.4 [11.4,33.8]	33.3 [21.1,48.3]		25.5 [18.5,34.1]	38
3 - 6 months ago	30.0 [17.8,45.9]	16.3 [7.9,30.8]	13.3 [6.7,24.8]		18.8 [13.0,26.4]	28
7 months - 1 year ago	5.0 [1.4,16.7]	8.2 [3.1,20.1]	5.0 [1.7,13.6]		6.0 [3.2,11.0]	9
More than 1 year ago	15.0 [7.8,27.0]	20.4 [10.7,35.4]	15.0 [7.6,27.5]		16.8 [11.4,23.9]	25
Never needed/sought care in Lebanon for condition	20.0 [9.9,36.2]	18.4 [9.3,33.1]	13.3 [6.4,25.6]		16.8 [11.3,24.3]	25
Host Community	n=47	n=43	n=46	0.338	n=136	
Less than one month ago	21.3 [11.5,36.0]	23.3 [14.6,34.9]	26.1 [16.3,39.0]		23.5 [17.6,30.8]	32
1 - 2 months ago	40.4 [27.7,54.6]	20.9 [12.0,33.9]	30.4 [17.5,47.4]		30.9 [23.3,39.6]	42
3 - 6 months ago	10.6 [4.8,21.9]	25.6 [16.0,38.2]	21.7 [12.4,35.3]		19.1 [13.7,26.0]	26
7 months - 1 year ago	10.6 [4.3,23.9]	7.0 [2.5,18.3]	10.9 [3.8,27.4]		9.6 [5.4,16.4]	13
More than 1 year ago	12.8 [6.4,23.7]	23.3 [15.0,34.2]	10.9 [5.1,21.6]		15.4 [11.0,21.3]	21
Never needed/sought care in Lebanon for condition	2.1 [0.3,13.3]	0	0		0.7 [0.1,5.1]	1
p-value	0.017	0.108	0.177		0.001	
Saw a doctor for cardiovascular disease in Lebanon *						
Syrian Refugees	77.5 [59.8,88.9]	81.6 [66.9,90.7]	86.7 [74.4,93.6]	0.545	82.6 [74.8,88.3]	123
Host Community	95.7 [85.3,98.9]	100	100	0.281	98.5 [94.3,99.6]	134
p-value	0.016	0.010	0.020		< 0.001	
Location of most recent cardiovascular disease care in Lebanon **						
Syrian Refugees	n=25	n=30	n=43	0.478	n=98	
Primary health care center	40.0 [24.2,58.2]	46.7 [32.6,61.3]	46.5 [32.5,61.1]		44.9 [36.0,54.1]	44
Private clinic (cabinet)	16.0 [7.3,31.6]	13.3 [5.4,29.2]	20.9 [11.7,34.6]		17.3 [11.5,25.2]	17
Hospital	28.0 [15.4,45.3]	33.3 [21.6,47.6]	16.3 [7.6,31.5]		24.5 [17.4,33.3]	24
Pharmacy	12.0 [4.3,29.4]	0	9.3 [3.8,20.9]		7.1 [3.6,13.8]	7
Other	4.0 [0.5,24.8]	6.7 [1.6,24.5]	7.0 [2.6,17.4]		6.1 [2.8,12.7]	6
Host Community	n=39	n=33	n=41	0.477	n=113	
Primary health care center	7.7 [2.6,20.7]	3.0 [0.4,18.5]	9.8 [3.6,23.9]		7.1 [3.6,13.5]	8
Private clinic (cabinet)	66.7 [46.3,82.3]	78.8 [62.5,89.2]	53.7 [37.2,69.4]		65.5 [54.8,74.8]	74
Hospital	20.5 [9.9,37.7]	12.1 [4.6,28.1]	31.7 [18.2,49.3]		22.1 [14.7,31.9]	25
Pharmacy	2.6 [0.4,16.2]	3.0 [0.4,19.5]	0		1.8 [0.4,6.9]	2
Other	2.6 [0.4,16.2]	3.0 [0.4,18.5]	4.9 [1.2,17.8]		3.5 [1.3,9.1]	4
p-value	0.002	< 0.001	< 0.001		< 0.001	
Paid for provider visit (%) **						
Syrian Refugees	76.0 [53.9,89.6]	73.3 [54.0,86.6]	67.4 [54.4,78.2]	0.728	71.4 [61.9,79.4]	70
Host Community	76.9 [63.4,86.5]	90.9 [74.9,97.1]	78.0 [59.6,89.5]	0.450	81.4 [72.6,87.8]	92
p-value	0.936	0.104	0.247		0.123	
Cost to household for care (Lebanese Pounds) **						
Syrian Refugees				0.072		
Median	15000 [3208,50000]	15000 [1847,25000]	5000 [3000,14569]		10000 [5000,17281]	
Mean	88118 [36871,139364]	51326 [12482,90170]	27595 [10749,44441]		50525 [29621,71428]	123
Host Community				0.105		
Median	50000 [30000,61651]	50000 [50000,50000]	50000 [50000,75000]		50000 [50000,50000]	
Mean	120506 [40034,200978]	61935 [45482,78389]	124871 [53851,195892]		105587 [66295,144879]	134
p-value	0.543	0.603	0.015		0.022	
Cost to household for care (Lebanese Pounds) ***						
Syrian Refugees	n=19	n=21	n=28	0.089	n=68	
Median	50000 [14388,99176]	20000 [10000,40000]	16000 [5278,37221]		20000 [15000,40000]	
Mean	115944 [51594,180295]	70879 [22908,118850]	41393 [17785,65001]		71329 [43975,98683]	70
Host Community	n=30	n=28	n=32	0.042	n=90	
Median	60000 [50000,75000]	50000 [50000,57221]	75000 [50000,10000]		50000 [50000,75000]	
Mean	156657 [55836,257478]	68571 [47763,89380]	156089 [74758,237421]		129051 [82794,175308]	92
p-value	0.541	0.928	0.015		0.046	
Payment for cardiovascular disease care by facility ****						
PHCC						
Syrian Refugees	Insufficient sample size for regional comparisons				n=44	
Median					5500 [3053,10000]	
Mean					13648 [6821,20475]	44
% of households that paid for provider visit					84.1 [69.9,92.3]	37
Host Community	Insufficient sample size for regional comparisons				n=8	
Median					15000 [0,24875]	
Mean					14375 [6804,21946]	8
% of households that paid for provider visit					75.0 [37.0,93.9]	6
p-value					0.889	

Private Clinic							
Syrian Refugees		Insufficient sample size for regional comparisons				n=16	
Median						45000 [10345,62069]	
Mean						49375 [24786,73964]	17
% of households that paid for provider visit						76.5 [51.0,91.0]	13
Host Community		n=26	n=25	n=22		n=73	
Median		50000 [32260,75000]	50000 [50000,50000]	55000 [50000,75000]		50000 [50000,60000]	
Mean		50962 [34902,67021]	62200 [44615,79785]	70000 [44797,95203]	0.411	60548 [49162,71934]	74
% of households that paid for provider visit		80.8 [61.9,91.6]	92.3 [73.9,98.1]	81.8 [58.6,93.5]	0.448	85.1 [75.0,91.6]	63
p-value						0.436	
Hospital							
Syrian Refugees		Insufficient sample size for regional comparisons				n=24	
Median						50000 [5239,260709]	
Mean						146952 [78550,215354]	24
% of households that paid for provider visit						70.8 [50.3,85.3]	17
Host Community		Insufficient sample size for regional comparisons				n=25	
Median						100000 [50000,323806]	
Mean						303025 [138179,467871]	25
% of households that paid for provider visit						84.0 [66.6,93.3]	21
p-value						0.116	
Referrals							
Referred to another facility/provider for cardiovascular disease care **							
Syrian Refugees		n=25	n=30	n=42		n=98	
Referred and received referred services		16.0 [6.2,35.4]	13.3 [5.0,31.0]	16.3 [7.6,31.5]		15.3 [9.3,24.2]	15
Referred but did not receive referred services		4.0 [0.6,23.2]	6.7 [1.6,23.5]	9.3 [3.7,21.4]	0.927	7.1 [3.5,14.0]	7
Not referred for additional care		80.0 [61.1,91.1]	80.0 [57.5,92.2]	74.4 [60.9,84.4]		77.6 [68.0,84.9]	76
Host Community		n=39	n=33	n=41		n=113	
Referred and received referred services		2.6 [0.4,15.4]	12.1 [4.8,27.4]	19.5 [10.3,33.8]		11.5 [6.9,18.5]	13
Referred but did not receive referred services		2.6 [0.4,15.4]	0	0	0.190	0.9 [0.1,6.0]	1
Not referred for additional care		94.9 [71.7,99.3]	87.9 [72.6,95.2]	80.5 [66.2,89.7]		87.6 [79.8,92.7]	99
p-value		0.168	0.351	0.123		0.043	
Referred services *****							
Syrian Refugees		Insufficient sample size for regional comparisons				n=15	
Lab tests						40.0 [20.0,64.0]	6
Diagnostic tests						33.3 [13.9,60.7]	5
Specialist consultation						13.3 [3.2,41.6]	2
Curative intervention						6.7 [1.0,32.8]	1
Other						6.7 [0.9,36.3]	1
Host Community		Insufficient sample size for regional comparisons				n=13	
Lab tests						46.2 [22.0,72.2]	6
Diagnostic tests						30.8 [11.8,59.6]	4
Specialist consultation						7.7 [1.0,39.9]	1
Curative intervention						15.4 [3.8,45.7]	2
Other						0	0
p-value						0.798	
Location referred services sought/received *****							
Syrian Refugees		Insufficient sample size for regional comparisons					
Primary health care center						20.0 [6.3,48.1]	3
Private clinic (cabinet)						6.7 [0.9,36.3]	1
Hospital emergency room						6.7 [0.9,36.3]	1
Hospital						46.7 [22.4,72.6]	7
Medical center						20.0 [6.3,48.1]	3
Other						0	0
Host Community		Insufficient sample size for regional comparisons					
Primary health care center						15.4 [3.8,45.7]	2
Private clinic (cabinet)						15.4 [3.8,45.7]	2
Hospital emergency room						0	0
Hospital						38.5 [16.7,66.1]	5
Medical center						30.8 [11.8,59.6]	4
Other						0	0
p-value						0.774	

* as percent of index cases reporting diagnosis of cardiovascular disease

**** as percent of index cases of cardiovascular disease receiving care in this facility type

** as percent of index cases receiving care in Lebanon for cardiovascular disease

***** as percent of index cases of cardiovascular disease referred for additional services

*** among index cases of cardiovascular disease that paid for care

Table 23. Health Care Seeking for Diabetes in Lebanon

	By Region			regional comparison p-values	Survey Total (n=280)	
	Beirut/Mt. Lebanon (n=81) Point [95% CI]	Bekaa (n=93) Point [95% CI]	North (n=106) Point [95% CI]		Point [95% CI]	N
Last time care was needed for diabetes *						
Syrian Refugees	n=35	n=45	n=56	0.209	n=136	
Less than one month ago	34.3 [22.2,48.7]	35.6 [21.4,52.8]	30.4 [18.6,45.4]		33.1 [25.2,42.1]	45
1 - 2 months ago	34.3 [21.7,49.6]	20.0 [10.5,34.6]	32.1 [21.0,45.7]		28.7 [21.7,36.9]	39
3 - 6 months ago	14.3 [6.3,29.2]	4.4 [1.2,14.9]	10.7 [5.1,21.0]		9.6 [5.8,15.3]	13
7 months - 1 year ago	8.6 [2.8,23.1]	2.2 [0.3,15.1]	1.8 [0.3,11.2]		3.7 [1.5,8.5]	5
More than 1 year ago	8.6 [2.7,23.8]	17.8 [9.6,30.7]	12.5 [6.7,22.1]		13.2 [8.7,19.6]	18
Never needed/sought care in Lebanon for condition	0	17.8 [9.4,31.2]	10.7 [5.1,21.0]	10.3 [6.2,16.6]	14	
Host Community	n=46	n=48	n=50	0.741	n=144	
Less than one month ago	28.3 [16.5,43.9]	25.0 [14.5,39.5]	24.0 [14.4,37.2]		25.7 [19.0,33.7]	37
1 - 2 months ago	34.8 [22.5,49.5]	39.6 [26.7,54.1]	46.0 [33.6,58.9]		40.3 [32.7,48.4]	58
3 - 6 months ago	19.6 [9.7,35.4]	16.7 [8.9,29.1]	14.0 [6.5,27.7]		16.7 [11.2,24.0]	24
7 months - 1 year ago	6.5 [2.3,16.9]	6.2 [2.1,17.0]	2.0 [0.3,13.1]		4.9 [2.4,9.6]	7
More than 1 year ago	4.3 [1.1,15.8]	12.5 [5.7,25.1]	12.0 [5.2,25.2]		9.7 [5.7,16.0]	14
Never needed/sought care in Lebanon for condition	2.2 [0.3,14.1]	0	0	0.7 [0.1,4.9]	1	
p-value	0.684	0.012	0.283		0.003	
Saw a doctor for diabetes in Lebanon *						
Syrian Refugees	100	80.0 [66.3,89.1]	87.5 [77.6,93.4]	0.024	88.2 [81.8,92.6]	120
Host Community	93.5 [82.2,97.8]	100	98.0 [87.4,99.7]	0.133	97.2 [92.9,98.9]	140
p-value	0.111	0.002	0.050		0.005	
Location of most recent diabetes care in Lebanon **						
Syrian Refugees	n=32	n=28	n=42	0.926	n=102	
Primary health care center	62.5 [45.0,77.2]	57.1 [38.6,73.9]	61.9 [45.1,76.3]		60.8 [50.7,70.1]	62
Private clinic (cabinet)	15.6 [6.6,32.6]	25.0 [10.7,48.1]	21.4 [12.4,34.5]		20.6 [13.7,29.7]	21
Hospital	6.2 [1.7,20.8]	3.6 [0.5,21.3]	2.4 [0.3,15.3]		3.9 [1.5,9.9]	4
Pharmacy	9.4 [3.4,23.3]	7.1 [1.9,23.7]	11.9 [5.2,25.0]		9.8 [5.5,16.8]	10
Other	6.2 [1.5,22.5]	7.1 [2.1,21.6]	2.4 [0.3,15.3]		4.9 [2.1,11.1]	5
Host Community	n=41	n=42	n=43	0.617	n=126	
Primary health care center	17.1 [8.5,31.5]	11.9 [5.3,24.7]	23.3 [14.4,35.2]		17.5 [12.1,24.5]	22
Private clinic (cabinet)	58.5 [45.1,70.8]	66.7 [50.8,79.5]	53.5 [39.6,66.9]		59.5 [51.2,67.3]	75
Hospital	14.6 [7.9,25.6]	19.0 [9.6,34.2]	14.0 [6.7,26.9]		15.9 [10.7,22.8]	20
Pharmacy	9.8 [3.9,22.2]	2.4 [0.3,14.6]	7.0 [2.3,19.5]		6.3 [3.3,12.0]	8
Other	0	0	2.3 [0.3,15.5]		0.8 [0.1,5.6]	1
p-value	< 0.001	< 0.001	0.001		< 0.001	
Paid for provider visit (%) **						
Syrian Refugees	75.0 [61.4,85.0]	71.4 [49.6,86.4]	66.7 [55.2,76.4]	0.673	70.6 [62.3,77.7]	72
Host Community	75.6 [58.4,87.2]	88.1 [74.8,94.9]	83.7 [71.3,91.4]	0.305	82.5 [74.5,88.4]	104
p-value	0.950	0.131	0.008		0.025	
Cost to household for care (Lebanese Pounds) **						
Syrian Refugees				0.923		
Median	6500 [3000,10034]	15000 [1398,30000]	5000 [2103,10598]		7000 [3000,10000]	
Mean	20126 [5690,34562]	17315 [10595,24034]	16878 [10128,23628]		18035 [12381,23689]	120
Host Community				0.574		
Median	50000 [21365,50000]	50000 [35000,60000]	40000 [22679,50000]		50000 [35631,50000]	
Mean	44900 [32982,56818]	53799 [39503,68096]	44846 [32717,56975]		47676 [40290,55061]	140
p-value	0.007	< 0.001	< 0.001		< 0.001	
Cost to household for care (Lebanese Pounds) ***						
Syrian Refugees	n=24	n=19	n=27	0.971	n=70	
Median	10000 [5663,26686]	20000 [15000,40000]	12000 [7000,30000]		15000 [10000,23605]	
Mean	26835 [8351,45318]	24605 [17029,32182]	25630 [15434,35825]		25765 [18039,33490]	72
Host Community	n=30	n=33	n=36	0.687	n=99	
Median	50000 [50000,73063]	50000 [50000,75000]	50000 [30000,60000]		50000 [50000,57647]	
Mean	59867 [46896,72837]	61951 [46509,77392]	53566 [40187,66945]		58270 [50153,66387]	104
p-value	0.009	< 0.001	0.005		< 0.001	
Payment for diabetes care by facility ****						
PHCC						
Syrian Refugees	n=20	n=16	n=26	0.608	n=62	
Median	8000 [3000,20000]	6500 [0,15000]	5000 [3000,10000]		6500 [3000,10000]	
Mean	23451 [1636,45266]	11719 [5005,18432]	12962 [4763,21160]		16025 [7918,24131]	62
% of households that paid for provider visit	95.0 [74.8,99.2]	68.8 [39.6,88.1]	73.1 [53.6,86.4]	0.108	79.0 [66.4,87.8]	49
Host Community	Insufficient sample size for regional comparisons				n=22	
Median					12000 [10000,15348]	
Mean					19182 [9379,28985]	22
% of households that paid for provider visit					77.3 [55.2,90.4]	17
p-value					0.622	

Private Clinic							
Syrian Refugees		Insufficient sample size for regional comparisons				n=20	
Median						30000 [20582,50000]	21
Mean						36500 [24575,48425]	
% of households that paid for provider visit						90.5 [69.5,97.5]	19
Host Community		n=23	n=26	n=23		n=72	
Median		50000 [50000,75000]	50000 [50000,75000]	50000 [46310,75000]		50000 [50000,64120]	
Mean		61435 [47777,75093]	61707 [45710,77704]	65843 [48301,83384]	0.918	62941 [53772,72110]	75
% of households that paid for provider visit		95.8 [74.6,99.4]	89.3 [72.2,96.4]	100	0.231	94.7 [86.6,98.0]	71
p-value						0.001	
Hospital							
Syrian Refugees		Insufficient sample size for regional comparisons				n=4	
Median						0 [0,10000]	
Mean						3333 [-11009,17676]	3
% of households that paid for provider visit						50.0 [12.0,88.0]	2
Host Community		Insufficient sample size for regional comparisons				n=20	
Median						37500 [5000,57076]	
Mean						45278 [21930,68626]	18
% of households that paid for provider visit						80.0 [56.4,92.5]	16
p-value						< 0.001	
Referrals							
Referred to another facility/provider for diabetes care **							
Syrian Refugees		n=32	n=28	n=42		n=102	
Referred and received referred services		6.2 [1.4,23.3]	7.1 [1.8,24.8]	11.9 [5.6,23.4]	0.307	8.8 [4.7,15.9]	9
Referred but did not receive referred services		9.4 [3.1,24.9]	0	2.4 [0.3,14.6]		3.9 [1.5,9.9]	4
Not referred for additional care		84.4 [66.9,93.5]	92.9 [75.2,98.2]	85.7 [74.7,92.4]		87.3 [79.8,92.2]	89
Host Community		n=41	n=43	n=42		n=126	
Referred and received referred services		9.8 [4.3,20.5]	16.3 [7.9,30.6]	28.6 [17.2,43.5]	0.109	18.3 [12.6,25.7]	23
Referred but did not receive referred services		4.9 [1.4,15.8]	0	0		1.6 [0.4,6.0]	2
Not referred for additional care		85.4 [72.2,92.9]	83.7 [69.4,92.1]	71.4 [56.5,82.8]		80.2 [72.6,86.0]	101
p-value		0.596	0.266	0.120		0.051	
Referred services *****							
Syrian Refugees		Insufficient sample size for regional comparisons				n=9	
Lab tests						88.9 [49.1,98.5]	8
Diagnostic tests						11.1 [1.5,50.9]	1
Specialist consultation						0	0
Curative intervention						0	0
Other						0	0
Host Community		Insufficient sample size for regional comparisons				n=23	
Lab tests						91.3 [70.3,97.9]	21
Diagnostic tests						0	0
Specialist consultation						0	0
Curative intervention						8.7 [2.1,29.7]	2
Other						0	0
p-value						0.199	
Location referred services sought/received *****							
Syrian Refugees		Insufficient sample size for regional comparisons					
Primary health care center						22.2 [5.5,58.6]	2
Private clinic (cabinet)						0	0
Hospital emergency room						11.1 [1.5,50.9]	1
Hospital						33.3 [10.9,67.2]	3
Medical center						33.3 [10.9,67.2]	3
Other						0	0
Host Community		Insufficient sample size for regional comparisons					
Primary health care center						17.4 [6.8,37.8]	4
Private clinic (cabinet)						4.3 [0.6,26.1]	1
Hospital emergency room						0	0
Hospital						47.8 [27.1,69.3]	11
Medical center						30.4 [15.3,51.4]	7
Other						0	0
p-value						0.514	

* as percent of index cases reporting diagnosis of diabetes

**** as percent of index cases of diabetes receiving care in this facility type

** as percent of index cases receiving care in Lebanon for diabetes

***** as percent of index cases of diabetes referred for additional services

*** among index cases of diabetes that paid for care

Table 24. Health Care Seeking for Chronic Respiratory Disease in Lebanon

	By Region			regional comparison p-values	Survey Total (n=303)	
	Beirut/Mt. Lebanon (n=86)	Bekaa (n=110)	North (n=107)		Point [95% CI]	N
Last time care was needed for chronic respiratory disease						
Syrian Refugees	n=62	n=81	n=77	0.329	n=220	
Less than one month ago	25.8 [18.2,35.2]	35.8 [25.2,48.1]	33.8 [24.8,44.1]		32.3 [26.5,38.6]	71
1 - 2 months ago	32.3 [22.7,43.6]	22.2 [14.1,33.1]	29.9 [20.1,41.9]		27.7 [22.0,34.3]	61
3 - 6 months ago	4.8 [1.4,15.0]	17.3 [10.8,26.4]	15.6 [8.8,26.1]		13.2 [9.1,18.7]	29
7 months - 1 year ago	4.8 [1.6,13.8]	2.5 [0.6,8.9]	3.9 [1.3,10.8]		3.6 [1.9,6.9]	8
More than 1 year ago	16.1 [8.8,27.6]	9.9 [4.8,19.2]	11.7 [6.2,20.9]		12.3 [8.5,17.4]	27
Never needed/sought care in Lebanon for condition	14.5 [7.3,26.7]	11.1 [5.9,19.9]	5.2 [2.0,13.0]	10.0 [6.5,15.0]	22	
Host Community	n=24	n=29	n=30	0.126	n=83	
Less than one month ago	20.8 [8.3,43.3]	27.6 [13.5,48.1]	26.7 [12.9,47.1]		25.3 [16.4,36.9]	21
1 - 2 months ago	29.2 [16.0,47.0]	27.6 [12.6,50.2]	36.7 [23.9,51.7]		31.3 [22.5,41.8]	26
3 - 6 months ago	33.3 [18.2,52.9]	6.9 [1.8,23.0]	13.3 [5.5,28.9]		16.9 [10.2,26.6]	14
7 months - 1 year ago	4.2 [0.7,22.1]	20.7 [9.0,40.7]	3.3 [0.5,19.0]		9.6 [4.7,18.8]	8
More than 1 year ago	4.2 [0.6,25.4]	6.9 [1.7,24.0]	16.7 [7.2,34.0]		9.6 [4.9,18.2]	8
Never needed/sought care in Lebanon for condition	0	3.4 [0.5,21.9]	3.3 [0.4,21.3]	2.4 [0.6,9.4]	2	
p-value	0.011	0.026	0.906		0.023	
Saw a doctor for chronic respiratory disease in Lebanon *						
Syrian Refugees	83.9 [72.6,91.1]	87.7 [78.9,93.1]	94.8 [87.0,98.0]	0.097	89.1 [84.1,92.6]	196
Host Community	91.7 [70.9,98.0]	89.7 [73.7,96.4]	96.7 [78.7,99.6]	0.567	92.8 [84.7,96.7]	77
p-value	0.334	0.738	0.697		0.302	
Location of most recent chronic respiratory disease care in Lebanon **						
Syrian Refugees	n=42	n=63	n=64	0.593	n=169	
Primary health care center	61.9 [46.7,75.1]	63.5 [49.7,75.4]	64.1 [50.9,75.4]		63.3 [55.3,70.6]	107
Private clinic (cabinet)	21.4 [11.0,37.7]	14.3 [8.0,24.2]	17.2 [9.4,29.4]		17.2 [12.1,23.8]	29
Hospital	7.1 [2.6,18.3]	12.7 [6.1,24.4]	4.7 [1.6,13.1]		8.3 [4.9,13.7]	14
Pharmacy	7.1 [2.4,19.3]	4.8 [1.1,19.0]	12.5 [7.1,21.2]		8.3 [4.9,13.7]	14
Other	2.4 [0.3,15.3]	4.8 [1.1,18.3]	1.6 [0.2,10.6]		3.0 [1.0,8.1]	5
Host Community	n=21	n=24	n=24	0.234	n=69	
Primary health care center	14.3 [4.6,36.4]	4.2 [0.5,25.6]	25.0 [10.8,47.9]		14.5 [7.5,26.0]	10
Private clinic (cabinet)	61.9 [43.0,77.8]	83.3 [64.8,93.1]	62.5 [40.0,80.7]		69.6 [57.9,79.1]	48
Hospital	14.3 [5.3,33.1]	12.5 [4.5,30.2]	12.5 [3.7,34.4]		13.0 [7.1,22.8]	9
Pharmacy	0	0	0		0	0
Other	9.5 [2.2,32.6]	0	0		2.9 [0.7,11.3]	2
p-value	0.003	< 0.001	0.001		< 0.001	
Paid for provider visit (%) **						
Syrian Refugees	78.6 [64.1,88.3]	73 [58.7,83.8]	68.8 [54.5,80.2]	0.585	72.8 [64.7,79.6]	123
Host Community	90.5 [70.8,97.4]	100	95.8 [76.0,99.4]	0.268	95.7 [87.5,98.6]	66
p-value	0.225	0.012	0.021		< 0.001	
Cost to household for care (Lebanese Pounds) **						
Syrian Refugees				0.456		
Median	7000 [3000,11495]	5000 [3000,10000]	5000 [3000,10000]		5000 [3000,10000]	
Mean	15000 [8654,21346]	21140 [11635,30644]	14291 [8848,19735]		17033 [12520,21545]	196
Host Community				0.748		
Median	50000 [39521,75000]	50000 [39652,65697]	50000 [38314,75000]		50000 [50000,60000]	
Mean	83845 [40144,127546]	66818 [40789,92847]	78958 [48420,109496]		76504 [56877,96131]	77
p-value	0.006	0.004	< 0.001		< 0.001	
Cost to household for care (Lebanese Pounds) ***						
Syrian Refugees	n=32	n=46	n=44	0.356		
Median	10000 [5997,20000]	11000 [7711,31446]	10000 [5130,19870]		10000 [10000,15000]	
Mean	19219 [12391,26047]	28952 [17485,40420]	20788 [13552,28023]		23455 [17922,28987]	123
Host Community	n=19	n=22	n=23	0.577		
Median	50000 [48471,82647]	50000 [39652,65697]	50000 [41310,75000]		50000 [50000,61829]	n=64
Mean	92671 [45469,139872]	66818 [40789,92847]	82391 [51682,113100]		80090 [59820,100360]	66
p-value	0.007	0.022	< 0.001		< 0.001	
Payment for chronic respiratory disease care by facility ****						
PHCC						
Syrian Refugees	n=25	n=40	n=41	0.368		
Median	6000 [3208,10000]	3000 [3000,10000]	5000 [3000,10000]		5000 [3000,7613]	
Mean	7800 [5424,10176]	14529 [5308,23750]	7488 [3707,11269]		10218 [6317,14120]	107
% of households that paid for provider visit	92.3 [77.1,97.7]	82.5 [69.7,90.6]	75.6 [55.5,88.5]	0.648	82.2 [73.0,88.8]	88
Host Community	Insufficient sample size for regional comparisons			0.037		
Median					22500 [7973,88644]	
Mean					46700 [13151,80249]	10
% of households that paid for provider visit					90.0 [57.8,98.3]	9
p-value					0.037	

Private Clinic						
Syrian Refugees		Insufficient sample size for regional comparisons			n=29	
Median	40000 [30000,50000]					
Mean	38517 [29465,47569]				29	
% of households that paid for provider visit					86.2 [67.5,95.0]	25
Host Community		Insufficient sample size for regional comparisons			n=46	
Median	50000 [50000,60723]					
Mean	65109 [50625,79593]				48	
% of households that paid for provider visit					100	48
p-value					0.005	
Hospital						
Syrian Refugees		Insufficient sample size for regional comparisons			n=14	
Median	42500 [0,79148]					
Mean	45094 [23138,67050]				14	
% of households that paid for provider visit					64.3 [36.2,85.1]	9
Host Community		Insufficient sample size for regional comparisons			n=9	
Median	150000 [36167,296111]					
Mean	178638 [82764,274513]				9	
% of households that paid for provider visit					100.0	9
p-value					0.015	
Referrals						
Referred to another facility/provider for chronic respiratory disease care **						
Syrian Refugees		n=42	n=63	n=64		n=169
Referred and received referred services	11.9 [5.0,25.7]	7.9 [3.8,16.0]	3.1 [0.8,11.2]	0.135	7.1 [4.2,11.7]	12
Referred but did not receive referred services	0	3.2 [0.8,12.0]	7.8 [3.4,16.9]		4.1 [2.0,8.4]	7
Not referred for additional care	88.1 [74.3,95.0]	88.9 [80.4,94.0]	89.1 [77.9,95.0]		88.8 [83.2,92.6]	150
Host Community		n=21	n=24	n=24		n=69
Referred and received referred services	14.3 [3.8,41.0]	8.3 [2.2,26.6]	4.2 [0.5,25.7]	0.512	8.7 [3.6,19.6]	6
Referred but did not receive referred services	0	0	0		0	0
Not referred for additional care	85.7 [59.0,96.2]	91.7 [73.4,97.8]	95.8 [74.3,99.5]		91.3 [80.4,96.4]	63
p-value		0.812	0.625	0.352	0.215	
Referred services *****						
Syrian Refugees		Insufficient sample size for regional comparisons			n=12	
Lab tests	25.0 [8.1,55.8]				3	
Diagnostic tests	33.3 [12.8,62.9]				4	
Specialist consultation	33.3 [12.8,62.9]				4	
Curative intervention	8.3 [1.1,42.2]				1	
Other	0		0			
Host Community		Insufficient sample size for regional comparisons			n=6	
Lab tests	66.7 [32.8,89.1]				4	
Diagnostic tests	16.7 [2.1,65.6]				1	
Specialist consultation	0				0	
Curative intervention	16.7 [3.2,54.4]				1	
Other	0		0			
p-value					0.234	
Location referred services sought/received *****						
Syrian Refugees		Insufficient sample size for regional comparisons				
Primary health care center	25.0 [8.1,55.8]				3	
Private clinic (cabinet)	33.3 [12.8,62.9]				4	
Hospital emergency room	16.7 [4.1,48.4]				2	
Hospital	25.0 [8.1,55.8]				3	
Medical center	0				0	
Other	0		0			
Host Community		Insufficient sample size for regional comparisons				
Primary health care center	0				0	
Private clinic (cabinet)	0				0	
Hospital emergency room	16.7 [3.2,54.4]				1	
Hospital	83.3 [45.6,96.8]				5	
Medical center	0				0	
Other	0		0			
p-value					0.103	

* as percent of index cases reporting diagnosis of chronic respiratory disease

**** as percent of index cases of chronic respiratory disease receiving care in this facility type

** as percent of index cases receiving care in Lebanon for chronic respiratory disease

***** as percent of index cases of chronic respiratory disease referred for additional services

*** among index cases of chronic respiratory disease that paid for care

Table 25. Health Care Seeking for Arthritis in Lebanon

	By Region			regional comparison p-values	Survey Total (n=410)	
	Beirut/Mt. Lebanon (n=104)	Bekaa (n=136)	North (n=170)		Point [95% CI]	N
Last time care was needed for arthritis *						
Syrian Refugees	n=72	n=99	n=121	0.053	n=292	
Less than one month ago	18.1 [9.8,30.9]	13.1 [8.5,19.7]	22.3 [15.9,30.3]		18.2 [14.1,23.0]	53
1 - 2 months ago	29.2 [19.4,41.3]	27.3 [19.9,36.1]	19.0 [12.2,28.3]		24.3 [19.6,29.8]	71
3 - 6 months ago	1.4 [0.2,9.8]	19.2 [12.8,27.8]	11.6 [6.9,18.9]		11.6 [8.3,16.2]	34
7 months - 1 year ago	8.3 [4.2,15.8]	4.0 [1.3,11.7]	9.1 [5.2,15.5]		7.2 [4.7,10.7]	21
More than 1 year ago	22.2 [13.0,35.3]	14.1 [9.0,21.6]	15.7 [10.9,22.1]		16.8 [12.9,21.5]	49
Never needed/sought care in Lebanon for condition	20.8 [12.3,33.1]	21.2 [15.2,28.8]	20.7 [14.6,28.4]	20.9 [16.8,25.7]	61	
Host Community	n=32	n=37	n=49	0.520	n=118	
Less than one month ago	15.6 [6.9,31.7]	16.2 [6.5,34.9]	12.2 [5.1,26.6]		14.4 [8.8,22.8]	17
1 - 2 months ago	18.8 [8.9,35.4]	29.7 [16.7,47.2]	34.7 [25.8,44.8]		28.8 [22.0,36.8]	34
3 - 6 months ago	25.0 [12.3,44.2]	21.6 [9.2,42.9]	8.2 [3.2,19.4]		16.9 [10.4,26.4]	20
7 months - 1 year ago	9.4 [3.1,24.9]	2.7 [0.4,17.0]	8.2 [3.1,19.8]		6.8 [3.4,13.0]	8
More than 1 year ago	31.2 [17.9,48.7]	29.7 [13.8,52.9]	36.7 [26.8,48.0]		33.1 [24.8,42.5]	39
Never needed/sought care in Lebanon for condition	0	0	0	0	0	
p-value	0.481	0.142	0.373		0.072	
Saw a doctor for arthritis in Lebanon *						
Syrian Refugees	79.2 [66.9,87.7]	77.8 [69.1,84.5]	77.7 [69.7,84.0]	0.966	78.1 [73.0,82.4]	228
Host Lebanese	100	100	100		100	118
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Location of most recent arthritis care in Lebanon						
Syrian Refugees	n=41	n=63	n=75	0.189	n=179	
Primary health care center	51.2 [34.0,68.1]	68.3 [59.5,75.9]	60.0 [49.6,69.6]		60.9 [53.9,67.5]	109
Private clinic (cabinet)	26.8 [13.1,47.0]	19.0 [11.6,29.7]	20.0 [13.7,28.3]		21.2 [15.9,27.8]	38
Hospital	2.4 [0.4,13.7]	4.8 [1.6,13.2]	4.0 [1.2,12.1]		3.9 [1.9,7.9]	7
Pharmacy	14.6 [6.0,31.5]	1.6 [0.2,10.7]	14.7 [7.2,27.5]		10.1 [5.9,16.7]	18
Other	4.9 [1.4,15.5]	6.3 [2.5,15.2]	1.3 [0.2,9.5]		3.9 [1.9,7.9]	7
Host Community	n=22	n=26	n=31	0.626	n=79	
Primary health care center	22.7 [9.7,44.7]	19.2 [8.7,37.4]	29.0 [16.7,45.5]		24.1 [16.2,34.2]	19
Private clinic (cabinet)	50.0 [29.9,70.1]	65.4 [48.6,79.0]	58.1 [40.8,73.6]		58.2 [47.6,68.2]	46
Hospital	22.7 [9.7,44.7]	11.5 [4.0,29.0]	12.9 [5.0,29.2]		15.2 [8.9,24.7]	12
Pharmacy	4.5 [0.6,27.2]	0	0		1.3 [0.2,8.8]	1
Other	0	3.8 [0.5,24.2]	0		1.3 [0.2,8.8]	1
p-value	0.018	< 0.001	0.001		< 0.001	
Paid for provider visit (%) **						
Syrian Refugees	75.6 [58.3,87.3]	71.4 [59.3,81.1]	62.7 [48.7,74.8]	0.368	68.7 [60.8,75.6]	123
Host Community	86.4 [63.9,95.8]	88.5 [68.7,96.4]	87.1 [70.8,95.0]	0.821	87.3 [77.8,93.1]	69
p-value	0.294	0.099	0.009		0.001	
Cost to household for care (Lebanese Pounds) **						
Syrian Refugees				0.884		
Median	7000 [37001,15000]	10000 [5000,15000]	5000 [3000,5000]		5000 [5000,8000]	
Mean	17244 [10546,23942]	19332 [13066,25597]	17516 [11283,23749]	18096 [14358,21833]	228	
Host Community				0.209		
Median	55000 [29652,75000]	50000 [30000,65059]	37500 [25646,50000]		50000 [30000,50000]	
Mean	84749 [29074,140423]	74770 [26199,123340]	43233 [28264,58203]	65210 [41644,88776]	118	
p-value	0.019	0.038	0.001		< 0.001	
Cost to household for care (Lebanese Pounds) ***						
Syrian Refugees	n=31	n=45	n=46	0.609	n=122	
Median	15000 [7000,30000]	15000 [10000,25000]	9000 [5000,20723]		12500 [10000,20000]	
Mean	22806 [15057,30556]	27064 [18726,35402]	28178 [20134,36222]	26402 [21635,31169]	123	
Host Community	n=19	n=21	n=27	0.162	n=67	
Median	60000 [30000,75000]	50000 [34521,75000]	40000 [30000,50000]		50000 [40000,60000]	
Mean	98130 [35630,160630]	85451 [30786,140116]	48037 [33509,62565]	73969 [48093,99846]	69	
p-value	0.020	0.050	0.006		< 0.001	
Payment for arthritis care by facility ****						
PHCC						
Syrian Refugees	n=21	n=43	n=44	0.480	n=108	
Median	7000 [4452,12548]	6000 [3000,10000]	5000 [3000,5000]		5000 [5000,7000]	
Mean	10143 [6665,13621]	15300 [7756,22844]	10895 [4276,17514]		12503 [8359,16646]	109
% of households that paid for provider visit	95.2 [71.4,99.4]	74.4 [56.3,86.8]	75.6 [59.6,86.6]	0.172	78.9 [68.7,86.4]	86
Host Community	Insufficient sample size for regional comparisons				n=18	
Median					20000 [10000,30000]	
Mean					21667 [12629,30705]	19
% of households that paid for provider visit					78.9 [55.0,92.0]	15
p-value					0.067	

Private Clinic						
Syrian Refugees		Insufficient sample size for regional comparisons			n=38	
Median	44500 [30000,50000]					
Mean	42037 [33217,50857]				38	
% of households that paid for provider visit					89.5 [75.0,96.0]	34
Host Community		Insufficient sample size for regional comparisons			n=45	
Median	50000 [50000,69163]					
Mean	74255 [47080,101430]				46	
% of households that paid for provider visit					97.8 [86.1,99.7]	45
p-value					0.029	
Hospital						
Syrian Refugees		Insufficient sample size for regional comparisons			n=7	
Median	0 [0,129755]					
Mean	39056 [-2030,80142]				7	
% of households that paid for provider visit					42.9 [14.0,77.5]	3
Host Community		Insufficient sample size for regional comparisons			n=12	
Median	30000 [0,168036]					
Mean	111316 [1255,221376]				12	
% of households that paid for provider visit					75.0 [44.2,91.9]	9
p-value					0.250	
Referrals						
Referred to another facility/provider for arthritis care **						
Syrian Refugees		n=41	n=63	n=75		n=179
Referred and received referred services	4.9 [1.2,17.6]	9.5 [4.2,20.2]	12.0 [6.8,20.4]	0.634	9.5 [6.0,14.7]	17
Referred but did not receive referred services	2.4 [0.3,15.7]	7.9 [2.9,20.0]	6.7 [2.8,15.2]		6.1 [3.3,11.3]	11
Not referred for additional care	90.2 [77.4,96.2]	82.5 [70.0,90.6]	80.0 [68.2,88.2]		83.2 [76.5,88.4]	149
Host Community		n=22	n=26	n=31		n=79
Referred and received referred services	18.2 [7.0,39.7]	15.4 [6.1,33.8]	29.0 [17.2,44.5]	0.435	21.5 [14.1,31.4]	17
Referred but did not receive referred services	4.5 [0.6,27.2]	0	0		1.3 [0.2,8.8]	1
Not referred for additional care	77.3 [55.3,90.3]	84.6 [66.2,93.9]	71.0 [55.5,82.8]		77.2 [67.2,84.9]	61
p-value		0.311	0.300	0.095	0.019	
Referred services *****						
Syrian Refugees		Insufficient sample size for regional comparisons			n=17	
Lab tests	52.9 [28.6,75.9]				9	
Diagnostic tests	29.4 [13.3,53.0]				5	
Specialist consultation	17.6 [6.1,41.4]				3	
Curative intervention	0				0	
Other	0		0			
Host Community		Insufficient sample size for regional comparisons			n=17	
Lab tests	35.3 [16.5,60.0]				6	
Diagnostic tests	41.2 [20.8,65.2]				7	
Specialist consultation	11.8 [2.9,37.4]				2	
Curative intervention	11.8 [2.9,37.4]				2	
Other	0		0			
p-value					0.386	
Location referred services sought/received *****						
Syrian Refugees		Insufficient sample size for regional comparisons				
Primary health care center	23.5 [8.8,49.6]				4	
Private clinic (cabinet)	23.5 [9.5,47.3]				4	
Hospital emergency room	0				0	
Hospital	23.5 [9.5,47.3]				4	
Medical center	29.4 [12.3,55.3]				5	
Other	0		0			
Host Community		Insufficient sample size for regional comparisons				
Primary health care center	17.6 [5.7,43.3]				3	
Private clinic (cabinet)	5.9 [0.8,32.8]				1	
Hospital emergency room	0				0	
Hospital	47.1 [25.2,70.1]				8	
Medical center	29.4 [12.6,54.6]				5	
Other	0		0			
p-value					0.352	

* as percent of index cases reporting diagnosis of arthritis

** as percent of index cases receiving care in Lebanon for arthritis

*** among index cases of arthritis that paid for care

**** as percent of index cases of arthritis receiving care in this facility type

***** as percent of index cases of arthritis referred for additional services

Table 26. Access to Medication for Chronic Conditions

	By Condition										condition comparison p-values	All NCDs (n=1,796)	
	Hypertension (n=518)		Cardiovascular Disease (n=285)		Diabetes (n=280)		Chronic Respiratory Disease (n=303)		Arthritis (n=410)			% [95% CI]	N
	% [95% CI]	N	% [95% CI]	N	% [95% CI]	N	% [95% CI]	N	% [95% CI]	N		% [95% CI]	N
Prescribed medication for chronic condition in Lebanon or in Syria *													
Syrian Refugees	n=281		n=149		n=136		n=220		n=292			n=1079	
Yes, ever prescribed medication for condition*	97.2 [94.4-98.6]	274	94.0 [88.3-97.0]	140	98.5 [94.2-99.6]	134	95.9 [91.9-98.0]	211	93.2 [89.7-95.5]	272	0.051	95.6 [93.9-96.8]	1031
Yes, in Syria	n=274		n=140		n=134		n=211		n=272			n=1031	
Yes, in Lebanon	38.8 [31.9-46.2]	109	40.3 [32.7-48.3]	60	33.1 [25.9-41.1]	45	20.5 [15.9-25.9]	45	38.0 [32.3-44.1]	111	< 0.001	34.4 [30.4-38.6]	371
Host Community	n=236		n=136		n=144		n=83		n=118			n=717	
Yes, in Lebanon	58.4 [50.9-65.4]	164	53.7 [46.2-61.0]	80	65.4 [57.4-72.7]	89	75.5 [69.6-80.5]	166	55.1 [49.5-60.7]	161	< 0.001	61.2 [57.0-65.1]	660
p-value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001			0.025	
Currently taking medication for chronic condition *													
Syrian Refugees	79.4 [74.4-83.6]	223	79.9 [71.6-86.2]	119	89.7 [83.0-93.9]	122	75.9 [69.3-81.4]	167	64.7 [58.6-70.4]	189	< 0.001	76.1 [72.3-79.5]	821
Host Community	95.8 [91.9-97.8]	226	89.7 [83.1-93.9]	122	95.1 [90.4-97.6]	137	81.9 [70.9-89.4]	68	74.6 [67.0-80.9]	88	< 0.001	89.4 [86.4-91.8]	641
p-value	< 0.001		0.083		0.080		0.296		0.118			< 0.001	
Stopped taking medication for chronic condition for >2 wks in past year													
Syrian Refugees	n=79		n=42		n=35		n=74		n=126			n=356	
Yes, stopped taking medication *	30.6 [24.9-37.0]	79	30.4 [22.2-40.2]	42	26.3 [19.5-34.6]	35	35.8 [29.5-42.6]	73	49.4 [42.3-56.6]	123	< 0.001	31.6 [27.4-36.0]	285
Stopped taking or ran out while in Syria **	12.7 [6.4-23.5]	10	14.3 [6.7-28.0]	6	11.4 [4.4-26.4]	4	5.4 [2.0-13.7]	4	4.0 [1.6-9.3]	5	0.063	8.1 [5.3-12.5]	29
Stopped or ran out in Lebanon **	87.3 [76.5-93.6]	69	85.7 [72.0-93.3]	36	88.6 [73.6-95.6]	31	94.6 [86.3-98.0]	70	96.0 [90.7-98.4]	121	< 0.001	91.9 [87.5-94.8]	327
Host Community	n=21		n=16		n=16		n=24		n=35			n=112	
Stopped or ran out in Lebanon *	9.0 [6.0-13.3]	21	12.3 [7.7-19.1]	16	11.4 [7.2-17.7]	16	30.4 [21.4-41.2]	24	33.0 [24.8-42.5]	35	< 0.001	16.3 [13.3-19.7]	112
p-value	< 0.001		0.002		0.009		0.514		0.019			< 0.001	
Reason for stopping/running out of medication **													
Syrian Refugees	n=79		n=42		n=35		n=74		n=126			n=356	
Doctor told to stop	8.9 [4.2-17.7]	7	4.8 [1.3-16.2]	2	2.9 [0.4-17.5]	1	5.4 [2.0-13.9]	4	3.2 [1.2-8.1]	4	0.053	5.1 [3.3-7.8]	18
Household could not afford the medication	70.9 [61.6-78.7]	56	81.0 [61.7-91.8]	34	74.3 [56.5-86.5]	26	59.5 [46.5-71.2]	44	74.6 [66.0-81.6]	94	< 0.001	71.3 [66.3-75.9]	254
Did not know where to get the medication	5.1 [1.9-12.7]	4	2.4 [0.3-15.7]	1	0	0	2.7 [0.7-10.4]	2	1.6 [0.4-6.2]	2	< 0.001	2.5 [1.2-5.4]	9
Medicine not available in pharmacy	1.3 [0.2-8.4]	1	7.1 [2.4-19.2]	3	5.7 [1.4-20.9]	2	2.7 [0.7-10.2]	2	0.8 [0.1-5.6]	1	< 0.001	2.5 [1.4-4.6]	9
Medicine not available in PHCC	1.3 [0.2-8.2]	1	0	0	0	0	2.7 [0.7-10.0]	2	0	0	< 0.001	0.8 [0.3-2.6]	3
Symptoms improved/felt better so I stopped	6.3 [2.8-13.8]	5	0	0	8.6 [3.0-22.2]	3	23.0 [14.8-33.9]	17	13.5 [8.6-20.4]	17	< 0.001	11.8 [8.6-16.0]	42
Too far to travel to obtain medication	1.3 [0.2-8.6]	1	2.4 [0.3-15.1]	1	2.9 [0.4-18.4]	1	0	0	0	0	< 0.001	0.8 [0.3-2.5]	3
Did not like what was available	1.3 [0.2-8.6]	1	0	0	0	0	0	0	2.4 [0.8-7.1]	3	< 0.001	1.1 [0.4-2.9]	4
Other	3.8 [1.2-11.2]	3	2.4 [0.4-14.4]	1	5.7 [1.4-20.2]	2	4.1 [1.3-11.7]	3	4.0 [1.6-9.3]	5	< 0.001	3.9 [2.2-6.8]	14
Host Community	n=21		n=16		n=16		n=24		n=35			n=112	
Doctor told to stop	4.8 [0.6-28.0]	1	0	0	25.0 [9.5-51.3]	4	33.3 [18.5-52.4]	8	20.0 [9.9-36.3]	7	0.013	17.9 [11.9-25.9]	20
Household could not afford the medication	71.4 [48.4-87.0]	15	81.2 [54.2-94.1]	13	68.8 [42.9-86.6]	11	45.8 [27.3-65.6]	11	40.0 [24.6-57.7]	14	< 0.001	57.1 [45.5-68.0]	64
Did not know where to get the medication	4.8 [0.6-28.0]	1	6.2 [0.8-34.5]	1	0	0	0	0	0	0	< 0.001	1.8 [0.5-6.8]	2
Medicine not available in pharmacy	0	0	0	0	0	0	0	0	2.9 [0.4-17.5]	1	< 0.001	0.9 [0.1-6.2]	1
Medicine not available in PHCC	0	0	0	0	0	0	0	0	0	0	< 0.001	0	0
Symptoms improved/felt better so I stopped	9.5 [2.3-31.8]	2	12.5 [3.0-39.5]	2	6.2 [0.8-34.4]	1	20.8 [9.1-41.0]	5	34.3 [21.3-50.2]	12	< 0.001	19.6 [12.8-28.9]	22
Too far to travel to obtain medication	0	0	0	0	0	0	0	0	0	0	< 0.001	0	0
Did not like what was available	9.5 [2.3-31.8]	2	0	0	0	0	0	0	2.9 [0.4-18.4]	1	< 0.001	2.7 [0.8-8.1]	3
Other	0	0	0	0	0	0	0	0	0	0	< 0.001	0	0
p-value	0.641		0.185		0.172		0.014		< 0.001			0.042	

* as percent of household index cases diagnosed with chronic condition

** as percent of household index cases who stopped taking medication for >2 weeks in past year

Table 27. Prevalence and Care Seeking for A Mental Health Condition in Lebanon

	Syrian Refugees (n=1,376) Point [95% CI]	Host Community (n=686) Point [95% CI]	population comparison p-values	Survey Total (n=2,062) Point [95% CI]	N
Households where any member(s) have mental health condition (%)	3.1 [2.3,4.1]	4.7 [3.4,6.5]	0.142	53.7 [51.3,56.0]	1107
Individuals with condition (mean) *					
Overall	1.1 [1.0,1.2]	1.0 [1.0,1.0]		1.1 [1.0,1.1]	74
By age:					
0 - 17 years	0.3 [0.1,0.4]	0.1 [-0.0,0.2]	0.041	0.2 [0.1,0.3]	74
18 - 39 years	0.6 [0.4,0.7]	0.5 [0.3,0.6]		0.5 [0.4,0.6]	74
40 - 59 years	0.2 [0.1,0.4]	0.2 [0.1,0.4]		0.2 [0.1,0.3]	74
60+ years	0.0 [-0.0,0.1]	0.2 [0.1,0.3]		0.1 [0.0,0.2]	74
Age-specific mental health condition prevalence rates					
Adult prevalence**	0.72 [0.46,0.99]	1.30 [0.81,1.80]	0.054	0.89 [0.67,1.11]	64
By age:					
0 - 17 years	0.25 [0.09,0.41]	0	0.405	0.26 [0.12,0.40]	14
18 - 39 years	0.88 [0.52,1.24]	1.27 [0.67,1.88]	0.296	1.00 [0.70,1.29]	39
40 - 59 years	1.09 [0.37,1.81]	1.10 [0.36,1.83]	0.993	1.09 [0.60,1.59]	18
60+ years	0.42 [-0.41,1.25]	1.78 [0.40,3.16]	0.102	1.21 [0.36,2.07]	7
Last time care was needed for a mental health condition*	n=42	n=32		n=74	
Less than one month ago	26.2 [16.2,39.4]	31.2 [18.1,48.4]	0.094	28.4 [19.6,39.2]	21
1 - 2 months ago	21.4 [11.7,35.9]	9.4 [3.0,26.0]		16.2 [9.4,26.6]	12
3 - 6 months ago	16.7 [8.5,30.0]	21.9 [11.5,37.7]		18.9 [12.4,27.8]	14
7 months - 1 year ago	7.1 [2.3,20.1]	9.4 [3.0,26.0]		8.1 [3.6,17.3]	6
More than 1 year ago	9.5 [3.7,22.5]	25.0 [12.6,43.6]		16.2 [8.6,28.4]	12
Never needed/sought care in Lebanon for condition	19.0 [9.4,34.8]	3.1 [0.4,18.7]		12.2 [6.3,22.3]	9
Saw a doctor for a mental health condition in Lebanon *	81.0 [65.2,90.6]	96.9 [81.3,99.6]	0.039	87.8 [77.7,93.7]	65
Location of most recent care for a mental health condition in Lebanon **	n=30	n=23		n=53	
Primary health care center	60.0 [39.4,77.6]	17.4 [6.4,39.2]	< 0.001	41.5 [27.5,57.0]	22
Private clinic (cabinet)	16.7 [7.0,34.7]	82.6 [60.8,93.6]		45.3 [31.8,59.5]	24
Hospital	6.7 [1.6,23.9]	0		3.8 [0.9,14.4]	2
Other	16.7 [6.3,37.3]	0		9.4 [3.5,23.0]	5
Mental Health Services Received **					
Psychologist or psychiatrist **	73.5 [57.6,85.0]	64.5 [45.6,79.8]	0.380	69.2 [55.9,80.0]	45
Social worker **	14.7 [6.5,29.8]	0	0.015	7.7 [3.3,17.1]	5
Group sessions **	2.9 [0.4,18.9]	9.7 [3.1,26.6]	0.272	93.8 [84.4,97.7]	61
Other **	11.8 [4.6,27.1]	9.7 [3.1,26.6]	0.789	89.2 [79.2,94.7]	58
Mean Number of Different Mental Health Services Received **					
Median	1 [1,1]	1 [1,1]		1 [1,1]	
Mean	1.2 [1.0,1.3]	1.1 [1.0,1.3]	0.711	1.2 [1.1,1.2]	53
Paid for provider visit (%) **	33.3 [18.8,52.0]	95.7 [73.9,99.4]	< 0.001	60.4 [46.2,73.0]	32
Cost to household for visit (Lebanese Pounds) **					
Median	0 [0,4354]	50000 [36310,75000]		12000 [0,35000]	
Mean	9700 [864,18537]	53130 [42819,63442]	< 0.001	28547 [19378,37716]	65
Cost to household for visit (Lebanese Pounds) ***	n=10	n=22		n=32	
Median	Insufficient sample size for population comparisons			50000 [29983-60000]	
Mean				47282 [36753,57810]	32

Payment for mental health care visit by facility ****				
Public Facilities	n=18	n=4		n=22
Median	Insufficient sample size for population comparisons			0 [0,10139]
Mean				13319 [1517,25120] 22
% of households that paid for provider visit				45.5 [27.2,65.0] 10
Private Facilities	n=5	n=19		n=24
Median	Insufficient sample size for population comparisons			50000 [33314,75000]
Mean				50417 [40135,60699] 24
% of households that paid for provider visit				87.5 [68.0,95.9] 21
Other Facility Types	n=7	n=0		n=7
Median	Insufficient sample size for population comparisons			0 [0,6857]
Mean				1429 [-1272,4129] 7
% of households that paid for provider visit				14.3 [1.8,60.2] 1
Referrals				
Referred to another facility/provider for care for a mental health condition **	n=30	n=23		n=53
Referred and received referred services	6.7 [1.6,23.9]	4.3 [0.6,26.1]		5.7 [1.8,16.7] 3
Referred but did not receive referred services	6.7 [1.6,23.9]	0	0.165	3.8 [0.9,14.4] 2
Not referred for additional care	86.7 [68.3,95.1]	95.7 [73.9,99.4]		90.6 [78.5,96.2] 48
Location referred services sought/received *****	n=2	n=1		n=3
Primary health care center	Insufficient sample size for population comparisons			66.7 [14.8,95.8] 2
Private clinic (cabinet)				0 0
Hospital emergency room				33.3 [4.2,85.2] 1
Medication				
Prescribed medication for mental health condition in Lebanon or in Syria *	n=42	n=32		n=74
Yes, ever prescribed medication for mental health condition*	76.2 [62.6,86.0]	84.4 [67.6,93.3]	0.058	79.7 [69.8,87.0] 59
Yes, in Syria	19.0 [9.6,34.3]	---	0.015	10.8 [5.4,20.5] 8
Yes, in Lebanon	57.1 [41.9,71.2]	84.4 [67.6,93.3]		68.9 [57.9,78.1] 51
Currently taking medication for mental health condition *	66.7 [52.4,78.4]	65.6 [46.0,81.1]	0.931	66.2 [55.4,75.6] 49
Stopped taking medication for a mental health condition for >2 wks in past year				
Yes, stopped taking medication *	23.3 [11.5,41.6]	42.3 [25.1,61.6]	0.149	32.1 [21.6,44.9] 18
Stopped taking or ran out while in Syria *****	n=7	n=11		n=18
Stopped or ran out in Lebanon *****	Insufficient sample size for population comparisons			0 0
				100 18
Reason for stopping/running out of medication *****	n=7	n=11		n=18
Doctor told to stop	Insufficient sample size for population comparisons			33.3 [15.6,57.5] 6
Household could not afford the medication				44.4 [23.7,67.3] 8
Symptoms improved/felt better so I stopped				11.1 [2.7,35.8] 2
Too far to travel to obtain medication				5.6 [0.7,31.4] 1
Other				5.6 [0.7,31.4] 1

* as percent of index cases reporting diagnosis of a mental health condition

** as percent of index cases receiving care in Lebanon for a mental health condition

*** among index cases of a mental health condition that paid for care

Table 28. Children's Healthcare Needs in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,522)	
	Beirut/Mt. Lebanon (n=424) % [95% CI]	Bekaa (n=522) % [95% CI]	North (n=576) % [95% CI]		% [95% CI]	N
Most Recent Reason for Needing Health Services for a Child in the Household (while in Lebanon) *						
<i>Syrian Refugees</i>	n=314	n=391	n=418	0.520	n=1123	
Fever	7.3 [4.5,11.7]	8.4 [6.2,11.4]	8.4 [6.0,11.6]		8.1 [6.6,10.0]	91
Diarrhea	5.1 [2.9,8.9]	6.6 [4.4,10.0]	3.3 [2.1,5.2]		5.0 [3.8,6.6]	56
Respiratory problem	62.4 [56.2,68.3]	58.3 [53.8,62.7]	62.7 [57.8,67.3]		61.0 [58.0,63.9]	684
Asthma	2.9 [1.5,5.3]	4.1 [2.6,6.3]	2.9 [1.5,5.5]		3.3 [2.4,4.6]	37
Injury	3.5 [2.0,5.9]	3.6 [2.2,5.8]	3.8 [2.4,6.1]		3.7 [2.7,4.9]	41
Dental care	2.9 [1.5,5.3]	3.6 [2.3,5.6]	1.4 [0.5,3.8]		2.6 [1.8,3.7]	29
Behavioral/emotional problem	0.6 [0.2,2.5]	1.3 [0.5,3.4]	0.5 [0.1,1.9]		0.8 [0.4,1.6]	9
Eye problem	1.3 [0.5,3.2]	1.8 [0.8,3.9]	1.4 [0.7,3.0]		1.5 [0.9,2.4]	17
Ear problem	3.5 [1.9,6.5]	2.0 [1.0,4.2]	4.1 [2.7,6.2]		3.2 [2.3,4.4]	36
Skin problem	3.8 [2.2,6.5]	2.3 [1.0,5.1]	5.5 [3.9,7.7]		3.9 [2.9,5.3]	44
Worms	0.3 [0.0,2.2]	0.3 [0.0,1.8]	0.2 [0.0,1.7]		0.3 [0.1,0.8]	3
Other	6.4 [4.4,9.1]	7.7 [5.0,11.5]	5.7 [3.8,8.6]		6.6 [5.2,8.4]	74
<i>Host Community</i>	n=96	n=108	n=150	0.240	n=354	
Fever	10.4 [5.8,18.1]	9.3 [5.1,16.3]	4.7 [2.0,10.6]		7.6 [5.2,11.1]	27
Diarrhea	9.4 [5.3,16.0]	6.5 [3.5,11.8]	9.3 [5.7,14.9]		8.5 [6.2,11.6]	30
Respiratory problem	54.2 [45.5,62.6]	58.3 [50.5,65.7]	66 [58.8,72.6]		60.5 [55.9,64.9]	214
Asthma	3.1 [1.1,8.7]	0.9 [0.1,6.5]	0		1.1 [0.4,3.0]	4
Injury	2.1 [0.5,8.1]	7.4 [3.5,14.8]	2.7 [0.8,8.2]		4.0 [2.2,7.0]	14
Dental care	4.2 [1.3,12.2]	2.8 [0.9,7.9]	5.3 [2.8,9.8]		4.2 [2.6,6.9]	15
Behavioral/emotional problem	0	0	0.7 [0.1,4.5]		0.3 [0.0,2.0]	1
Eye problem	2.1 [0.5,7.7]	0.9 [0.1,6.3]	2.7 [1.0,6.6]		2.0 [1.0,4.0]	7
Ear problem	7.3 [3.6,14.1]	3.7 [1.4,9.5]	1.3 [0.3,5.0]		3.7 [2.2,6.2]	13
Skin problem	1.0 [0.1,6.9]	1.9 [0.5,7.1]	3.3 [1.4,7.5]		2.3 [1.1,4.4]	8
Worms	0	0	0	0	0	
Other	6.2 [3.1,12.3]	8.3 [4.3,15.7]	4.0 [1.9,8.2]	5.9 [3.9,8.9]	21	
p-value	0.433	0.640	0.015		0.094	

* as percent of household index cases reporting that care was needed

Table 29. Health Care Seeking for Children in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,522)	
	Beirut/Mt. Lebanon (n=424) % [95% CI]	Bekaa (n=522) % [95% CI]	North (n=576) % [95% CI]		% [95% CI]	N
Last time care was needed *						
<i>Syrian Refugees</i>	n=322	n=401	n=421	0.138	n=1144	
Less than 2 weeks ago	42.9 [36.3,49.6]	43.1 [37.3,49.2]	49.6 [43.8,55.5]		45.5 [41.9,49.1]	520
2 weeks to less than 1 month ago	26.4 [21.7,31.7]	30.2 [24.8,36.1]	31.1 [26.1,36.7]		29.5 [26.4,32.7]	337
1 month to less than 3 months ago	20.5 [15.8,26.1]	18.2 [14.1,23.2]	14.0 [11.0,17.7]		17.3 [14.9,20.0]	198
3 months to less than 6 months ago	5.3 [2.9,9.5]	4.5 [3.0,6.7]	3.6 [2.2,5.8]		4.4 [3.3,5.8]	50
6 months to less than 1 year ago	2.5 [1.4,4.5]	1.5 [0.7,3.1]	1.0 [0.4,2.4]		1.6 [1.0,2.4]	18
More than 1 year ago	2.5 [1.0,6.2]	2.5 [1.4,4.6]	0.7 [0.2,2.1]		1.8 [1.1,3.0]	21
<i>Host Community</i>	n=102	n=121	n=155	0.087	n=378	
Less than 2 weeks ago	31.4 [22.1,42.4]	32.2 [24.0,41.7]	40.0 [31.6,49.0]		35.2 [29.9,40.8]	133
2 weeks to less than 1 month ago	33.3 [24.5,43.5]	28.1 [21.6,35.7]	36.1 [29.6,43.2]		32.8 [28.5,37.5]	124
1 month to less than 3 months ago	24.5 [14.4,38.5]	18.2 [13.3,24.3]	17.4 [12.3,24.1]		19.6 [15.4,24.5]	74
3 months to less than 6 months ago	2.9 [0.9,8.9]	7.4 [4.4,12.3]	3.2 [1.2,8.6]		4.5 [2.8,7.1]	17
6 months to less than 1 year ago	2.0 [0.5,7.4]	3.3 [1.0,10.4]	0		1.6 [0.6,4.0]	6
More than 1 year ago	5.9 [2.5,13.5]	10.7 [6.2,18.1]	3.2 [1.2,8.5]		6.3 [4.1,9.7]	24
p-value	0.119	0.002	0.094		< 0.001	
Received attention last time care was needed *						
<i>Syrian Refugees</i>	n=314	n=391	n=418	0.412	n=1123	
Yes, sought and received care	74.5 [64.9,82.2]	68.3 [62.1,73.9]	79.4 [74.0,84.0]		74.2 [70.2,77.8]	833
Did not seek care	8.6 [5.0,14.4]	8.7 [5.6,13.2]	4.5 [2.9,7.1]		7.1 [5.4,9.4]	80
Sought, but did not receive care	16.6 [11.2,23.8]	23 [18.2,28.7]	16.0 [12.5,20.4]		18.6 [15.8,21.8]	209
<i>Host Community</i>	n=96	n=108	n=150	0.616	n=354	
Yes, sought and received care	89.6 [80.1,94.8]	90.7 [83.1,95.1]	87.3 [80.8,91.9]		89.0 [84.9,92.0]	315
Did not seek care	6.2 [3.0,12.7]	7.4 [3.5,15.2]	10.7 [6.8,16.4]		8.5 [5.9,11.9]	30
Sought, but did not receive care	4.2 [1.3,12.2]	1.9 [0.5,7.0]	2 [0.5,8.3]		2.5 [1.2,5.4]	9
p-value	0.042	< 0.001	0.132		< 0.001	
Location of most recent care in Lebanon **						
<i>Syrian Refugees</i>	n=234	n=267	n=332	0.086	n=833	
Primary health care center	46.2 [39.9,52.5]	58.1 [50.0,65.7]	53.0 [44.9,61.0]		52.7 [48.1,57.2]	439
Private clinic (cabinet)	20.1 [14.4,27.3]	18.0 [13.7,23.2]	16.0 [12.0,21.0]		17.8 [15.0,21.0]	148
Hospital	5.1 [3.0,8.7]	6.4 [4.0,10.0]	5.4 [3.1,9.3]		5.6 [4.1,7.6]	47
Pharmacy	28.2 [21.0,36.7]	16.5 [11.7,22.7]	22.6 [17.3,28.9]		22.2 [18.7,26.2]	185
Other	0.4 [0.1,3.0]	1.1 [0.4,3.3]	3.0 [1.1,7.8]		1.7 [0.8,3.6]	14
<i>Host Community</i>	n=86	n=98	n=131	0.452	n=315	
Primary health care center	17.4 [10.6,27.4]	22.4 [14.4,33.3]	27.5 [19.1,37.8]		23.2 [18.1,29.1]	73
Private clinic (cabinet)	54.7 [43.8,65.1]	44.9 [35.3,54.9]	45.0 [36.1,54.3]		47.6 [41.8,53.5]	150
Hospital	14.0 [8.0,23.1]	17.3 [10.6,27.2]	8.4 [4.8,14.3]		12.7 [9.3,17.1]	40
Pharmacy	11.6 [6.2,20.7]	14.3 [8.3,23.6]	17.6 [12.0,25.0]		14.9 [11.3,19.5]	47
Other	2.3 [0.6,9.0]	1.0 [0.1,7.3]	1.5 [0.2,10.2]		1.6 [0.6,4.5]	5
p-value	< 0.001	< 0.001	< 0.001		< 0.001	
Reason for deciding not to seek care ***						
<i>Syrian Refugees</i>	n=27	n=34	n=19	0.661	n=80	
Could not afford provider costs	96.3 [76.0,99.5]	94.1 [78.5,98.6]	100		96.2 [88.6,98.8]	77
No transportation/difficult to access	0	0	0		0	0
Could not afford transportation costs	0	0	0		0	0
Provider's equipment or drugs are inadequate	0	0	0		0	0
Disliked provider/staff attitudes on previous visit(s)	0	0	0		0	0
Disliked long wait time on previous visit(s)	0	2.9 [0.4,18.5]	0		1.2 [0.2,8.6]	1
Could not take time off work/other commitments	0	0	0		0	0
Did not know where to go	0	2.9 [0.4,19.4]	0		1.2 [0.2,8.8]	1
Family decided care should not be sought	0	0	0		0	0
Security	0	0	0		0	0
Appointment scheduled/still waiting	3.7 [0.5,24.0]	0	0		1.2 [0.2,8.8]	1
Other	0	0	0		0	0

Host Community				n=9	
Could not afford provider costs				77.8 [44.7,93.8]	7
No transportation/difficult to access				11.1 [1.4,52.4]	1
Could not afford transportation costs				0	0
Provider's equipment or drugs are inadequate				0	0
Disliked provider/staff attitudes on previous visit(s)				0	0
Disliked long wait time on previous visit(s)				0	0
Could not take time off work/other commitments				0	0
Did not know where to go				0	0
Family decided care should not be sought				11.1 [1.8,45.5]	1
Security				0	0
Appointment scheduled/still waiting				0	0
Other				0	0
	p-value				0.003

* as percent of household index cases reporting that care was needed

** as percent of household index cases that received care the last time it was needed

*** as percent of household index cases that did not seek care the last time it was needed

Table 30. Access to Medical Care for Children's Health in Lebanon

	By Region			regional comparison p-values	By Facility Type				facility comparison p-values	Survey Total (n=1,522)		
	Beirut/Mt. Lebanon (n=424)	Bekaa (n=522)	North (n=576)		PHCC (n=512)	Private Clinic (n=298)	Pharmacy (n=232)	Hospital (n=87)		Point [95% CI]	Point [95% CI]	N
	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	Point [95% CI]	Point [95% CI]	Point [95% CI]		Point [95% CI]	Point [95% CI]	N
Received attention last time care was needed *												
<i>Syrian Refugees</i>	n=213 75.0 [65.4,82.6]	n=391 68.3 [62.1,73.9]	n=418 79.4 [74.0,84.0]	0.398	---	---	---	---	---	n=1121 74.3 [70.3,77.9]	833	
<i>Host Community</i>	n=96 89.6 [80.1,94.8]	n=108 90.7 [83.1,95.1]	n=150 87.3 [80.8,91.9]	0.616	---	---	---	---	---	n=354 89.0 [84.9,92.0]	315	
p-value	0.559	0.113	0.400		---	---	---	---	---	0.067		
Reason for most recent careseeking **												
<i>Syrian Refugees</i>	n=234	n=267	n=332		n=439	n=148	n=185	n=47		n=833		
Fever	7.7 [4.3,13.5]	8.2 [5.5,12.2]	8.4 [5.6,12.6]		6.4 [4.3,9.4]	13.5 [9.0,19.7]	7.0 [3.9,12.4]	10.6 [4.6,22.8]		8.2 [6.3,10.6]	68	
Diarrhea	5.1 [3.0,8.7]	7.9 [5.0,12.1]	3.6 [2.2,6.0]		6.2 [4.2,8.9]	6.1 [3.2,11.1]	2.7 [1.1,6.3]	4.3 [1.1,15.2]		5.4 [4.0,7.2]	45	
Respiratory problem	57.7 [49.7,65.3]	55.8 [50.1,61.4]	60.8 [54.3,67.0]		59.7 [54.5,64.7]	42.6 [34.8,50.8]	76.8 [69.7,82.6]	23.4 [12.8,38.9]		58.3 [54.4,62.2]	486	
Asthma	3.4 [1.8,6.3]	4.5 [2.6,7.5]	2.7 [1.2,5.9]		4.1 [2.5,6.6]	5.4 [2.8,10.3]	0.5 [0.1,3.9]	4.3 [1.1,15.6]		3.5 [2.4,5.0]	29	
Injury	4.3 [2.4,7.4]	4.1 [2.2,7.5]	3.9 [2.2,7.0]		2.5 [1.4,4.4]	4.1 [1.9,8.5]	2.2 [0.8,5.5]	27.7 [16.2,43.1]		4.1 [2.9,5.7]	34	
Dental care	3.0 [1.4,6.4]	3.0 [1.5,6.0]	1.8 [0.7,4.8]		3.2 [1.8,5.6]	3.4 [1.4,7.8]	1.1 [0.3,4.1]	0		2.5 [1.6,4.0]	21	
Behavioral/emotional problem	0.9 [0.2,3.4]	1.1 [0.4,3.3]	0.3 [0.0,2.1]	0.792	0.5 [0.1,1.8]	2.0 [0.7,6.1]	0	2.1 [0.3,14.2]		0.7 [0.3,1.6]	6	
Eye problem	1.3 [0.4,3.8]	1.9 [0.8,4.2]	1.2 [0.5,3.1]		1.6 [0.8,3.3]	1.4 [0.3,5.4]	1.1 [0.3,4.3]	2.1 [0.3,13.1]		1.4 [0.8,2.5]	12	
Ear problem	4.7 [2.4,8.9]	3.0 [1.4,6.2]	4.5 [2.9,6.9]		4.6 [2.9,7.0]	6.1 [2.8,12.8]	2.7 [1.1,6.5]	0		4.1 [2.9,5.7]	34	
Skin problem	4.7 [2.7,8.1]	2.2 [0.8,6.0]	6.0 [4.3,8.3]		4.6 [2.8,7.3]	6.1 [3.3,10.9]	4.3 [2.2,8.2]	0		4.4 [3.3,6.0]	37	
Worms	0.4 [0.1,3.1]	0.4 [0.1,2.6]	0.3 [0.0,2.1]		0.2 [0.0,1.7]	0	0.5 [0.1,3.8]	2.1 [0.3,13.7]		0.4 [0.1,1.1]	3	
Other	6.8 [4.7,9.9]	7.9 [5.1,11.9]	6.3 [3.9,10.1]		6.6 [4.7,9.2]	9.5 [5.7,15.3]	1.1 [0.3,4.2]	23.4 [12.8,38.8]		7.0 [5.4,8.9]	58	
<i>Host Community</i>	n=86	n=98	n=131		n=73	n=150	n=47	n=40		n=315		
Fever	10.5 [5.4,19.3]	8.2 [4.1,15.7]	4.6 [1.7,11.7]		4.1 [1.3,12.5]	10.7 [6.6,16.9]	8.5 [3.2,20.5]	0		7.3 [4.7,11.1]	23	
Diarrhea	10.5 [6.0,17.7]	7.1 [3.9,12.8]	9.2 [5.2,15.7]		8.2 [3.7,17.3]	8.7 [5.0,14.6]	8.5 [3.2,20.5]	12.5 [5.4,26.4]		8.9 [6.4,12.3]	28	
Respiratory problem	52.3 [42.8,61.6]	58.2 [49.1,66.7]	66.4 [58.3,73.6]		71.2 [59.2,80.9]	53.3 [45.7,60.8]	78.7 [65.1,88.0]	40.0 [26.6,55.1]		60.0 [54.8,65.0]	189	
Asthma	3.5 [1.2,9.5]	1.0 [0.1,7.2]	0		0	2.0 [0.7,5.9]	2.5 [0.3,16.3]	0		1.3 [0.5,3.3]	4	
Injury	2.3 [0.6,9.0]	7.1 [3.1,15.4]	3.1 [0.9,9.5]		2.7 [0.7,10.5]	2.0 [0.6,6.2]	0	20.0 [9.5,37.3]		4.1 [2.2,7.5]	13	
Dental care	4.7 [1.5,13.3]	3.1 [1.0,8.6]	6.1 [3.3,11.0]	0.475	1.4 [0.2,9.0]	9.3 [5.7,14.9]	0	0		4.8 [2.9,7.7]	15	
Behavioral/emotional problem	0	0	0.8 [0.1,5.3]		0	0.7 [0.1,4.7]	0	0		0.3 [0.0,2.3]	1	
Eye problem	2.3 [0.6,8.6]	1.0 [0.1,6.9]	1.5 [0.4,5.8]		2.7 [0.7,10.3]	2.0 [0.6,6.0]	0	0		1.6 [0.7,3.7]	5	
Ear problem	5.8 [2.6,12.6]	4.1 [1.5,10.6]	1.5 [0.4,5.7]		4.1 [1.3,12.3]	4.7 [2.3,9.3]	0	2.5 [0.4,15.6]		3.5 [2.0,6.1]	11	
Skin problem	1.2 [0.2,7.6]	2.0 [0.5,7.9]	3.1 [1.2,7.6]		1.4 [0.2,8.6]	0.7 [0.1,4.7]	4.3 [1.0,16.1]	5 [1.2,18.5]		2.2 [1.1,4.5]	7	
Worms	0	0	0		0	0	0	0		0	0	
Other	7.0 [3.4,13.8]	8.2 [3.9,16.3]	3.8 [1.7,8.4]		4.1 [1.3,12.1]	6.0 [3.2,11.0]	0	17.5 [7.9,34.3]		6.0 [3.9,9.3]	19	
p-value	0.562	0.858	0.045		0.585	0.035	0.615	0.138		0.100		
Reason for selecting provider **												
<i>Syrian Refugees</i>												
Free consultation services	26.5 [20.4,33.6]	25.5 [20.0,31.8]	23.2 [18.5,28.6]		13.7 [10.2,18.1]	3.4 [1.5,7.6]	70.3 [62.1,77.3]	2.1 [0.3,14.2]		24.8 [21.6,28.4]	207	
Low cost consultation services	44.4 [37.9,51.2]	46.4 [39.6,53.4]	48.8 [41.5,56.2]		76.3 [71.3,80.7]	18.9 [13.2,26.3]	9.7 [6.1,15.1]	19.1 [9.5,34.8]		46.8 [42.7,51.0]	390	
Closest to place of residence	12.4 [8.7,17.3]	8.6 [5.8,12.6]	11.7 [8.6,15.9]		5.9 [4.1,8.4]	21.6 [15.7,28.9]	11.9 [8.3,16.7]	23.4 [12.3,40.0]		10.9 [8.9,13.3]	91	
No other facility nearby	2.1 [0.8,5.4]	2.6 [1.4,5.0]	2.4 [1.2,4.9]		1.4 [0.6,2.9]	6.8 [3.6,12.3]	2.2 [0.8,5.7]	0		2.4 [1.5,3.7]	20	
Like staff/quality/family doctor	3.0 [1.3,6.7]	5.6 [3.4,9.3]	5.1 [3.1,8.3]		1.1 [0.5,2.7]	20.3 [14.2,28.0]	1.6 [0.5,4.9]	0		4.7 [3.4,6.5]	39	
Free or reduced cost medications provided	0	0.4 [0.1,2.7]	0	0.771	0.2 [0.0,1.7]	0	0	0		0.1 [0.0,0.9]	1	
Free or reduced cost diagnostic tests provided	0	0	0.3 [0.0,2.1]		0	0	0.5 [0.1,3.9]	0		0.1 [0.0,0.9]	1	
Availability of needed services	3.8 [2.1,7.1]	3.4 [1.8,6.2]	2.4 [1.3,4.4]		0.5 [0.1,1.8]	15.5 [10.6,22.3]	0.5 [0.1,3.9]	0		3.1 [2.2,4.5]	26	
Medical emergency	7.3 [3.7,13.7]	7.1 [4.1,10.3]	3.6 [2.1,6.2]		0.7 [0.2,2.1]	11.5 [6.5,19.5]	1.1 [0.3,4.4]	51.1 [34.7,67.2]		5.8 [4.2,7.9]	48	
Short waiting time	0	0.4 [0.1,2.6]	0.6 [0.2,2.4]		0	2 [0.7,6.1]	0	0		0.4 [0.1,1.1]	3	
Other	0.4 [0.1,3.0]	0	1.8 [0.7,4.3]		0.2 [0.0,1.6]	0	2.2 [0.8,5.6]	4.3 [0.6,25.3]		0.8 [0.4,1.9]	7	

Host Community											
Free consultation services	7.0 [3.5,13.4]	12.2 [6.9,20.8]	13.7 [8.8,20.7]		6.8 [2.9,15.3]	1.3 [0.3,5.3]	59.6 [45.6,72.2]	0		11.4 [8.4,15.4]	36
Low cost consultation services	16.3 [10.1,25.2]	22.4 [14.7,32.6]	27.5 [20.2,36.2]		71.2 [60.8,79.8]	8.7 [5.0,14.7]	6.4 [1.5,22.9]	10.0 [3.8,24.0]		22.9 [18.3,28.2]	72
Closest to place of residence	20.9 [14.5,29.2]	20.4 [13.9,28.9]	10.7 [7.3,15.3]		16.4 [10.1,25.7]	10.7 [6.6,16.7]	19.1 [10.6,32.1]	37.5 [24.3,52.8]		16.5 [13.2,20.5]	52
No other facility nearby	1.2 [0.2,7.6]	1.0 [0.1,6.7]	0.8 [0.1,5.4]		0	0.7 [0.1,4.7]	2.1 [0.3,14.2]	2.5 [0.3,16.3]		1.0 [0.3,2.9]	3
Like staff/quality/family doctor	41.9 [30.7,53.9]	27.6 [18.2,39.4]	29.8 [20.7,40.8]		2.7 [0.7,10.5]	60.0 [50.4,68.9]	2.1 [0.3,14.2]	15.0 [7.0,29.4]		32.4 [26.3,39.2]	102
Free or reduced cost medications provided	0	0	0	0.208	0	0	0	0	< 0.001	0	0
Free or reduced cost diagnostic tests provided	0	0	0		0	0	0	0		0	0
Availability of needed services	5.8 [2.2,14.6]	6.1 [2.7,13.4]	11.5 [6.5,19.4]		0	14.7 [9.2,22.6]	0	10.0 [3.8,24.0]		8.3 [5.4,12.4]	26
Medical emergency	4.7 [1.8,11.3]	8.2 [4.5,14.3]	3.1 [1.2,7.7]		1.4 [0.2,9.3]	2.7 [1.0,6.7]	2.1 [0.3,13.7]	25.0 [13.6,41.3]		5.1 [3.2,7.9]	16
Short waiting time	0	1.0 [0.1,6.9]	1.5 [0.4,5.7]		0	1.3 [0.3,5.2]	2.1 [0.3,14.2]	0		1.0 [0.3,2.9]	3
Other	2.3 [0.6,8.8]	1.0 [0.1,6.9]	1.5 [0.4,5.9]		1.4 [0.2,9.5]	0	6.4 [2.2,17.4]	0		1.6 [0.7,3.8]	5
p-value	< 0.001	< 0.001	< 0.001		0.015	< 0.001	0.386	0.010		< 0.001	
Paid for provider visit **											
Syrian Refugees	64.5 [55.8,72.4]	68.2 [62.1,73.7]	65.4 [58.4,71.7]	0.751	84.3 [79.3,88.2]	94.6 [89.7,97.2]	---	80.9 [67.9,89.4]	0.004	66.0 [61.9,69.9]	550
Host Community	79.1 [66.5,87.8]	76.5 [66.4,84.4]	73.3 [66.9,78.8]	0.807	84.9 [76.0,90.9]	92.0 [86.3,95.5]	---	92.5 [78.5,97.6]	0.502	75.9 [70.8,80.3]	239
p-value	0.052	0.082	0.045		0.044	0.429	---	0.119		< 0.001	
Cost to household for visit (Lebanese Pounds) **											
Syrian Refugees											
Median	6000 [3000,10000]	5000 [3000,8000]	4500 [3000,5000]		5000 [5000,6000]	30000 [30000,35000]	---	32500 [1292,75771]		5000 [3000,5000]	
Mean	19457 [13664,25249]	22479 [16489,28469]	13794 [9923,17665]	0.075	12583 [9831,15335]	36888 [31604,42172]	---	87524 [63383,111664]	< 0.001	18151 [15077,21226]	833
Host Community											
Median	35000 [25000,50000]	30000 [20000,48367]	15000 [10000,25000]		10000 [10000,15000]	40000 [35000,49756]	---	72500 [50000,100000]		30000 [20000,30000]	
Mean	43767 [31731,55802]	47589 [33405,61774]	29234 [22580,35888]	0.022	15465 [12430,18499]	40933 [35804,46063]	---	123729 [93470,153987]	< 0.001	38931 [32550,45311]	315
p-value	0.001	0.003	< 0.001		0.162	0.268	---	0.063		< 0.001	
Cost to household for visit (Lebanese Pounds) ***											
Syrian Refugees											
Median	n=150 15000 [12000,20000]	n=179 13000 [10000,15536]	n=217 10000 [10000,10000]		n=368 7000 [5000,10000]	n=139 30000 [30000,35000]	---	n=38 100000 [54175,145825]		n=546 10000 [10000,15000]	
Mean	30223 [22441,38005]	33153 [24923,41383]	21104 [15248,26960]	0.044	14942 [11744,18140]	39011 [33381,44642]	---	108813 [83376,134251]	< 0.001	27559 [23179,31939]	550
Host Community											
Median	n=67 50000 [40000,50000]	n=75 50000 [37933,50000]	n=95 30000 [20000,37888]		n=61 13000 [10000,15000]	n=138 40000 [40000,50000]	---	n=37 100000 [60000,148855]		n=237 40000 [30000,45000]	
Mean	55525 [43205,67845]	61549 [44512,78586]	39696 [30302,49091]	0.030	18000 [14756,21244]	44196 [39006,49387]	---	134039 [103742,164336]	< 0.001	51086 [43385,58788]	239
p-value	0.002	0.008	0.002		0.176	0.163	---	0.209		< 0.001	

* as percent of household index cases that reported needing care in Lebanon

** among household index cases that received care in Lebanon

*** among household index cases that paid for visit in Lebanon

Table 31. Referrals for Child Health Care in Lebanon

	By Region			regional comparison p-values	Survey Total (n=1,148)	
	Beirut/Mt. Lebanon (n=320) % [95% CI]	Bekaa (n=365) % [95% CI]	North (n=463) % [95% CI]		% [95% CI]	N
Referred to another facility during most recent careseeking in Lebanon *						
<i>Syrian Refugees</i>	n=234	n=267	n=332	0.797	n=833	
Referred and received referred services	6.8 [4.2,11.0]	6.7 [3.8,11.6]	6.6 [4.2,10.2]		6.7 [5.0,8.9]	56
Referred but did not receive referred services	2.1 [1.0,4.4]	3.7 [1.7,7.9]	4.2 [2.5,7.1]		3.5 [2.4,5.1]	29
Not referred for additional care	91.0 [87.0,93.9]	89.5 [83.8,93.4]	89.2 [84.4,92.6]		89.8 [87.1,92.0]	748
<i>Host Community</i>	n=86	n=98	n=131	0.858	n=315	
Referred and received referred services	8.1 [3.1,19.5]	7.1 [3.6,13.7]	6.1 [2.9,12.4]		7.0 [4.4,10.9]	22
Referred but did not receive referred services	0	0	0.8 [0.1,5.1]		0.3 [0.0,2.2]	1
Not referred for additional care	91.9 [80.5,96.9]	92.9 [86.3,96.4]	93.1 [86.9,96.5]		92.7 [88.8,95.3]	292
p-value	0.437	0.170	0.171		0.019	
Referred services **						
<i>Syrian Refugees</i>	n=16	n=18	n=22	0.636	n=56	
Lab tests	43.8 [17.1,74.6]	44.4 [22.5,68.8]	50 [28.4,71.6]		46.4 [32.0,61.4]	26
Diagnostic tests	12.5 [2.9,40.8]	22.2 [8.1,47.9]	18.2 [8.6,34.4]		17.9 [10.0,29.9]	10
Specialist consultation	31.2 [12.8,58.4]	22.2 [8.4,47.0]	4.5 [0.6,27.5]		17.9 [9.7,30.7]	10
Curative intervention	12.5 [3.2,38.3]	11.1 [2.5,37.9]	22.7 [9.5,45.1]		16.1 [8.2,29.2]	9
Other	0	0	4.5 [0.6,27.5]		1.8 [0.2,12.1]	1
<i>Host Community</i>	Insufficient sample size for regional comparisons			n=22		
Lab tests				45.5 [27.9,64.2]	10	
Diagnostic tests				13.6 [4.8,33.1]	3	
Specialist consultation				9.1 [2.5,27.9]	2	
Curative intervention				27.3 [12.6,49.5]	6	
Other				4.5 [0.6,27.2]	1	
p-value				0.632		
Location referred services sought/received **						
<i>Syrian Refugees</i>				0.491		
Primary health care center	25.0 [9.3,51.9]	27.8 [14.4,46.7]	22.7 [7.8,50.4]		25.0 [15.0,38.7]	14
Private clinic (cabinet)	25.0 [8.6,54.2]	16.7 [5.6,40.4]	9.1 [2.3,30.1]		16.1 [8.4,28.5]	9
Hospital	18.8 [6.7,42.6]	44.4 [21.7,69.7]	40.9 [19.9,65.8]		35.7 [23.1,50.7]	20
Medical center	31.2 [9.8,65.4]	5.6 [1.0,24.8]	18.2 [6.7,40.8]		17.9 [8.7,33.3]	10
Other	0	5.6 [1.0,24.8]	9.1 [1.4,41.8]		5.4 [1.3,19.3]	3
<i>Host Community</i>	Insufficient sample size for regional comparisons			n=22		
Primary health care center				13.6 [4.2,36.1]	3	
Private clinic (cabinet)				9.1 [2.5,27.9]	2	
Hospital				54.5 [33.8,73.8]	12	
Medical center				22.7 [10.2,43.1]	5	
Other				0	0	
p-value				0.441		

* as percent of household index cases that received care in Lebanon

** as percent of household index cases referred to another facility during most recent careseeking in Lebanon

Table 32. Access to Medication for Children's Health Problems in Lebanon*

	By Region			regional comparison p-values	Survey Total (n=1,148)	
	Beirut/Mt. Lebanon (n=320) Point [95% CI]	Bekaa (n=365) Point [95% CI]	North (n=463) Point [95% CI]		Point [95% CI]	N
Prescribed medication for child health problem during most recent health facility visit *						
Syrian Refugees	n=234 94.4 [90.9,96.7]	n=267 95.5 [91.4,97.7]	n=332 95.2 [92.3,97.0]	0.860	n=833 95.1 [93.3,96.4]	792
Host Community	n=86 94.2 [87.8,97.3]	n=98 94.9 [87.0,98.1]	n=131 94.7 [89.7,97.3]		0.974	n=315 94.6 [91.6,96.6]
	p-value	0.772	0.845		0.825	0.691
By Facility Type **						
Primary Health Care Center						
Syrian Refugees	96.3 [91.1,98.5]	96.8 [91.3,98.8]	96.0 [92.3,98.0]	0.932	96.4 [94.1,97.8]	423
Host Lebanese	93.3 [66.7,99.0]	100	97.2 [82.6,99.6]	0.467	97.3 [89.7,99.3]	71
	p-value	0.510	0.443		0.738	0.685
Private clinic						
Syrian Refugees	93.6 [83.0,97.8]	100	86.8 [75.3,93.4]	0.025	93.2 [87.7,96.4]	138
Host Lebanese	93.6 [82.7,97.8]	90.9 [79.1,96.3]	93.2 [84.1,97.3]	0.849	92.7 [87.6,95.8]	139
	p-value	1.000	0.029		0.252	0.848
Pharmacy						
Syrian Refugees	97.0 [88.2,99.3]	90.9 [77.5,96.7]	98.7 [90.6,99.8]	0.108	96.2 [92.1,98.2]	178
Host Lebanese	90.0 [57.2,98.4]	100	91.3 [71.2,97.8]	0.478	93.6 [82.2,97.9]	44
	p-value	0.123	0.245		0.094	0.320
Hospital						
Syrian Refugees	66.7 [38.3,86.6]	82.4 [59.3,93.7]	94.4 [72.8,99.1]	0.113	83.0 [70.3,90.9]	39
Host Lebanese	100	94.1 [69.4,99.1]	100	0.529	97.5 [84.4,99.6]	39
	p-value	0.037	0.307		0.358	0.031
Attempted to obtain the prescribed medication ***						
Syrian Refugees	n=221 99.1 [96.5,99.8]	n=255 98.8 [95.1,99.7]	n=316 98.7 [96.8,99.5]	0.930	n=792 98.9 [97.7,99.4]	783
Host Community	n=81 100	n=93 98.9 [92.6,99.9]	n=124 100		0.574	n=298 99.7 [97.6,100.0]
	p-value	0.288	0.944		0.202	0.184
Able to obtain all medications prescribed during most recent provider visit ***						
Syrian Refugees	92.2 [86.8,95.5]	92.9 [88.3,95.7]	92.9 [89.2,95.5]	0.958	92.7 [90.4,94.5]	726
Host Community	98.8 [91.6,99.8]	95.7 [89.2,98.3]	96.8 [92.2,98.7]	0.464	97.0 [94.4,98.4]	288
	p-value	0.045	0.378		0.140	0.007
Location where respondent attempted to obtain medication ***						
Syrian Refugees				0.690		
At the facility where provider was seen	11.4 [7.4,17.2]	16.7 [11.4,23.7]	15.4 [11.5,20.3]		14.7 [11.9,17.9]	115
At another facility	0	0.4 [0.1,2.7]	0.3 [0.0,2.3]		0.3 [0.1,1.0]	2
Private pharmacy	88.1 [82.5,92.1]	81.7 [75.0,87.0]	84.3 [79.2,88.3]		84.5 [81.3,87.3]	662
Syria	0	0.4 [0.1,2.8]	0		0.1 [0.0,0.9]	1
Via local contractor/fixer	0	0.4 [0.1,2.8]	0		0.1 [0.0,0.9]	1
Other	0.5 [0.1,3.2]	0.4 [0.1,2.8]	0	0.3 [0.1,1.0]	2	
Host Community				0.696		
At the facility where provider was seen	2.5 [0.7,8.9]	3.3 [1.1,9.6]	4.8 [2.3,9.9]		3.7 [2.1,6.4]	11
At another facility	0	0	0.8 [0.1,5.6]		0.3 [0.0,2.4]	1
Private pharmacy	97.5 [91.1,99.3]	96.7 [90.4,98.9]	93.5 [87.3,96.8]		95.6 [92.5,97.5]	284
Syria	0	0	0		0	0
Via local contractor/fixer	0	0	0		0	0
Other	0	0	0.8 [0.1,5.4]	0.3 [0.0,2.4]	1	
	p-value	0.051	0.039		0.009	< 0.001
Reason for not obtaining prescribed medication ****						
Syrian Refugees	n=17	n=18	n=22	0.589	n=57	
Household could not afford the medication	94.1 [69.2,99.1]	77.8 [57.1,90.2]	86.4 [56.2,96.9]		86.0 [73.1,93.3]	49
Medication was out of stock at the facility	5.9 [0.9,30.8]	16.7 [5.9,38.9]	13.6 [3.1,43.8]		12.3 [5.5,25.3]	7
Symptoms improved/began to feel better	0	5.6 [0.8,29.5]	0		1.8 [0.2,11.5]	1
Other	0	0	0		0	0

<i>Host Community</i>	Insufficient sample size for regional comparisons				n=9	
Household could not afford the medication					88.9 [49.1,98.5]	8
Medication was out of stock at the facility					0	0
Symptoms improved/began to feel better					0	0
Other					11.1 [1.5,50.9]	1
p-value					0.055	
Paid for medication *****						
<i>Syrian Refugees</i>	n=202	n=234	n=290		n=726	
	95.5 [90.9,97.9]	87.6 [81.7,91.8]	92.4 [87.6,95.5]	0.036	91.7 [88.9,93.9]	666
<i>Host Community</i>	n=80	n=88	n=120		n=288	
	98.8 [91.5,99.8]	96.6 [89.8,98.9]	97.5 [92.8,99.2]	0.654	97.6 [95.0,98.8]	281
p-value	0.225	0.030	0.076		0.002	
Cost to household for medication (Lebanese Pounds) *****						
<i>Syrian Refugees</i>						
Median	25000 [22625,30000]	25000 [25000,30000]	20000 [20000,25000]		25000 [23201,25000]	
Mean	30890 [26630,35150]	35053 [30352,39754]	30695 [26481,34910]	0.324	32147 [29531,34764]	727
<i>Host Community</i>						
Median	35000 [30000,50000]	40000 [30000,50000]	35000 [26889,43111]		38000 [32000,40000]	
Mean	52497 [38246,66748]	55493 [42522,68465]	47662 [38537,56787]	0.601	51405 [44635,58175]	289
p-value	0.005	0.008	< 0.001		< 0.01	
Cost to household for medication (Lebanese Pounds) *****						
<i>Syrian Refugees</i>	n=191	n=202	n=267		n=660	
Median	25000 [24438,30000]	30000 [25000,35000]	25000 [20000,25000]		25000 [25000,30000]	
Mean	32345 [27857,36833]	40085 [34889,45281]	33225 [29128,37321]	0.061	35070 [32322,37817]	667
<i>Host Community</i>	n=78	n=83	n=114		n=275	
Median	35000 [30000,50000]	40000 [30160,50000]	40000 [30000,45000]		40000 [35000,42000]	
Mean	53170 [38885,67456]	57499 [44128,70870]	48916 [39780,58052]	0.571	52713 [45868,59558]	282
p-value	0.007	0.024	0.002		< 0.001	

* as percent of household index cases that received care

** as percent of household index cases that received care at this facility type

*** as percent of household index cases prescribed medication

**** as percent of households that attempted to obtain the prescribed medication

***** as percent of households that did not obtain the prescribed medication

***** among households that obtained the prescribed medication

***** among households that paid for medication

Table 33. EPI Card Availability and Difficulties Obtaining Vaccinations

	By Region			regional comparison p-values	Survey Total (n=2,062)	
	Beirut/Mt. Lebanon (n=610) % [95% CI]	Bekaa (n=714) % [95% CI]	North (n=738) % [95% CI]		% [95% CI]	N
Households with a child aged 12-23 months						
Syrian Refugees	n=407 28.9 [23.3,35.2]	n=476 29.8 [26.2,33.7]	n=493 25.4 [21.7,29.3]	0.329	n=1376 27.9 [25.4,30.6]	384
Host Community	n=203 6.9 [3.9,11.9]	n=239 8.4 [5.7,12.1]	n=244 16.8 [12.6,22.1]		0.001	
p-value	< 0.001	< 0.001	0.010		< 0.001	
EPI card available						
Syrian Refugees	n=117	n=142	n=125	0.227	n=384	
Yes, seen	50.4 [42.6,58.3]	49.3 [40.8,57.9]	40.0 [29.4,51.6]		46.6 [41.1,52.2]	179
Yes, not seen	25.6 [18.7,34.1]	18.3 [13.2,24.8]	24.0 [17.5,32.0]		22.4 [18.6,26.7]	86
Yes, no vaccinations recorded	4.3 [1.9,9.4]	2.8 [1.1,6.9]	1.6 [0.2,10.7]		2.9 [1.5,5.3]	11
No	17.1 [11.7,24.3]	28.2 [21.7,35.7]	32.8 [23.5,43.6]		26.3 [21.8,31.4]	101
Don't know	2.6 [0.9,7.1]	1.4 [0.4,5.5]	1.6 [0.4,6.1]	1.8 [0.9,3.7]	7	
Host Community	n=14	n=20	n=41	0.184	n=75	
Yes, seen	42.9 [23.6,64.6]	40.0 [20.9,62.7]	34.1 [21.8,49.1]		37.3 [27.6,48.2]	28
Yes, not seen	57.1 [35.4,76.4]	50.0 [28.2,71.8]	48.8 [34.6,63.2]		50.7 [39.8,61.5]	38
Yes, no vaccinations recorded	0	5.0 [0.7,29.3]	0		1.3 [0.2,9.2]	1
No	0	0	17.1 [8.0,32.7]		9.3 [4.2,19.4]	7
Don't know	0	5.0 [0.7,29.3]	0	1.3 [0.2,9.2]	1	
p-value	0.025	0.009	0.071		< 0.001	
Difficulties obtaining vaccinations*						
Syrian Refugees				0.247		
No difficulties	60.7 [51.3,69.4]	57.0 [48.3,65.4]	60.0 [49.7,69.5]		59.1 [53.7,64.3]	227
Did not know where/when to take child for immunization	8.5 [4.4,15.8]	12.7 [8.2,19.0]	8.8 [5.1,14.7]		10.2 [7.5,13.6]	39
Place for immunization is too far away	9.4 [5.2,16.3]	8.5 [5.0,13.9]	5.6 [2.5,12.2]		7.8 [5.5,11.0]	30
Times that immunizations are available are inconvenient	0.9 [0.1,6.2]	2.8 [0.9,8.4]	0.8 [0.1,5.5]		1.6 [0.6,3.8]	6
Vaccine was not available at facility	6.8 [3.6,12.5]	4.9 [2.4,9.7]	3.2 [1.2,8.2]		4.9 [3.2,7.6]	19
Long wait time	2.6 [0.6,10.1]	0.7 [0.1,5.0]	2.4 [0.8,7.1]		1.8 [0.8,4.1]	7
Child was brought to facility but not given a vaccination (possibly because of illness)	1.7 [0.5,6.0]	2.8 [1.1,7.3]	2.4 [0.8,6.7]		2.3 [1.3,4.3]	9
Unaware of need for vaccination or multiple doses	0	3.5 [1.6,7.8]	0.8 [0.1,5.7]		1.6 [0.7,3.4]	6
Fear of side reactions to immunization or that immunization will make child sick	0.9 [0.1,5.6]	1.4 [0.4,5.4]	3.2 [1.2,8.0]		1.8 [0.9,3.7]	7
Caretaker could not take child to health facility (for example, because they are too busy or sick)	2.6 [0.6,10.3]	3.5 [1.5,7.9]	0.8 [0.1,5.4]		2.3 [1.2,4.7]	9
Plan to take child in future/postponed until another time	3.4 [1.4,8.3]	0.7 [0.1,5.0]	8.0 [4.2,14.7]		3.9 [2.3,6.6]	15
Rumors (poor quality or expired vaccine)	0.9 [0.1,5.5]	0.7 [0.1,4.7]	0.8 [0.1,5.4]		0.8 [0.3,2.4]	3
Other	1.7 [0.2,11.3]	0.7 [0.1,4.7]	3.2 [1.0,9.7]		1.8 [0.7,4.5]	7
Host Community					0.179	
No difficulties	100	75.0 [52.1,89.2]	85.4 [71.3,93.2]	85.3 [75.4,91.7]		64
Did not know where/when to take child for immunization	0	0	2.4 [0.3,16.2]	1.3 [0.2,9.2]		1
Place for immunization is too far away	0	5.0 [0.7,27.1]	0	1.3 [0.2,9.0]		1
Times that immunizations are available are inconvenient	0	5.0 [0.7,29.3]	0	1.3 [0.2,9.2]		1
Vaccine was not available at facility	0	0	0	0		0
Long wait time	0	0	0	0		0
Child was brought to facility but not given a vaccination (possibly because of illness)	0	0	4.9 [1.2,17.3]	2.7 [0.7,10.0]		2
Unaware of need for vaccination or multiple doses	0	0	0	0		0
Fear of side reactions to immunization or that immunization will make child sick	0	0	0	0		0
Caretaker could not take child to health facility (for example, because they are too busy or sick)	0	5.0 [0.7,29.3]	4.9 [1.2,17.9]	4.0 [1.3,11.9]		3
Plan to take child in future/postponed until another time	0	10.0 [2.4,33.5]	0	2.7 [0.6,10.4]		2
Rumors (poor quality or expired vaccine)	0	0	0	0	0	
Other	0	0	2.4 [0.3,15.5]	1.3 [0.2,9.0]	1	
p-value	0.715	0.247	0.132		0.017	

* among all index cases of children 12-23 months in households

Table 34. Vaccination Campaign Coverage*

	By Region			regional comparison p-values	Survey Total (n=459)	
	Beirut/Mt. Lebanon (n=131) % [95% CI]	Bekaa (n=162) % [95% CI]	North (n=166) % [95% CI]		% [95% CI]	N
Children receiving measles vaccination through campaign*						
Syrian Refugees	n=117	n=142	n=125		n=384	
Yes	60.7 [51.0,69.6]	62.0 [53.1,70.1]	55.2 [46.7,63.4]	0.410	59.4 [54.2,64.4]	228
No	36.8 [28.5,45.9]	34.5 [26.7,43.3]	40.8 [33.1,48.9]		37.2 [32.5,42.2]	143
Don't know	2.6 [0.8,7.6]	3.5 [1.5,7.9]	4.0 [1.5,10.2]		3.4 [1.9,5.9]	13
Host Community	n=14	n=20	n=41		n=75	
Yes	76.1 [67.2,83.2]	78.2 [67.1,86.3]	76.8 [68.9,83.2]	0.828	77.1 [71.8,81.6]	296
No	21.4 [14.1,31.0]	18.3 [11.0,29.0]	20.0 [13.7,28.3]		19.8 [15.4,25.1]	76
Don't know	2.6 [0.8,7.6]	3.5 [1.3,9.3]	3.2 [1.3,7.7]		3.1 [1.7,5.6]	12
p-value	0.495	0.329	0.652		0.478	
Location where measles campaign vaccine was received **						
Syrian Refugees	n=71	n=88	n=69		n=228	
Home	9.9 [3.0,28.0]	37.5 [26.9,49.4]	52.2 [37.7,66.3]	< 0.001	33.3 [25.7,42.0]	76
Primary Health Care Center	90.1 [72.0,97.0]	62.5 [50.6,73.1]	47.8 [33.7,62.3]		66.7 [58.0,74.3]	152
Host Community	n=8	n=7	n=23		n=38	
Home	0	14.3 [1.9,59.0]	39.1 [19.7,62.7]	0.099	26.3 [13.9,44.2]	10
Primary Health Care Center	100	85.7 [41.0,98.1]	60.9 [37.3,80.3]		73.7 [55.8,86.1]	28
p-value	0.098	0.131	0.400		0.429	
Children receiving polio vaccination through campaign*						
Syrian Refugees	n=117	n=142	n=125		n=384	
Yes	57.1 [34.2,77.3]	35.0 [17.4,57.9]	56.1 [39.8,71.2]	0.111	50.7 [39.2,62.1]	38
No	35.7 [15.1,63.5]	60.0 [37.3,79.1]	41.5 [26.2,58.6]		45.3 [33.6,57.6]	34
Don't know	7.1 [1.1,35.2]	5.0 [0.7,29.3]	2.4 [0.3,15.5]		4.0 [1.3,11.7]	3
Host Community	n=14	n=20	n=41		n=75	
Yes	71.4 [44.5,88.6]	60.0 [41.2,76.3]	68.3 [55.4,78.9]	0.957	66.7 [56.9,75.2]	50
No	21.4 [5.9,54.2]	25.0 [11.5,46.1]	29.3 [18.7,42.7]		26.7 [18.4,37.0]	20
Don't know	7.1 [1.1,35.2]	15.0 [5.0,37.1]	2.4 [0.3,15.5]		6.7 [2.8,15.0]	5
p-value	0.490	0.128	0.841		0.132	
Location where polio campaign vaccine was received **						
Syrian Refugees	n=89	n=111	n=96		n=296	
Home	13.5 [7.5,23.0]	42.3 [32.4,52.9]	51.0 [39.9,62.0]	< 0.001	36.5 [29.9,43.6]	108
Primary Health Care Center	75.3 [63.3,84.3]	50.5 [40.3,60.6]	42.7 [31.7,54.5]		55.4 [48.3,62.3]	164
UNHCR registration office	11.2 [6.5,18.8]	7.2 [3.3,14.8]	6.2 [2.8,13.3]		8.1 [5.5,11.9]	24
Host Community	n=10	n=12	n=28		n=50	
Home	10.0 [1.3,47.6]	8.3 [1.1,42.2]	42.9 [26.6,60.9]	0.037	28.0 [17.3,42.0]	14
Primary Health Care Center	90.0 [52.4,98.7]	91.7 [57.8,98.9]	57.1 [39.1,73.4]		72.0 [58.0,82.7]	36
UNHCR registration office	0	0	0		0.0	
p-value	0.147	0.103	0.750		0.361	

* among children age 12 - 23 months

** among children receiving vaccination through campaign

Table 35. Vitamin A Recall

	By Region			regional comparison p-values	Survey Total (n=459) % [95% CI]		N
	Beirut/Mt. Lebanon (n=131) % [95% CI]	Bekaa (n=162) % [95% CI]	North (n=166) % [95% CI]				
Vitamin A (recall)							
<i>Syrian Refugees</i>	n=117	n=142	n=125		n=384		
Yes	56.4 [47.8,64.6]	51.4 [42.4,60.3]	49.6 [40.5,58.7]	0.668	52.3 [47.1,57.5]	201	
No	33.3 [26.0,41.6]	40.1 [32.1,48.7]	38.4 [30.7,46.7]		37.5 [32.9,42.3]	144	
Don't know	10.3 [5.4,18.6]	8.5 [5.4,12.9]	12.0 [7.5,18.7]		10.2 [7.5,13.5]	39	
<i>Host Community</i>	n=14	n=20	n=41		n=75		
Yes	85.7 [54.9,96.7]	50.0 [30.0,70.0]	61.0 [45.9,74.2]	0.217	62.7 [51.2,72.9]	47	
No	0	30.0 [13.2,54.7]	26.8 [15.1,43.0]		22.7 [14.1,34.3]	17	
Don't know	14.3 [3.3,45.1]	20.0 [8.3,40.8]	12.2 [5.0,26.7]		14.7 [8.2,24.8]	11	
p-value	0.945	0.211	0.807		0.579		

* vitamin A drops given in last 12 months (caregiver recall) among all children 12-23 months

Table 36. ANC for Women Who Delivered in Lebanon in the Past Year

	By Region			regional comparison p values	Survey Total (n=2,062)	
	BML (n=610) Point [95% CI]	Bekaa (n=714) Point [95% CI]	North (n=738) Point [95% CI]		Point [95% CI]	N
Households with a delivery in the past year						
Syrian Refugees	n=407 24.3 [19.2,30.3]	n=476 21.6 [18.0,25.7]	n=493 21.5 [18.0,25.5]	0.586	n=1376 22.4 [20.0,25.0]	308
Host Community	n=203 4.9 [2.6,9.3]	n=239 6.3 [3.9,9.9]	n=244 12.7 [9.1,17.5]			
p-value	< 0.001	< 0.001	0.006		< 0.001	
Households with a delivery in the past year in Lebanon						
Syrian Refugees	20.1 [15.7,25.5]	18.1 [14.9,21.7]	19.7 [16.4,23.4]	0.668	19.3 [17.1,21.6]	265
Households with a woman who received ANC while pregnant in Lebanon *						
Syrian Refugees	n=82 89.0 [81.2,93.8]	n=86 80.2 [67.5,88.8]	n=97 95.9 [90.4,98.3]	0.089	n=265 88.7 [83.5,92.4]	235
Host Community	n=10 100	n=15 100	n=31 90.3 [74.3,96.8]			
p-value	0.313	0.035	0.191		0.024	
Month of pregnancy in which the first ANC visit took place **						
Syrian Refugees	n=83	n=78	n=99	0.793	n=235	249
Median	3 [2,4]	3 [3,4]	3 [2,4]			
Mean	4.0 [3.4,4.5]	3.9 [3.2,4.5]	3.9 [3.3,4.4]			
Host Community	n=10	n=15	n=28	0.020	n=53	52
Median	1 [1,2]	1 [1,3]	3 [1,3]			
Mean	1.5 [1.1,1.9]	2.6 [1.2,4.1]	3.1 [2.2,4.1]			
p-value	< 0.001	0.174	0.198		0.004	
Number of ANC visits during pregnancy **						
Syrian Refugees				0.180	259	
Median	3 [3,4]	3 [3,4]	4 [4,5]			
Mean	4.8 [3.9,5.7]	6.6 [3.1,10.1]	6.8 [4.1,9.5]			
Host Community				0.408	53	
Median	7 [5,10]	7 [4,9]	7 [5,9]			
Mean	7.2 [6.3,8.1]	6.9 [4.9,9.0]	10.0 [3.3,16.6]			
p-value	0.001	0.875	0.386		0.202	
Place of ANC **						
Syrian Refugees				0.212	144	
Primary health center	51.8 [40.9,62.6]	69.2 [55.7,80.1]	47.5 [36.5,58.7]			
Private clinic (cabinet)	45.8 [34.2,57.9]	29.5 [19.3,42.2]	47.5 [36.0,59.3]			
Hospital emergency room	1.2 [0.2,8.0]	0	4.0 [1.6,10.0]			
Mobile medical unit (MMU)	0	1.3 [0.2,8.6]	1.0 [0.1,6.9]			
Other	1.2 [0.2,8.0]	0	0			
Host Community				0.551	6	
Primary health center	0	20.0 [6.2,48.6]	10.7 [3.3,29.8]			
Private clinic (cabinet)	100	80.0 [51.4,93.8]	85.7 [67.9,94.5]			
Hospital emergency room	0	0	3.6 [0.6,19.9]			
Mobile medical unit (MMU)	0	0	0			
Other	0	0	0			
p-value	0.029	0.001	0.006		< 0.001	

Reason for no ANC ***				
<i>Syrian Refugees</i>		Insufficient sample size for regional comparisons	n=47	
Could not afford provider costs	61.7 [45.5,75.7]		29	
Could not afford transportation costs	2.1 [0.3,14.2]		1	
Disliked long wait time on previous visit(s)	4.3 [1.1,15.3]		2	
Could not take time off work/other commitments	2.1 [0.3,13.2]		1	
Family decided care should not be sought	6.4 [2.1,17.6]		3	
Other	23.4 [12.7,39.0]		11	
<i>Host Community</i>		Insufficient sample size for regional comparisons	n=2	
Could not afford provider costs	0		0	
Could not afford transportation costs	0		0	
Disliked long wait time on previous visit(s)	0		0	
Could not take time off work/other commitments	0		0	
Family decided care should not be sought	100		2	
Other	0		0	
p-value			0.009	

* among households with a woman who delivered in the past year in Lebanon

** among households with a woman who delivered in the past year in Lebanon and received ANC

*** among households with a woman who delivered in the past year in Lebanon and did not receive ANC

Table 37. Deliveries in Lebanon in the past year

	By Region				By Sector					Survey Total	
	Beirut/Mt. Lebanon (n=92) Point [95% CI]	Bekaa (n=101) Point [95% CI]	North (n=128) Point [95% CI]	regional comparison p-values	Public (n=116) Point [95% CI]	Private (n=166) Point [95% CI]	Home (n=17) Point [95% CI]	Other (n=22) Point [95% CI]	sector comparison p-values	Point [95% CI]	N
Country where delivery occurred *											
Syrian Refugees	n=99	n=102	n=106							n=308	
Syria	82.8 [71.6,90.2]	83.5 [74.8,89.6]	91.5 [82.8,96.0]	0.442	---	---	---	---	---	86.0 [80.9,90.0]	265
Lebanon	17.2 [9.8,28.4]	16.5 [10.4,25.2]	7.5 [3.5,15.3]		---	---	---	---	---	13.6 [9.8,18.7]	42
Place of delivery **											
Syrian Refugees	n=82	n=86	n=97							n=265	
At home, with skilled birth attendant	2.4 [0.6,9.1]	9.3 [3.4,23.2]	6.2 [2.6,13.9]		---	---	---	---	---	6.0 [3.2,11.1]	16
At home, without skilled birth attendant	0	1.2 [0.2,7.2]	0		---	---	---	---	---	0.4 [0.1,2.6]	1
Private clinic (cabinet)	6.1 [2.9,12.3]	2.3 [0.6,8.1]	4.1 [1.7,9.9]	0.584	---	---	---	---	---	4.2 [2.4,7.0]	11
Public hospital	41.5 [31.9,51.7]	30.2 [19.3,43.9]	43.3 [31.2,56.2]		---	---	---	---	---	38.5 [31.7,45.8]	102
Private hospital	40.2 [32.4,48.7]	52.3 [36.9,67.3]	39.2 [28.0,51.6]		---	---	---	---	---	43.8 [36.7,51.1]	116
Hospital (type unknown)	8.5 [3.3,20.2]	3.5 [1.1,10.4]	6.2 [2.9,12.6]		---	---	---	---	---	6.0 [3.5,10.2]	16
Other	1.2 [0.2,8.1]	1.2 [0.2,7.6]	1.0 [0.1,7.4]		---	---	---	---	---	1.1 [0.4,3.5]	3
Host Community	n=10	n=15	n=31							n=56	
At home, with skilled birth attendant	0	0	0		---	---	---	---	---	0	0
At home, without skilled birth attendant	0	0	0		---	---	---	---	---	0	0
Private clinic (cabinet)	0	0	3.2 [0.5,18.4]	0.434	---	---	---	---	---	1.8 [0.3,11.3]	1
Public hospital	0	26.7 [9.7,55.2]	32.3 [16.3,53.8]		---	---	---	---	---	25.0 [14.1,40.3]	14
Private hospital	100	66.7 [38.5,86.5]	58.1 [40.3,73.9]		---	---	---	---	---	67.9 [53.6,79.4]	38
Hospital (type unknown)	0	6.7 [0.9,36.5]	3.2 [0.4,20.6]		---	---	---	---	---	3.6 [0.9,13.6]	2
Other	0	0	3.2 [0.5,19.5]		---	---	---	---	---	1.8 [0.2,11.7]	1
p-value	0.056	0.661	0.340							0.075	
Reason for delivering in this location ***											
Syrian Refugees	n=80	n=77	n=91		n=102	n=127	n=17	n=19		n=248	
Free delivery	6.2 [1.9,18.6]	6.5 [2.9,14.0]	7.7 [3.9,14.7]		10.8 [5.8,19.2]	3.9 [1.4,10.6]	---	5.3 [0.7,30.5]		6.9 [4.1,11.2]	17
Low cost delivery	66.2 [52.7,77.6]	61.0 [49.3,71.6]	52.7 [44.0,61.3]	0.216	66.7 [56.7,75.3]	52.0 [42.6,61.2]	---	73.7 [48.3,89.3]		59.7 [53.0,66.0]	148
Closest to place of residence	8.8 [3.6,19.7]	16.9 [8.2,31.6]	24.2 [15.3,36.0]		12.7 [7.2,21.6]	21.3 [13.8,31.3]	---	10.5 [2.5,34.9]		16.9 [11.7,23.8]	42
No other facility nearby	2.5 [0.6,9.3]	1.3 [0.2,8.9]	3.3 [1.1,9.3]		1.0 [0.1,6.7]	3.9 [1.7,9.0]	---	0		2.4 [1.1,5.2]	6
Like staff/quality/family doctor	7.5 [3.6,15.1]	1.3 [0.2,8.9]	7.7 [4.1,13.9]		2.9 [0.9,8.8]	7.9 [4.3,14.0]	---	5.3 [0.7,30.5]	0.046	5.6 [3.5,9.0]	14
Emergency or high risk birth	5.0 [2.0,12.0]	3.9 [1.3,10.9]	1.1 [0.2,7.5]		4.9 [2.0,11.3]	2.4 [0.8,7.1]	---	0		3.2 [1.7,6.2]	8
Other	3.8 [1.2,11.0]	9.1 [3.5,21.6]	3.3 [1.1,9.6]		1.0 [0.1,6.8]	8.7 [4.2,16.9]	---	5.3 [0.7,30.5]		5.2 [2.8,9.7]	13
Host Community	n=10	n=15	n=31		n=14	n=39	n=0	n=3		n=56	
Free delivery	0	0	0		0	0	---	0		0	0
Low cost delivery	10.0 [1.3,48.8]	20.0 [6.9,45.9]	25.8 [13.4,43.8]	0.752	42.9 [21.2,67.6]	7.7 [2.5,21.4]	---	100	0.003	21.4 [12.5,34.3]	12
Closest to place of residence	30.0 [12.9,55.5]	26.7 [8.3,59.2]	19.4 [9.1,36.5]		35.7 [17.1,60.0]	20.5 [9.9,37.7]	---	0		23.2 [13.7,36.5]	13
No other facility nearby	0	0	9.7 [3.2,25.7]		7.1 [0.9,38.7]	5.1 [1.3,18.4]	---	0		5.4 [1.7,15.3]	3
Like staff/quality/family doctor	60.0 [35.6,80.3]	46.7 [23.9,70.9]	38.7 [21.9,58.7]		7.1 [0.9,38.7]	61.5 [45.6,75.4]	---	0		44.6 [31.9,58.1]	25
Emergency or high risk birth	0	6.7 [0.9,36.5]	6.5 [1.5,23.5]		7.1 [0.9,38.7]	5.1 [1.2,18.9]	---	0		5.4 [1.7,15.8]	3
Other	0	0	0		0	0	---	0		0	0
p-value	0.001	< 0.001	< 0.001		0.114	< 0.001		0.917		< 0.001	
Paid for delivery (%) ***											
Syrian Refugees	93.9 [84.9,97.7]	97.7 [91.4,99.4]	89.7 [82.5,94.2]	0.097	90.2 [82.1,94.9]	96.1 [91.1,98.3]	94.1 [65.4,99.3]	94.7 [69.5,99.3]	0.378	93.6 [89.9,96.0]	248
Host Community	100	100	83.9 [67.3,92.9]	0.155	92.9 [61.3,99.1]	89.7 [76.0,96.0]	---	100	0.804	91.1 [80.5,96.2]	51
p-value	0.479	0.518	0.375		0.757	0.131		0.687		0.479	
Portion of delivery cost paid by organization (%) ***											
Syrian Refugees	70.7 [56.2,82.0]	77.9 [62.7,88.1]	74.2 [63.0,83.0]	0.728	77.5 [68.3,84.6]	83.5 [75.4,89.3]	0	63.2 [37.9,82.8]	< 0.001	74.3 [66.9,80.6]	197
Host Community	10.0 [1.3,48.8]	26.7 [11.8,49.6]	38.7 [22.9,57.3]	0.081	28.6 [10.5,57.6]	28.2 [16.3,44.3]	---	66.7 [14.8,95.8]	0.532	30.4 [19.6,43.8]	17
p-value	0.002	< 0.001	0.003		< 0.001	< 0.001		0.907		< 0.001	

	By Region				By Sector					Survey Total	
	Beirut/Mt. Lebanon (n=92) Point [95% CI]	Bekaa (n=101) Point [95% CI]	North (n=128) Point [95% CI]	regional comparison p-values	Public (n=116) Point [95% CI]	Private (n=166) Point [95% CI]	Home (n=17) Point [95% CI]	Other (n=22) Point [95% CI]	sector comparison p-values	Point [95% CI]	N
Cost of delivery (Lebanese Pounds) ***											
Syrian Refugees											
Median	300000 [209337,300000]	100000 [100000,150000]	150000 [150000,194259]		170000 [150000,261924]	150000 [150000,200000]	150000 [100000,150000]	200000 [92924,300000]		150000 [150000,200000]	
Mean	307947 [249620,366274]	196963 [159922,234003]	205057 [167842,242272]	0.005	234676 [200046,269307]	250333 [203943,296722]	140294 [100027,180561]	214167 [136983,291350]	0.417	234294 [206329,26258]	265
Host Community											
Median	500000 [266222,1072889]	400000 [158908,682183]	200000 [100000,400000]		400000 [100000,608297]	300000 [200000,500000]	---	75000 [75000,1000000]		300000 [200000,450000]	
Mean	610000 [341580,878420]	395000 [261219,528781]	420860 [169839,671882]	0.441	356643 [213375,499910]	508427 [301485,715370]	---	83333 [69760,96907]	0.006	447708 [292780,602637]	56
p-value	0.043	0.011	0.105		0.101	0.018		0.005		0.008	
Cost of delivery (Lebanese Pounds) ***											
Syrian Refugees											
Median	n=77 300000 [224482,300000]	n=84 100000 [100000,150000]	n=87 150000 [150000,200000]		n=91 175000 [150000,284269]	n=120 150000 [150000,200000]	n=16 150000 [100000,174137]	n=18 200000 [92924,300000]		n=248 150000 [150000,200000]	
Mean	311999 [253244,370754]	196963 [159922,234003]	209826 [173050,246601]	0.006	239834 [204643,275025]	250333 [203943,296722]	149062 [109800,188325]	214167 [136983,291350]	0.379	237162 [209170,265155]	248
Host Community											
Median	n=10 500000 [266222,1072889]	n=15 400000 [158908,682183]	n=26 280000 [108134,477404]		n=13 400000 [107099,630280]	n=35 400000 [251863,500000]	n=0 ---	n=3 75000 [75000,100000]		n=51 400000 [201308,500000]	
Mean	610000 [341580,878420]	395000 [261219,528781]	501795 [213890,789700]	0.777	384077 [236248,531906]	566533 [347561,785506]	---	83333 [69760,96907]	0.004	491601 [328487,654715]	51
p-value	0.046	0.011	0.058		0.061	0.006		0.005		0.003	
Deliveries involving a cesarean section ***											
Syrian Refugees											
Median	n=80 37.5 [27.5,48.7]	n=77 24.7 [16.4,35.3]	n=91 29.7 [22.2,38.5]	0.181	n=102 32.4 [24.1,41.8]	n=127 29.1 [21.2,38.5]	n=17 0	n=19 31.6 [14.6,55.5]	0.879	n=248 30.6 [25.4,36.5]	76
Host Community											
Median	n=10 10 [1.6,42.8]	n=15 40 [21.3,62.1]	n=31 38.7 [22.3,58.2]	0.175	n=14 21.4 [6.5,51.8]	n=39 38.5 [25.7,53.0]	n=0 ---	n=3 33.3 [4.2,85.2]	0.516	n=56 33.9 [22.6,47.4]	19
p-value	0.067	0.194	0.438		0.443	0.280		0.958		0.655	
Cost of delivery among those receiving a cesarean section (Lebanese Pounds) ****											
Syrian Refugees											
Median	n=34 300000 [277143,456857]	n=19 300000 [242353,465294]	n=29 300000 [300000,343784]		n=40 300000 [281824,368176]	n=36 307500 [300000,429648]	n=0 ---	n=6 250000 [91000,480000]		n=82 300000 [300000,337985]	
Mean	365350 [267459,463241]	378389 [271657,485122]	329310 [253179,405442]	0.583	320985 [252321,389649]	411997 [310350,513644]	---	248333 [113253,383413]	0.433	355626 [300281,410970]	86
Host Community	Insufficient sample size for regional comparisons				Insufficient sample size for sector comparisons						
Median											
Mean											
p-value											
Newborn children receiving a birth notification (%) ***											
Syrian Refugees											
Median	n=82 82.9 [71.2,90.5]	n=86 88.4 [79.1,93.8]	n=97 94.8 [87.1,98.0]	0.331	n=102 88.2 [77.6,94.2]	n=127 94.5 [89.1,97.3]	n=17 64.7 [38.5,84.3]	n=19 78.9 [52.5,92.7]	0.038	n=265 89.1 [83.9,92.7]	236
Host Community	Insufficient sample size for regional comparisons				Insufficient sample size for sector comparisons						
Median											
Mean											
p-value											

* among households with a woman who delivered in the past year

*** among households with delivery at a health facility

** among households with a woman who delivered in the past year in Lebanon

**** among households with delivery involving a cesarean section at a health facility

Annex II: Recent Vaccination Campaigns

The Ministry of Public Health of Lebanon, in partnership with UNICEF, has established an immunization response to ensure proper vaccination of refugees and Lebanese against a number of communicable diseases. Most notable in these efforts is an accelerated polio campaign and measles/rubella immunization. Through these programs, mandatory polio vaccination is provided at official border crossings to all children under 5 entering Lebanon from Syria. In addition, the MoPH, UNICEF, and WHO began a national polio campaign in November 2013. These national campaigns covered all of Lebanon and lasted one week per occasion. In addition to regular national campaigns, UNICEF Lebanon held supplementary targeted campaigns in approximately 180 additional cadastrals across Lebanon. All polio campaigns targeted children under 5 years of age while measles/rubella campaigns targeted children between 9 months and 18 years of age.

National Campaign Dates and Coverage

Date	Vaccines Included	# of Children Reached
March 2014	Polio	492,706
April 2014	Polio	587,039
	Measles/Rubella	1,056,830
October 2014	Polio	516,967
November 2014	Polio	556,814

Supplementary Targeted Campaign Dates and Coverage

Date	Vaccines Included	# of Children Reached
July 2014	Polio	120,142
August 2014	Polio	115,424
September 2014	Polio	126,780
March 2015	Polio	384,888
April 2015	Polio	421,691

Source: UNICEF Lebanon