SURVEY PURPOSE
The Knowledge, Practice, and Coverage (KPC) household survey is conducted annually by Medair to support evidence-based decision making for Medair, Ministry of Social Affairs (MoSA), Ministry of Public Health (MOPH) and other NGO’s programming. The data analysis compares indicators across key target groups and enables a comparison with 2016, 2017, 2018, and 2019 KPC surveys.

METHODOLOGY
The KPC study uses a quantitative design methodology to assess levels of knowledge, practices, and health services coverage for Syrian refugees, and vulnerable Lebanese in the catchments areas of Social Development Centers (SDCs) supported by Medair, specifically Talia, Brital, Marj, Kabelias, Jib Janine and Rafid.

In 2019 and 2018, the survey was conducted using a two-stage cluster design to enable the calculation of 95% confidence interval with acceptable degrees of precision. In 2016 and 2017, similar surveys in Medair’s areas of intervention (AOI) were conducted using 30 clusters for Syrian and 30 for Lebanese communities. The target respondents were women of childbearing age with children under the age of 5. Approximately 70 enumerators collected the data (trained and supervised by Medair staff), using tablets and ODK (Open Data Kit) data collection software, thus ensuring the quality of data collection.

The table below shows the sample size for four consecutive years.

Table 1 - Number of survey respondents after data cleaning

<table>
<thead>
<tr>
<th>Sample population</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syrian refugees</td>
<td>367 (34% in ISs)</td>
<td>395 (39% in ISs)</td>
<td>1482 (100% in ISs)</td>
<td>1529 (99.8% in ISs)</td>
</tr>
<tr>
<td>Vulnerable Lebanese</td>
<td>385</td>
<td>385</td>
<td>751</td>
<td>758</td>
</tr>
<tr>
<td>Totals:</td>
<td>752</td>
<td>780</td>
<td>2233</td>
<td>2287</td>
</tr>
<tr>
<td>Districts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baalbek (North Bekaa)</td>
<td>Baalbek (North Bekaa)</td>
<td>Baalbek (North Bekaa)</td>
<td>Baalbek (North Bekaa)</td>
<td></td>
</tr>
<tr>
<td>West Bekaa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zahle (Central)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rachiya</td>
<td></td>
<td></td>
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</tbody>
</table>

KEY RESULTS

Demographics: 22.2% of vulnerable Lebanese and 45.5% of Syrian women interviewed reported they were married before the age of 18. Literacy levels (read and write) reported is 6.9% for vulnerable Lebanese and 38.8% for Syrian women.

Health seeking behaviour: The 2019 data demonstrate robust improvements in the proportion of respondents who sought health care when they needed medical services to 99.3% among vulnerable Lebanese and 95.3% among Syrian refugees. These improvements are significant when comparing both population groups between 2018 and 2019, and when comparing each population group to the 2016 aggregate (90%).

The proportion of both vulnerable Lebanese and Syrian refugees who accessed health care through Social Development Centres (SDCs) increased between 2016 and 2019. Specifically, 49.8% of Syrian respondents and 41.4% Vulnerable Lebanese reported they have utilized SDC’s services in 2019, compared to 32% and 15% in 2016.

Non-Communicable Diseases (NCDs): Just under a fifth of both populations reported that one or more household members reported having hypertension and/or diabetes. Knowledge about how to mitigate the risks of NCDs was limited. Over half (53.7%) of vulnerable Lebanese women could correctly cite two or more behaviours that reduce the risk of NCDs, compared to under a third of Syrian refugees (30.4%). Compared to
2016 and 2018, Syrian refugees were significantly more likely to identify “reduce stress” as an NCD risk reduction strategy (2016: 11.8%; 2018: 20.1%; 2019: 28.2%).

**Vaccinations:** Vaccination rates in both populations were low and fell far short of the threshold for herd immunity, placing the project area population at risk of a disease outbreak. Vaccination rates were particularly low among Syrian refugees. Less than one-third of vulnerable Lebanese children and less than a quarter of Syrian children aged 12 months to five years had received the full complement of age-appropriate vaccines. Although the proportion of children aged 12-23 months who had received all age-appropriate vaccinations rose dramatically between the 2018 and 2019 surveys, from 7.7% to 32.5% among vulnerable Lebanese and from 7.9% to 23.6% among Syrian refugees, the rates of vaccination coverage remain well below herd immunity levels and fall short of the SPHERE aspiration that the humanitarian community ensure 95% vaccination coverage of children (Sphere child health standard 2.2.1).

**Childhood illnesses - Acute respiratory illness (ARI):** Syrian refugees were significantly more likely to have experienced fast or difficult breathing in the two weeks before the survey (17.9%) than their vulnerable Lebanese counterparts (10.6%). Few children who had a cough or fast breathing were taken to an appropriate health facility or provider for the symptoms of ARI, defined as a doctor, a clinic or a hospital, excluding SDC health clinics (11.5% of Syrian refugees and 25.6% of vulnerable Lebanese children). No statistically significant changes were observed when comparing 2016 and 2019 data.

**Childhood illnesses - Diarrhoea:** Diarrhoea remains highly prevalent, with over one-third of Syrian refugees (36.5%) and one-fifth of vulnerable Lebanese (21.6%) reporting that one or more of their children under-five years experienced diarrhoea in the two weeks before the survey. Only 3.4% of Syrian refugees and 4.3% of vulnerable Lebanese report their children received both ORS and zinc. An increase in the use of ORS was observed among children with diarrhea in the total sample between 2016 and 2019 and among Syrian refugees between 2018 and 2019. While a non-significant increase in the proportion of children with diarrhoea who received zinc was observed, rates of zinc use remain very low (12.6% among vulnerable Lebanese and 9.0% among Syrian refugees).

Conversely, the use of antibiotics to treat diarrhoea is not indicated in the WHO diarrhoea management schedule. Yet over half of the vulnerable Lebanese children (57.5%) and two-thirds of Syrian refugee children (64.4%) were given antibiotics for diarrhoea in 2019, representing small (not statistically significant) decreases in this inappropriate treatment.

**Breastfeeding practices:** Breastfeeding rates in the study population are low (25% reported among vulnerable Lebanese and 32.8% for Syrian women). Although eight in ten vulnerable Lebanese mothers and nine in ten Syrian refugees reported that they had breastfed their youngest child, just two in three mothers in both samples reported breastfeeding within the first hour of birth; and just a quarter of vulnerable Lebanese and a third of Syrian refugees with children under six months reported that they were exclusively breastfeeding. The 2019 data shows no significant change in the proportion of children aged 0-6 months who were exclusively breastfed between 2016 and 2019 or 2018 and 2019. Syrian refugees generally demonstrate more appropriate breastfeeding practices than vulnerable Lebanese: they are more likely to have breastfed their youngest child, to have initiated breastfeeding within the first hour of birth, and to have continued breastfeeding for more than six months.

**Child registration:** Only 6.1% of Syrian refugees reported that they did not receive a birth certificate for their youngest child. Over three-quarters of mothers who had received birth certificates reported having received this document from the hospital. The reasons for not receiving a birth certificate remain unknown and should be investigated.

**Reproductive health:** Both vulnerable Lebanese and Syrian refugee women reported high rates of awareness of the reproductive health (RH) services available and where these services can be accessed, respectively 84.8% and 76.4%. Almost nine in ten respondents were able to identify RH services available in their community, and a similar proportion identified
where they could access RH services. The surveyed respondents reported low levels of accessing such services, specifically 40% among vulnerable Lebanese and 41.6% among Syrian refugees’ women. Financial constraints appear to be the primary factor in the inability to access these services. Statistically significant positive changes were observed in women reporting where to access RH services when comparing the data of 2016 and 2019, but no change was observed in women reporting they would be comfortable and able to access such services. Women in both populations were significantly more likely to be aware in 2019 that reproductive health services could be accessed through SDCs than they were in 2016. These changes represented large increases between 2016 and 2018, which were maintained in 2019. They also reflected an increase between 2016 and 2019 in the proportion of vulnerable Lebanese women and the total sample who accessed RH services through an SDC (no data available for Syrian refugees in 2016).

Antenatal Counselling (ANC): Two-thirds of mothers of children under two years of age had at least four antenatal visits when they were pregnant with their youngest child, and the vast majority of women received ANC in the first trimester and last month of pregnancy. However, significant discrepancies between populations were observed: Syrian refugees were less likely than vulnerable Lebanese women to receive four ANC contacts (61.6% versus 78.6%), to receive ANC in the first trimester (84.6% versus 92.5%), and to receive ANC in the last month of pregnancy (87.8% versus 92.7%). For those who participated in an ANC session, almost all were facilitated by a doctor. However, Syrian refugees were less likely than vulnerable Lebanese women to have received ANC from a doctor (95.7% versus 99.2%). The proportion of Syrian refugee mothers of children aged under two years who reported that they had received at least four ANC visits while pregnant with their youngest child has increased significantly from 2016 (41.9%) to 2019 (61.6%). As with other health services, there was a clear reliance among Syrian refugees on SDC health clinics (54.8%), while vulnerable Lebanese demonstrated a preference for private clinics (83.4%).

Delivery: Despite generally favouring SDC health clinics and private clinics respectively, nine in ten vulnerable Lebanese (91.8%) and eight in ten Syrian refugees (81.4%) delivered their youngest child in a hospital. This difference is significant and reflects a concern among Syrian refugees who did not deliver in a hospital that the service would be too expensive or that they would be unable to reach the hospital due to transport limitations or rapid labour. Nine in ten women who delivered in hospital paid to do so, with Syrian refugees significantly more likely to have paid for their hospital stay. Syrian refugees generally paid a lower amount than vulnerable Lebanese.

Postnatal Care (PNC): While no significant change was observed in the proportion of vulnerable Lebanese who received a post-partum visit from an appropriately trained health worker within two weeks after birth of their youngest child (2016 and 2019 or 2018 and 2019), this standard of care was significantly more likely to have been met for Syrian refugees in 2019 (79.3%) than in 2016 (63.5%). This improvement represents a slight decrease since 2018 (84.4%) but no statistically significant loss of the impressive gains made between 2016 and 2018. SDCs appear to be a very frequent place to receive such service for Syrian refugees (41.2%), while only 6.4% of vulnerable Lebanese respondents report they have received the post-partum care service in the SDC.

Family Planning: High rates of unplanned pregnancies in the study population (43.6% and 33.0% the last pregnancy of Syrian refugees and vulnerable Lebanese respectively) were coupled with low rates of modern contraceptive use (54.2% and 41.8%). Breastfeeding was commonly reported as a reason for not using any method to delay pregnancy, requiring further investigation. Genuine change is more likely to appear in the longitudinal data for the prevalence of contraceptive use. The proportion of mothers of children aged 0-23 months in the total sample who are using a modern contraception method increased from 27.3% in 2016 to 49.4% in 2019. There were significant improvements in this measure for both populations between 2018 and 2019. This is highly encouraging and represents the achievement of Medair’s target of a 20% increase in the proportion of women who are using a
modern contraceptive method, likely associated with Medair’s support of “additional health staff who are dedicated to the provision of FP services in the SDCs” and continued community-based maternal health project.

**Mortality in pregnancy:** 5.9% of Syrian refugees and 6.7% of vulnerable Lebanese women who had a sister reported that one or more of their sisters had died just after delivering a baby in Lebanon. Although awareness of the WHO recommendation that pregnancies should be spaced at least two years apart was low, particularly among Syrian refugees (42.1%), the majority of women were aware of at least one risk of getting pregnant within two years of the last delivery (76.0% of vulnerable Lebanese and 69.4% of Syrian refugees).

**Psychosocial support (PSS) services:** The survey found high rates of psychological distress, with over three quarters (75.7%) of Syrian refugees and over two thirds (69.5%) of vulnerable Lebanese agreeing that in the past six months, they or someone they knew felt “sad, stressed, or under pressure.” Yet knowledge of available PSS services was limited, with less than a third of Syrian refugees and less than a quarter of vulnerable Lebanese able to identify PSS available in their communities. Syrian refugees were significantly more likely to have talked to a trained service provider about PSS in the 12 months before the survey (17.1% versus 6.1%; p < 0.01). However, Syrian refugees were significantly less likely than vulnerable Lebanese to feel that they were able to access these services (49.4% versus 57.7%). Cost and a preference to keep psychosocial matters personal were commonly cited as reasons for not having engaged in discussions of PSS with a trained service provider and a preference for dealing with sadness, stress or pressure by themselves or by reaching out to friends or family were evident in both populations. Positive changes were observed among both sampled populations about identifying available PSS services (35.8% among Syrian respondents and 48.9% among vulnerable Lebanese), as well as levels of comfort to access such services (46.6% among Syrian respondents and 53.7% among vulnerable Lebanese). No changes were observed in respondents reporting access to such services (3.2% reported by Syrian and 2.8% by vulnerable Lebanese).

**CONCLUSIONS**

The results of this longitudinal study suggest higher gains in levels of knowledge related to the availability of services and identifying risk factors for NCDs. Positive changes were observed in increased health-seeking behaviours and vaccination rates for children 12-23 months old (increasing from 7.7% to 26%). The findings demonstrate that both Syrian refugees and vulnerable Lebanese continue to face complex social, financial and logistical constraints in health care access and that avoidable health risks persist for both populations. The gaps in health care access, knowledge and practices tend to be greater for Syrian refugees than vulnerable Lebanese.

In combination with the heavy reliance of Syrian refugees on SDC health clinics, these findings justify the original design of the Medair projects which focus on health care at primary health care level, and outreach to women’s homes and wider community outreach events.

**RECOMMENDATIONS**

1. **Raise the profile of SDC health clinics**, as these continue to provide an important point of contact with the health system, particularly for Syrian refugees.

2. **Ensure that all information, education, and communication (IEC) materials rely on graphics**, so to mitigate the barriers associated with low literacy rates. The use of videos and other forms of verbal media may be useful mechanisms to convey important health messages.

3. **Improve vaccination rates**. The vaccination coverage rate in the survey population falls short of herd immunity thresholds. Less than a third of vulnerable Lebanese and less than a quarter of Syrian refugee children had received the full complement of age-appropriate vaccinations. Vaccination campaigns should be urgently scaled up to reach as many of the children of both nationalities as possible.

4. **Raise awareness of the importance of seeking and treatment for the symptoms of ARI**. Less than 50% of each population sample accessed health care when their child had symptoms of ARI. This result is much lower when SDC health clinics are not included in the list of appropriate health care facilities (1.5% of Syrian refugees and 25.6% of
vulnerable Lebanese). As ARIs can lead to pneumonia, a potentially fatal condition and a leading global cause of child mortality, strategies to promote treatment-seeking for these symptoms should be developed.

5. Identify and address the causes of high rates of diarrhoea. Over one-third of Syrian refugees (36.5%) and one-fifth of vulnerable Lebanese (21.6%) reported that any of their children under-five years experienced diarrhoea in the two weeks prior to the survey. These rates are alarmingly high. While the project seeks to improve the treatment of diarrhea, consideration should be considered to increase diarrhea prevention activities.

6. Increase efforts for awareness-raising on the importance of using family planning tools and services. Although few women in the survey reported that they had sought family planning services and not been able to access them, there was a high rate of unplanned pregnancy among both Syrian refugees and vulnerable Lebanese (43.6% and 33.0%). This was reflected in low rates of use of modern contraceptives.

7. Scale-up NCD education. Knowledge of NCD risk factors was found to be limited (particularly among Syrian refugees). Targeted, context-specific IEC relevant to the prevention and control of NCDs should, therefore, be prioritized and provided during contacts with the health services and other community-based delivery platforms.

8. Review existing ANC services against recently updated global recommendations. The KPC survey investigated whether mothers had received at least four antenatal visits when they were pregnant with their youngest child, and found that just this standard of care had been met for just two-thirds of respondents (78.6% of vulnerable Lebanese and 61.6% of Syrian refugees). It follows that far fewer received the recently updated WHO recommendations, which call for at least eight ANC contacts. Medair should, therefore, review existing services (including facilities, staffing, and training) to ensure capacity to offer women at least eight antenatal contacts are available; sensitize communities to the pertinent recommendations outlined in WHO recommendations on antenatal care for a positive pregnancy experience (2016); and encourage and facilitate women to access at least eight ANC contacts.

9. Investigate barriers to post-natal care. Less than half of all mothers of children under two years of age reported that they had received a post-partum visit from an appropriately trained health worker within two weeks after birth of their youngest child, and just 16.0% of mothers of children under two years in the sample said that such a check had occurred at least three times. Syrian refugees had much lower rates of PNC access, but the reasons for low rates of PNC contacts were unclear. As PNC is among the most important interventions for both child and maternal health, further investigation is required to identify the reasons behind the failure to meet the recommended standard of PNC.

10. Promote early initiation of breastfeeding. The KPC revealed that a third of infants were not breastfed within the first hour of birth and that a fifth of Syrian Refugees and an eighth of vulnerable Lebanese women who did not initiate breastfeeding in the first hour reported that medical providers had not given them their baby to breastfeed in the first hour, and a worrisome perception that there was no milk in the breasts (and therefore breastfeeding should not be initiated) was common. Medair’s existing breastfeeding education programs should be reviewed in light of these findings, to ensure that medical staff and birth assistants serving these communities are trained to encourage, facilitate and support early initiation of breastfeeding wherever possible, and women and their families and communities made aware of the global recommendations and the evidence to support this important practice.

11. Restore the practice of exclusive breastfeeding for six months among Syrian refugees. Rates of exclusive breastfeeding were found to be very low among both populations studied and World Bank estimates for the prevalence of exclusive breastfeeding of infants less than six months in Syria (2009) are much higher than those observed in the KPC. This raises concern that conflict and displacement have resulted in a loss of a previous cultural norm to exclusively breastfeed among Syrian refugees, consistent with global evidence that humanitarian emergencies and refugee situations result in disruption of breastfeeding practices, for example, through the loss of support systems. In addition to supporting vulnerable Lebanese to increase the rate of exclusive breastfeeding, Medair should carry out in-depth behavioral insight research to confirm whether these practices have indeed been lost among Syrian refugees and tailor breastfeeding support systems (such as mother support groups) to restore the globally recommended practice of exclusive breastfeeding for the first six months.