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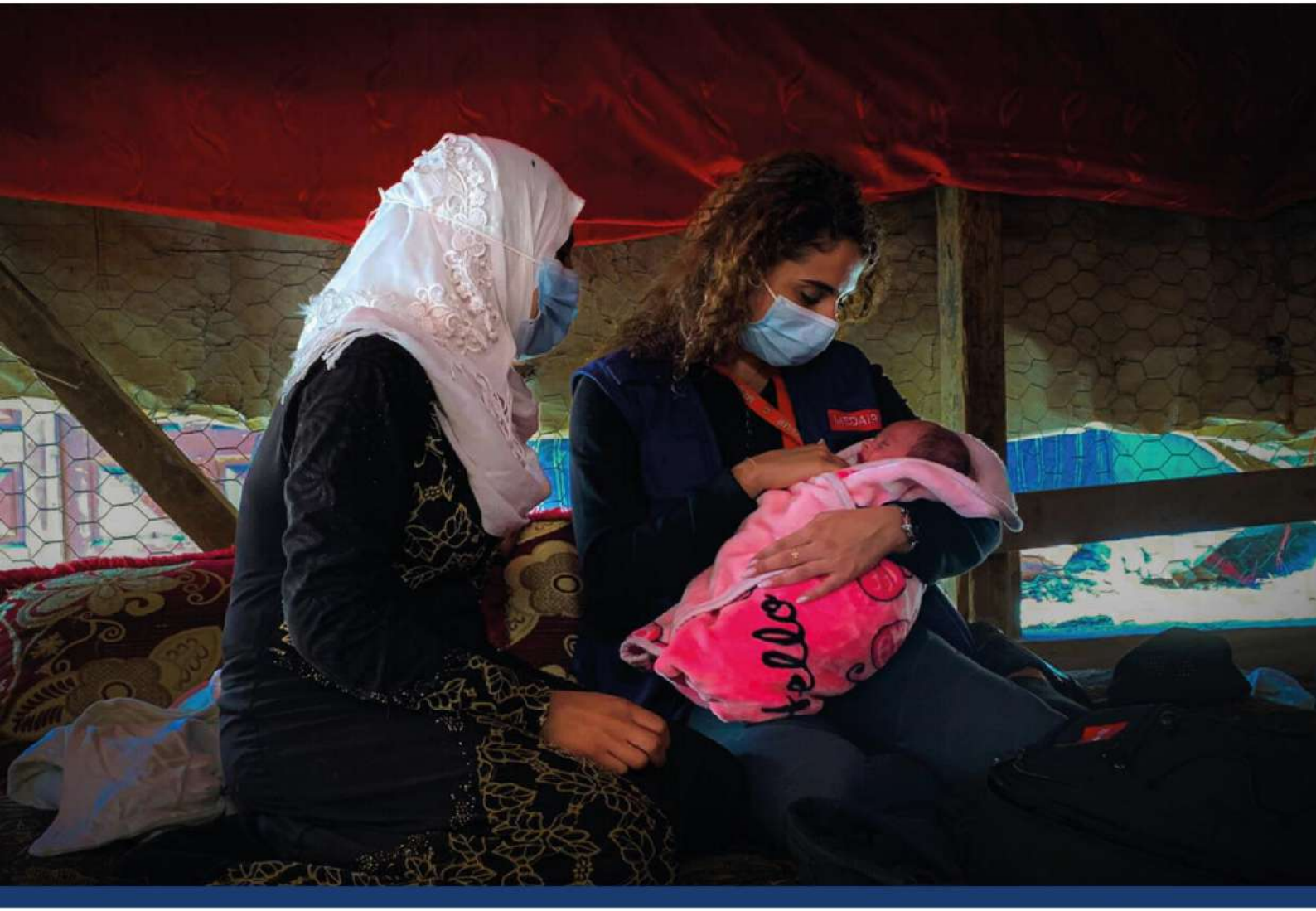

Medair Health Project in Bekaa Valley - Lebanon

Health and Nutrition Knowledge, Practices and Coverage
2021 Household Survey Report and Multi-Year Analysis 2016 - 2021

In partnership with Canada

Co-funded by European Union Humanitarian Aid

Medair Health Project in Bekaa Valley

Health and Nutrition Knowledge, Practices and Coverage

2021 Household Survey Report
&
Multi-Year Analysis 2016-2021

FINAL

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Medair Lebanon

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ACRONYMS

ANC	Ante-Natal Care
ARI	Acute Respiratory Infection
CHV	Community Health Volunteer
CMW	Community Midwife
C-Section	Caesarean Section
DPT	Diphtheria and Pertussis and Tetanus
EBF	Exclusive Breastfeeding
EU-MADAD	EU Regional Trust Fund in Response to the Syrian Crisis
FP	Family Planning
GAC	Global Affairs Canada
HH	Households
IAMP	Inter-Agency Mapping Project
ITS	Informal Tented Settlement
KPC	Knowledge, Practice, and Coverage
MCH	Maternal and Child Health
MMR	Measles Mumps Rubella
MOSA	Ministry of Social Affairs
MOPH	Ministry of Public Health
NCD	Non-Communicable Diseases
NGO	Non-Governmental Organizations
ODK	Open Data Kit
ORS	Oral Rehydration Solution
PHC	Primary Health Care
PNC	Post-Natal Care
PPC	Post-Partum Care
PPT	Percentage Point
PSS	Psycho-Social Support
RH	Reproductive Health
SBCC	Social and Behaviour Change Communication
SDC	Social Development Centre
STI	Sexually Transmitted Infections
TOR	Terms of Reference
UNICEF	United Nations Children Fund
UNHCR	United Nations High Commissioner for Refugees
UNHCHR	United Nations High Commissioner for Human Rights
WASH	Water Sanitation and Hygiene
WHO	World Health Organization

1 Executive Summary

Introduction

Since 2014, Medair has been supporting the MOSA in the health centres of the Social Development Centres (SDCs) and the Community Health Volunteers (CHVs) and Community Midwives (CMW) in their community outreach work. Medair supports the clinics through the provision of human resources, medicines, equipment, capacity building and supportive supervision to each of the clinics. Since 2014, Medair has supported ten different SDCs throughout the years although not all are currently being supported through Medair any longer. In 2021, Medair currently continues to support five SDCs in the Bekaa Valley – Brital, Talia, Joub Jannine, Marj, and Qabb Elias. Funding to support the Medair health project comes from an array of donors, of which EU-MADAD and Global Affairs Canada (GAC) are the primary donors. The current funding cycle extends from 2016-2022.

The current health project activities focus on supporting three main objectives:

1. Improving access of mothers with children under five to primary health care services
2. Improve the quality of health care services provided by the MOSA SDCs.
3. Increase the health, nutrition, and hygiene awareness and practice among mothers with children under five.

Key project areas under these objectives include supporting health behaviours among mothers including:

1. Health seeking behaviour
2. Diarrhoea and respiratory tract infection management for children
3. Vaccinations
4. Reproductive health managements
5. Breastfeeding practices
6. Access to reproductive and psychosocial services.

To track performance against these indicators, a standardized annual Knowledge, Practice, and Coverage (KPC) household survey is applied to a random sample of mothers – both Syrian and Lebanese – in the Medair supported SDC project areas. Medair conducted its first KPC survey in November 2015 and has repeated the survey each year. The survey data tracks project indicator progress and provides evidence for the MOSA and MOPH regarding the MCH situation in the Bekaa valley and further inform future decision-making, advocacy, and programming.

Each year a report is generated to profile the contemporary annual state of the 47 indicators, compare against previous years, and based on the findings and multi-year comparisons, provide suggestions for adaptations or new programming approaches.

In 2021, in addition to the administration of the KPC survey, a series of focus group discussions (FGDs) were conducted with mothers to explore some aspects of the health experience more deeply.

Methodology

The purpose of the analysis is three-fold:

1. Analyse and report on the data collected from the KPC survey for 2021.
2. Conduct a comparative analysis against the earlier datasets from 2016-2021 to identify significant trends.
3. Propose suggestions for future programming implications.

In all the years, the data collection and sampling processes followed a standardized procedure with data collection in 2021 taking place during the month of October. A two-stage cluster random sampling approach was employed to achieve a 95% confidence level and a 5% margin of error to the total population. This population included both persons who were participating in Medair activities as well as the general population.

Table E1: Sample size by year.

	Total	Syrian	Lebanese
2016	753	367	386
2017	1298	634	664
2018	2233	1482	751
2019	2287	1529	758
2020	2685	1767	918
2021	2711	1681	1030

For the 2021 dataset, six social factors were assessed against results to determine their degree of influence on data patterns. The variables profiled are:

1. SDC
2. Location within Catchment Area (whether they lived within 5 kilometres of an SDC or were further away)
3. Nationality
4. Whether married before age 18
5. Whether can read or write
6. Whether participated in Medair activities including trainings, and awareness raising.

Table E2: 2021 Demographics.

Demographic	Syrian Refugees	Vulnerable Lebanese
Number	1681	1030
Cannot read or write	45.3%	5.3%
Married under 18 years	47.8%	15.9%
Participated in Medair activities	55.4%	33.1%
Mean Age of Respondent	28.9	30.3
Mean Age when married	18.3	21.3
Mean number of children under 5	1.7	1.4
Mean age of youngest child (months)	20.8	24.5
Gender of youngest child	55% boys 45% girls	55% boys 45% girls
SDC Coverage Area		
Marj	19.7%	21.2%
Brital	12.5%	32.0%
Joub Jannine	22.8%	14.7%
Qabb Elias	21.8%	17.6%
Talia	23.2%	14.6%
Total	100%	100%

Findings

Demographics

Syrian refugee mothers tended to be younger, to be married at an earlier age, have more children under five in the households, and had younger children overall. Syrian mothers were also more likely to not be able to read or write, and to have participated in Medair activities. When examining across the multi-year datasets, the demographic patterns were the same. In terms of analysis, this consistency allows for better generalizations of multi-year patterns. However, it also reflects that there has been relatively little change in social items such as literacy levels, or the number of children under five in the households.

Health Seeking Behaviour

Health seeking behaviour is high in 2021 for both Syrians and Lebanese women. The percentage of women seeking health services increased by more than 30 percentage points for Syrians and 25 percentage points for Lebanese mothers in 2021 compared to 2020 and 2019, possibly because of the pandemic based on focus group discussions. Given that the increase has been constant over the years, (39 percentage points for Syrian and 46 percentage points for Lebanese mothers, compared to 2018), this change can be attributed mainly to the support that Medair has provided to the SDCs over the years.

The SDCs have become an increasingly key component in the overall health system services to both Lebanese and Syrians. However, Syrians were much more likely, almost exclusively, to seek medical services from the SDCs. SDCs do provide a resource for accessing medical services which helps provide relief to the Lebanese medical system from the strain of the high numbers of persons in need.

Among those who did not access Medair-supported SDCs, the reasons given were not related to quality. The most reported factor was that they had not heard of the SDC (203 persons or 7.5% of the sample) or that they simply had not realized that it was an SDC supported by Medair – but may have accessed it anyway (192 persons or 7.1% of the sample). Lebanese were a little more likely to report not having heard of the SDC than Syrians (123 people or 11.9% versus 80 people or 4.8%). However, these numbers represent less than 5 percent of the total sample and would be enough to imply the need for further action.

MCH Management

This includes Acute respiratory infections (ARI), diarrhoea, and Non-Communicable Diseases (NCDs).

ARI: There is low incidence of severe ARI but coughing issues are more common. Syrian children were about twice as likely to have severe or mild ARI compared to Lebanese children. There has been a steep decline since 2016 for ARI cases but they are still more prevalent among Syrians and within the SDC catchment area than outside the SDC catchment area or with Lebanese. However, there appears to be a general improvement in health and hygiene conditions in the overall environment.

The percentage of mothers seeking treatment was high for both nationalities, but Lebanese sought help more quickly. Women who participated in Medair activities (whether Syrian or Lebanese) were more likely to seek treatment and to do it quickly. However, mothers' behaviour in seeking treatment has not changed over the project cycle period. For the project cycle, the percentage of Lebanese mothers and Syrian mothers whose children had an ARI incident and who reported seeking treatment stayed similar – fluctuating between 70-80% each year within the same margin of error.

For ARI, about one third of the children received antibiotics but cough drops are the most common treatment. For severe ARI cases, treatment patterns were similar but Lebanese mothers received more painkillers. Lebanese mothers were more likely to cite multiple medicines administered compared to Syrians. Over the years, Syrians are receiving more painkillers and antihistamines for ARI, but antibiotics have remained constant.

SDCs are playing a much more prominent role as a resource for women to seek treatment for ARI and for diarrhoea. The increase in in the surveyed population regarding SDC usage is correlated with a subsequent decline in respondents reporting using hospital or doctor usage which could be an indication triangulated the project logic of the SDCs for their role in helping reduce strain on the health system facilities.

The COVID pandemic does not appear to be affecting children's ARI. The overall prevalence of coughing and difficulty breathing has declined from 2016 and continued to decline in 2020 and 2021. This suggests that there have not been significant changes in habits or infections as a result of the pandemic. The COVID pandemic though does appear to be correlated with the treatment for severe ARI with more medicines administered to all cases in 2020 and 2021 compared to earlier years.

Diarrhoea: For diarrhoea, the incidence of diarrhoea is low overall but higher among Syrians than Lebanese. Over the years, there has been an improvement in the hygiene environment since 2016 and far fewer cases of diarrhoea overall. The primary treatment has been antibiotics, even more so than Oral Rehydration Solution (ORS). However, the use of ORS has increased markedly while zinc usage has declined.

NCD: There are more households within the sample with cases of hypertension than diabetes, but both are around 10-15% of the sample. Reports of diabetes have not changed much over the project timeframe but reported cases of hypertension have declined since 2016. It may be that the declines are linked to strengthening the overall health system or environment rather than project activities because there have not been gains in knowledge of NCD risks but there has been decline in NCDs in the sample. Most households with an NCD are taking medication for treatment, which they pay for themselves. SDCs are the primary source for subsidized medicines this year. Since this is a new question added to the survey, it cannot be determined whether this has shifted from past years.

Reproductive Health (RH) Services and Family Planning

These include Antenatal care (ANC), post-natal care (PNC), Family Planning (FP) and sexually transmitted infections (STI).

RH Services. There is widespread knowledge of ANC and PNC services but very little awareness of FP and STI services. The vast majority of respondents can cite at least one RH service – usually ANC and PNC services. Less than a quarter of the women could cite FP services and only about 10% could cite STI services. For Syrian mothers, knowledge of all RH services has increased from the baseline by a statistically significant degree. The biggest gains have been in knowledge of PNC services available (More than 40 ppt increase). For Lebanese mothers, knowledge of ANC services has stayed stable – because it was already high – but there were significant gains for PNC awareness.

Access. Syrian and Lebanese mothers know where to go for RH services. The more vulnerable populations use the SDCs while the less vulnerable populations use the private clinics. However, for both populations, SDCs have assumed an increasingly prominent role for RH services. As with general health treatment, SDCs are particularly important for more vulnerable populations including women who cannot read or write or who were married young. Participation in Medair activities is also linked to increased knowledge of RH services and their locations – especially for relying on SDCs as their resource. This is a positive reflection on the role of Medair's work in supporting the strengthening of the SDCs for RH services.

Comfort. Mothers report feeling comfortable and able to access RH services but are more likely thinking of ANC and PNC activities since few mothers actually reported accessing any other RH services besides these. There has been an increase in mothers accessing ANC and PNC services since the beginning of the project cycle, especially for Syrian mothers accessing PNC services. There has been no real change in mothers reporting that they accessed FP or STI services. Participation in Medair activities correlated with participants being more likely to seek out ANC and PNC services.

Family Planning. Less than a quarter of mothers reported discussing FP issues with someone. However, mothers are discussing FP informally with friends, family, or others. Very few mothers discuss FP with trained service providers (about 10%). This has remained constant throughout the project cycle. There do not appear to be access barriers to discussing FP since only 1.4% said that they had wished to and could not. However, Medair activities do influence women discussing FP issues, and it may be women are more shy about discussing FP unless they are in safer spaces such as Medair activities. This suggests value in continuing to provide these types of spaces.

Delayed Pregnancy. About 40% reported using any type of delayed pregnancy methods but only half of these were modern methods. The percentage of mothers reported using an FP method has stayed stable across the entire cycle, suggesting little behaviour change has occurred. However, only a very low percentage of mothers reported that the reason that they are not using a delayed pregnancy method was because they or their husbands wanted more children (less than 10%). The most common reasons for not using methods were because they were breastfeeding, did not like the methods, or were already pregnant. Since, according to the World Health Organization (WHO) family planning guidelines, breastfeeding does not delay pregnancy except when it is exclusive breastfeeding done frequently with babies under six months, which are not common conditions among the sample, this reflects a misunderstanding regarding delayed pregnancy tactics. Participation in Medair activities did increase the likelihood of using modern methods.

Birth Management

This category covers six discrete dimensions: ANC, Delivery, Maternal Mortality, Documentation, PNC, and breastfeeding practices.

ANC: The percentage of mothers who have had at least four ANC visits during their pregnancy has increased by more than 20 percentage points since the baseline in 2016 although it has remained stable from 2020. SDCs, including the SDCs supported by Medair, are continuing to play a vital role in providing health service options to reduce the strain on the overall health system by being a resource for ANC service. Syrian women were more likely to use SDCs while Lebanese women were more likely to use private clinics.

Birth: There has been an increase across the project cycle in the percentage of Syrian women giving birth in the formal system (10 ppt) and by 2021 almost all mothers give birth in a hospital or clinic. The clinics have provided better local access to women that had been impeded by access in 2016. The percentage of mothers who had C-sections remains higher than the WHO suggested 10-15% for both nationalities although Lebanese mothers appear far more likely to have C-Sections (57.6%) than Syrian mothers (29.1%) with the national average around 45%. There has been a small decline in C-sections since the baseline in 2016 by Syrian mothers (although no changes in Lebanese mothers), but this appears to have stabilized since 2017 with year-to-year values fluctuating within the margin of error. However, the decisions to take C-sections appears to be most related to doctor decisions rather than patients.

The health system for delivery experiences a bottleneck because almost all mothers give birth in hospitals or clinics so there are fewer options for distributing health system support. The implication is that this may result in an overcrowded health system to be able to properly care for mothers. Two ways this might be expressed is through the use of C-sections (for better planning of doctor time) and through shortened hospital stays for mothers after delivery. Both of these factors suggest that there is still a gap in institutional capacities to support delivery.

Maternal Mortality: The percentages of mothers who died within one week of pregnancy are small and declining over time (less than 1.0% in 2021). The way this is measured makes it difficult to calculate annual mortality rates per 100,000 live births. However, while these numbers are low (27 in the 2021 survey), even the most optimistic assumptions on maternal mortality would pro-rate to a mortality rate per 100,000 live births of 84.1 that would exceed the national rate for Lebanon (29.1) which suggests that the vulnerable Lebanese living in the Bekaa valley are more susceptible to maternal mortality than the overall national figures. The percentages are similar for both Lebanese and Syrian women in the sample suggesting that more could still be done on maternal mortality – especially in the context of improved health care services.

Birth Registration: Syrian mothers are less likely to report having received a health booklet while Lebanese mothers are almost always reporting having a health booklet. Lebanese mothers received a health booklet no matter where they gave birth, but Syrian mothers were less likely to receive a health booklet when giving birth

at a clinic compared to a hospital. For Syrian refugees, since 2016, children birth registration is happening in Lebanon rather than Syria as the protracted nature of the crisis continues. The percentage of children born in Syria in the sample has declined by 25 ppt since 2016 to currently only 3.5%. The percentage of children without birth certificates is higher for those children who were born in Syria where more than one-third of the Syrian-born did not have a birth certificate. Given these two factors combined with the overall high percentages with birth certificates, the issue of birth certificates is not really a systemic issue, but more of a case management issue focusing on these children born in clinics or born in Syria.

PNC: The frequency of PNC visits is one of the more notable gaps with few women receiving the recommended three PNC visits within 40 days. Mothers generally receive one PNC visit but do not do the full complement. Almost all mothers reported that their child received a health check upon delivery. However, only around 5% reported receiving another PNC visit within the first three days. The substantive majority of mothers (more than 80%) did report receiving a PPC visit within the first two weeks, but around 5% of the mothers reported receiving three PPC visits within 40 days. This percentage has not changed over the years.

SDCs have become more important for Syrian women and private clinics for Lebanese mothers as a resource for PNC visits. The increasing use of SDCs and decline in hospital usage is important because it again affirms the project logic of the potential of the SDCs to reduce the strain on other parts of the health system. Although it is within the margin of error, it does appear that there is a very slight downward shift in PNC visits since 2019 that may be due to the COVID pandemic and increasing stress to the health care system.

Breastfeeding: Breastfeeding practices have increased over the cycle but are rarely exclusive breastfeeding. Almost all mothers reported breastfeeding their child within the first hour and less than 10% of the sample (143 women) said that they did not ever breastfeed their child during the first six months. Among the 143 women in the sample who did not breastfeed during the first six months, the vast majority (123 women or 86%) said that it was because of the lack of milk which suggests that activities focused on raising awareness may not change behaviour since the primary barrier appears to be a physical issue.

The vast majority of the mothers reported breastfeeding their child for six months and this has steadily increased from 2016. Almost three quarters of the mothers reported breastfeeding for six months, but exclusive breastfeeding for the entire six months is not common even though 24-hour recall is more common. Mothers are willing to breastfeed and will breastfeed for an appropriate length of time, but long-term exclusive breastfeeding is rare even though they will practice exclusive breastfeeding over a particular day periodically throughout the first six months.

Vaccination Coverage

Vaccination Booklets: In 2021, just under 40% of the mothers could show a vaccination booklet for their child to the enumerator (35% for Lebanese mothers and 31% for Syrian mothers). Of concern, this percentage of women who could actually show the vaccination booklet to the enumerator has even declined since 2016 suggesting that fewer women are obtaining or maintaining the children vaccination booklets since the baseline. Participation in Medair activities did increase the likelihood of mothers having a booklet and suggests that Medair activities can have a positive effect on vaccine booklet maintenance. The low vaccination booklet numbers have been constantly declining throughout the project cycle and did not reflect any drastic changes in decline during the COVID-19 pandemic years. The following values reported significantly over-state true coverage because these are based only on those mothers who could produce a booklet.

Measles: Children, especially Syrian children, are significantly under-vaccinated for measles (65%), especially in families that cannot read or write. Measles coverage has declined until 2019 and is slowly increasing, but not returned to the baseline levels.

Polio and DPT: For Polio, the situation in 2021 is about 85% coverage which is an increase from 2016 (74%). DPT vaccination coverage is a similar percentage and pattern of increase from baseline as polio.

Age-appropriate vaccinations: There are 15 age-appropriate vaccines that are part of the Ministry of Health guidelines for children's vaccination in Lebanon and which are tracked in the KPC survey. The percentage of children with all age-appropriate vaccinations has an unusual pattern. The percentage of children with all age-appropriate vaccinations declined each year between 2016-2018 before the percentages of coverage gradually increased again each year from 2019-2021. However, even with the increases, the 2021 coverage percentages are still quite low (under 40%). Although it is not part of the logical framework indicators, it is possible to calculate the number of age-appropriate vaccines each child in the sample has received. This can provide insights into whether children are getting more of their age-appropriate vaccines, even if they are not getting all of their age-appropriate vaccines. There are 15 age-appropriate vaccines each child should have received. The average number of vaccines per child in the sample has increased to 11.5 per Syrian child in 2021 and 12.8 per Lebanese child. There is a substantial difference by nationality where Lebanese children were more likely to have all

vaccines compared to Syrians. The more vulnerable the household, the lower the vaccination coverage and mothers who could not read or write were much less likely to have all age-appropriate vaccines. Participation in Medair activities did correlate with higher average number of vaccines per child.

Psycho-Social Support (PSS) Services and Access

PSS need and access: A substantive majority of respondents (almost 80%) reported feeling sad, stressed or under pressure. This percentage has remained constant since the 2016 survey. However, less than 5% reported accessing PSS from specialized services. This has not changed over the years of the cycle. Most women either deal with it on their own (about 40%) or through informal support from family, neighbours, friends, or religious leaders (just over 50%).

PSS Services and Locations: Awareness of PSS services is low among both Syrians and Lebanese and usually understood as support groups. Only about one third of the respondents could cite at least one PSS service available even though there has been an increase since 2016 in awareness of PSS services. Participation in Medair activities correlates with increased awareness of PSS services. By far the most commonly cited service was support groups followed distantly by counselling.

PSS barriers to access: Over 60% of the women claim that they would be comfortable and able to access PSS. The primary barriers to access are concerns from women who would prefer to keep it secret that they were accessing these services. Vulnerability factors influenced women's hesitancy with women who were illiterate or who married early being more uncomfortable.

Additional 2021 Factors

Conflict and tensions: Few respondents reported facing tensions or observing prejudicial services (17% Syrians and 10% Lebanese). Syrians, living inside the catchment area were more likely to report observing tensions. Tensions are mostly between staff and patients rather than among patients. About half of the respondents who reported tensions identified the tensions as being between SDC staff and patients rather than patients of different nationalities sparring with each other. There are two important patterns among the SDCs though. In Joub Jannine, although it had the lowest reported incidence of tensions, by far the most common source of tension was between patients of different nationalities (65%). In contrast, among the SDCs, Brital had the highest percentages citing tensions between staff and patients (73%).

COVID-19 Vaccines: Vaccine coverage is very low, especially among Syrians. Vaccine hesitancy is significant with only about a third of the sample registered for vaccination. Less than half reported being willing to be vaccinated. Most people do not see challenges in getting the vaccines except for concerns about the side effects. Vaccine hesitancy revolves more around the fear of the vaccines rather than under-estimating the seriousness of COVID or lack of knowledge about where to go.

Social Factors Effects on Health Behaviour

Among the six social factors, nationality has the most influence in the distribution of responses. In many indicators, the patterns across the cycle were that there would be an increase in Syrian behaviour from 2016 while with Lebanese respondents the patterns stayed more consistent. Because Lebanese response percentages were higher to begin with, this had an effect of often bringing Syrian responses closer to Lebanese responses by 2020 which continued into 2021.

The second most influential social factor, after nationality, is whether the respondent can read or write. Women who cannot read or write are less likely to have appropriate health knowledge or behaviours – especially those elements that have to do with management or maintenance. Early marriage was associated with literacy but was not influential by itself. Living inside or outside the catchment area obviously affected access to Medair-supported SDCs, with women living inside the catchment areas relying on SDCs while those living outside the catchment areas – and thus further away from the SDCs – tended to use hospitals and private clinics more. Those living outside the catchment areas were generally better off than those living inside the catchment areas and consequently were able to access more expensive services while those living inside the catchment areas were more dependent on the subsidized care provided through the SDCs.

SDCs as a whole have played a significant role in the provision of health services – especially to vulnerable populations. Syrians have greater needs in health knowledge and behaviour than Lebanese and they rely more on the SDCs to access these services. This has led to reduced strain on the other elements in the formal health system and helped improve access to services. There is enough consistent variation among the SDC response percentages to suggest it may be useful to develop a tool specifically to assess individual capacities of SDCs.

Participation in Medair trainings and awareness raising activities does have influence for women's health behaviour on several dimensions, although not all. Participation in Medair activities was associated with a greater

percentage of women using Medair-supported SDCs. Women also reported having better access to RH services and were more likely to participate in PSS exercises. Women who participated in Medair activities were also more likely to have their children vaccinated and they were more likely to have had family planning discussions. Participation in specific Medair activities is not associated with any of the other log frame indicators.

Conclusions

Overall, there has been progress on most indicators across the project cycle. Of the 47 indicators profiled, 25 show positive changes and only 2 show a negative change (measles coverage and staying in hospital more than 24 hours). The remainder are stable or volatile.

There have been improvements in health seeking behaviour and declines in incidence of ARI, Diarrhoea and NCD which suggests that there are positive improvements in the general WASH environment as well as improved lifestyle environment which are affecting these changes in incidence (even though not connected to Medair activities). Treatment behaviour has stayed constant throughout the cycle, and there are positive increases in ORS usage. There is an unusual increase in the use of painkillers and antihistamines for ARI treatment.

Reproductive health knowledge has increased over the cycle, but this is focused on ANC ad PNC. Most respondents do not consider FP or STI services and most know of only one place to access RH services. Family planning practices have improved but there are still gaps in terms of consultation, contraceptive use, or birth spacing practices.

While overall the birth management cycle is strong, there are gaps yet in systemic capacities of the health system to meet the demand because there are fewer options for birth. Because of this, there are problematic patterns in staying in hospital, the use of C-sections, maternal mortality, and appropriately frequent PNC care.

Among vaccinations, there is a fundamental under-reporting of vaccine coverage due to the low levels of vaccine booklet management. The decline in measles coverage and low percentages of age-appropriate vaccines are gaps to address further. Programming around increased quality of management of the vaccine booklets may have an outsize effect on vaccination coverage and should be considered in future programming.

In terms of percent of respondents using services, the fewest percentages are accessing PSS support. PSS knowledge about services or locations are not well known and very few mothers access PSS services from trained service providers even though three quarters of the respondents reported a type of PSS need. Mothers still prefer to access PSS support from informal sources, and they are not accustomed to using trained service providers.

Recommendations

After the 2020 annual report, a series of nine recommendations were presented. These recommendations are still relevant for 2021 based on the emergent findings. The following recommendations place structure around the potential project activities cited above. These are structured as eight recommendations to respond to potential future programming. In some cases, the recommendations may lie outside the specific scope of Medair programming in the Bekaa valley but could be considerations for Medair promotion with other health actors. A ninth recommendation is reiterated from last year to emphasize caution in unreliable survey questions which could cause volatile results.

Recommendation 1: Adult Literacy.

Given the prevalence of literacy as an influencer on patterns, consider integrating into future programming additional investment in activities around the promotion of adult literacy for mothers given the effect that literacy has on health behaviours and knowledge. Alternatively, for those variables with significant differences between literacy levels, consider developing materials or training methods which are more friendly for non-literate women.

Recommendation 2: SDC Assessment.

Medair should consider development of an in-depth SDC assessment tool to provide additional detail on the functioning of the individual SDCs supported by Medair especially with respect to how staff are treating patients. There is enough variation among the SDCs even when controlling for socio-demographic factors that follow up assessing individual SDC performances and quality would be a useful next step for providing increased quality of service.

Consider programming that seeks to strengthen the institutional capacity of the formal hospitals and clinics for birth delivery demands. Increasing the capacity for absorption should be accompanied by awareness raising activities directed to doctors and medical officials on three items:

1. increasing length of stay in hospital after birth,
2. decreasing reliance on C-sections, and
3. assessments of conditions that may be contributing to maternal mortality.

Recommendation 4: SDC Post-Delivery Support.

In combination with recommendation 3, to improve the SDC support to mothers post-delivery, consider adding support to SDC capacity to conduct the following activities:

1. Registration case management support to mothers whose children are either: a) 0-6 months, or b) were born in Syria, to help them acquire birth certification.
2. Increasing capacity of SDCs to provide sufficiently frequent PNC visits and care to mothers within the first 40 days of delivery.
3. Breastfeeding training provided by SDCs to focus on increasing the frequency of 24-hour exclusivity during the first six months.

Recommendation 5: Family Planning.

Continue to provide safe spaces for FP discussions. Consider adjusting activities around family planning practices to take into account that knowledge of risks does not appear to lead to behaviour change and that reasons for not using contraception are not likely associated with preference for more children. These adjustments should provide special attention to activities that encourage:

1. increased consultation on FP with trained providers,
2. increased use of modern contraceptive practices,
3. increased knowledge of appropriate contraceptive practice and birth spacing needs.

Recommendation 6: Vaccination Coverage.

To strengthen vaccination coverage, consider integrating into new activities two areas of focus:

1. A campaign for mass vaccination of measles,
2. Increased training to mothers – especially ones who cannot read or write – on care and management of vaccine booklets.
3. Strengthening the vaccination tracking system to include SDC nurses calling the mother of the child to remind her of an appointment when a child is due to receive a specific vaccine.

Recommendation 7: PSS Services.

Strengthen PSS services programming support through two mechanisms:

1. Strengthening the capacity of the informal sources of support which are the preferred option of mothers through peer-to-peer learning or lay-person trainings to provide basic tools to informal sources for adequate PSS support.
2. Increasing the utilization of available trained service providers for PSS support.

Recommendation 8: COVID-19 vaccine hesitancy.

Mitigate vaccine hesitancy through two mechanisms:

1. Continued support to registration and vaccination steps
2. Expand awareness campaigns addressing vaccine fears (rather than on increasing concerns about the risks of COVID itself).

Recommendation 9: Survey Reliability.

Adjust the survey questions for future programming to reduce reliability issues that come from either questions that may confuse respondents or which they may not have the knowledge to know. This includes:

1. Tracking medicine usage and the distinctions between antibiotics, antihistamines, or painkillers
2. Replacing 'satisfaction' questions for RH and PSS services with a checklist of actions that health professionals conducted or not with the respondent when they accessed the service.
3. Adding specific questions regarding comfort and access to FP and STI services rather than general RH services.
4. Asking for medical reasons for actions that may be beyond the respondents' knowledge (such as cause of death, reasons for C-sections, among others)

2021 Logframe Indicator Summary

Dimension	Indicators	Syrian Refugees	Vulnerable Lebanese
Socio-demographic info	1. % of mothers of children ages under 5 years who got married before the age of 18 years (early marriage)	47.8	15.9
	2. % of mothers of children ages under 5 years who do not know how to write and read	45.3	5.3
Health care access general	3. % of mothers of children aged under 5 years of age in project area who went to qualified health services when they needed medical services	94.1	88.1
	4. % of mothers of children aged under 5 years of age in project who visited any Medair supported SDC during the 12 months prior to the survey	77.3	58.8
Reproductive Health (RH) services	5. % Women in the targeted communities who correctly identify available RH services	93.5	91.9
	6. % WGMB in the targeted communities who correctly report where to access RH services	99.9	99.9
	7. % Women in the targeted communities who report that they would be comfortable and able to access these (RH) services as needed	96.3 94.4	98.0 98.0
	8. % of mothers of children under 5 years who report accessing RH services in the 6 months prior to the survey	56.9	51.1
	9. % of mothers of children under 2 years receiving RH services who report satisfaction with support provided	95.7	99.5
ANC visits	10. % of mothers of children under two years of age who had at least 4 comprehensive antenatal visits when they were pregnant with their youngest child	72.7	92.9
	11. % mothers of children aged 0-23 months who had their first ANC visit within the first 3 months of pregnancy	91.1	98.1
	12. % mothers of children aged 0-23 months who had their last ANC visit less than 1 month before delivery	80.3	89.4
Delivery	13. % of mothers of children under 5 years who delivered their youngest child at hospital	95.4	99.9
	14. % of mothers of children under 5 years who delivered by caesarean section	29.1	57.8
	15. % of mothers of children aged 0-23 months who received a health booklet during their stay at hospital	77.6	93.8
	16. % of mothers of children aged 0-23 months who stayed at 24h in the hospital after delivery	18.8	32.1
Postnatal Care (PNC)	17. % of mothers of children under two years of age who received a post-partum visit from an appropriate trained health worker within two weeks after birth of their youngest child	84.8	83.1
	18. % of children under two years of age who were examined by an appropriately trained health worker 3 days after delivery	4.6	8.0
	19. % of mothers of children under two years of age who received at least 3 post-partum visits within 40 days after delivery	3.6	7.0
(Exclusive) Breastfeeding	20. % of infants 0-6 months who are exclusively breastfed (calculation method 1)	13.6	8.2
	21. % of infants 0-6 months who are exclusively breastfed (calculation method 2)	45.8	40.9
	22. % of mothers of children 7-23 months who breastfed their child within 1 hour after delivery	94.1	96.6
Family Planning (FP)	23. % of mothers of children under 5 years who report discussing FP with a trained service provider in the 12 months preceding the survey	8.1	9.9
	24. % of mothers of children 0-23 months who are using a modern contraceptive method	15.5	21.8
	25. % of mothers of children 0-23 months who know at least one risk of getting pregnant within 2 years of last delivery	71.7	85.0
	26. % of women of children 0-23 months who know what the recommended spacing is for births.	25.6	19.1
Vaccinations	27. % of children aged 12 months- 5 years who are vaccinated for measles in clinics' coverage area	57.4	73.4
	28. % of children aged 1- 5 years who are vaccinated for polio in clinics' coverage area	84.4	87.1
	29. % of children aged 1- 5 years who are vaccinated for Diphtheria and Pertussis and Tetanus (DPT) in clinics coverage area	82.5	88.7
	30. % of children aged 12-23 months who received age-appropriate vaccination at time of survey	29.2	48.0
Treatment of sick child	31. % of children under 5 years that had fast or difficult breathing in the last 2 weeks	8.1	3.4
	32. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought after more than 24h of fast or difficult breathing, in the last 2 weeks	17.7	9.6
Treatment of children with Acute Respiratory Infection (ARI)	33. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought from an appropriate health facility or provider in the last 2 weeks	73.2	76.4

	34. % of children under 5 years with fast or difficult breathing or cough by type of treatment in the last 2 weeks (inclusive of antibiotics)	See Results	See Results
Treatment of children with diarrhoea	35. % of children under 5 years with diarrhoea receiving ORS and zinc supplementation	51.2 9.0	41.7 4.8
Prevalence of diarrhoea	36. % of children under 5 years that experienced diarrhoea in the last 2 weeks	17.1	9.5
Non-Communicable Diseases (NCD)	37. % of mothers of children under 5 years who reported having at least one HH member with NCD	13.8	11.4
	38. % of women who know 2 or more ways to reduce the risk of NCDs	33.2	59.9
Psycho Social Support (PSS) services	39. % women in the targeted communities who correctly identify available PSS services	33.4	38.1
	40. % women in the targeted communities who correctly report where to access PSS services	21.7	32.4
	41. % of mothers of children under 5 years who report discussing PSS with a trained service provider in the 12 months preceding the survey	18.0	15.5
	42. % women in the targeted communities who report that they would be comfortable and able to access these (PSS) services as needed	66.1 56.8	71.5 65.4
	43. % of mothers of children under 5 years who report accessing PSS support services in the 6 months prior to the survey	3.9	2.8
	44. % of mothers of children under 5 years receiving PSS services who report satisfaction with support provided	98.4	99.9
Child registration	45. % of children under 5 years officially registered in their country (for Syrians)	3.8	NA
	46. % of children under 5 years without birth certificate	4.4	NA
Mortality related to pregnancy	47. % of women's sisters who died due to problems related to pregnancy	0.9	0.7
Added 2021 Survey Questions			
COVID-19 Vaccine	48. Percent receiving at least one dose	9.1	20.6
	49. Percent registered for COVID vaccine on IMPACT	37.5	37.3
	50. Percent willing1 to be vaccinated	42.8	47.0
	51. Percent of families with all adults vaccinated	3.6	9.6
	52. Percent reporting vaccine concerns	50.1	44.0
Community Tensions	53. Percent reporting SDCs prioritize Syrians	1.7	7.8
	54. Percent reporting SDCs prioritize Lebanese	29.7	5.5
	55. Percent report facing tensions in health centres	17.5	10.6
Health Status	56. Percent reporting good or very good family health status	96.1	96.9

1 Combined "somewhat willing" and "very willing"

Multi-Year Logframe Indicator Summary2

Key
Positive Changes in Indicator
Neutral
Negative Changes in Indicator

Dimension	Indicators	Changes	Syrian Refugees			Vulnerable Lebanese		
			2021 Value	Baseline Value	Movement	2021 Value	Baseline Value	Movement
Socio-demographic info	1. % of mothers of children ages under 5 years who got married before the age of 18 years (early marriage)		47.8	43.4	Stable	15.9	22.2	Stable with decline 2020
	2. % of mothers of children ages under 5 years who do not know how to write and read		45.3	41.0	Stable	5.3	8.4	Stable
	% of households (HH) with a crowdedness index above 1.5		NA	NA	NA	NA	NA	NA
Health care access general	3. % of mothers of children aged under 5 years of age in project area who went to qualified health services when they needed medical services		94.1	42.4	Increasing	88.1	55.2	Increasing
	4. % of mothers of children aged under 5 years of age in project who visited any Medair supported SDC during the 12 months prior to the survey		77.3	42.2	Increasing	58.8	34.2	Increasing
Reproductive Health (RH) services	5. % Women in the targeted communities who correctly identify available RH services		93.5	80.1	Increasing	91.9	88.6	Stable
	6. % WGMB in the targeted communities who correctly report where to access RH services		99.9	65.7	Increasing	99.9	90.2	Stable
	7. % Women in the targeted communities who report that they would be comfortable and able to access these (RH) services as needed		96.3 94.4	70.3	Increasing	98.0 98.0	86.3	Stable with increase in 2020
	8. % of mothers of children under 5 years who report accessing RH services in the 6 months prior to the survey		56.9	33.0	Increased 2016 to 2017, then stable	51.1	44.6	Volatile in between years
	9. % of mothers of children under 5 years receiving RH services who report satisfaction with support provided		95.7	90.1	Increase	99.5	93.6	Increase
ANC visits	10. % of mothers of children under two years of age who had at least 4 comprehensive antenatal visits when they were pregnant with their youngest child		72.7	57.5	Increasing	92.9	79.0	Increasing
	11. % mothers of children aged 0-23 months who had their first ANC visit within the first 3 months of pregnancy		91.1	74.5	Increasing	98.1	87.2	Increasing
	12. % mothers of children aged 0-23 months who had their last ANC visit less than 1 month before delivery		80.3	85.5	Stable	89.4	85.5	Stable
Delivery	13. % of mothers of children under 5 years who delivered their youngest child at hospital		95.4	81.7	Increasing	99.9	98.7	Stable
	14. % of mothers of children under 5 years who delivered by caesarean section		29.1	37.7	Declining	57.8	58.2 (2017)	Stable from 2017

2 The baseline value in the table here is generally 2016, except for some of the indicators with a baseline value in 2018, as indicated in the Findings section further in the report.

	15. % of mothers of children aged 0-23 months who received a health booklet during their stay at hospital		77.6	68.7	Increasing	93.8	91.9	Increasing
	16. % of mothers of children aged 0-23 months who stayed at 24h in the hospital after delivery		18.8	22.0	Declining	32.1	34.3	Volatile in between years
Postnatal Care (PNC)	17. % of mothers of children under two years of age who received a post-partum visit from an appropriate trained health worker within two weeks after birth of their youngest child		84.8	84.5 (2017)	Stable	83.1	87.9 (2017)	Stable
	18. % of children under two years of age who were examined by an appropriately trained health worker 3 days after delivery		4.6	4.4	Stable	8.0	7.1	Stable
	19. % of mothers of children under two years of age who received at least 3 post-partum visits within 40 days after delivery		3.6	4.5	Stable	7.0	10.8	Stable
(Exclusive) Breastfeeding	20. % of infants 0-6 months who are exclusively breastfed (calculation method 1)		13.6	28.7	Volatile	8.2	21.2	Volatile
	21. % of infants 0-6 months who are exclusively breastfed (calculation method 2)		45.8	35.7	Stable	40.9	26.1	Increasing
	22. % of mothers of children 7-23 months who breastfed their child within 1 hour after delivery		94.1	68.3	Increasing	96.6	80.6	Increasing
Family Planning (FP)	23. % of mothers of children under 5 years who report discussing FP with a trained service provider in the 12 months preceding the survey		8.1	6.6	Stable	9.9	10.8	Stable
	24. % of mothers of children 0-23 months who are using a modern contraceptive method		15.5	16.8	Stable	21.8	27.8	Stable
	25. % of mothers of children 0-23 months who know at least one risk of getting pregnant within 2 years of last delivery		71.7	49.5	Increasing	85.0	70.6	Increasing
	26. % of women of children 0-23 months who know what the recommended spacing is for births.		25.6	41.1	Volatile	19.1	68.5	Volatile
Vaccinations	27. % of children aged 12 months- 5 years who are vaccinated for measles in clinics' coverage area		57.4	72.7	Declining	73.4	74.9	Declining
	28. % of children aged 1- 5 years who are vaccinated for polio in clinics' coverage area		84.4	74.2	Stable	87.1	73.8	Increasing
	29. % of children aged 1- 5 years who are vaccinated for Diphtheria and Pertussis and Tetanus (DPT) in clinics coverage area		82.5	61.4	Increasing	88.7	73.8	Increasing
	30. % of children aged 12-23 months who received age-appropriate vaccination at time of survey		29.2	12.1 (2018)	Increasing	48.0	21.7 (2018)	Increasing
Treatment of sick child	31. % of children under 5 years that had fast or difficult breathing in the last 2 weeks		8.1	39.2	Decreasing	3.4	40.9	Decreasing
	32. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought after more than 24h of fast or difficult breathing, in the last 2 weeks		17.7	14.2	Stable	9.6	11.0	Stable
Treatment of children with Acute Respiratory Infection (ARI)	33. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought from an appropriate health facility or provider in the last 2 weeks		73.2	68.3	Stable	76.4	76.3	Stable but jumped in 2020
	34. % of children under 5 years with fast or difficult breathing or cough by type of treatment in the last 2 weeks (inclusive of antibiotics)		See Results	See Results	See Results	See Results	See Results	See Results
Treatment of children with diarrhoea	35. % of children under 5 years with diarrhoea receiving ORS and zinc supplementation		51.2 9.0	30.1	Increasing	41.7 4.8	17.6	Increasing
Prevalence of diarrhoea	36. % of children under 5 years that experienced diarrhoea in the last 2 weeks		17.1	41.4	Decreasing	9.5	35.5	Decreasing
Non-Communicable Diseases (NCD)	37. % of mothers of children under 5 years who reported having at least one HH member with NCD		13.8	23.4	Decreasing	11.4	21.2	Decreasing
	38. % of women who know 2 or more ways to reduce the risk of NCDs		33.2	26.4	Increasing	59.9	57.6	Increasing
Psycho Social Support (PSS) services	39. % women in the targeted communities who correctly identify available PSS services		33.4	18.0	Increasing	38.1	30.1	Stable
	40. % women in the targeted communities who correctly report where to access PSS services		21.7	12.8	Increasing	32.4	26.4	Stable

	41. % of mothers of children under 5 years who report discussing PSS with a trained service provider in the 12 months preceding the survey		18.0	10.9	Increasing	15.5	9.6	Stable
	42. % women in the targeted communities who report that they would be comfortable and able to access these (PSS) services as needed		66.1 56.8	36.9 (2018)	Increasing	71.5 65.4	45.3 (2018)	Increasing
	43. % of mothers of children under 5 years who report accessing PSS support services in the 6 months prior to the survey		3.9	3.7	Stable	2.8	8.9	Stable
	44. % of mothers of children under 5 years receiving PSS services who report satisfaction with support provided		98.4	90.9	Increasing	99.9	88.9	Increasing
Child registration	45. % of children under 5 years officially registered in their country (for Syrians)		3.8	31.1	Decreasing	NA	NA	NA
	46. % of children under 5 years without birth certificate		4.4	7.7	Stable	NA	NA	NA
Mortality related to pregnancy	47. % of women's sisters who died due to problems related to pregnancy		0.9	7.8	Decreasing	0.7	8.1	Decreasing

Introduction and Background

2.1 Context

The Syrian refugee crisis is considered to be one of the worst humanitarian crises since World War II3 and Lebanon continues to host one of the highest numbers of displaced persons per capita in the world. Estimates place the number of displaced persons hosted in Lebanon as more than 1.5 million4 of which a third live in the Bekaa Valley.[5] The protracted nature of the Syrian conflict has meant that since 2014, the refugee population in Lebanon has been stable. This population, in combination with nearly 1.5 million Lebanese whose vulnerabilities have been exacerbated by the crisis as well as more recent events such as the COVID-19 pandemic and the explosion of Port of Beirut, has strained the capacities of political, economic, and social systems to respond to the needs of these affected populations – including for healthcare. This has led to complicated living conditions in settlements, exacerbated by poor sanitation and hygiene, which can negatively affect the overall public health situation and risking the outbreaks of communicable diseases – including respiratory diseases or intestinal infections.

To support the response to this crisis, the Ministry of Social Affairs (MOSA) and the Ministry of Public Health (MOPH) have developed a multi-pronged approach of establishing community primary health centres, subsidizing the costs of health care, and supporting community outreach and awareness raising. Previously, the MOSA developed Social Development Centres (SDCs) intended to improve the access to primary health care (PHC) service for both Syrian refugees and vulnerable host communities. However, these were often limited in function due to lack of funds and capacities. The MOSA support includes providing access to quality and gender-responsive primary health care services for mothers with children under five years of age in fields such as Maternal and Child Health (MCH), reproductive health, non- communicable diseases, and mental health services.

In Lebanon, health services and medications, including women's health and vaccinations for children, are subsidized by external health actors such as Medair for the most socially disadvantaged, including for Syrian refugees, and consultation fees are subsidized. According to the health project description in 2016, this is based on a Flat Fee Model (FFM) as part of the strategies of the Ministry of Public Health (MoPH). The FFM was piloted by the International Medical Corps and Premiere Urgence International to provide support to PHCs as part of the Lebanon Crisis Response Plan (2017-2020). However, access to this model is still relatively low with only about 12% of the 1439 PHCs in Lebanon offering subsidized services. Thus, the SDCs supported by the MOSA can play a vital role in providing access to affordable healthcare. In addition to the health centres, an established community outreach programme relying on two groups of community volunteers provide broader household support and awareness raising. Community Health Volunteers (CHVs) in the SDC catchment areas deliver a community health promotion package on relevant health topics including family planning, exclusive breastfeeding, MCH, early marriage prevention, and referral systems. Community midwives provide antenatal care, post-natal care, and family planning. Both groups conduct household visits or community outreach campaigns throughout the SDC catchment areas intending to target both refugees and vulnerable host communities.

2.2 Project Description and Indicators

Since 2014, Medair has supported the MOSA in the health centres of the SDCs and the CHVs and community midwives in their community outreach work. Medair supports the clinics through the provision of human resources, medicines, equipment, capacity building and supportive supervision to each of the clinics. Since 2014, Medair has supported 10 different SDCs throughout the years and in 2021, Medair currently continues to support five SDCs in the Bekaa Valley – Brital, Talia, Joub Jannine, Marj and Qabb Elias. Funding to support the Medair health project comes from an array of donors, of which the EU Regional Trust Fund in Response to the Syrian Crisis (EU-MADAD) and Global Affairs Canada (GAC) are the primary donors. The current funding cycle extends from 2016 - March 2022. Implementation in the current 2021 year has been affected by the COVID-19 pandemic and ongoing political and economic upheaval in the country.

The current health project activities focus on supporting three main objectives:

1. Improving access of mothers with children under five to primary health care services
2. Improve the quality of health care services provided by the MOSA SDCs.
3. Increase the health, nutrition, and hygiene awareness and practice among mothers with children under five.

Key project areas under these objectives include supporting health behaviours among mothers including:

3 https://www.unicef.ie/stories/timeline-syrian-war-refugee-crisis/

4 51% women and 54% children

5 UNHCR Data Portal, November 2021

4. Health seeking behaviour.
5. Diarrhoea and respiratory tract infection management for children
6. Vaccinations
7. Reproductive health (RH) management
8. Breastfeeding practices
9. Access to reproductive and psychosocial support (PSS) services.

To track performance against these outcomes and project areas, a project logical framework has been developed with 47 indicators[6] across 16 dimensions.

This year (2021) a section was added to the survey regarding the COVID vaccine. These questions explored the vaccination coverage for COVID as well as possible factors contributing to vaccine rates (knowledge, hesitancy, access, and challenges). The 2021 survey also added a section on perceptions regarding prejudicial treatment at the SDCs and a single overall family health status indicator.

Table 1 describes the project indicators and dimensions including the new indicators for 2021.

Table 1: Project Indicators by Programme Area

Dimension	Indicators
Socio-demographic info	1. % of mothers of children ages under 5 years who got married before the age of 18 years (early marriage)
	2. % of mothers of children ages under 5 years who do not know how to write and read
	% of households (HH) with a crowdedness index above 1.5
Health care access general	3. % of mothers of children aged under 5 years of age in project area who went to qualified health services when they needed medical services
	4. % of mothers of children aged under 5 years of age in project who visited any Medair supported SDC during the 12 months prior to the survey
Reproductive Health (RH) services	5. % Women in the targeted communities who correctly identify available RH services
	6. % WGMB in the targeted communities who correctly report where to access RH services
	7. % Women in the targeted communities who report that they would be comfortable and able to access these (RH) services as needed
	8. % of mothers of children under 5 years who report accessing RH services in the 6 months prior to the survey
	9. % of mothers of children under 5 years receiving RH services who report satisfaction with support provided
ANC visits	10. % of mothers of children under two years of age who had at least 4 comprehensive antenatal visits when they were pregnant with their youngest child
	11. % mothers of children aged 0-23 months who had their first ANC visit within the first 3 months of pregnancy
	12. % mothers of children aged 0-23 months who had their last ANC visit less than 1 month before delivery
Delivery	13. % of mothers of children under 5 years who delivered their youngest child at hospital
	14. % of mothers of children under 5 years who delivered by caesarean section
	15. % of mothers of children aged 0-23 months who received a health booklet during their stay at hospital
	16. % of mothers of children aged 0-23 months who stayed at 24h in the hospital after delivery
Postnatal Care (PNC)	17. % of mothers of children under two years of age who received a post-partum visit from an appropriate trained health worker within two weeks after birth of their youngest child
	18. % of children under two years of age who were examined by an appropriately trained health worker 3 days after delivery
	19. % of mothers of children under two years of age who received at least 3 post-partum visits within 40 days after delivery
(Exclusive) Breastfeeding	20. % of infants 0-6 months who are exclusively breastfed (calculation method 1)
	21. % of infants 0-6 months who are exclusively breastfed (calculation method 2)
	22. % of mothers of children 7-23 months who breastfed their child within 1 hour after delivery

6 One indicator on crowdedness index is not reported on in the annual reports

Family Planning (FP)	23. % of mothers of children under 5 years who report discussing FP with a trained service provider in the 12 months preceding the survey
	24. % of mothers of children 0-23 months who are using a modern contraceptive method
	25. % of mothers of children 0-23 months who know at least one risk of getting pregnant within 2 years of last delivery
	26. % of women of children 0-23 months who know what the recommended spacing is for births.
Vaccinations	27. % of children aged 12 months- 5 years who are vaccinated for measles in clinics' coverage area
	28. % of children aged 1- 5 years who are vaccinated for polio in clinics' coverage area
	29. % of children aged 1- 5 years who are vaccinated for Diphtheria and Pertussis and Tetanus (DPT) in clinics coverage area
	30. % of children aged 12-23 months who received age-appropriate vaccination at time of survey
Treatment of sick child	31. % of children under 5 years that had fast or difficult breathing in the last 2 weeks
	32. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought after more than 24h of fast or difficult breathing, in the last 2 weeks
Treatment of children with Acute Respiratory Infection (ARI)	33. % of children under 5 years with fast or difficult breathing for whom advice or treatment was sought from an appropriate health facility or provider in the last 2 weeks
	34. % of children under 5 years with fast or difficult breathing or cough by type of treatment in the last 2 weeks (inclusive of antibiotics)
Treatment of children with diarrhoea	35. % of children under 5 years with diarrhoea receiving ORS and zinc supplementation
Prevalence of diarrhoea	36. % of children under 5 years that experienced diarrhoea in the last 2 weeks
Non-Communicable Diseases (NCD)	37. % of mothers of children under 5 years who reported having at least one HH member with NCD
	38. % of women who know 2 or more ways to reduce the risk of NCDs
Psycho Social Support (PSS) services	39. % women in the targeted communities who correctly identify available PSS services
	40. % women in the targeted communities who correctly report where to access PSS services
	41. % of mothers of children under 5 years who report discussing PSS with a trained service provider in the 12 months preceding the survey
	42. % women in the targeted communities who report that they would be comfortable and able to access these (PSS) services as needed
	43. % of mothers of children under 5 years who report accessing PSS support services in the 6 months prior to the survey
	44. % of mothers of children under 5 years receiving PSS services who report satisfaction with support provided
Child registration	45. % of children under 5 years officially registered in their country (for Syrians)
	46. % of children under 5 years without birth certificate
Mortality related to pregnancy	47. % of women's sisters who died due to problems related to pregnancy
Additional Indicators 2021	
COVID-19 Vaccine	48. Percent receiving at least one dose
	49. Percent registered for COVID vaccine on IMPACT
	50. Percent willing[7] to be vaccinated
	51. Percent of families with all adults vaccinated
	52. Percent reporting vaccine concerns
Community Tensions	53. Percent reporting SDCs prioritize Syrians
	54. Percent reporting SDCs prioritize Lebanese
	55. Percent report facing tensions in health centres
Health Status	56. Percent reporting good or very good family health status

7 Combined "somewhat willing" and "very willing"

To track performance against these indicators, a standardized annual Knowledge, Practice, and Coverage (KPC) household survey is applied to a random sample of mothers – both Syrian and Lebanese – in the Medair supported SDC project areas. Medair conducted its first KPC survey in November 2015 and has repeated the survey each year. The survey data tracks project indicator progress and also provides evidence for the MOSA and MOPH regarding the MCH situation in the Bekaa valley and further inform future decision-making, advocacy, and programming.

Each year a report is generated to profile the contemporary annual state of the 47 indicators, compare against previous years, and based on the findings and multi-year comparisons, provide suggestions for adaptations or new programming approaches.

In 2021, in addition to the administration of the KPC survey, a series of focus group discussions (FGDs) were conducted with mothers to explore some aspects of the health experience more deeply.

Methodology

3.1 Overview

The purpose of the analysis is three-fold:

1. Analyse and report on the data collected from the KPC survey for 2021.
2. Conduct a comparative analysis against the earlier datasets from 2016-2021 to identify significant trends.
3. Propose suggestions for future programming implications.

The TOR for the current assessment is found in Annex 1.

3.2 KPC Survey

The methodology for this study has been established since 2016. The KPC survey has been an already established system for collecting the data against the outcome indicators and has been applied in a relatively consistent manner across the six years under review.

The sample sizes and sampling areas did shift from year to year depending on the particular interests at any one period of time and the survey questionnaire did have specific demographic questions added or excluded from year to year. However, the core questions in the survey remained largely consistent from year to year and can be used to assess with reasonable confidence changes over time.

Each year demographic information was collected on the respondents. Across all the years, nationality of the respondent, which SDC catchment area they were associated with, level of education, and age at which they were married was collected. Other demographic variables were added or excluded from year to year. In 2020, two additional demographic variables were included: a) whether they had participated in Medair activities, and b) whether they lived within an SDC catchment area (within five kilometres of an SDC) or were outside the catchment area. The logic of the latter is important because those living outside the catchment areas can serve as a proxy 'control group' to see whether proximity to an SDC has influenced health behaviours.

For 2021, the survey maintained the same demographic variables as the 2020 survey but also included two additional sections:

1. COVID vaccination KAP
2. Community tensions.

These cannot be analysed across the multi-year analysis but can be included in the 2021 analysis.

3.3 Focus Group Discussions

In 2021, in addition to the administration of the KPC survey, a series of focus group discussions (FGDs) were conducted with mothers to explore some aspects of the health experience more deeply. For the FGDs, 10 groups were convened from five different areas (Talia, Joub Jannine, Qabb-Elias, Brital, and Marj). From each area, two FGDs were convened, one for Syrian women and another for Lebanese women.

The FGD followed a semi-structured approach exploring four different themes:

1. The family's health related situation (including where they access their health care).
2. Household decision making practices
3. Tensions in the Community or with the SDCs
4. Future Recommendations

In total, 76 women were interviewed from the 10 FGDs (72% Syrian).

3.4 Data Collection and Sampling

In all the years, the data collection and sampling processes followed a standardized procedure. The 2021 data was collected during September – October 2021. A two-stage cluster sampling approach was employed to achieve a 95% confidence level and a 5% margin of error to the total population. In 2018, the survey sample was increased to be able to provide a 5% margin of error to the SDC level. The number of respondents in the survey – and thus the margin of error – changed year to year. The following table summarizes the sample size and subsequent margin of error for each year. The margin of error is for the entire population, but because each year the survey analysis included disaggregation by Lebanese and Syrian respondents, the table also includes the margin of error for each of these two populations.[8]

Table 2: Sample Size and Margin of Error for total populations by Year and Nationality

Year	Sample Size			Margin of Error[9]		
	Total	Syrian	Lebanese	Total	Syrian	Lebanese
2016	753	367	386	3.6	5.1	5.0
2017	1298	634	664	2.7	3.9	3.8
2018	2233	1482	751	2.1	2.5	3.6
2019	2287	1529	758	2.1	2.5	3.6
2020	2685	1767	918	1.9	2.3	3.2
2021	2711	1681	1030	1.9	2.4	3.0

The sampling approach is based on the most recent IAMP data. For both the Syrian and Lebanese samples, the number of both types of households living within the coverage area of the five Medair-supported SDCs disaggregated by cluster to generate a cumulative population list. Syrian refugees lived almost exclusively in the Informal Settlements while the Lebanese usually lived within the neighbouring communities – but both were within the SDC coverage areas. Based on the total household population and the required sample sizes, an interval was calculated for the clusters and sampling used an interval approach.

To ensure consistency in the data collection, enumerators were contracted and supervised by Medair field staff. A four-day training was conducted in two batches to cover an orientation to the KPC survey, project activities and areas of intervention. Data collection was conducted throughout the month of October, supervised by Medair staff. Data was collected on tables using Open Data Kit (ODK) technology.

3.5 Data Cleaning and Analysis

The survey data from the Open Data Kit (ODK) surveys was then shared with the consultant as excel files. The 2021 data and the previous year data sets were shared and then compiled by the consultant into SPSS. Data cleaning for 2021 and the other data sets was conducted using the same criteria described in earlier project reports: including only those who were primary caregivers and eliminating surveys that were completed in a suspiciously low amount of time (cut-off 11 minutes). The latter to control for the possibility of either enumerators just filling in the surveys themselves or respondents not answering with forethought. In 2021, this led to 8 surveys being excluded.

Because each year the survey included different questions or were asked in diverse ways, the final multi-year data set required adjusting and aligning the comparable questions with the 2021 survey structure. Data analysis was conducted by the external consultant in SPSS[10] based upon the finalized excel spreadsheets provided by Medair.

The initial analysis of each of the indicators used the same process described in earlier annual survey reports to ensure consistency – as much as possible – across multiple years in the indicator values. The Analysis framework with indicator definitions and calculations is found in Annex 2.

Disaggregation by demographic variables:
For both the multi-year and the 2021 dataset analysis, the survey results for each indicator were reported disaggregated by nationality – differentiating between the Syrian refugee mothers and the vulnerable Lebanese

8 The table profiles the sample size AFTER data cleaning, includes only mothers for consistency, and the margin of error is for each population and sub-population as a whole.

9 Margin of Error rounded to nearest .1

10 The term SPSS is not normally spelled out any more than Excel is spelled out. However, it stands for Statistical Package for Social Sciences (SPSS).

host community mothers selected for participation.11 Analysis was conducted to ascertain the degree to which other demographic variables were influencing the patterns of response. This was to help determine whether certain characteristics could be identified concerning whether they contributed to improved health behaviour outcomes. In particular, participation in Medair community awareness activities and trainings was of interest to determine the degree of influence these social change communication activities influenced outcomes. Respondents were also compared by those who lived within five kilometres of the SDC (referred to as the SDC catchment area) and those who lived outside this five-kilometre boundary. During the subsequent analysis, multivariate analysis was conducted among these factors to control for potential confounding interactions. Where these are relevant, they are reported.

The variable profiled are:

1. SDC
2. Location within and SDC Catchment Area (within or beyond five kilometres)
3. Nationality
4. Whether married before age 18
5. Whether can read or write
6. Whether participated in Medair activities including trainings, awareness campaigns, visits, or material distribution.

Demographic Summary:
For the 2021 dataset, the following table summarizes the main demographic distributions of the sample.

- **Nationality:** 62.0% Syrian
- **Married under age 18**: 35.7%
- **Cannot read or write:** 30.1%
- **Lives within a Catchment:** 88.9%
- **Participated in Medair Activities**: 47%

SDC Representation:

- **Marj** - 20.3%
- **Brital** - 19.9%
- **Joub Jannine** - 19.7%
- **Qabb Elias** - 20.2%
- **Talia** - 19.9%

3.6 Limitations to the study

Limitations to a study can be classified into one of three categories: data collection, methodology, and logframe. Overall, the data collection process went smoothly, and the standard application of long-standing tools and approaches provided high-quality insights into the project activities. Nevertheless, potential limitations should be recognized:

1. Some of the indicators in the logframe do not adequately capture the results of the project for three reasons: a) imbalanced attention to project components (too many indicators targeting a minor component in the project); b) an absence of indicators to measure specific contributions of the project (such as support to SDCs), and c) flawed indicator values - either through inconsistent calculations of the indicator values or the use of measures which may lead to under-reporting of true values. Vaccination coverage is one example of this limitation.
2. Some of the indicators relied on the assumption that the mothers surveyed would be familiar with technical health information - for example, being able to understand the difference between medicines such as antibiotics, antihistamines, or painkillers. This *could* affect reliability year to year as respondents may confuse these categories although this cannot be assessed with the current data.
3. The fluid nature of households and their ability to make choices both among which SDC to attend or whether to attend other options, creates challenges for tracking whether specific SDCs or health options are the ones that are most influencing reported health behaviour.
4. Relying on respondent self-report for knowledge is fairly dependable but relying on respondent self-report for behaviour, while necessary, comes with the limitation that respondents may not always be truthful about their behaviour - especially when it comes to factors that may be affected by social desirability bias (such as breastfeeding or accessing STI services).
5. The survey and sampling were different in 2016 and 2018 compared to the other years. In 2016, the survey questions were more basic (for example, only 10 vaccinations were followed compared to 15 in the other years). In 2018, the sampling frame was much bigger - covering the entire Bekaa Valley rather

11 Throughout the document, the term "Lebanese" is referred to the respondents, but these should be considered to be only the vulnerable Lebanese households selected for participation in the survey.

than the Medair SDC areas. This was because it was intended to also be part of an assessment. Practically, this meant that the reported values in 2016 and 2018 will be different from the other years.

6. The length of the questionnaire is extensive to measure all the required variables which can lead to respondent fatigue and unreliable reporting – especially for questions in the latter half of the survey.

Findings

4.1 How to Interpret the findings

4.1.1 Overview

The findings are presented by dimension and describe the values of each of the logframe indicators plus the additional new sections on the 2021 survey related to COVID and community tensions. For each indicator, the presentation of the 2021 data is combined with an assessment of the changes in the indicators across the six-year period. **There are five considerations that should be taken into account when reading the results section.**

Percent versus Percentage Points:
All of the indicators are presented as *"percent of respondents who do…xxx."* When comparing between years or types of demographic variables, changes will be expressed as changes in percentage points (ppt) rather than percent change. This is important to consider when interpreting changes. For example, if a survey found that 5% of mothers in one year responded yes, but in year 2, this had increased to 10% of the mothers. The percent change is 100% (doubling), but the percentage point increase is 5 ppt (increase of five percentage points from 5 to 10). All comparisons are done as the latter.

Margin of Error and Significant Change:
An important reminder when reviewing multiple years or comparing across demographics is that slight changes in indicator values should not be overly emphasized. Minor changes in percentages that lie within the margin of error (or confidence interval) are not statistically different. Margin of err. and statistical significance is reported for each indicator. The margin of error varies depending on the sample size of each sub-population analysed. However, as a general rule, ***any values that are less than 5 ppt apart should not be considered to be statistically significant***. Table 3 below provides the precise ppt definitions required for the confidence intervals.

Disaggregation by Nationality:
The primary data for each indicator is NOT presented as a single total for the entire population but rather disaggregated by Syrians and Lebanese. This is done not only because it is a donor requirement, but because the effects of nationality are massive. In almost all indicators, vulnerable Lebanese have substantively better health behaviour than Syrian refugees. Presenting the data as a single total would mask the true situation among Syrian refugees and under-report the conditions among vulnerable Lebanese.

Disaggregation and Presentation of demographic variables:
All of the demographic variables (nationality, catchment location, SDC, literacy, marriage age, and participation in Medair activities) were assessed against each indicator. However, because of the degree of detail generated, these cross tabulations are not actually shared in the report. For reasons of readability, with the exception of nationality, these factors will ONLY be discussed if they had a significant influence on the patterns of the responses. For example, if the percent of respondents reporting knowing what types of RH services are available is within the margin of error across all five SDCs, then that is merely referenced as ***"SDC did not affect patterns of response"*** rather than presenting all the data. This reduces misleading interpretations. When demographic variables are significant, these are cited as percentage point difference. For example, if Syrians had 25% of respondents reporting yes on a factor while Lebanese had 40% reporting on the same factor – this would be presented as ***"Nationality was statistically significant and made a difference of 15 ppt"*** (the difference between 25% and 40%). As a general rule, **demographic factors that have an influence of at least 8 ppt can be considered to have an influence.**

Multi-Year Patterns:
The comparison across individual years was generated from the multi-year SPSS database. These tables can be found in the accompanying SPSS outputs. For readability, in the narrative analysis, first and last values are reported plus one of four judgements:

Increasing:
This means that conditions are getting better for respondents. It denotes steady year to year increase in the percentage of respondents on an indicator.

Decreasing:

This means that the conditions are getting worse for respondents. It denotes a steady year to year decline in the percentage of respondents on an indicator.

Stable:
This usually means no real changes have occurred for this indicator over the multi-year period. It denotes variations year to year that all within the overall margin of error.

Volatile:
This usually happens because of survey reliability issues. It denotes variations year to year that have no common pattern, but which exceed the margin of error. This likely means issues with a question phrased that confuses respondents or which assumes a level of knowledge they do not possess. It can also occur if questions are rephrased from year to year – although this does not appear to the case in this context, where efforts have been made to retain the same question wording over the years.

Ideally, indicator values are either increasing or decreasing (depending on the indicator in question) which should show project contributions to the health situation of women. Stable patterns means that there has been limited contributions from the health project activities to these fields. **Conclusions on changes cannot be drawn from volatile patterns or stable patterns.**

4.2 Confidence Intervals and Interpreting Results

For the following sections related to the bi-lateral comparisons of demographics, the following table provides a guide to the percentage point difference required before conclusions regarding statistical significance can be made. **For readability purposes, these confidence intervals are not listed each time as that would make the report cumbersome to interpret important findings.** If the reader would like to know the confidence intervals for values cited, this can be achieved by adding and subtracting the confidence interval from the indicator values cited throughout the report. Summary statistics are available in the accompanying Annex 3.

Table 3: Margin of Error and Percentage Point Difference Required for Significance

2020 Demographic	Margin of Error Variable 1	Margin of Error Variable 2	Therefore, values must be at least this far apart for significance…
Nationality	Syrian: 2.3	Lebanese: 3.2	**5.5**
SDC	All: 4.3	All: 4.3	**8.6**
Catchment	Inside: 2.0	Outside: 5.6	**7.6**
Literacy	Cannot Read: 3.4	Can Read: 2.3	**5.7**
Marriage	Under 18: 3.2	Over 18: 2.3	**5.5**
Participation	Yes: 3.0	No: 2.4	**5.4**
2021 Indicator Disaggregation[12]			
Mothers with children aged 0-6 months	Syrian: 4.9	Lebanese: 8.6	**13.5**
Mothers with Children under 24 months	Syrian: 2.9	Lebanese: 4.8	**7.7**
Mothers with children over 24 months[13]	Syrian: 3.9	Lebanese: 4.3	**8.2**
Multi-Year Demographic[14]	**Syrian Margin of Error**	**Lebanese Margin of Error**	**Therefore, values must be at least this far apart in any given year for significance…**
2016	5.1	5.0	10.1
2017	3.9	3.8	7.7

12 Some of the Logframe Indicators specify for mothers with children under 24 months or with children 0-6 months. These values will have different confidence intervals from the entire sample.

13 There are more children UNDER 24 months than children OVER 24 months, so the Margin of Error is lower for the first group. However, there are more Lebanese mothers with children over 24 months compared to Lebanese mothers with children under 24 months – hence the reason that Lebanese mothers have a lower margin of error for older children.

14 Due to the changes in sample size each year, the confidence intervals for indicator values change depending on the year.

2018	2.5	3.5	6.0
2019	2.5	3.5	6.0
2020	2.3	3.2	5.5
2021	2.2	3.4	5.6

When tracking progress within years between Lebanese and Syrians, the respective indicator values must be as far apart as the values in the last column. When tracking changes over time for Syrians and Lebanese, the year-to-year differences must be greater the sum of their respective margins of error for the respective nationality.[15]

The following table reports the summary for all 2021 indicators and an assessment of their changes across the multi-year database. The findings also analyse the relative degree of influence of the demographic variables in 2021 to better understand the potential for future programming approaches tailored to specific populations or system needs.

4.3 Results by Dimension and Indicator

4.3.1 Vulnerability - Socio-Demographics Summary

The following table summarizes the common demographic variables in the 2021 sample.

Table 4: 2021 Dataset Demographic Summaries

Demographic	Syrian Refugees	Vulnerable Lebanese
Number	1681	1030
Cannot read or write	45.3%	5.3%
Married under 18 years	47.8%	15.9%
Participated in Medair activities	55.4%	33.1%
Mean Age of Respondent	28.9	30.3
Mean Age when married	18.3	21.3
Mean number of children under 5	1.7	1.4
Mean age of youngest child (months)	20.8	24.5
Gender of youngest child	55% boys 45% girls	55% boys 45% girls
SDC Coverage Area		
Marj	19.7%	21.2%
Brital	12.5%	32.0%
Joub Jannine	22.8%	14.7%
Qabb Elias	21.8%	17.6%
Talia	23.2%	14.6%
Total	100%	100%

Overall demographic descriptions:

Syrian households are consistently across the years more vulnerable than Lebanese households. The processes for data collection and the sample population have been maintained relatively constant across the years (except for the issues already described about 2016 and 2018), allowing for comparisons among the years. Although small, all of these differences are statistically significant (except for gender of youngest child which is the same). Syrian refugee mothers tended to be younger, to be married at an earlier age, to be more illiterate, have more children under five in the households, and whose youngest child was younger. There is statistical significance regarding distribution across the SDCs and nationality. All SDCs were equally represented in the sampling.

There has been little change to Syrian (or Lebanese) vulnerability levels across the years. When examining across the multi-year datasets, the demographics held constant within the margin of error for each individual factor. In terms of analysis, this is good in the sense of being able to generalize better across years. However, it also reflects that there has been relatively little change in social items such as literacy levels, or the number of children under five in the households.[16] This suggests that the project contributions, while they have improved some health indicators, have not fundamentally affected people's underlying vulnerability.

15 For example, for Syrians, the change in values from 2016-2017 must be greater than 9 ppt for it to be significant.

16 Technically, this would also hold true for early marriage, except this is a non-reversible condition. Once someone becomes married at an early age, they cannot choose to not become married at an early age. Thus, it is not surprising that the sample of mothers holds stable over time on early marriage.

Indicator 1: Percent of mothers who married before the age of 18 years.

Table 5: Percentage of Mothers Married Before 18

Nationality	2021	2020	2019	2016	Multi-Year Pattern
Syrian	47.8	44.9	45.4	43.4	Stable
Lebanese	15.9	14.9	22.2	22.3	Stable but with a sharp decline in 2020

Table 6: 2021 Demographics Comparison against early marriage

Demographic	Significance (Y/N)[17]	Percentage Point Difference[18]	Comment
Nationality		32	Significant difference
SDC		14.9	Most SDCs are in same range, but Brital is 10 ppt lower than the others. Marj highest
Catchment			Not significant
Literacy		16.6	Women who cannot read or write more likely to be married early
Marriage	NA	NA	
Participation		10.0	Technically significant, but misleading as participation in Medair would have happened after marriage, but does show successful targeting of vulnerable groups

2021 Observations

Syrian women are far more likely to have married early compared to vulnerable Lebanese. In terms of the control variables, although four of these are technically statistically significant, the one that matters is nationality and the major differences between the Syrian and Lebanese households in terms of early marriage (more than a 30 ppt difference). Regarding the other factors, SDC distribution is likely due to the relative distributions of Syrian and Lebanese within each SDC catchment area. Brital has the highest percentage of Lebanese mothers compared to Syrian mothers in the sample so should show much lower percentages of early marriage just by this. Literacy levels appear to be correlated with women's likelihood of getting married early. Participation in Medair activities happens after the fact but does show that vulnerable groups are being targeted for Medair activities.

Multi-Year Observations

Lebanese mothers in society are currently getting married later than in previous years, but Syrian mothers have not changed their practices. Although this is an indicator in the log frame, given that the target population in Medair activities are mothers who are already married, it is unlikely that this project could affect this indicator. However, because of the long-term status of the crisis, it would theoretically be possible for health awareness campaigns against early marriage to influence younger women who are growing up in the camps and who are getting married during this period under review. So if the health awareness campaigns are having an influence, there should be a decline in the percentage of these younger mothers entering the sample with younger children who got married before 18. For the Lebanese mothers, this does appear to be the case. There was a steep drop after 2019 in the percentages of early married women among Lebanese mothers. This would be explained as older mothers "aged out" of the sample (children under 5 growing up) and newer mothers with younger children entering the sample. However, for the Syrian mothers, this has not happened which suggests that among the Syrian populations, early marriage behaviour has not been changed by any awareness campaigns. There may be value in increasing targeting of early marriage issues to Syrian adolescent girls (and their families).

Indicator 2: Percent of mothers who cannot read or write.

Table 7: Percentage who cannot read or write.

Nationality	2021	2020	2019	Baseline[19]	Multi-Year Pattern
Syrian	45.3	44.8	38.8	41.0	Stable within margin of error
Lebanese	5.3	4.9	6.9	8.4	Stable within margin of error

17 Green = Significant – meaning a p-value of less than .05. Actual values can be found in the SPSS dataset should further p-value numbers be desired.

18 Only applicable when statistically significant

19 Question first asked in 2018

Table 8: 2021 Demographic comparison against literacy

Demographic	Significance (Y/N)[20]	Percentage Point Difference[21]	Comment
Nationality		40	Substantive difference in literacy
SDC[22]		13.0	Brital lowest and Talia highest
Catchment			
Literacy	NA	NA	
Marriage		16.6	Same correlation component as Indicator 1
Participation			

2021 Observations

Syrian women are far more likely to not be able to read or write compared to vulnerable Lebanese. Regarding the other factors, SDC distribution is due to the relative distributions of Syrian and Lebanese within each SDC. Brital has the highest percentage of Lebanese mothers compared to Syrian mothers in the sample so should show much lower percentages of not being able to read or write. As mentioned above, literacy levels are correlative rather than causative (if one gets married early one is likely not going to be continuing education). Participation in Medair activities should not likely influence literacy levels since activities are not oriented towards adult literacy programming.

Multi-Year Observations

There has been no change in literacy rates among Syrian or Lebanese populations since the beginning of the project. Although this is an indicator in the logframe, the activities are not oriented towards promoting adult literacy, so it is not surprising that little change would be seen in this indicator. There is a slight decline in Lebanese levels of illiteracy from the baseline but little real movements. These variations are all within the margin of error and so are likely more sampling artefacts than actual changes in mothers over the period of the project. Given the relationships identified later regarding literacy and healthy behaviour, this suggests that expanding project activities to include adult literacy components could have a positive effect on health status.

4.3.2 Health Seeking Behaviour

The two indicators related to health seeking behaviour are whether mothers sought qualified medical services when needed and whether mothers used SDCs that were supported by Medair. Supplementary questions included exploring reasons for why not accessing services (or Medair-supported SDCs).

Indicator 3: Percent of Mothers who went to qualified health services when they needed medical services.

In the survey, respondents were first asked if they or their children had been in need of medical services in the year prior. Then, for those that said yes, a follow up question was asked regarding whether they had sought medical services and from which source. **The percentage of respondents who answered that they needed services tended to hold steady throughout the entire five-year period** with a fluctuating around 85% (give or take three percentage points). This held true for 2021 as well.

Table 9: Percent who sought health services each time.

Nationality	2021	2020	2019	Baseline[23]	Multi-Year Pattern
Syrian	88.1	55.3	49.1	42.4	Increasing
Lebanese	94.1	70.5	67.1	55.2	Increasing

Table 10: 2021 Demographic comparisons against seeking health services each time needed.

20 Green = Significant

21 Only applicable when statistically significant

22 Percentage point difference reflects different between lowest and highest SDC

23 Question first analyzed in 2018. Percentages for 2017 were distorted because in that year the question was only yes or no. Therefore, the 2017 values are excluded from above.

Demographic	Significance (Y/N)[24]	Percentage Point Difference[25]	Comment
Nationality		6	Lebanese more likely to go each time than Syrians
SDC			
Catchment			
Literacy			
Marriage			
Participation			

Table 11: 2021 Health Facility Access[26]

Nationality	SDC	Clinic	Hospital	Pharmacy
Syrian	92.1	12.7	6.2	6.4
Lebanese	59.3	60.5	12.5	14.3

Table 12: Percent Reporting Multi-Year Health Facility Access.

	SDC		Clinic		Hospital		Pharmacy	
Nationality	2021	2016	2021	2016	2021	2016	2021	2018[27]
Syrian	92.1	28	12.7	12.1	6.2	17.0	6.4	12.7
Lebanese	59.3	15.1	60.5	43.0	12.5	27.5	14.3	15.2

2021 Observations

Health seeking behaviour is high in 2021 for both Syrians and Lebanese women. Lebanese were slightly more likely to seek services each time compared to Syrians, but only by a small margin (6 ppt). None of the other demographic factors showed significant variations in terms of seeking health services each time. Previously, literacy levels and SDC location has influenced how often women were likely to seek health services, but not for 2021.

Syrians were much more likely, almost exclusively, to seek medical services from SDCs. There were statistically significant differences concerning where Syrians and Lebanese chose to seek their medical services (including the Medair-supported SDCs), while Lebanese tended to have a more diversified approach. They did seek out services at SDCs, although at percentages much lower than Syrians, but Lebanese mothers also sought services at private clinics and (to a lesser degree) hospitals and pharmacies. Triangulating from the FGDs, beneficiaries noted that there are barriers to reach the health clinics because of transportation costs and increases in doctor fees. This could be one factor increasing use of SDCs in 2021 compared to 2020. However, one concern from the FGDs is that in 3 of the 5 coverage areas, Syrian respondents reported feeling discriminated against when visiting the SDCs with the staff not treating them well.

Those living outside of the catchment areas, whether Syrian or Lebanese, were more likely to go to clinics, hospitals, and pharmacies. This suggests that while those living outside the catchment areas tend not to use the SDCs as often as those inside the catchment areas, they are still able to access their health medical services from somewhere.

Multi-Year Observations

SDCs do provide a resource for accessing medical services which helps provide relief to the Lebanese medical system from the strain of the high numbers of persons in need. The percentages of respondents seeking help each time has increased steadily from the 2016 starting point well beyond the margin of error. The percentage of Syrians reporting that they have accessed clinics has stayed stable from the baseline but the percentages accessing pharmacies and hospitals has declined. Suggesting that Syrians have shifted more to accessing the SDCs and that these have become a valuable resource for Syrian refugees living in the camps.

The percentage of women seeking health services increased markedly in 2021 compared to previous years, possible because of the pandemic. The percentage of respondents who said that they sought services each time

24 Green = Significant

25 Only applicable when statistically significant

26 The survey also asked about doctors, nurses, midwives, and CHVs, but these responses were so few as to not be able to be registered

27 First asked in 2018

they needed it increased markedly from 2020. For both Syrians and Lebanese populations, there was a reported 25-30 percentage point increase in 2021 compared to 2020 in terms of seeking health services each time (Table 9). Interestingly compared to previous years, none of the demographic factors were influential in shaping the patterns of responses. Women sought health services at higher rates in 2021 no matter literacy levels, where they lived, or any other factor. It is highly likely that the COVID pandemic in 2020 affected women's health seeking behaviour in 2021. The severity and breadth of the pandemic and the heightened focus on testing and containment could have been a factor explaining the marked differences between 2021 and previous years.

Indicator 4: Percent of Mothers who visited Medair supported SDC in prior 12 months.

Table 13: Percent who visited Medair supported SDC.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Syrian	77.3	79.0	49.8	42.2	Increase
Lebanese	58.8	60.3	41.4	34.2	Increase

Table 14: 2021 Demographics comparison against Medair SDC visits[28]

Demographic	Significance (Y/N)[29]	Percentage Point Difference[30]	Comment
Nationality		19.6	Syrians more likely to use Medair-supported SDCs
SDC		44.2	Marj lowest (40.6) while Talia highest (84.8)
Catchment		23.8	Those inside the catchment areas far more likely to access Medair-supported SDCs
Literacy		8	Mothers who cannot read or write *more* likely to visit Medair-supported SDCs
Marriage		6	Mothers who were married earlier *more* likely to visit Medair-supported SDCs
Participation		16.2	Those who participated in Medair activities *more* likely to visit Medair-supported SDCs

2021 Observations

Medair-supported SDCs are a valuable resource for the more vulnerable populations, especially Syrians. All of the demographic factors did influence the patterns in attending Medair-supported SDCs. The Syrians were more likely to use Medair-supported SDCs, as well as mothers who could not read or write and those who were married early. Participation in Medair activities had a major effect on the distribution of responses. Not surprisingly, those respondents who lived outside the catchment area were less likely to access Medair-supported SDCs, but even with the distance, a sizeable percentage still reported accessing Medair-supported SDCs. The lowest percentage of respondents accessing a Medair SDC was in Marj (40.6%). The other SDCs were more closely clustered with Qabb Elias and Talia recording the highest percentage of respondents (more than 85%).

Among those who did not access Medair-supported SDCs, the reasons given were not related to quality. The most commonly reported factor was that they had not heard of the SDC (203 persons or 7.5% of the sample) or that they simply had not realized that it was a Medair SDC – but may have accessed it anyway (192 or 7.1% of the sample). Lebanese were a little more likely to report not having heard of the SDC than Syrians (123 people or 11.9% of the Lebanese mothers versus 80 Syrians or 4.8% of the sample). These ratios are less than 5 percent of the total sample. This may not be enough to imply the need for further action, but this suggests modest gains might be gained with further visibility of Medair-supported SDCs. However, given the substantive increases in Medair SDC usage, it is unlikely to be a value-added investment in new activities.

28 This question only included from 2018 in this format. Previously was linked to use of SDCs in general.

29 Green = Significant

30 Only applicable when statistically significant

Multi-Year Observations

The SDCs have become an increasingly key component in the overall health system services to both Lebanese and Syrians. The percentage of respondents accessing Medair-supported SDCs has increased substantively over the project cycle. The increase is greater for Syrians (more than 35 ppt difference) compared to Lebanese (more than a 24 ppt difference) but both nationalities are reporting accessing the Medair-supported SDCs in ever increasing frequency. This positively suggests that Medair's support to these SDCs has played a key role in improving the quality of health services over time and supporting what has become a key component in the overall health system services to both vulnerable populations and refugees.

4.3.3 Reproductive Health Services

This section assesses the degree to which respondents can access and are satisfied with reproductive health (RH) services – Ante-natal care (ANC), post-natal care (PNC), family planning (FP) and Sexually transmitted illness (STI) treatment. Five indicators operationalize this dimension: Whether respondents are aware of what types of RH services are available and where they can access them. Whether respondents would feel comfortable and able to access these services. Finally, whether respondents did access these services in the last six months and how satisfied they were with the services provided.

Indicator 5: Percent of respondents who correctly identify available RH services.

Table 15: Respondents can cite at least one RH service available.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Syrian	93.5	91.5	87.9	80.1	Increasing
Lebanese	91.9	90.0	89.3	88.6	Stable

Table 16: Percent of respondents who can cite each RH service by year.

	ANC		PNC		FP		STI	
Nationality	2021	2016	2021	2016	2021	2016	2021	2018[31]
Syrian	92.4	76.8	82.2	40.1	18.9	11.2	7.8	11.1
Lebanese	90.9	87.3	88.0	60.4	23.4	20.7	13.2	13.9

Table 17: 2021 Demographic comparisons against each RH service[32]

Demographic	ANC Significance (Y/N)[33]	PNC Significance (Y/N)	FP Significance (Y/N)	STI Significance (Y/N)
Nationality				
SDC				
Catchment				
Literacy				
Marriage				
Participation				

Table 18: Percent of Respondents who can cite each service by year and nationality.

Nationality	Year	ANC	PNC	FP	STI
Syrian	2016	76.8%	40.1%	11.2%	NA
	2017	77.3%	58.7%	23.3%	NA
	2018	86.3%	54.0%	10.8%	11.10%
	2019	86.5%	66.8%	21.7%	26.90%
	2020	89.6%	78.3%	25.9%	17.10%

31 First asked in 2018

32 Due to space and readability considerations, the percentage point differences are not cited here but can be found in the SPSS tables accompanying this report.

33 Green = Significant

	2021	92.4%	82.2%	18.9%	7.8%
Lebanese	2016	87.3%	60.4%	20.7%	NA
	2017	84.0%	71.1%	27.7%	NA
	2018	88.4%	69.8%	17.8%	12.10%
	2019	88.4%	75.9%	27.2%	27.80%
	2020	89.1%	86.6%	36.9%	21.20%
	2021	90.9%	88.0%	23.4%	13.2%

2021 Observations

There is widespread knowledge of ANC and PNC services but very little awareness of FP and STI services. The vast majority of respondents can cite at least one RH service – usually ANC and PNC services. Less than a quarter of the women could cite FP services and only about 10% could cite STI services. In terms of being able to cite at least one service, none of the demographic factors were significant because the percentages were so high. However, for specific services, there were factors that influenced each type of service. Syrians were as knowledgeable as Lebanese on ANC but were less knowledgeable on the other three services. The specific SDC had influence in terms of whether or not respondents accessed at least one RH service, but not which types of services were accessed. Literacy and participation in Medair activities had a very slight influence – barely more than the margin of error – for knowledge about FP and STI services, but these percentages were still quite low. Interestingly, participation in Medair activities was significant for all four factors, but barely more than the margin of error. This suggests that the Medair activities have had an effect on contributing to increased awareness of available services although more could still be done regarding FP and STI services.

Multi-Year Observations

For Syrian mothers, knowledge of all RH services has increased from the baseline to a statistically significant degree. The biggest gains have been in knowledge of PNC services available (more than 40 ppt increase). Knowledge of STI and FP services has been more volatile with percentages gradually increasing until 2019 and then declining again for 2020 and 2021 and returning to the baseline levels.

For Lebanese mothers, knowledge of ANC services has stayed stable – because it was already high – but there were significant gains for PNC awareness. For knowledge of FP and STI, as with Syrian women, these values in 2021 have returned to close to the baseline values. It is possible that these factors may have been influenced by a specific FP and STI project that has been implemented in 2018-2019. The subsequent declines in these values afterwards in 2020 and 2021 suggests that the awareness raising components of the project may not have been able to be sustained, likely due to the challenges to conduct community outreach during the pandemic.

Indicator 6: Percent of respondents who correctly identify where to access RH services.

Table 19: Respondents can cite at least where one RH service available.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Syrian	99.9	91.1	87.1	65.7	Increasing
Lebanese	99.9	89.5	89.2	90.2	Stable

Table 20: Percent of respondents who can cite each RH location by year[34]

	SDC		Clinic		Hospital		Pharmacy		Doctor	
Nationality	2016	2021	2016	2021	2016	2021	2018[35]	2021	2018[36]	2021
Syrian	24.3	88.1	29.7	19.2	15.5	5.9	2.2	2.4	9.8	2.3
Lebanese	7.8	46.6	75.1	73.3	15.5	11.5	3.4	9.2	15.1	4.2

34 Nurses and Midwives were also included in the survey, but the numbers were too low to provide useful analysis

35 First asked in 2018

36 First asked in 2018

Table 21: 2021 Demographic comparisons against identifying RH service provider[37]

Demographic	SDC Significance (Y/N)[38]	Clinic Significance (Y/N)	Hospital Significance (Y/N)	Pharmacy Significance (Y/N)	Doctor Significance (Y/N)
Nationality					
SDC					
Catchment					
Literacy					
Marriage					
Participation					

Table 22: Percent of Respondents who can cite where specific services by year and nationality.

Nationality	Year	SDC	Clinic	Hospital	Pharmacy	Doctor
Syrian	2016	24.3%	29.7%	15.5%	NA	NA
	2017	35.2%	36.2%	10.2%	NA	NA
	2018	71.2%	18.4%	2.8%	2.2%	9.8%
	2019	69.6%	29.2%	4.1%	1.8%	12.4%
	2020	86.0%	19.9%	5.1%	4.1%	2.5%
	2021	88.1%	19.2%	5.9%	2.4%	2.3%
Lebanese	2016	7.8%	75.1%	15.5%	NA	NA
	2017	13.6%	67.2%	18.2%	NA	NA
	2018	27.2%	64.3%	6.2%	3.4%	15.1%
	2019	31.1%	70.1%	8.8%	3.4%	19.6%
	2020	44.7%	63.0%	15.5%	9.5%	7.9%
	2021	46.6%	73.3%	11.5%	9.2%	4.2%

2021 Observations

Syrians and Lebanese mothers know where to go for RH services. Almost all respondents could cite at least one location for RH services (only 3 could not out of 2711 cases). The location cited was either a SDC or a private clinic. Few respondents cited hospitals, pharmacies, or doctors (usually less than 10% of the sample) and no one cited nurses or midwives (less than 0.5% of the sample). There were no differences among the factors in terms of being able to identify one RH location.

The more vulnerable populations use the SDCs while the less vulnerable populations use the private clinics. There were differences in terms of whether an SDC or a clinic was cited among the demographic variables. Syrians, women who could not read or write, those who were married early, and those who participated in Medair activities were much more likely to cite SDCs as an RH location. Persons living outside the catchment areas were more likely to use hospitals and private clinics than SDCs for RH services, whether Syrian or Lebanese. Among the SDCs themselves, Marj and Brital SDC had the lowest percentage of respondents citing RH services being available at their SDCs, although the percentages were still a majority (more than 60%).

Multi-Year Observations

SDCs are growing as a health resource for RH services and appear to have helped reduce pressures on hospitals. Compared to 2016, SDCs have become increasingly recognized among respondents as a location for RH services, especially for Syrians. Syrians increased by 64.3 ppt from 2016 in citing SDCs and Lebanese increased by 39 ppt.

37 Due to space and readability considerations, the percentage point differences are not cited here but can be found in the SPSS tables accompanying this report.

38 Green = Significant

At the same time, clinics and hospitals became less frequently cited by Syrians (with a decline of at least 10 ppt for both clinics and hospitals). Among Lebanese respondents, hospitals and clinics tended to be more stable compared to the initial year of the project cycle. This pattern is not likely due to a decline in the quality of RH services at these respective locations, but it probably reflects the greater visibility of SDCs as resources for RH services as a result of the Medair support to the SDCs and subsequent subsidization of RH services for vulnerable populations accessing the SDCs. This has led to respondents, especially Syrians and the more vulnerable segments of the population, as coming to equate RH services with SDCs.

Indicator 7: Percent of respondents who report that they would be comfortable and able to access RH services.

Table 23: Percent respondents reporting being comfortable and able to access RH services.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Comfortable					
Syrian	96.3	93.5	95.5	94.6	Stable
Lebanese	98.0	96.3	96.2	92.5	Stable
Able					
Syrian	94.4	89.5	78.0	70.3	Increasing
Lebanese	98.0	95.8	86.4	86.3	Stable (with increase 2020)

Table 24: 2021 Demographic Comparisons for Comfort and Access.

Demographic	Significance (Y/N)[39]	Percentage Point Difference[40]	Comment
Comfortable			
Nationality	No significance		
SDC	No significance		
Catchment	No significance		
Literacy	No significance		
Marriage	No significance		
Participation	No significance		
Able			
Nationality	No significance		
SDC	No significance		
Catchment	No significance		
Literacy	No significance		
Marriage	No significance		
Participation	No significance		

2021 Observations

Mothers feel comfortable and able to access RH services but are likely only thinking of ANC and PNC activities. The percentages are very high for both being comfortable and being able to access RH services. While this is a positive factor, it reduces the degree of analysis that can be done because there is so little variation among the patterns of responses. There is a small difference between Syrian respondents who said they would be comfortable and Syrians who said that they would be able (about 2 ppt difference). It suggests that for a few specific individuals (less than 150 out of a 2700-person sample), there would be some level of difficulty accessing RH services even if they felt comfortable doing so but this is not a systemic issue.

One reason it is likely that these responses are so consistently high is that respondents are likely only considering ANC – and maybe PNC – among their suite of RH services. More than 90% of the respondents cited these two options, but less than a quarter could cite the other services. There is much less controversy or stigma associated with ANC and PNC RH services. If enumerators had asked respondents specifically about their comfort level for FP consultations or STI services, it is possible that for those services, a greater percentage would not feel either comfortable or able to access the services.

Multi-Year Observations

Women were always comfortable accessing RH services and there have been improvements (especially among Syrians) in being able to access these services. The 2021 values for this indicator suggest that little more needs to be done (at least for ANC or PNC services). Across the years, respondents were generally consistently positive about their level of comfort for accessing RH services. The percentage of positive responses held stable across the entire five-year period. However, there have been gains in respondents' reported ability to access RH

39 Green = Significant

40 Only applicable when statistically significant

services, especially for Syrians. Among Syrian mothers, there had been a 24 ppt increase since 2016 in terms of being able to access RH services.

The pattern for Lebanese women is slightly more complex. For the first four years, the percentage of responses on ability to access held stable and high (low to mid 80%). Then, in 2020, there was a sudden increase of 9.4 ppt to 95.8% of Lebanese women. It cannot be confirmed why there was a sudden increase in 2020 for Lebanese mothers, even during a worsening economic situation. This continued in 2021 with a very slight increase to 98% of respondent. This may be related to increased communication, such as inclusion in Medair activities, regarding the availability of services for Lebanese mothers in the catchment areas from the SDCs.

Indicator 8: Percent of respondents who report accessing RH services in prior 6 months.

Table 25: Percent of respondents reporting accessing at least one RH service last six months.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Syrian	56.9	46.5	41.6	33.0	Increased from 2016-2017, then stable
Lebanese	51.1	45.2	40.0	44.6	Volatile but stable endpoints

Table 26: Type of RH service sought by year and nationality.

Nationality	Year	ANC	PNC	FP	STI
Syrian	2016	28.6	12.8	5.7	NA
	2017	34.1	24.4	8.4	NA
	2018	38.1	23.7	2.6	0.8
	2019	31.6	18.4	4.3	2.4
	2020	36.6	28.6	6.8	2.0
	2021	42.6	35.4	5.9	2.4
Lebanese	2016	38.6	28.8	7.8	NA
	2017	33.0	26.4	6.5	NA
	2018	44.7	33.6	4.9	1.2
	2019	29.9	22.7	4.6	1.8
	2020	33.3	33.0	9.7	1.6
	2021	40.2	37.9	7.0	2.1

Table 27: 2021 Demographics by type of RH service sought.

Demographic	At least one Significance (Y/N)[41]	ANC Significance (Y/N)[42]	PNC Significance (Y/N)	FP Significance (Y/N)	STI Significance (Y/N)
Nationality					
SDC					

41 Green = Significant

42 Green = Significant

Catchment					
Literacy					
Marriage					
Participation					

Table 28: Where were RH services sought?

		SDC	Clinic	Hospital	Pharmacy	Doctor
Syrian	2016	66.9	22.3	9.9	NA	NA
	2017	60.9	27.0	8.7	NA	NA
	2018	72.0	16.4	2.4	1.8	5.4
	2019	64.6	23.1	2.3	0.9	5.5
	2020	79.1	15.7	2.3	1.0	1.5
	2021	85.0	18.1	1.9	6.0	2.0
Lebanese	2016	14.0	76.9	9.3	NA	NA
	2017	21.8	63.9	12.6	NA	NA
	2018	25.3	58.2	6.4	0.8	8.9
	2019	21.5	60.1	5.6	2.0	10.6
	2020	31.5	46.0	12.0	3.1	2.9
	2021	44.9	69.5	9.7	13.8	3.5

2021 Observations

The most frequently sough services are ANC and PNC, very few mothers seek out FP or STI services. In both Syrians and Lebanese, more than half reported seeking at least one RH service in the past six months. The most frequently sought services were ANC and PNC services with between 35-40% of the respondents reporting that they had accessed one of these two services. Almost no one reported accessing FP or STI services. Nationality did not really influence seeking services.

Participation in Medair activities does encourage women to seek out RH services. The most significant correlation on seeking services was whether respondents had participated in Medair activities. Those that had participated in activity were more likely to seek an RH service and especially ANC services and PNC services (about 15 ppt difference). The SDC differences are misleading as the SDCs are spread out over a range of which the highest and lowest values are statistically different, but the intervening values are not. However, Marj SDC tended to have the fewest respondents seeking services while Joub Jannine or Brital tended to have the most respondents.

Syrians access services at SDCs while Lebanese were more equally distributed between SDCs and private clinics. The vast majority of respondents were choosing between either SDCs or clinics to access their RH service. Nearly all Syrians (85%) used the SDCs. In contrast, Lebanese women tended to use more of a mixture of different options with about equal numbers accessing the SDCs or clinics. A small percentage did report using hospitals – more so among Lebanese. Practically no one reported using doctors, nurses, midwives, or other options available in the survey.

Multi-Year Observations

Project support to the SDCs has led to women being increasingly more active in seeking RH services. In terms of the multi-year analysis, there has been an increase in respondents reporting seeking services from 2016 for Syrians (23 ppt). The biggest increase was a jump from 2016 to 2017, and then relatively stable percentages to 2020 until another big jump in 2021. For Lebanese, the start and end points were more or less the same between 2016 and 2020, but the reported numbers were more volatile in between. This suggests that the mere establishment and support of the SDC services helped increase women's activeness in seeking services.

Women prioritize seeking ANC and PNC services, and there has been no change in accessing FP or STI services. When disaggregated by which type of service, seeking ANC and PNC services were by far the most important RH services sought. Less than 10% of the respondents in any year reported access FP or STI services. Syrian women increased significantly from the baseline in 2016 in accessing these service, but Lebanese women tended to be stable with little change from the baseline. Syrian women in 2016 had significantly lower percentages of accessing

RH services than Lebanese, but by 2021, Syrian women had matched Lebanese women as percentages accessing RH services (ANC and PNC). FP and STI services are still not sought to any significant degree by either group. These values have also not changed since the baseline. This suggests that project activities focused on the promotion of FP or STI have not yet been successful in changing behaviour.

SDCs are increasing in importance for RH services, especially for Syrians. As with the RH location discussion, the multi-year patterns reflect an increasingly key role for SDCs in the provision of RH services. Syrian women continued to be more likely to use SDCs for their RH services, but this increased by significantly from 2016. As a result, Syrian women accessing hospitals and clinic declined commensurately. Lebanese mothers tended to access their services at clinics or hospitals, but even among them, the percentage of Lebanese women accessing SDCs for RH services assumed a larger and larger share increasing by 30 ppt from 2016. For both Syrian and Lebanese women, there was a particularly marked increase from 2019 to 2020 in terms of respondents reporting accessing SDCs and then another big jump from 2020 to 2021. This was accompanied by a subsequent decline in those reporting accessing clinics or hospitals. It may be that the COVID-19 pandemic or the economic crisis have caused shifts in the patterns of where women could access RH services, but encouragingly, the percentage still seeking services continued to remain high.

Indicator 9: Percent of mothers with children under 24 months who report satisfaction with RH services provided.

Table 29: Percent satisfied or very satisfied with RH service.

Nationality	2021	2020	2019	Baseline	Multi-Year Pattern
Syrian	95.7	96.8	97.3	90.1	Slight increase
Lebanese	99.6	99.5	97.0	93.6	Slight increase

Table 30: Percent satisfied by type of RH service.

Nationality	Year	ANC	PNC	FP	STI
Syrian	2016	89.5	89.4	90.5	NA
	2017	92.1	94.8	92.5	NA
	2018	97.5	98.6	97.4	97.6
	2019	97.7	97.5	95.5	97.3
	2020	96.9	97.6	96.7	96.9
	2021	97.4	97.8	96.6	95.7
Lebanese	2016	94.6	94.6	96.7	NA
	2017	96.3	97.1	93.0	NA
	2018	98.2	98.8	100	97.8
	2019	97.8	98.8	100	97.2
	2020	99.7	100	98.9	97.8
	2021	99.5	97.5	96.0	100

Table 31: Percent satisfied by location of RH service.

		SDC	Clinic	Hospital	Pharmacy	Doctor
Syrian	2016	87.7	100	83.3	NA	NA
	2017	90.9	92.3	100	NA	NA
	2018	97.2	98.3	94.4	92.3	100
	2019	96.8	98.6	95.2	100	97.1

	2020	96.2	99.2	100	100	100
	2021	97.1	98.0	94.5	100	100
Lebanese	2016	91.7	93.9	100	NA	NA
	2017	95.2	96.7	97.2	NA	NA
	2018	98.0	98.7	92.0	100	100
	2019	93.8	98.4	94.1	100	96.9
	2020	98.6	100	100	100	100
	2021	98.3	100	100	99.0	100

2021 Observations

Mothers are satisfied with the quality of services, but they may not know what quality means. This question was specifically targeting mothers with children under two years of age rather than the entire sample. There is very little that can be abstracted from the dataset because the responses are too high and too positive. The vast majority of respondents reported positive perceptions regarding the quality of their service (either satisfied or very satisfied). Response rates were well over 90% for location and type of service provided. These high rates of satisfaction may be a technical artefact – people may not know what quality service should look like, and therefore are happy with whatever they receive. However, it may also be reflective of the fact that the mothers do have options regarding where they access their services, and they are more likely to do so from places they trust or are confident in. In either case, there are no significant differences among the social factors because the satisfaction rates are too high.

Multi-Year Observations

Mothers have always been satisfied with the quality of services although there has been a small improvement in satisfaction rates in recent years especially in terms of SDC quality. RH services are related to when women were pregnant, for those women surveyed in 2016 and 2017, their pregnancy would have occurred prior to Medair support to the SDCs. As such, the 2016 and 2017 values can serve as a proxy comparison group to the later years. However, the multi-year analysis shows consistently high satisfaction rates across the years. There is a slight increase for both nationalities – just beyond the margin of error – from 2016. However, even then, the increase was from an already high value (low 90%) to an even higher value (high 90%). The most interesting pattern in the data is that satisfaction among Syrian women regarding SDC service and hospital service has improved the most (about 10 ppt for each one). This could be reflective of project contributions to strengthening the SDC service quality or social communication regarding the treatment of Syrian mothers in hospital settings. However, the values are still high, even in 2016.

4.3.4 Ante-Natal Care (ANC) Visits

Ante-natal care (ANC) is measured through three indicators all of which focus on those mothers with children under two. Whether a mother had had at least four comprehensive ANC visits while pregnant with their youngest child. Whether the first ANC visit occurred during the first trimester. Whether the last ANC visit occurred during the final month of pregnancy.

Indicator 10: Percent of mothers[43] who had at least four ANC visits.

Table 32: Percentage of mothers with at least four ANC visits.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	72.7	71.7	65.3	65.5	64.3	57.5	Increasing
Lebanese	92.6	93.6	83.0	82.5	82.4	79.0	Increasing

Table 33: 2021 Demographic comparison by ANC visit.

Demographic	Significance (Y/N)[44]	Percentage Point Difference[45]	Comment
Nationality		20.1	Lebanese more ANC visits than Syrians
SDC		18.3	Lowest Talia, highest Joub Jannine

43 With children under two years of age.

44 Green = Significant

45 Only applicable when statistically significant

Catchment		6.4	Outside catchment area had more ANC visits
Literacy		13.1	Literate women had more ANC visits
Marriage		8.7	Women married older had more ANC visits
Participation			

Table 34: Where ANC visits occurred[46]

		SDC	Clinic	Hospital
Syrian	2016	30.2	33.3	22.0
	2017	31.7	26.4	14.8
	2018	58.5	31.6	3.2
	2019	54.8	41.8	1.8
	2020	69.8	30.1	3.8
	2021	79.5	22.6	3.0
Lebanese	2016	9.9	76.1	14.5
	2017	8.4	50.6	23.4
	2018	16.7	75.7	4.1
	2019	15.3	83.4	4.1
	2020	29.7	71.0	9.7
	2021	34.1	73.9	7.0

2021 Observations

The vast majority of women do four ANC visits, but less frequently among Syrians, especially those with low literacy. The differences in nationality were substantive (more than a 20 ppt difference). Less than three quarters of Syrian mothers reported receiving at least four ANC visits. In contrast, Lebanese women were almost always likely to have four ANC visits (93%). There were differences among the SDCs with Brital and Joub Jannine having higher percentages of positive responses (about 10 ppt more than the other SDCs) and Talia had the lowest. Whether a mother could read or write and whether she had married early were also statistically significant. Those families living outside the catchment area were more likely to have four ANC visits than those inside the catchment area.

Syrians rely on SDCs for ANC visits while Lebanese more often use private clinics. Although there were a variety of options presented for where one might go for ANC visits, the two main sources are either SDCs or private clinics with hospitals a very distant third. Syrian women were far more likely to use SDCs (56 ppt difference) and Lebanese women were far more likely to use clinics (39 ppt difference). In the survey, there were also options asking who did the mothers see for ANC care and they could choose among doctors, nurses, or the community midwives. The vast majority reported seeing a doctor. Nurses and midwives together comprised less than 2% of the responses.

Multi-Year Observations

More women do four ANC visits than previously, but these gains have plateaued. The values had been slowly increasing from the baseline in 2016, but the 2021 data are very similar to the 2020 data suggesting that the trends may have stabilized. Although about a quarter of Syrian women did not receive four ANC visits, nevertheless, there has been substantive progress since 2016 in terms of the percentage of mothers receiving four visits – for both Syrians and Lebanese. Syrian women increased by more than 20 ppt and Lebanese women by 13 ppt since the 2016 baseline.

SDCs are an increasingly valuable resource for ANC visits and support to the formal health system. The percentage of respondents going to SDCs for ANC care also increased substantively for both Syrians (nearly 50 ppt increase) and Lebanese (more than a 20 ppt increase). The use of SDCs for ANC has been steadily increasing from the baseline. In contrast, the clinic and hospital usage is volatile from year to year. These two options seem to feed off each other. When one increases, the other decreases and vice versa. The primary effect of the increase in using SDCs to a greater degree for ANC services is seen in the relative decline of respondents reporting using

46 Other options were provided on the survey, but practically all women access one of these three options for ANC visits

hospitals which declined by about 7.5 ppt for Lebanese mothers and 19.0 ppt for Syrian mothers since 2016. This is a positive trend in that it reflects the increasing role that SDCs are playing in the health service provision system and the potential of these SDCs to reduce the strain on the overall health system.

Indicator 11: Percent of mothers[47] who had their first ANC visit within the first trimester.

Table 35: Percentage of mothers with visit within first trimester.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	91.1	90.0	83.5	84.1	83.5	74.5	Increasing
Lebanese	98.1	97.2	92.2	94.6	92.9	87.2	Increasing

Table 36: 2021 Demographic comparison by first trimester.

Demographic	Significance (Y/N)[48]	Percentage Point Difference[49]	Comment
Nationality		7.0	Lebanese more likely to have ANC visit in first trimester
SDC			
Catchment			
Literacy		6.5	More literate women more likely to have first trimester visit.
Marriage			
Participation			

2021 Observations

Almost all women have an ANC visit within the first trimester, even the Syrian mothers who do not complete all four ANC visits. A very high percentage of mothers reported receiving their first visit within the first trimester regardless of nationality. Lebanese were more likely to conduct a first trimester visit, but the differences were comparatively slight (7.0 ppt) compared to other indicators. The only other social factor that correlated with ANC first visits was whether the mother could read and write, but this difference was also very slight, and values are high to begin with. Little more can be abstracted from this analysis except to illustrate that although Syrian mothers may comparatively struggle with getting four ANC visits, they have positive results in terms of ensuring their first ANC visit is within the first trimester.

Multi-Year Observations

More women do first trimester ANC visits than previously, but these gains have plateaued. The values had been slowly increasing from the baseline in 2016, but the 2021 data are very similar to the 2020 data suggesting that the trends may have stabilized. ANC services are related to when women were pregnant, for those women surveyed in 2016 and 2017, their pregnancy would have occurred prior to Medair support to the SDCs. As such, the 2016 and 2017 values can serve as a proxy comparison group to the later years. Increases were seen in both Syrians and Lebanese from 2016 although the biggest gains were with Syrians (more than a 15 ppt difference). Lebanese did increase by about 10 ppt since 2016 as well, but this was from a big jump between the 2016 and

47 With children under 2 years of age

48 Green = Significant

49 Only applicable when statistically significant

2017 years. After which the percentage of responses tended to hold steady. This suggests that the Medair support to SDC may be contributing to improved ANC visits.

Indicator 12: Percent of mothers[50] who had their last ANC visit within the last month.

Table 37: Percentage of mothers with visit last month.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	80.3	81.8	80.8	78.5	77.8	85.5	Stable
Lebanese	89.4	92.4	88.1	82.1	85.5	85.5	Mostly Stable

Table 38: 2021 Demographic comparison by last month.

Demographic	Significance (Y/N)[51]	Percentage Point Difference[52]	Comment
Nationality		9.1	
SDC		19.0	Talia lowest and Joub Jannine highest
Catchment		9	Women outside the catchment more likely to a month 9 ANC visit.
Literacy		6.9	More literate women more likely to have a month 9 visit.
Marriage			
Participation		-8.1	Women participating in Medair activities less likely to have final month visit.

2021 Observations

Almost all women had an ANC visit within the last month of their pregnancy. Syrian mothers were a little less likely than Lebanese mothers to have a final ANC visit in the last month of pregnancy. However, the percentage of Syrian respondents having a last month visit is still high (80.3%). Although the values were similar to 2020, it is interesting that in 2021, multiple social factors had a correlation with the percentage of women having a final month ANC visit. Talia SDC was substantively lower than the highest SDCs (Joub Jannine and Brital). Those living outside the catchment area, and women who could read and write were both more likely to have a final month ANC visit. Participation in Medair activities was negatively correlated with a final month ANC visit and fewer women who participated in Medair activities had a final month visit. This could be due to selection bias – women invited to participate in Medair activities may come from more vulnerable households and therefore would be less likely to have a Month 9 ANC visit anyway.

Multi-Year Observations

There has been no change in health behaviour around final month ANC visits since the beginning of the project. Across the five-year period, there are fluctuations in the percentage of respondents who had last month visits however the overall trend is stable, and the values have not changed much from the baseline data. ANC services are related to when women were pregnant, for those women surveyed in 2016 and 2017, their pregnancy would have occurred prior to Medair support to the SDCs. As such, the 2016 and 2017 values can serve as a proxy comparison group to the later years. For Syrian mothers, the annual average fluctuates around 80% and for Lebanese mothers, the annual average hovers around the 5-8 ppt higher than for Syrian mothers in any given year. There is no statistically significant difference in behaviours although there was a slight uptick for Lebanese women having a final month ANC visit starting in 2019, that has then held stable since then. This suggests that while the SDC presence has been improving first trimester visits, there has not been the same improvement for final month ANC visits, but these were already much higher to begin with, so it is less of a concern.

50 With children under 2 years of age

51 Green = Significant

52 Only applicable when statistically significant

4.3.5 Delivery

This dimension focusing on healthy birthing behaviours is operationalized through four indicators: i) Whether they delivered in hospital; ii) Whether the birth was by Caesarean section; iii) Whether the mother received a health booklet for the child; and iv) whether the mothers stayed for more than 24 hours in the hospital after delivery.

The first indicator is based on the concerns that during the original refugee influx, the Syrian refugee mothers lacked access to health care facilities and were giving birth inside the informal tented settlements (ITS) outside of the health care system. These informal births could impede the proper registration of the child with health booklets. The last indicator is considered important for good mother and child health with MOPH recommendations of 48 hours for regular births and 72 hours for C-section.

Indicator 13: Percent of mothers who delivered their child at hospital.

Table 39: Percentage of mothers who delivered their child at hospital or clinic.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	95.4	95.6	91.6	91.4	89.6	87.7	Increasing
Lebanese	99.9	99.8	99.7	99.6	96.4	98.7	Stable

Table 40: Percentage of mothers who delivered their child at hospital only.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	84.8	83.3	81.4	79.7	73.9	79.8	Stable
Lebanese	88.8	89.4	87.8	87.0	91.8	90.7	Stable

Table 41: 2021 Demographic comparisons against delivery at hospital ONLY

Demographic	Significance (Y/N)[53]	Percentage Point Difference[54]	Comment
Nationality	No significance		
SDC	No significance		
Catchment	No significance		
Literacy	No significance		
Marriage	No significance		
Participation	No significance		

2021 Observations

There are very few births that happen outside of the formal medical system. Practically every mother in the survey reported giving birth in either a hospital or clinic for both Syrians and Lebanese. Lebanese mothers were almost unanimous in giving birth in either a hospital or clinic while about 4% of Syrian mothers did not give birth in one of these two options. Syrian women were slightly more likely to use a clinic rather than a hospital (about 12 percent) but very few were using informal birth situations. This suggests that the concerns regarding mothers giving birth in informal situations is not really warranted. The overwhelmingly vast majority have good access to the formal health care system.

The establishment of the SDCs has been more significant than the assumption that women were afraid, or ignorant and needed to have their awareness raised. Within the original project proposal and the implicit assumptions embedded in the survey question construction is that mothers are afraid of giving birth in clinics and hospitals or are culturally opposed to using these services. However, the patterns in the data suggest that ignorance or cultural factors are not valid assumptions and in fact women are not giving birth outside the system. Among the reasons cited for not using the formal system, going into rapid labour was the most frequently cited by 45 mothers (1.8%) and was the only one with more than a 0.5% response rate. Sixteen women (0.5%) said it was too expensive and 13 women (0.4%) had a response based on fear or ignorance. The main takeaway from these very few responses is that the embedded assumptions in the project design for why women may not go to the formal system for delivery are flawed. Women actually do access the formal health system, they are not scared to go to the hospital, they know where it is, they are registered, and they are not impeded by tradition.

Because of the very high percentages reporting for use of the formal health care system, there are no significant differences among the demographic variables. The SDC coverage area did have influence with respect to choosing

53 Green = Significant

54 Only applicable when statistically significant

to give birth in a hospital as opposed to a clinic. Brital and Talia had slightly (very slightly) lower percentages of women choosing to use hospitals (81%) while Qabb Elias and Joub Jannine were both well over 90%. This means that the women in Talia are choosing to use the clinics more frequently for birth, which could imply that the quality of the clinic is perceived to be good for delivery in Talia or it could imply slightly more difficult access to a hospital from the Talia SDC.

Multi-Year Observations

Clinics have provided better local access since 2016 but practically all mothers used the formal health system regardless of vulnerability level. The percentages for delivery in the formal health care system were high even in 2016 at the start of the current cycle. For Lebanese mothers, the percentages did not change over time from 2016 and were well above 95% for all years. However, for Syrian mothers, there was an increase from 2016 in terms of using the formal health system for delivery (from 87.7% to 95.6%). The percentage using hospitals stayed stable across the entire five-year period Therefore, this increase in Syrian mothers giving birth in a hospital or clinic is due to the relative increase in mothers accessing the clinics for delivery. This is a positive reflection that shows the increasing importance of the role of the clinics in providing access to health services such as delivery. The mothers who were giving birth in the informal settlements at the beginning of the crisis are now using the formal health system instead. The same pattern of reasons why not delivery at hospital or clinic noted in 2020 held true over the entire five-year cycle. Rapid labour was the most influential factor.

Indicator 14: Percent of mothers who delivered their child by C-section.

Table 42: Percentage of mothers who delivered their child via C-section.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	29.1	29.2	29.8	30.0	35.8	37.7	Declining
Lebanese	57.8	54.7	59.0	53.7	58.2	65.9	Stable from 2017

Table 43: 2021 Demographic comparisons against C-section.

Demographic	Significance (Y/N)[55]	Percentage Point Difference[56]	Comment
Nationality		27.9	
SDC			
Catchment			
Literacy		14.1	Women who could read and write were MORE likely to have C-sections
Marriage		14.1	Women who were married later were MORE likely to have C-sections
Participation			

2021 Observations

The percentage of mothers in 2021 who had C-sections is surprisingly high in the sample compared to global targets and national patterns. Globally, natural birth is promoted among health guidelines and there is concern regarding the casual use of C-sections as a convenience for doctors or mothers with the World Health Organization (WHO) suggesting an ideal 10-15% C-section rate.[57]As awareness raising activities increase, one should see a decline across the length of a project cycle in terms of the mothers using C-sections. The national average in Lebanon for C-sections hovers around 45%.[58] Lebanese women are much more likely to have a C-section (nearly 58%) compared to Syrian women (29%). Given that Lebanese women are in general less vulnerable than the Syrian mothers, this suggests that the percentages of C-sections are not related to pre-natal care or difficult births. This is triangulated from the fact that the other factors that are statistically significant are literacy levels and early marriage. Women who are literate and who married over the age of 18 were more likely to have C-sections. SDC coverage area did not have influence in terms of whether a mother had a C-section.

C-section increases have more to do with the doctor than patient decisions. Interestingly, 90 percent of respondents reported that had a C-section reported that the doctor ordered it who had told them that there was a medical problem – it was not a patient choice – although Lebanese women were more likely to choose C-sections

55 Green = Significant

56 Only applicable when statistically significant

57 http://www.emro.who.int/emhj-volume-27-2021/volume-27-issue-2/trends-in-caesarean-section-deliveries-in-jordan-from-1982-to-2017-retrospective-analyses-of-annual-hospital-reports.html

58 Ibid

compared to Syrian women. Therefore, awareness raising activities among targeted populations should not influence C-section behaviour unless the activities were towards doctors. This suggests that future programming activities to reduce C-sections should focus on doctor awareness rather than patient awareness.

Multi-Year Observations

There has been a decline in C-sections, but these gains have plateaued. The percentages of women who had C-sections did decline very slightly from the baseline, but these numbers appear to have stabilized over the last three years with little further decline. The percentage of Syrian mothers who have had C-sections did decline from 2016 by about 8 ppt although the percentage of Lebanese mothers who had C-sections remained stable since the baseline. When asked why they had had a C-section, the overwhelming majority said it was due to a medical need.

Less than 10% of the sample who had had a C-section said it was due to a personal preference. These patterns have to be taken with some caution because self-reporting on medical conditions by mothers may not be dependable because mothers may not know what actually constitutes a difficult birth. What is more likely the most that can be inferred from these responses is that the mothers are noting that the decision for a C-section was taken by the doctor and was not a personal choice of the mother.

Indicator 15: Percent of mothers with children under two who received a health booklet.

Table 44: Percentage of mothers with children under two who received a health booklet.

Nationality	2021	2020	2019	2018[59]	Multi-Year Pattern
Syrian	77.6	80.0	71.7	68.7	Increasing but stabilizing
Lebanese	93.8	97.3	94.7	91.9	Volatile

Table 45: 2021 Demographic comparisons against receiving a health booklet.

Demographic	Significance (Y/N)[60]	Percentage Point Difference[61]	Comment
Nationality		15.8	
SDC			
Catchment		7.1	
Literacy		12.1	Literate women more likely to receive a health booklet
Marriage			
Participation			

2021 Observations

Syrian women who give birth in clinics are much less likely to receive a health booklet than any other group. About three-quarters of Syrian women received a health booklet while nearly 95% of Lebanese women reported receiving one. When controlling for where a mother gave birth, Lebanese women reported similar percentages of receiving booklets regardless of location, but Syrian women were 13 ppt less likely to receive a health booklet when giving birth at a clinic compared to when they gave birth at a hospital. It may be worthwhile to consider additional future programming support to clinics as well in terms of distribution of health booklets. In addition, beside nationality, the only correlation of demographic variables is related to literacy levels. Women who could not read or write were less likely to report receiving a health booklet.

Multi-year observations

Positively, there has been an increase from the baseline in women reporting receiving a health booklet. The increase is much greater among Syrian women (11.3 ppt) than Lebanese (6.6 ppt). This suggests that there have been gains in terms of the quality of the health care systems over the life cycle of the project.

Of concern, the COVID-19 pandemic may have affected health care systems capacities to ensure delivery of health booklets. The relative percentages did decline in 2021 compared to 2020. The values are within the margin of error and could therefore just be normal annual fluctuation in responses, but both Lebanese and Syrian

59 Question first included in 2018 survey.

60 Green = Significant

61 Only applicable when statistically significant

response declined by about the same amount which may be reflective of the health system capacities to ensure quality checks. Since the health system has been stressed by the pandemic cases, health care personnel may be less likely to follow up to ensure that the certificates are delivered. This is partially confirmed by the fact that the lowest percentages of women receiving health booklets are with Syrian women in clinics (about 67%).

Indicator 16: Percent of mothers with children under two who stayed at hospital at least 24 hours after delivery.

Table 46: Percentage of mothers with children under two who stayed at least 24 hours.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	14.8	13.9	17.4	17.8	19.7	22.0	Decline
Lebanese	32.1	32.4	41.5	39.8	34.0	34.3	Volatile but stable

Table 47: 2021 Demographic comparisons against staying at least 24 hours.

Demographic	Significance (Y/N)[62]	Percentage Point Difference[63]	Comment
Nationality		16.3	Syrian women less likely to stay at hospital than Lebanese
SDC			
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

Very few women reported staying a sufficient length of time in the hospital, no matter the nationality, but especially for Syrian mothers. The percentages of mothers with children under two years of age who stay in the hospital for more than 24 hours is surprisingly low given the importance placed on proper treatment after delivery in the MoPH guidelines. The actual standard is even higher than 24 hours so the baseline expectation for this indicator is still below health standard levels. Even among Lebanese mothers, only about a third reported staying more than 24 hours. The social factors did not have any correlation with the length of stay except for nationality.

The only reason for staying longer than 24 hours was for those recovering from C-Sections. There was a difference among women who had had a C-section compared to a normal birth with 50.1% of C-section deliveries staying more than 24 hours and only 3% of normal births staying more than 24 hours. However, this is still concerning because this implies that even among C-section deliveries, more than half were discharged in under a day.

Multi-Year Observations

Of concern, it appears that the health system is deteriorating since 2016 in staying within health guidelines on length of stay. The percentage of mothers reporting staying in hospital for more than 24 hours has declined for Syrian mothers since 2016 (-7.1 ppt). The percentage of Lebanese mothers staying more than 24 hours is volatile across the project cycle but has ended in 2021 with similar percentages reported in 2016. The decline over time may be a reflection of strained capacity of the health care system because the percentage of mothers giving birth in hospitals and clinics has increased since 2016. This suggests programming support to strengthening the capacity of health care system to be able to support adequate length of stay would be important to maintain.

4.3.6 Post-Natal Care (PNC)

Post-Natal care is important in terms of both timeliness and frequency. The most crucial factor is how early the first postnatal check occurs. Because of this, this dimension is measured through four questions. First, whether the child was examined by a health worker after delivery. Then, whether the mother received a Post-Partum Care (PPC) Visit within three days and within two weeks from delivery. Finally, whether the mother received at least three post-partum visits within 40 days of delivery.

Indicator 17: Percent of children under two examined three days after delivery[64]

62 Green = Significant

63 Only applicable when statistically significant

64 In the order of the logframe, this is the second PNC indicator, but is described first because of timing from birth

Table 48: Percentage of children under two examined three days after birth.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	4.6	3.2	7.4	3.9	4.4	NA	Stable
Lebanese	8.0	4.5	5.5	8.1	7.1	NA	Stable

2021 Observations

All mothers had a new-born check after delivery but hardly any mothers had a subsequent check within three days. This indicator could be answered in multiple ways depending on which survey questions were used. The indicator values reported here are those responses from the question "when did your new-born receive a medical check?" and the option "within three days." It should be noted that almost all the mothers reported that their new-born received a medical check after the delivery. Therefore, this question is specifically asking whether they had received another medical check after delivery within 72 hours. In terms of the 72 hours, this percentage was much smaller. Less than 5% of Syrians and less than 10% of Lebanese mothers reported that their child received another examination within three days of birth. Because of the very small percentages, there were no demographic factors that influenced the distribution.

Multi-Year Observations

There has been no change in health behaviour on new-born checks reflecting little change in the capacity of the health system for PNC follow up. Relatively little can be inferred from the multi-year analysis. Although the values fluctuate slightly from year to year, women reporting their child receiving a medical check within three days remained well under 10% for both Syrians and Lebanese and never exceeded the margin of error. Baseline and endline values remained nearly the same. It appears that the responses to this question remain low and consistent across the years. This suggests that project activities targeting increased checks have not had an effect. This is likely due to the capacities of the health system to manage follow up checks on mothers. This aspect has not improved, likely because these activities are not related to SDCs because women give birth in clinics and hospitals. This suggests that future programming to improve health checks might benefit from targeting clinic and hospital staff beyond SDC personnel or by conducting the
3-day check-up through a different system using both SDC staff and community volunteers.

Indicator 18: Percent of mothers with children under two who received a post-partum visit within two weeks.

Table 49: Percentage of mothers with PP visit within two weeks.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	84.8	80.1	75.3	84.4	84.5	50.0	Stable after 2016
Lebanese	83.1	84.4	79.4	83.5	87.9	62.1	Stable after 2016

Table 50: Where mothers received their PNC services.

		SDC	Clinic	Hospital
Syrian	2016	12.1	20.7	32.8
	2017	11.2	11.2	7.6
	2018	42.4	17.9	32.4
	2019	45.1	26.8	27.2
	2020	59.5	18.6	23.1
	2021	63.2	16.5	20.7
Lebanese	2016	5.3	26.3	64.2
	2017	6.4	22.3	20.6
	2018	12.1	55.1	27.5
	2019	6.3	70.2	24.3
	2020	17.8	61.8	26.1
	2021	26.0	62.1	22.7

Table 51: 2021 Demographic comparisons against PPC visit within two weeks.

Demographic	Significance (Y/N)[65]	Percentage Point Difference[66]	Comment
Nationality			
SDC		15.3	Brital highest and Talia lowest
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

The percentage of mothers who reported a PPC visit within two weeks is high for both Syrians and Lebanese. In 2021, the majority of Syrian mothers went to SDCs for their PNC care (63.2%). The majority of Lebanese mothers (62.1%) went to clinics. However, for both nationalities, a significant percentage was found for all three main options (SDC, clinic, hospital). No social factor had any influence on the patterns of the responses except for the SDC zone. Brital had by far the highest percentage of mothers receiving a PPC visit within two weeks while Talia had substantively lower than the other SDCs in terms of percentages – although still a good percentage (75%).

Multi-Year Observations

While high, there has been no change in PPC visit frequency since 2017. For both Syrians and Lebanese mothers, the percentage reporting a PPC visit within the first two weeks has held stable across the cycle from 2017 at around 80-85% of the sample for both populations. There was an odd movement in both Syrians and Lebanese that from 2016 to 2017, there was a more than 35 ppt increase in terms of reporting having received a PPC visit within the first two weeks. This could either be due to changes in the survey or sampling between 2016 to 2017 or it may reflect a sudden shift brought about by an increased emphasis on PPC visits. However, the fact that there was little subsequent change in the ensuing years – stable within the margin of error – suggests that the former possible explanation may be more likely.

Hospital usage has declined as a resource for PNC visits while SDCs have become more important for Syrian women and private clinics for Lebanese mothers. Initially, hospitals served as one of the more significant sources for PNC, but then this shifted over the cycle to PNC support coming from SDCs or clinics. Among Syrian women, there was a significant surge over the project cycle in the use of SDCs of over 40 ppt. For Lebanese mothers, there was a similar surge in the use of clinics. Lebanese mothers also began using SDCs but not to the same extent as Syrian women. The surge in the use of SDCs is encouraging because it suggests that the clinics and SDCs are playing a key role in reducing the strain on the health care systems of hospitals by providing more PPC services.

Indicator 19: Percent of mothers with children under two who received at least three post-partum check-ups (PPC) within 40 days.

Table 52: Percentage of mothers with three PPC visits within 40 days.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	3.6	3.1	6.9	4.5	NA	NA	Stable
Lebanese	7.0	8.9	11.2	10.8	NA	NA	Stable

Table 53: 2021 Demographic comparisons against three-day examination.

Demographic	Significance (Y/N)[67]	Percentage Point Difference[68]	Comment
Nationality	No significance		
SDC	No significance		
Catchment	No significance		
Literacy	No significance		
Marriage	No significance		
Participation	No significance		

65 Green = Significant

66 Only applicable when statistically significant

67 Green = Significant

68 Only applicable when statistically significant

2021 Observations

Mothers generally receive one PNC visit, but do not receive the full complement of three visits. While the majority of mothers do receive at least one PNC visit, they do not receive the full complement of PPC visits. For both Syrians and Lebanese mothers, much fewer than 10% of the respondents reported receiving three PPC visits in 40 days. While both were low percentages, Syrian women were only about as half as likely as Lebanese women to receive 3 PNC visit. No social factors influenced the patterns in responses.

Multi-Year Observations

Mothers will do at least one PNC visit after birth, but they do not sustain PNC visits for the entire 40 days. Almost all women have their children receive a medical check on delivery and almost all women have one PNC visit. However, subsequent medical checks for the child or PPC visits for the mothers are not sustained after this. Barriers to access to three PPC visits have not been part of the survey, but identifying these barriers – whether systemic, load, or attitudinal – could be an important priority in future programming activities.

The percentage of mothers who receive three PNC visits has not changed over the years. The 2016 and 2017 surveys phrased these questions differently and the data cannot be compared with later surveys. From 2018 to 2020, the percentages fluctuated within the margin of error. Nationality was a consistent factor with Lebanese women about 5 ppt more likely to report receiving three PPC visits, but for both groups, the values were usually in the 10% range or less. This suggests that there has been little change over time in women being able to access more PPC visits and project activities might wish to expand focus on promoting more PPC visits.

The COVID-19 pandemic does appear to have stressed the health care system sufficiently to cause a decline in PNC visits. Although it is within the margin of error, it does appear that there is a very slight downward shift in PNC visits since 2019 that may be due to the COVID pandemic. Since 2019, the percentage of Syrian mothers receiving three PNC visits dropped about 3.5 ppt and 4.2 ppt for Lebanese women. The numbers are very small to begin with, so they are within the margin of error, but because they have been consistent at about the same percentage for 2020 and 2021, it is likely that this small drop may reflect the increased barriers to PNC visits due to the pandemic and subsequent increased stress on the health care system.

4.3.7 Breastfeeding

This dimension is assessed three indicators which explore the degree that exclusive breastfeeding is practiced and the degree to which mothers practices "early initiation breastfeeding" within the first hour after delivery. The logframe focuses on assessing these factors for mothers of infants in the 0-6 months age range only. **Two of the indicators use different methods to calculate exclusive breastfeeding.** The first is to ask the mother whether they breastfed exclusively for the first six months. The second method assesses exclusivity within the past 24 hours. Standard estimation for exclusive breastfeeding is the 24-hour recall method. The 6-month recall approach was used to estimate trends over time.

Indicator 20: Percent of mothers with children 7-23 months who breastfed their child within one hour of delivery[69]

Table 54: Percentage of mothers who report breastfeeding within one hour[70]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	94.1	93.9	74.6	86.1	73.8	68.3	Volatile, but Increasing
Lebanese	96.6	90.3	78.7	83.3	85.4	80.6	Volatile, but Increasing

2021 Observations

Almost all mothers reported breastfeeding their child within the first hour. For both Syrian and Lebanese mothers, about 95% of the mothers reported breastfeeding within the first hour. There was no statistical difference in nationality on this. There were only 24 women in the sample with children within the requisite age range who did not breastfeed within one hour. Only 1 person said that they did not want to breastfeed. There were no social factors that affected the distribution of responses. Mothers are providing early breastfeeding at appropriately high rates.

Multi-Year Observations

69 This indicator is listed last in the order in the project logframe but discussed first because of timing from delivery

70 For those with children between 7-23 months

The percentage reporting immediate breastfeeding has increased since 2016, especially for Syrians. The percentages are volatile from year to year with significant fluctuations greater than the margin of error. However, when compared to the baseline in 2016, there is a change of more than 25 ppt for Syrian women and 15 ppt among Lebanese women. There have been substantive gains in changing Syrian women's behaviour on initial breastfeeding. At the beginning of the cycle, in 2016 Syrian mothers were much less likely to breastfeed within one hour of delivery compared to the Lebanese mothers, but by 2018, this difference had disappeared, and rates remained equivalent through 2021. From 2018 onward, the percentages for both nationalities increased at the same rate. Because of the consistency in increases across both nationalities, it is likely that this effect is due to awareness campaigns or changes in medical practices within the health system.

Indicator 21: Percent of mothers with children 0-6 months who exclusively breastfed (method 1)

Table 55: Percentage of mothers who report breastfeeding their child.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	92.6	93.6	93.9	91.8	90.5	88.5	Increasing
Lebanese	84.2	86.8	82.1	87.0	75.0	89.7	Stable

Table 56:Percentage of mothers who report breastfeeding their child for six months[71]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	74.7	80.9	83.0	24.3	NA	NA	Stable from 2019 with decline in 2021
Lebanese	69.2	84.8	76.4	18.7	NA	NA	Increasing from 2019 with decline in 2021

Table 57: Percentage of mothers who report exclusive breastfeeding for six months[72]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	13.6	10.5	7.8	28.7	NA	NA	Volatile
Lebanese	8.2	7.8	4.6	21.2	NA	NA	Volatile

2021 Observations

The vast majority of mothers, especially Syrians, do breastfeed, and for six months, but exclusive breastfeeding is not common. Patterns in these three tables explore: a) whether the mother breastfed at all, b) for how long they breastfed, and c) whether they did so exclusively (using method six-month behaviour recall method). Most mothers reported breastfeeding their child at least some of the time including. Syrian women were more likely to breastfeed than Lebanese mothers (about 8 ppt difference). Over 70% of mothers also reported that they breastfed their child for six months (or were still breastfeeding). However, the percentage of mothers who practiced exclusive breastfeeding using the Method 1 calculation was very low. Only 13.6% of Syrian mothers and 8.2% of Lebanese mothers reported practicing exclusive breastfeeding in the method 1 calculation. None of the social factors influenced exclusive breastfeeding. There appears to be much more that health actors could do to strengthen exclusive breastfeeding practices in future programming.

Multi-Year Observations

There is an increase in the percentages of women breastfeeding, and for six months, but there is a decline in exclusive breastfeeding for the entire six-month period. Up until 2020, a substantive majority breastfeed, and for an appropriate length, but exclusive breastfeeding is not common. The patterns across the years were volatile. A high percentage of mothers reported breastfeeding (91.5% total in 2020). Syrian women were more likely to breastfeed than Lebanese women with a 2020 difference of 7 ppt. Although the Syrian mothers reported a slight increase from year to year in breastfeeding since 2016, the degree of change from 2016-2020 still lies within the margin of error yet. For Lebanese mothers, the percentage breastfeeding was volatile, but also stable with 2016 and 2020 values within the margin of error.

Pandemic stressors in 2021 may have affected the length of breastfeeding. In 2021, the patterns shifted in breastfeeding practices reported with a significant decline in breastfeeding for the entire six months. The increase in exclusive breastfeeding is within the margin of error, however, the decline in 2021 in breastfeeding for an entire six months – even if not exclusive – is substantive enough to be statistically significant. This is triangulated from the FGDs where respondents noted that there were increased stressors and it was more difficult for mothers to breastfeed (implying less milk).

Lack of milk is the most common reason for *not* breastfeeding. Within the sample, only 143 women said that they did not breastfeed their child (less than 10% of the sample). Among those giving a reason for not breastfeeding, 123 women (86%) reported that it was due to no milk. This represents about 8% of the total sample

71 Or are still breastfeeding their child

72 Asked of women over six months regarding behaviour of youngest child first six months

of mothers. While the WHO has expressed concern that the uncontrolled distribution of infant formula can lead mothers to develop a preference for formula, this was not commonly reported in the surveys. In any given year, only about 15-20 mothers – out of the entire sample – would say that they did not breastfeed because they preferred formula and in 2021, this number was even lower (8 persons). The evidence suggests that mothers in the surveys are willing to breastfeed and the failure to reach 100% is not primarily due to attitudinal issues, but to physical issues (lack of milk). This suggest that awareness raising campaigns to increase breastfeeding are therefore not likely to see signs of changes unless the awareness campaigns focused on what to do when there is a lack of milk. However, there are very few mothers who report lack of milk in any one year.

Indicator 22: Percent of mothers with children 0-6 months who are exclusively breastfed (method 2)

Table 58: Percentage of mothers who report exclusive breastfeeding last 24 hours[73]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	45.8	39.7	35.7	NA	NA	NA	Stable
Lebanese	40.9	39.5	26.1	NA	NA	NA	Increasing

Table 59: 2021 Demographic comparisons against exclusive breastfeeding last 24 hours.

Demographic	Significance (Y/N)[74]	Percentage Point Difference[75]	Comment
Nationality			
SDC		13.2	Qabb Elias lowest, Talia highest
Catchment		12.1	Outside catchment more likely to exclusively breastfeed
Literacy			
Marriage			
Participation			

2021 Observations

About half the women who are currently breastfeeding were exclusive breastfeeding over the past 24 hours. The percentage of mothers who reported exclusive breastfeeding over the past 24 hours is higher than those that reported breastfeeding exclusively for 0-6 months. Over 40% of both Syrian and Lebanese mothers reported exclusive 24-hour breastfeeding and there was no difference among the nationalities. There was variation among the SDCs in terms of reporting exclusive 24-hour breastfeeding. Those outside the catchment areas were more likely to practice 24-hour exclusivity than those inside the catchment area. No other social factor correlated with breastfeeding behaviour.

Multi-Year Observations

24-hour exclusivity has increased from the baseline and to a greater degree for Lebanese mothers. There is little that can be extracted from the multi-year analysis because the data in the datasets for this calculation is only from 2019 onwards. Syrian mothers increased slowly from 2019 by about 10 ppt for 24-hour exclusive breastfeeding while Lebanese mothers increased about more rapidly going from just over a quarter of respondent to nearly half of the respondents reporting practicing exclusivity.

Women will practice short-term periodic exclusivity while they are nursing even though long term exclusivity is rare. Combined with the data from the other exclusive breastfeeding calculation, the data suggests that while women will breastfeed for an appropriate length of time, long-term exclusive breastfeeding is rare. However, they will practice short term periodic exclusivity throughout the time period that they are nursing. This suggests that there is potential to increase the ***frequency*** of periodic exclusivity throughout the first six months through future programming activities.

4.3.8 Family Planning

The Family Planning (FP) dimension is measured by four indicators – two of which measure actions (FP discussions with service providers and contraception use) and two which measure knowledge (appropriate birth spacing and risks of rapid pregnancies).

73 Asked of women only with children 0-6 months

74 Green = Significant

75 Only applicable when statistically significant

Technical note

The first two indicators (FP discussion and Contraception Use) have been consistently reported incorrectly in annual reports prior to 2020 and requires some nuanced explanation. In the survey, there are two questions related to FP discussions. The first, which was included in all surveys from 2016-2020, is simply asking whether the mother had had an FP discussion with someone in the past year. In 2018, a new question was added asking specifically with whom they discussed and included options such as trained service providers (doctors, nurses, midwives) and also non-trained options such as family or friends. However, the second question only recorded the percentages among those who had already reported having a discussion. So technically, the second question is showing the SHARE of the women who had had a discussion about FP that had actually had this discussion with a trained provider. As an example. In 2020, 29.5% of Syrian mothers reported having a discussion about FP. However, the vast majority (more than 70%) of these discussions were with non-trained service providers such as family or friends. Of the 29.5% of Syrian women who had a discussion, only 29.3% of those had had the discussion with a trained service provider. This means that only 8.6% of all Syrian women in the 2020 sample had had a discussion with a trained service provider on FP (29.3% of 29.5% of Syrian women in the sample). Therefore, in order to specifically answer the indicator question, one has to calculate the number of women who reported having a discussion with a trained service provider *against the entire sample*, not just against those who said yes to the first FP question. The same issue occurs with the survey question on contraception usage. There is one question that asks the mothers whether they are doing anything to delay pregnancy and then a second question asking which types of method they are using – combining modern methods (pills, condoms) and non-modern methods (withdrawal, counting). To answer the question regarding the use of modern methods, the calculation must be the sum of all respondents reporting a modern method *against the entire sample*, not merely as the share of respondents that are reporting doing something. There were mistakes in the coding of the survey that enumerators should change in future programming.

Indicator 23: Percent of mothers who report discussing FP with trained service provider.

Table 60: Percentage of mothers who report discussing FP.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	20.6	29.5	31.6	21.2	22.0	24.3	Increasing until 2021 then decline
Lebanese	26.0	35.0	31.1	24.2	26.4	29.1	Increasing until 2021 then decline

Table 61: Share of mothers who report discussing FP that did so with a trained provider.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	39.3	29.3	20.9	31.2	NA	NA	Volatile
Lebanese	38.1	35.8	21.6	44.5	NA	NA	Volatile

Table 62: Percentage of all mothers who discuss FP with a trained service provider.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	8.1	8.6	6.6	6.6	NA	NA	Stable
Lebanese	9.9	12.5	6.7	10.8	NA	NA	Stable

Table 63: 2021 Demographic comparisons against share of FP discussions with provider

Demographic	Significance (Y/N)[76]	Percentage Point Difference[77]	Comment
Nationality			
SDC		52.1	Marj least likely to discuss, Talia most likely to discuss
Catchment			
Literacy			
Marriage			
Participation		22.2	Participation in Medair activities associated with more likely to discuss FP.

2021 Observations

Very few women have FP discussions with trained service providers. When controlling for the nuance described in the preceding technical note, the results show that very few women reported having FP discussions with trained providers. About one quarter of both Syrian and Lebanese mothers reported having FP discussions, but the majority of these were with non-trained providers. Less than 10% of both Syrian mothers and Lebanese mothers in the sample actually reported talking with a trained service provider (doctor, nurse, or midwife).

Women do not appear interested in FP discussions but could have them if they wished. Only 1.4% of the sample reported that they had wanted family planning discussions and had not been able to have them, so this suggests that the low percentages are not an issue of access, but rather interest. Lebanese mothers were more likely to discuss with a trained prover than Syrian mothers, but the difference was not great (6.0 ppt). Among the SDCs, there was a fairly wide range of percentages with Marj having the lowest percentage and Talia the highest.

Medair activities do make women more interested in FP discussions. Participation in Medair activities did have a strong influence on the share of mothers who sought FP discussions with trained service providers (more than 20 ppt difference). This suggests that this could be a key point of focus in future programming activities that could lead to changes in FP discussion behaviour. There is no survey question asking women for the reasons that they do not discuss FP issues, but it is possible that women are shy about asking about FP issues (even though they reported no barriers to discussing) but are more interested in doing so if they are in 'safe spaces' such as might be found in Medair activities. This suggests value in Medair continuing to provide these spaces.

There may be more FP services available outside the catchment areas. Interestingly, those living outside the catchment areas were more likely to have a higher share reporting a discussion with a trained service provider than those living inside the catchment areas. This was to a much greater degree than just nationality distribution would explain and may imply that there are other FP resources available in the broader context than just the SDCs and Medair activities.

Multi-Year Observations

There has been slowly increasing percentages of women having FP discussions, but this declined in 2021. The patterns across the five-year sample do suggest that there is an increase in the percentage of women reporting having an FP discussion. The pattern in both Syrians and Lebanese is that the percentages are stable for the first three years from 2016-2018 with fluctuations within the margin of error from year to year. However, then from 2018, there is a continuous increase to 2020 levels. This is positive in that it suggests that actions taken around the 2018 period led to an increase percentage of women seeking out FP discussions compared to the beginning of the project cycle.

In 2021, the percentage of women having FP discussions declined, but a greater share of those having discussions with trained providers has increased. Over the course of the six-year cycle, the percentage of mothers seeking out trained service providers has stayed relatively low. It remained stable for Syrian women and was volatile, but low, for Lebanese mothers. The patterns in the data imply that there is increasing awareness of the importance of having FP discussions but the mothers in the sample had focused these conversations with non-trained service providers. This is still the case in 2021, but the share of trained service providers having the discussions has increased from 2020. The overall percentage of women reporting having FP discussions did not change over the years. This means that women are not having FP discussions within informal stakeholders (family, neighbours, or religious leaders). The low percentages suggest that there is still value in future programming

76 Green = Significant

77 Only applicable when statistically significant

activities for both generating awareness of the importance of having FP discussions AND for facilitating access to trained service providers for these conversations.

Indicator 24: Percent of mothers with children under two years who report using a modern contraceptive method.

Table 64: Percentage of mothers with children under two who report using *any* method.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	30.9	33.7	33.6	36.9	43.8	36.6	Stable
Lebanese	50.1	53.9	53.4	58.6	45.9	56.2	Stable

Table 65: Percentage of mothers[78] who report only using a modern method.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	15.5	16.7	18.1	15.8	26.5	16.8	Stable
Lebanese	21.8	27.3	22.3	27.3	25.0	27.8	Stable

Table 66: 2021 Demographic comparisons for using modern methods.

Demographic	Significance (Y/N)[79]	Percentage Point Difference[80]	Comment
Nationality		6.3	Lebanese more likely than Syrians
SDC		20.1	Talia least likely and Marj most likely
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

Few women with children under two are using modern contraception methods. When taking into account the nuance described in the preceding technical note, the patterns in the results show that few mothers with children under two are using a modern form of contraception. About half of Lebanese mothers with children under two reported using a form of delayed pregnancy but only about a fifth of Lebanese mothers were using a modern contraceptive method. A similar pattern, but even lower percentages, holds true for Syrian mothers. About one third of Syrian mothers use a method, but only 15% are using modern contraception methods.

Interestingly, mothers with children over two years of age were *more* likely to be using modern contraception methods than mothers with children under two. This was a greater than an at least 10 ppt difference for both Syrians and Lebanese. The logic in the indicator is that mothers with children under two would be using a form of delayed pregnancy to promote improved birth spacing, but mothers with older young children are actually using modern methods more frequently.

It is likely that women with young children do not think that they need to practice contraception because they have young children. When asked why they may not be using a contraceptive method for delayed pregnancy, the most common reasons given were that they were breastfeeding (35%), did not like birth control methods (18.7%) or were already pregnant (20.9%). Breastfeeding is not a reliable method for controlling pregnancy unless conducted under certain conditions. The mother must practice exclusive breastfeeding, breastfeeds at least every four hours during the day and six hours at night, the child is less than six months old, and the mother has not started her monthly period.[81] Since very few mothers in the sample are actually meeting this criteria, this makes it an unreliable option for most of the mothers. Further, disliking birth control methods is not enough reason to not pursue a form of birth spacing practices.

Women are not avoiding contraception because they want more children. Only 1% of the respondents said that they wanted more children and only 10% said that their husbands wanted more children.

Awareness raising activities should focus on misperceptions. These factors suggest that awareness raising, and training are necessary for understanding which factors do NOT inhibit pregnancy, but awareness raising on family

78 With children under two years

79 Green = Significant

80 Only applicable when statistically significant

81 WHO, Family planning/ Contraception, https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception

size may not be as effective since women already do not seem to be avoiding contraception because they wish for more children.

Among the social factors, nationality and SDC location were correlated with major differences. Lebanese mothers were more likely to report using a form of delayed pregnancy (20 ppt difference) and were more likely to be using modern methods (6 ppt difference). No other social factors were statistically significant. Participation in Medair activities does not correlate with increased use of contraception which suggests that more could be done to emphasize these elements in future programming.

Multi-Year Observations

Women have not changed their behaviour on contraception over the course of the six-year cycle. The multi-year patterns suggest that there have been no macro-level changes in delayed pregnancy practice among the targeted populations. The 2017 dataset is unusual compared to the other years with a substantive dip in reported usage by Lebanese mothers combined with a substantive increase in Syrian mothers. With the exception of that one year, the pattern for both Syrians and Lebanese holds stable, only fluctuating within the margin of error. Lebanese mothers remained about 20 ppt more likely to use any method and about 10 ppt more likely to use a modern method than Syrian mothers throughout the years. The high stability suggests that there has been little actual change in behaviours regardless of the project activities conducted and suggests there may be either systemic barriers or further knowledge barriers that need to be addressed. The systemic barriers do not appear to be related to cultural values. As noted earlier, only a very small percentage of mothers reported not using contraceptive methods for cultural reasons or because they wanted a bigger family. The fact that the most commonly reported reason given for all years was because they were breastfeeding suggests that knowledge may be more of a barrier and could be a source of further future programming. But it is interesting that for all the awareness raising on family planning among NGO activities that women's knowledge on these matters have not shifted. This suggests that there may be a value in reviewing NGO activities on family planning and determining what modifications could be done to improve spreading knowledge.

Indicator 25: Percent of mothers with children under two years who can cite at least one risk of getting pregnant.

Table 67: Percentage of mothers with children under two who cite at least one risk.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	71.7	72.8	69.0	46.8	72.2	49.5	Volatile plateaus
Lebanese	85.0	84.8	75.7	68.6	80.6	70.6	Volatile plateaus

Table 68: 2021 Demographic comparisons against citing at least one risk.

Demographic	Significance (Y/N)[82]	Percentage Point Difference[83]	Comment
Nationality		13.3	More Lebanese women knowledgeable about pregnancy risks
SDC		15.9	Marj most knowledgeable, Talia least knowledgeable
Catchment			
Literacy		6.5	Women who were literate were slightly more frequently knowledgeable
Marriage			
Participation		6.0	Participation in Medair activities slightly correlated with more knowledgeable.

2021 Observations

A substantive percentage of mothers were aware of the risks of pregnancy within two years of last delivery, but this does not lead to increased measures to avoid pregnancy. About three quarters of Syrian mothers with

82 Green = Significant

83 Only applicable when statistically significant

children under two could cite at least one risk while Lebanese mothers performed even better. This percentage held stable when comparing between those women with children under two years and those women with children over two. This is interesting because the implication is that even though both younger and older women[84] are aware of the risks in the same proportion, women whose children are older than two years are more likely to actually practice delayed pregnancy compared to women whose children are younger than two. Even though women with children under two are more at risk if pregnancy happens. This triangulates with the previous section regarding incorrect knowledge on breastfeeding as a means of avoiding pregnancy and further reaffirms that this dynamic may be important to explore in future programming activities.

Participation in Medair activities, nationality, literacy levels and which SDC they lived in affected the percentages of women who were knowledgeable. Lebanese mothers were about 13 ppt more likely to be able to cite at least one risk. It is interesting that participation in Medair activities does not improve using modern contraception methods but does change risk factor knowledge. This suggests that women are already aware of pregnancy risks, so the added value of the Medair activities should be added by correcting misperceptions among women regarding avoiding pregnancy.

Multi-Year Observations

The multi-year patterns are volatile but have stabilized since 2019. The 2016 and 2018 values were quite low, and similar to each other. The 2017, 2019, 2020, and 2021 values were much higher, and also similar to each other. The presence of two 'plateaus' in the data pattern in unconnected years – for both Lebanese and Syrian women – suggests that the likeliest explanation is related to a technical issue with sampling or the survey application rather than showing true changes in women's knowledge. What can be concluded from the data is that the 2021 endpoints reflect high values, but these are not increasing further.

There is a sizable minority of women (about 20-25%) who are not being reached by awareness activities. Because the values have stayed constant across the years, this suggests that there are not 'new' mothers learning about pregnancy risks – women who were previously ignorant of pregnancy risks but who have now learned through either individual learning or from organized campaigns.

Indicator 26: Percent of mothers with children under two years who know correct birth spacing.

Table 69: Percentage of mothers with children under two who know correct birth spacing.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	25.6	30.0	42.1	32.7	48.1	41.1	Volatile plateaus
Lebanese	19.4	41.8	60.9	48.6	60.5	68.5	Volatile plateaus

Table 70: 2021 Demographic comparisons against correct birth spacing.

Demographic	Significance (Y/N)[85]	Percentage Point Difference[86]	Comment
Nationality		6.2	Syrian mothers more likely to choose correct answers
SDC		46.0	Wide differences among SDCs with Marj lowest and Talia highest.
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

This question was not formatted correctly in the surveys which creates volatile responses. The correct values sought are two years (or more). However, in 2021, there are two choice options with overlapping values that are correct – one option is "1-2 years", and the other option is "2-5 years". So a respondent may be correctly thinking "2 years" and might pick either the option 1-2 years OR the option 2-5 years. In previous years, the survey options were worded slightly differently which would lead to even more variability in trying to identify the correct value. This volatility is seen in the multi-year responses which fluctuate widely from year to year. Given this unreliability in the way the survey question is asked, responses should be treated with caution.

84 More accurately, mothers whose youngest child is under two years of age compared to mothers whose youngest child is more than two years of age.

85 Green = Significant

86 Only applicable when statistically significant

Only a minority of mothers overall were able to correctly cite appropriate birth spacing. Taking the responses at face value, for both Syrians and Lebanese women, only about a quarter of the respondents chose the correct options for birth spacing.

Besides nationality, there was a substantive variation among the SDCs with Marj having the lowest percentages and Talia having the highest percentages. In 2020, Talia and Marj were both low percentages reflecting that the question format is leading to erratic answers rather than actually measuring women's knowledge of birth spacing. There were no differences among the other social factors. Participation in Medair activities did not have influence.

Multi-Year Observations

The multi-year patterns are too unreliable to make conclusions about changes. As with pregnancy risks, the multi-year patterns show two volatile plateaus that are more linked to survey or sampling issues than to actual changes in women's knowledge and then there is a steep decline in 2021. In 2018 and 2020, the percentages of correct birth spacing are much lower (but similar to each other), than the percentages in 2016, 2017, and 2019 and then there is a steep drop in 2021. The patterns are the same for both Syrians and Lebanese as well. Overall, because of this volatile plateau dynamic, it is not possible to identify changes to birth spacing knowledge over the project cycle.

The only conclusion that could be developed is that Lebanese mothers prefer wider birth spacing intervals than Syrian mothers (except in 2021). The degree of difference holds consistent between 10-15 ppt each year – except for 2021. While it is not possible to make conclusions about birth spacing knowledge per se, what this does suggests is that Lebanese mothers overall prefer longer birth-spacing intervals than Syrian mothers.

4.3.9 Vaccinations

There are four indicators tracking vaccination coverage. Three of the indicators track individual vaccinations: Measles, Polio, Diphtheria, Pertussis and Tetanus (DPT). The other indicator is a synthesis asking the percentage of children who have received age-appropriate vaccinations. The survey, based on the MoPH calendar guidelines, tracks 15 vaccinations to measure age-appropriateness.

Technical Note I – Over-reporting coverage

The way the data is collected makes it seem that there are more vaccinations happening then is actually the case. One important consideration when interpreting this data is that the survey only records the percentage of vaccinations among those mothers who can produce a vaccination booklet for their child and who give permission for Medair enumerators to copy the data. This is a technically correct approach and a standard practice to mitigate the unreliability of memory recall of 15 different vaccinations. However, among this population, this method will substantively over-report the true level of vaccination coverage among the children because very few mothers actually have health booklets. For example, in the 2021 dataset, only 32% of the respondents could show the enumerator a vaccination booklet (although 54% stated that they had one). Previous years are volatile, but never exceeded 58%. This means that in any given year, between 40-70% of the children are not being measured at all. This needs to be taken into account in interpreting the results because whatever the situation may be for children with the vaccination booklets, it will likely be much lower for all children.

Technical Note II – Under-reporting age-appropriate coverage

There are more children receiving age-appropriate vaccinations then is reported in the data. One of the indicators is specifically asking for the percentage of children aged 12-23 months who received age-appropriate vaccination at the time of the survey. By the end of 23 months, there are 15 age-appropriate vaccinations according to the MoPH calendar. Twelve of these to be administered before month 17 and three others before months 23. Reporting only for children who are currently in the age range of 12-23 months will under-report true vaccination coverage. For example, a child may be 13 months, and therefore in the age range, but might receive the vaccinations in month 14. Therefore, to better reflect age-appropriate vaccination coverage, it would be more accurate to record the vaccination rates among children over 24 months. By the end of 24 months, did children get all their recommended vaccinations? Therefore for 2021 and multi-year, the data is recorded from children **over 24 months to measure age-appropriate vaccinations.**

Indicator 27: Percent of children aged 1-5 years vaccinated for measles.

Table 71: Percentage of children 1-5 years with vaccination booklet

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	36.7	45.1	56.6	50.9	53.1	47.8	Stable but declined 2020
Lebanese	41.6	41.1	54.5	50.7	61.9	65.5	Declining

Table 72: Percentage of children 1-5 years with booklet vaccinated for measles.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	57.4	54.7	50.8	46.3	71.5	72.7	Declining until 2019 the gradual increase
Lebanese	73.4	67.3	64.4	62.6	82.2	74.9	Declining until 2019 the gradual increase

Table 73: 2021 Demographic comparisons against measles vaccination

Demographic	Significance (Y/N)[87]	Percentage Point Difference[88]	Comment
Nationality		16.0	Lebanese more likely to have measles vaccine
SDC		15.1	Joub Jannine highest, Talia lowest.
Catchment		20.5	Outside catchment more likely to have vaccine
Literacy		12.7	Literate women more likely to have vaccine their children
Marriage			
Participation			

2021 Observations

Children, especially Syrian children, are significantly under-vaccinated for measles, especially in families that cannot read or write. Of children ages 1-5 years, there were 1800 in the sample of which only 696 could produce a vaccination booklet. Of those children with a booklet, 57.4% of Syrian children had the measles vaccine and 73.4% of Lebanese children. Besides nationality, the factors with most important influence were whether the mothers could read or write, whether they lived outside the catchment, and which SDC they lived in. In addition, mothers who could not read and write were much less likely to even have a vaccination booklet (-11.5 ppt). Therefore, the true coverage of the measles vaccine is even less for children in families where the mother cannot read or write compared to the other vulnerability factors. The SDCs had similar percentages except for Joub Jannine which was 10-15 ppt higher than the other four.

Multi-Year Observations

Declining until 2019 then slowly increasing percentages but not yet returned to baseline. There are patterns of concern in the multi-year database for both having a vaccination booklet and for children having measles vaccines. **Few mothers had vaccine booklets and fewer yet in recent years.** There appears to be a slight decline among Syrian mothers (about 8 ppt since 2017) and a steeper decline among Lebanese mothers (20.8 ppt) among mothers who had a vaccine booklet. In addition, there has been a steady decline until 2019 for both Syrians and Lebanese children in terms of receiving measles vaccines, even among those with booklets. Since 2019, there has been a slow increase in the percentages of children receiving measles vaccine that has continued into 2021.

While this trend is positive, the percentages have not yet returned to the baseline rates in 2016 and 2017. The values in those years is probably inflated by families who had received measles vaccines in Syria prior to fleeing. However, the decline in vaccine booklets being maintained is concerning. This suggests opportunities in future programming related to helping mothers receive and maintain their vaccine booklets. Furthermore, given the likely over-reporting of the true percentages of children having received the measles vaccines, increased measles vaccination campaigns may be a key point for future programming.

Indicator 28: Percent of children aged 1-5 years vaccinated for polio[89]

Table 74: Percentage of children 1-5 years with booklet vaccinated for polio.

87 Green = Significant

88 Only applicable when statistically significant

89 There are three vaccinations for DPT plus three boosters. According to MoPH guidelines, DPT 1, 2, 3 should be completed by 17 months and boosters to come afterwards. This data records the percentage of children with the three initial vaccines.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	84.4	74.1	74.6	66.8	85.1	74.2	Stable with sharp increase in 2021
Lebanese	87.1	81.6	81.7	78.8	90.4	73.8	Increasing slightly

Table 75: 2021 Demographic comparisons against polio vaccination.

Demographic	Significance (Y/N)[90]	Percentage Point Difference[91]	Comment
Nationality			
SDC		29.6	Talia lower than others
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

Children appear to be better vaccinated against polio than measles. Among children with vaccine booklets, more than 85% had the polio vaccines and this was equal between nationalities and the rate was slightly higher among Lebanese children. The only social factor influencing the patterns is that there were variations among the SDCs with Talia recording lower percentages than any of the other SDCs.

Multi-Year Observations

Polio vaccinations are increasing slightly from baseline and have a sharp increase in 2021. It could be that the pandemic and heightened awareness of vaccines has led to an increase in polio vaccinations among young children. As with Measles, these vaccines are administered prior to age one for children. The data for children aged 1-5 would reflect the cumulative effect of the previous five years which include data from before the crisis (assuming refugee mothers brought their vaccination booklets when fleeing Syria). The 2017 and 2018 values are odd in that there is a surge in 2017 followed by a steep decline in 2018. Given that these values should be stable because they include many of the same children from year to year, these two years are likely measurement errors due to changes in sampling methodology or how the questions were asked on the survey. If those two years are taken out, there is a pattern of stable percentages among the Syrians until a sharp jump in 2021. Among Lebanese, there is a pattern of gradual increase from 2016 with a sharp jump in 2021.

Of concern though is that prior to this 2021 jump, there had been few gains among Syrian children in terms of coverage for polio even as Lebanese children appear to be gaining in coverage somewhat. It may be helpful to have increased programming focus on polio vaccination coverage as well.

Indicator 29: Percent of children aged 1-5 years vaccinated for DPT[92]

Table 76: Percentage of children 1-5 years with booklets vaccinated for DPT.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	82.5	70.5	70.8	61.1	78.9	61.4	Increasing
Lebanese	88.7	81.0	79.3	74.1	85.7	73.8	Increasing

90 Green = Significant

91 Only applicable when statistically significant

92 There are three vaccinations for Polio plus three boosters. According to MoPH guidelines, polio 1, 2, 3 should be completed by 17 months and boosters to come afterwards. This data records the percentage of children with the three initial vaccines.

Table 77: 2021 Demographic comparisons against DPT vaccination

Demographic	Significance (Y/N)[93]	Percentage Point Difference[94]	Comment
Nationality			
SDC		15.1	Talia significantly lower than the other SDCs
Catchment			
Literacy			
Marriage			
Participation			

2021 Observations

A high percentage of Syrian and Lebanese children with booklets are vaccinated for DPT. Both Syrians and Lebanese children recorded frequencies over 80% vaccinated for DPT. There are no social factors influencing the patterns with the exception of which SDC they attended. Talia SDC children were significantly less likely to be vaccinated than other SDCs.

Patterns of responses are mirroring polio vaccination coverage. This implies that whatever factors are influencing general vaccination coverage are influencing both and measures taken to address one will have positive results on the other as well.

The number of children actually vaccinated for DPT is much lower. This indicator is tracking those children with health booklets that can be produced that show DPT vaccination. In 2021, only 32% of the children aged 1-5 could produce a vaccination booklet. While children may have been vaccinated for DPT even if the mother cannot produce a book, this indicator as reported highly over-reports the vaccination coverage for children since nearly 70% are not included in this sample. This suggests that there may be value in targeting vaccine booklet management issues with families.

Multi-Year Observations

Each year, a greater percentage of children with booklets are being vaccinated for DPT since 2016. From 2016, there is a slight increase for both Syrians and Lebanese children in terms of coverage of between 7-9 ppt until 2020 and then a sudden jump in 2021 by more than 10 ppt from 2020. The 2017 values appear unusually high compared to the other years and may again be more reflective of a survey or sampling issue because if it had been a surge in vaccination, the percentages would have held over into the following year as children aged 1-5 years would stay in the sample over time.

It could be that the COVID-19 pandemic has increased vaccine awareness in 2021. The sudden 10 ppt increase for both Syrians and Lebanese children from 2020 to 2021 implies that something may have happened in the environment to promote greater vaccine coverage. The widespread pandemic fears and lockdown could be one factor that explains why there is such a high percentage of children in 2021 compared to previous years.

The decline in booklet maintenance is a major issue. The increase in vaccination rates in 2021 also coincide with a significant decline in the percentage of mothers who could produce a vaccination booklet for examination by the enumerators, especially among Syrians. Children without booklets are excluded from this indicator which may therefore mis-represent the true coverage of the vaccinations. It could be that the increase in 2021 is artificial and only the result of more mothers losing track of the vaccine booklets since 2020. Those who are most likely to keep the booklets are also more likely to maintain their children's vaccination status. However, even with the absence of the booklets, there does appear to be at least an increase in DPT coverage because Lebanese mothers produced booklets at about the same rate as previous years but still had higher vaccination rates for DPT in 2021. This suggests that there are still gains even if not as great as appears because of the missing booklets.

93 Green = Significant

94 Only applicable when statistically significant

Indicator 30: Percent of children with age-appropriate vaccinations[95]

Table 78: Percentage of children with booklets with age-appropriate vaccinations

Nationality	2021	2020	2019	2018	2017	2016[96]	Multi-Year Pattern
Syrian	29.2	22.7	17.3	12.1	37.3	NA	Increasing from 2018
Lebanese	48.0	46.2	34.3	21.7	52.1	NA	Increasing from 2018

Table 79: Mean number of vaccines per child for those with booklets

Nationality	2021	2020	2019	2018	2017	2016[97]	Multi-Year Pattern
Syrian	11.5	9.8	9.4	8.5	11.4	6.5	Increasing
Lebanese	12.8	12.0	11.2	10.3	12.5	7.6	Increasing

Table 80: 2021 Demographic comparisons against age-appropriate vaccination

Demographic	Significance (Y/N)[98]	Percentage Point Difference[99]	Comment
Nationality		18.8	
SDC		15.8	Joub Jannine significantly higher than other SDCs
Catchment		16.2	Outside catchment more likely to have coverage.
Literacy		16.8	Literate women more likely to have age-appropriate vaccinations for their children
Marriage		13.2	Women who married later more likely to have full vaccination coverage of their children
Participation			

2021 Observations

Among children with vaccine booklets, only about a third have recorded all age-appropriate vaccinations. There is a substantive difference between nationalities with almost half of the Lebanese children reporting age-appropriate vaccinations while only 29% of Syrian children have all vaccines. Although it is not part of the logical framework indicators, it is possible to calculate the number of age-appropriate vaccines each child in the sample has received. This can provide insights into whether children are getting more of their age-appropriate vaccines, even if they are not getting all of their age-appropriate vaccines. For 2021, the mean number of vaccines recorded from the health booklets was almost the same for both nationalities (11.5 vs. 12.8).

The more vulnerable the household, the lower the vaccination coverage. Almost all the social factors had a significant correlation for vaccine coverage. Women who could not read or write or who married early were less likely to have their children with all age-appropriate vaccines. Among the SDCS, rates were similar except for in Joub Jannine which recorded rates about 20 ppt higher than the others. This may reflect a specific vaccination campaign conducted in that SDC coverage area. Children of women who could not read or write had the fewest average number of vaccines.

Participation in Medair activities does increase the average number of vaccines a child has. Although participation in Medair activities does not affect the percentage of children who have all age-appropriate vaccinations, it does affect the average number of vaccines received (even if the child is not completely covered). The average number of vaccines a child has increased from 11.8 to 12.4 which is a significant increase.

This suggests that continued programming support could continue to increase coverage. Addressing literacy issues with mothers appears to also be a potentially important consideration for future programming.

Multi-Year Observations

There has been an increase in overall vaccine coverage for both Syrians and Lebanese, but vaccine coverage is extremely low. The percentage of children who had all 15 vaccines has steadily increased since 2016. The average number of vaccines recorded by each child has also increased. While this is positive progress, the overall percentage of children with age-appropriate vaccine coverage is still very low – especially given that these numbers are only for those children with vaccine booklets – which is a minority of all children in the camps. This

95 Recorded from children over 24 months to ensure coverage options completed

96 The 2016 survey only asked about 10 vaccinations compared to 15 in other years

97 The 2016 survey only asked about 10 vaccinations compared to 15 in other years

98 Green = Significant

99 Only applicable when statistically significant

suggests that there is much more work that could be done to increase vaccine coverage even as gains have progressed.

There appears to be improvements to the health system or household vaccine management since 2016. No single vaccine is recording significant increases from year to year, but there are small percentage gains across the range of vaccines. This is encouraging because it suggests that there are positive changes to overall vaccine availability (health system strengthening) or vaccine management in households (awareness raising activities) that are driving the changes over time.

Medair activities have helped strengthen the health system for vaccine management. Given that participation in Medair activities do appear to influence the number of vaccines per child (even if the total number of changes, this is then an indicator that the Medair support to SDCs has helped strengthen system coverage for vaccines.

4.3.10 Sick Child Treatment - Respiratory & Diarrhoea

This section combines three dimensions in the logframe related to behaviour of mothers regarding treatment of sick children with an emphasis on the treatment of acute respiratory infections (ARI) and diarrhoea. The indicators track cases of ARI and diarrhoea, whether mothers sought treatment, and type of treatment obtained for each condition.

Section 1: ARI Incidence and Response

Indicator 31: Percent of children that had fast or difficult breathing[100] in last two weeks

Table 81: Percentage of children with Difficult Breathing ONLY

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	8.1	6.0	17.9	25.0	28.2	39.2	Decreasing
Lebanese	3.4	2.3	10.6	19.2	20.8	40.9	Decreasing

Table 82: Percentage of children with Difficult Breathing OR coughing

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	19.8	22.8	38.6	55.7	64.4	75.7	Decreasing
Lebanese	11.9	11.7	26.3	49.0	56.5	74.4	Decreasing

Table 83: Percentage of children with Difficult Breathing AND coughing

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	4.9	3.6	13.5	20.4	24.1	36.5	Decreasing
Lebanese	2.0	1.3	6.9	15.2	18.4	37.0	Decreasing

Table 84: 2021 Demographic comparisons incidence of ARI (coughing or difficulty breathing)

Demographic	Significance (Y/N)[101]	Percentage Point Difference[102]	Comment
Nationality		7.9	
SDC		16.0	Qabb Elias most common, Brital least common
Catchment		8.5	Inside catchment had higher incidence
Literacy			
Marriage			
Participation			

2021 Observations

There is low incidence of severe ARI but coughing issues are more common. The logframe indicators for this dimension are phrases as whether the child has cough OR breathing difficulties. These are reported in the following cases. However, ARI is technically measured by whether a child has a cough AND difficulty breathing. This 'AND' measure is shown in Table 83. ARI cases reported were low for severe cases but about one in five Syrian children had a coughing incidence in the past two weeks.

100 The survey includes together difficult breathing AND coughing in a single question.

101 Green = Significant

102 Only applicable when statistically significant

Syrian children were about twice as likely to have severe or mild ARI compared to Lebanese children. Although all values were low, Syrian mothers reported a higher difference for difficult breathing (5 ppt difference) and breathing or coughing (7.9 ppt difference) compared to Lebanese mothers. Besides a significant difference in nationality, there were significant variations among SDCs where Qabb Elias SDC reported the highest rates of ARI. Brital reported extremely low percentages of ARI incidence.

Multi-Year Observations

There has been a steep decline since 2016 for ARI cases but they are still more prevalent among Syrians and within the camps than outside the catchments or with Lebanese. The decline has been at different rates for Syrians versus Lebanese families. In 2016, Syrian and Lebanese families had similar incidence rates for ARI. Both nationalities reported about 75% of ARI incidents. By 2021, this had dropped to below 20% for both nationalities. Lebanese families improved more than Syrian families by about 7-8 ppt but both groups have massively decline

There appears to be a general improvement in health and hygiene conditions in the overall environment. It is important to note that both groups started very high and very similar in 2016, which suggests a general set of conditions in the area. Even though on most health indicators, Lebanese and Syrian families are slightly different, on this indicator, the decline has been sharp for both. This means that it is likely a larger environment change that has led to decline rather than specific targeting. Environmental changes could be improved health care systems or general changes in the community WASH that may have helped reduce ARI incidence or all.

Syrian families are still more vulnerable to ARI incidents compared to Lebanese families. Even with the improvements, there are still substantive differences between the two groups in terms of reported ARI. This implies that Syrian families may not be able to access the overall benefits of this general environment improvements to the same degree as the Lebanese families. This is due to the difference between living in an ITS versus a settled community. Those living outside the catchment reported much lower ARI incidents than those living inside the catchment areas. In addition, there appears to be a factor in Qabb Elias leading to higher incidence as for the second year in a row, the Qabb Elias SDC reported the highest incidence rate among the SDCs.

The COVID pandemic does not appear to be affecting children's ARI. There is a slight uptick in reported difficulty breathing in 2021, which could reflect more COVID in the environment. However, the percentage increase is very small (2 ppt for Syrians and 1 ppt for Lebanese) when compared to the overall decline from 2016. The overall prevalence of coughing and difficulty breathing did not change from previous years. This suggests that there have not been significant changes in habits or infections as a result of the pandemic.

Indicator 32: Percent of mothers with children with fast or difficult breathing[103] in last two weeks who sought advice after more than 24 hours.

Technical Note

This indicator as described in the project logframe is a negative framed indicator which can lead to misinterpretations. Ideally, in project evaluation, one is looking for prompt treatment seeking behaviour. In this case, mothers should seek treatment more quickly for ARI cases, so it would be positive to record the percent that sought treatment *within* 24 hours. Instead, the indicator is negative framed and focusing on measuring the percentage of mothers who *delayed* seeking treatment. Therefore, for interpreting these patterns, the more positive patterns are *lower* percentages recorded for seeking treatment.

The intent of the indicator – although poorly framed – was to measure whether or not the families sought treatment – and from which facility they obtained the treatment. Therefore, the following tables record both the literal interpretation of the indicator (seeking treatment before or after 24 hours) and the real intent of the indicator – how many sought treatments at all and from where.

The survey confusingly frames the options for the question on delayed treatment as "same day" "next day" "two days" and "three or more days." These options could be confusing to mothers because if the child is sick in the evening, they may take the child for treatment in the morning – technically the next day. So "Next day" options could either be inside or outside of a 24-hour window. Therefore, for the purposes of measuring 24 hours (as per the indicator), the options of "same day" *and* "next day" are coded to be within 24 hours.

As a reminder, this data is recording the *share* of mothers who had an ARI incident who then *also* sought help.

Table 85: Share of ARI incident seeking treatment AFTER 24 hours.

103 The survey includes together difficult breathing AND coughing in a single question.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	17.7	18.4	20.2	26.9	19.2	14.2	Stable
Lebanese	9.6	10.9	15.1	15.3	6.4	11.0	Stable

Table 86: 2021 Demographic comparisons for ARI treatment seeking.

Demographic	Significance (Y/N)[104]	Percentage Point Difference[105]	Comment
Nationality		8.1	
SDC			
Catchment			
Literacy			
Marriage			
Participation		16.5	Participation in Medair activities more likely to seek treatment

2021 Observations

The percentage of mothers seeking treatment was high for both nationalities, but Lebanese sought help more quickly. About three quarters of Syrian and Lebanese mothers sought treatment for the ARI incidence overall. However, the percentage of mothers who waited more than 24 hours was higher among Syrians compared to Lebanese (about 8 ppt difference).

Women who participated in Medair activities were more likely to seek treatment and to do it quickly. With the exception of nationality in 2021, no other social factor influenced seeking treatment but participation in Medair activities is correlated with seeking treatment (16.5 ppt difference) and on how quickly treatment they sought treatment (12.5 ppt).

Multi-Year Observations

Mothers behaviour in seeking treatment has not changed over the project cycle period. For most of the project cycle, the percentage of Lebanese mothers and Syrian mothers whose child had an ARI incident and then reported seeking treatment stayed similar – between 70-80% per year. In addition, the percentage of those seeking treatment after 24 hours has also held stable throughout the five-year cycle. Even though there has been positive change in terms of the number of ARI incidents since 2016, it does not appear that mothers' behaviour regarding seeking treatment has changed over the project cycle period. This suggests that more could be done in programming future activities target the 25% of mothers who do not seek treatment for ARI incidence.

Section 2: ARI Treatment Locations and Medicines

This section further details the distribution of treatment seeking behaviour among the different health system options and the type of medical options received including antibiotics.

Indicator 33: Percent of mothers with children with fast or difficult breathing106 in last two weeks who sought advice from an appropriate health facility.

Table 87: Percentage of ARI incident seeking treatment.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	73.2	72.9	74.6	70.7	76.7	68.3	Stable
Lebanese	76.4	93.5	76.4	79.9	82.9	76.3	Stable but increased in 2020 before declining in 2021 again

Table 88: Percentage distribution where treatment was sought[107]

	Year	SDC	Clinic	Pharmacy	Doctor	Hospital
Syrian	2016	36.3%	3.7%	45.3%	NA	5.3%
	2017	39.3%	7.0%	38.7%	NA	7.3%

104 Green = Significant

105 Only applicable when statistically significant

106 The survey includes together difficult breathing AND coughing in a single question.

107 Other options were basically zero

	2018	72.4%	8.6%	11.5%	4.8%	2.7%
	2019	47.3%	9.8%	37.3%	3.4%	2.3%
	2020	57.7%	9.2%	28.7%	2.4%	2.0%
	2021	60.9%	9.1%	28.0%	3.7%	3.7%
Lebanese	2016	17.4%	35.2%	28.3%	NA	9.6%
	2017	17.0%	31.2%	27.3%	NA	13.5%
	2018	33.3%	39.5%	6.8%	16.0%	4.4%
	2019	25.0%	25.0%	41.4%	3.9%	4.6%
	2020	33.7%	22.8%	38.6%	2.0%	3.0%
	2021	44.7%	28.7%	41.5%	4.3%	0.0%

2021 Observations

About three quarters of all mothers sought treatment for ARI incidence but Syrians use SDCs more than any other option. All respondents who reported seeking treatment did so in an appropriate health facility. The patterns in the responses mirrors the general health seeking behaviour options profiled in earlier sections. Syrians are using SDCs with Pharmacies a distant second while Lebanese are more likely to have an equal distribution of accessing SDCs, Clinics, and Pharmacies. Given the ease to which antibiotics can be obtained without proper medical prescriptions, this can contribute to increasing antibiotic resistance in the country. Very few respondents cited using hospitals or any other health option. In terms of the social factors, SDCs were the preferred choice of mothers who could not read or write, who lived inside the catchment, and who had participated in Medair activities. The SDCs showed about 30 ppt variation between Brital (highest preference for clinics and pharmacies) to Joub Jannine (highest preference for SDCs). This pattern suggests that the logic of the SDCs within the project is helping to reduce the strain on the existing health system by providing a medical option for women with children in ARI situations.

Multi-Year Observations

SDC use has increased over time with a further sharp increase in 2021. As with the earlier health seeking behaviour, the percentage of mothers using SDCs has increased over time for both Syrian and Lebanese families. Interestingly, in 2021, there was a marked increase in Lebanese mothers visiting SDCs for ARI incidents (11 ppt increase) from 2020. It is likely that the pandemic may have had an effect on health seeking behaviour with a greater percentage of Lebanese mothers seeking treatment at the SDCs. At the same time, Lebanese mothers did not seek treatment at hospitals – which were over-crowded with pandemic issues as well. The primary changes in distribution have been a decline in the use of hospitals as an ARI treatment option. This pattern suggests that the logic of the SDCs within the project is helping to reduce the strain on the existing health system by providing a medical option for women with children in ARI situations and that the role of the SDCs in provide a health option has become more prominent over the project cycle years.

Indicator 34: Percent of children with fast or difficult breathing[108] by type of treatment

Table 89: Percentage of type of treatment reported for fast or difficult breathing.

	Year	Antibiotics	Cough Drops	Painkiller	Antihistamines
Syrian	2016	22.6	68.9	25.3	8.9
	2017	22.4	71.6	33.9	5.4
	2018	40.7	69.5	37.5	15.6
	2019	37.0	62.8	40.0	17.6
	2020	26.6	59.7	46.4	16.7
	2021	25.5	65.8	40.3	18.1
Lebanese	2016	34.2	61.6	38.4	29.2
	2017	29.6	77.2	32.8	9.0
	2018	41.5	70.6	39.4	23.0
	2019	33.6	63.8	46.1	18.4

108 The survey includes together difficult breathing AND coughing in a single question.

	2020	37.6	72.3	47.5	20.8
	2021	33.0	78.7	43.6	16.0

Table 90: Percentage of type of treatment reported for severe ARI cases[109]

	Year	Antibiotics	Cough Drops	Painkiller	Antihistamines
Syrian	2016	44.2	42.7	37.5	58.8
	2017	44.3	36.2	43.4	52.9
	2018	41.6	39.5	42.0	66.3
	2019	42.0	36.4	35.4	58.4
	2020	19.2	15.4	16.2	14.3
	2021	35.0	71.7	38.3	23.3
Lebanese	2016	69.3	45.9	59.5	65.6
	2017	45.7	33.3	49.0	46.4
	2018	44.4	31.2	38.7	44.6
	2019	29.4	32.0	31.4	42.9
	2020	18.4	13.7	16.7	28.6
	2021	40.0	73.3	60.0	20.0

2021 Observations

About one third of the children received antibiotics but cough drops are the most common treatment. Antibiotics are considered as essential treatment for ARI and the others are considered redundant. The indicator in the project logframe is written as "fast or difficult breathing seeking treatment" and the first table reports those percentages of those who had both cough and difficulty breathing. The second table report those percentages of treatments for those who had severe ARI (cough AND difficulty breathing). For the first table, cough drops were the most frequently reported medicine received for both Syrians and Lebanese with painkillers the second most cited medicine (46.4% and 47.5% respectively). The significant differences among the medicine distributions in 2021 related to antibiotic usage and cough drops where Lebanese mothers were more likely to receive these medicines compared to Syrians.

For severe ARI cases, treatment patterns were similar but Lebanese mothers received more painkillers. For the second table, antibiotics were the most frequently prescribed treatment in 2020 although the values were similar. The only significant difference among the medicine distributions in 2020 related to painkiller usage where Lebanese mothers were 20 ppt more likely to report receiving painkiller medicines compared to Syrians.

Lebanese mothers were more likely to cite multiple medicines administered compared to Syrians with Lebanese families reporting an average of 1.8 medicines given per child compared to 1.5 per child for Syrians.

Multi-Year Observations

Over the years, Syrians are receiving more painkillers and antihistamines for ARI, but antibiotics have remained constant. Over the project cycle, there has been a gradual increase in the percentages of all medicines being cited with painkiller usage the biggest increase from the 2016 data. Antibiotic usage has fluctuated across the years with sharp increases in 2018 for both Syrian and Lebanese women but the 2020 levels are comparable to the 2016 levels for both populations. Painkiller usage has seen the biggest increases over time with a 21.1 ppt increase for Syrians and a 9.1 ppt increase for Lebanese. Antihistamines have increased for Syrians and declined for Lebanese. However, for the latter, the fluctuations have been volatile across the project cycle years.

109 For coughing AND difficulty breathing

The COVID pandemic has affected treatment for severe ARI with more medicines administered to all cases. Although there was not a substantive increase in severe ARI cases in 2021 compared to 2020, the number of treatments received did increase. In 2021, for severe ARI cases, there were massive jumps in the percentages of both Syrian and Lebanese mothers receiving antibiotics, painkillers, and cough drops. The increases were 40-60 ppt greater in 2021 compared to 2020 surveys. It is possible that awareness of the pandemic may have increased the interest in, or awareness of, diverse types of treatments for ARI. Health professionals may also have administered more types of medicines to address COVID anxiety as well.

Mothers are unlikely to know technical medicines leading to unreliable reporting on this indicator. Technically, mothers may not always be aware of the differences between the diverse types of medicines – especially between antibiotics, painkillers, and antihistamines. As such, they may unintentionally mis-report the usage of these medicines. A more accurate measure regarding medicine usage may be to rely on SDC records for prescriptions rather than self-report from mothers who may not be as familiar with the medical terminology.

Section 3: Prevalence and Treatment of Diarrhoea

This section tracks the prevalence and treatment of Diarrhoea. Especially the use of Oral Rehydration Solution (ORS). Given timing, the prevalence of diarrhoea is discussed first followed by treatment strategies even though the project logframe has these indicators reversed. It is important to note that when discussing the percentage of children by treatment, this is the share of children receiving a certain treatment from only those who had a diarrhoea incident.

Indicator 35: Percent of children that experienced diarrhoea in the last two weeks

Table 91: Percentage of diarrhoea incident last two weeks

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	17.1	22.1	26.5	25.1	34.1	41.4	Decreasing
Lebanese	9.5	11.0	21.6	16.8	24.5	35.5	Decreasing

Table 92: 2021 Demographic comparisons for diarrhoea prevalence

Demographic	Significance (Y/N)[110]	Percentage Point Difference[111]	Comment
Nationality		7.6	Syrians had higher incidence rates than Lebanese
SDC		15.0	Brital had markedly lower incidence than the other SDCs which were the same
Catchment		10.3	Those living outside catchment had lower incidence
Literacy			
Marriage			
Participation			

2021 Observations

Diarrhoea incidence is low overall but higher among Syrians than Lebanese. Across the total sample, only about 14% of children were reported to have diarrhoea. Syrian mothers reported higher rates of incidence compared to Lebanese mothers by about 7 ppt difference. There is a mild link to vulnerability, but not strong. Those living outside the catchment area were less likely to report diarrhoea and among the SDCs, the SDC rates were similar except that Brital had markedly lower rates than the other SDCs.

Multi-Year Observations

There has been an improvement in the hygiene environment since 2016 and far fewer cases of diarrhoea overall. There has been a steady decline among both Syrians and Lebanese mothers on the incident rates since 2016 when the baseline were two or three times as high as the incidence rates in 2021. The decline has been at the same rate for both nationalities although Lebanese mothers were reporting fewer cases to begin with. Both are trending positively. This could be a reflection on changes in household behaviour regarding hygiene practices

110 Green = Significant

111 Only applicable when statistically significant

but could also be the result of improvements in water supply quality or other systemic changes. The quality of conditions inside the catchments appears to be lower than outside the catchment areas.

Indicator 36: Percent of children receiving ORS and zinc supplementation.

Table 93: Percentage share distribution where treatment was sought[112]

	Year	SDC	Clinic	Pharmacy	Hospital
Syrian	2016	27.3	4.3	36.7	7.2
	2017	39.6	10.2	34.5	6.1
	2018	55.8	3.4	34.0	3.8
	2019	47.3	9.2	34.4	3.9
	2020	55.7	5.7	33.6	4.8
	2021	54.5	7.4	31.3	3.3
Lebanese	2016	19.5	27.3	24.2	11.7
	2017	22.2	28.5	22.2	15.8
	2018	32.1	17.4	32.1	9.2
	2019	20.5	17.3	39.4	7.1
	2020	36.0	22.1	40.7	2.3
	2021	34.5	29.8	44.0	4.8

Table 94: Percentage share of type of treatment reported.

	Year	Antibiotics	ORS	Zinc	IV[113]	Home	Herbal
Syrian	2016	NA	30.1	6.8	1.4	4.8	11.0
	2017	NA	38.7	27.8	3.8	4.7	5.2
	2018	74.7	38.1	8.7	6.0	6.8	2.3
	2019	64.4	50.9	9.0	4.5	6.5	1.8
	2020	64.2	49.1	17.3	3.3	3.9	1.2
	2021	70.9	51.2	9.0	1.6	2.5	1.6
Lebanese	2016	NA	17.6	9.2	1.5	9.9	9.9
	2017	NA	34.4	28.8	5.5	3.7	4.9
	2018	71.4	43.1	11.1	3.7	10.1	2.8
	2019	62.9	49.6	12.6	5.5	10.2	2.4
	2020	62.5	58.1	9.3	1.2	2.3	2.3
	2021	63.1	41.7	4.8	10.7	1.0	2.4

2021 Observations

Most mother sought treatment, but Syrians tended to rely on SDCs for seeking treatment. In the sample, 85% of the mothers reported seeking treatment. As with the other health seeking options, Syrians were more likely to use SDCs or pharmacies for treatment while for Lebanese the options were more equally distributed among clinics, pharmacies, and SDCs. Other options were not significant, for example, only six women said they sought treatment from neighbours.

The SDCs serve as a valuable resource for the more vulnerable households. Among the social factors, the more vulnerable the household, the more likely they were to use SDCs. Those living outside the catchment areas were less likely to use SDCs and more likely to use pharmacies. Women who could not read or write and women who were married young were also more likely to use SDCs over other options. Participation in Medair activities also was correlated with SDC use. Among the SDCs, Marj SDC respondents were least likely to use SDCs and Qabb Elias respondents were least likely to use pharmacies.

The primary treatment reported for diarrhoea is antibiotics, more so than ORS or other options. In terms of treatment type, the percentage of mothers reporting receiving antibiotics is high for both nationalities and there may be concerns regarding over-prescription of antibiotics. About half of the respondents reported receiving ORS but less than 10% reported receiving zinc supplements.

Multi-Year Observations

112 Other options were basically zero

113 Intravenous fluid

Over the years, the percentage of mothers seeking treatment has stayed constant, but the use of ORS has increased markedly while zinc usage has declined, and antibiotic usage has stayed stable. Over the multi-year dataset, the percentage of women seeking treatment when their child has diarrhoea has stayed high and constant (about 85%). In terms of medication, antibiotic usage has stayed high (60-70%) but stable during the years it was tracked. ORS has increased substantively for Lebanese women (more than a 25 ppt increase) and for Syrians (more than a 20 ppt increase) since 2016. Zinc supplement usage has fluctuated more but declined – especially for Lebanese women. This could be an issue related to supply chain availability rather than inclination on the part of the mothers.

SDCs are playing an increasingly key role in providing services to both Lebanese and Syrian families. As with the other health seeking, the SDCs have played an increasingly key role in the treatment of diarrhoea for both Syrians and Lebanese. Among Syrians, there has been more than a 25 ppt increase since 2016 in the use of SDCs for diarrhoea treatment and more than a 15 ppt increase among Lebanese. There is a complementary decline in the usage of hospitals and clinics. This is positive development because the SDCs are providing another support to the health system and reducing the strain on the formal structures.

4.3.11 Non-Communicable Diseases (NCD)

This section highlights the percentage of families with at least on household member with diabetes or hypertension and the percentages that know of ways to reduce the risk from NCDs.

Indicator 37: Percent of mothers reporting at least one HH member with NCD.

Table 95: Percentage of households with cases of diabetes

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	6.1	5.7	8.7	7.9	10.4	9.5	Stable
Lebanese	6.5	7.1	11.7	12.0	11.6	10.4	Stable

Table 96: Percentage of households with cases of hypertension

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	11.5	11.3	15.7	15.0	19.1	20.2	Decreasing
Lebanese	8.5	9.3	14.0	15.3	14.8	16.1	Decreasing

Table 97: Percentage of households with cases of an NCD

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	13.8	13.8	18.8	18.1	21.6	23.4	Decreasing
Lebanese	11.4	13.1	18.6	21.3	19.1	21.2	Decreasing

2021 Observations

Overall percentages of households with cases of an NCD show greater numbers of cases of hypertension than diabetes. Both Syrian and Lebanese households reported about 6% diabetes and about 10% hypertension. The total percentage of households reporting a case of an NCD is similar for both nationalities although slightly higher for Syrian families (13% versus 11%). No social factor influenced the distribution of NCD households.

The substantive majority of households with an NCD are taking medication for treatment, which they pay for themselves. In 2021, a new section was added to the standard survey asking households with NCD members whether they are taking medication and where and how they procure it. Of those households with NCD, 90.6% of Lebanese and 78.8% of Syrians are taking medication. Relatively few households get subsidized medication with 82% of Lebanese and 65% of Syrian households who have an NCD reporting that they pay for it themselves. Very few households experienced difficulties getting the medication in the last six months with about 17% of both nationalities (about 50 households in total) reporting often having difficulties.

SDCs are the primary source for subsidized medicines. Not surprisingly about 70% of the households reported obtaining the medication from pharmacies but about 28% of the sample also reported using SDCs (with all other sources comprising the remaining 2% of the sample). Households that were paying for their medication on their own primarily used the pharmacies but households that were receiving subsidized medicines did so through the SDCs. According to the FGDs, the economic situation in 2021 has made the cost of treatment in the clinics and hospitals much higher and cite the SDCs as important options. It could be that supporting SDCs to provide support to more households for subsidized payments of NCD medication could be a useful future programming activity.

Multi-Year observations

There has been a substantive decline in households reporting cases of an NCD since 2016 with declines in hypertension being the biggest factor. Households with diabetes tend to be low (less than 10% of the sample) and while they fluctuate, they remain stable within the margin of error. In contrast, the percentage of households reporting having hypertension has declined about 8-9 ppt for both Syrian and Lebanese households. The SDCs are an important source for subsidized medicines, but patterns from previous years cannot be determined since this section was only added in 2021.

There are improvements in diet and lifestyle among all households since 2016. Hypertension can be prevented and managed more easily through lifestyle changes in a short period of time compared to diabetes. Therefore, these patterns suggest that there have been improvements in diet or other lifestyle behaviour among both Syrian and Lebanese within the population. Given that the declines are so similar between the two groups and no social factors were influencing the distributions, it is most logical that this is reflective of a change in the strengthening the overall health system or environmental messaging rather than specific project activities targeting specific populations.

Indicator 38: Percent of mothers who know two or more ways to reduce NCDs.

Table 98: Percentage of households who can cite two NCD risk factors

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	33.2	35.4	30.1	26.4	NA	NA	Stable
Lebanese	59.9	65.4	53.6	57.6	NA	NA	Stable

Table 99: 2020 Demographic comparisons for NCD risk knowledge

Demographic	Significance (Y/N)[114]	Percentage Point Difference[115]	Comment
Nationality		26.7	
SDC		30.0	Qabb Elias least knowledgeable
Catchment			
Literacy		10.4	Literate women more knowledgeable
Marriage		10.2	Women who married later are more knowledgeable
Participation			

2021 Observations

The majority of women cannot cite two or more NCD risks, especially among Syrian households. The number of households who can cite two or more ways to reduce NCD risks is substantively different between Syrian and Lebanese households. About one third of Syrian households could cite an NCD risk while nearly 60% of Lebanese households could cite ways to reduce risks. Besides nationality, women who were not able to read and write and who were married young were less likely to be able to cite ways to reduce NCD risks. SDCs had different distributions with Qabb Elias the lowest percentage of households. No other social factor is correlated with knowledge of NCD risks – including participation in Medair activities.

Multi-Year Observations

There do not appear to be any gains in knowledge since the baseline on NCD risks. The year-to-year numbers are volatile but remain roughly similar to the original baseline percentages in 2016. There were modest gains in 2020 above the earlier years, but this declined once again in 2021 suggesting a sampling margin of error (women are not likely to forget NCD risks after learning them). Lebanese households consistently are more able to cite two ways to reduce NCD risks then Syrians and the difference is substantive – usually 20-30 ppt in any given year. This suggests that any project activities oriented towards NCDs are not contributing to increasing knowledge.

It is interesting that there has been a marked decline in hypertension in households even though NCD risk knowledge has not changed. This again triangulates with larger environmental changes rather than direct household knowledge leading to new behaviours.

114 Green = Significant

115 Only applicable when statistically significant

4.3.12 Psycho-Social Support (PSS)

This section assesses the degree to which respondents can access and are satisfied with psycho-social support services (PSS). The PSS services profiled include three services: support groups, counselling, medicine, and social workers. The indicators in question are similar to the way that the RH services section was operationalized. Six indicators are contained in this dimension: Whether respondents are aware of what types of PSS services are available and where they can access them. Whether respondents would feel comfortable and able to access these services. Whether respondents have had a discussion on PSS with a trained service provider and finally, whether respondents did access these services in the last six months and how satisfied they were with the services provided.

Indicator 39: Percent of respondents who correctly identify available PSS services.

Table 100: Respondents can cite at least one PSS service available.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	33.4	32.3	35.6	20.7	20.0	18.0	Increasing
Lebanese	38.1	33.4	29.4	22.6	25.3	30.1	Increasing

Table 101: Percent of Respondents who can cite each PSS service.

Nationality	Year	Support Groups	Counselling	Medicine	Social Workers
Syrian	2016	12.3	1.6	4.1	
	2017	13.6	4.3	3.6	
	2018	15.9	5.0	2.1	
	2019	20.2	5.1	2.2	4.5
	2020	26.1	7.9	0.4	8.5
	2021	27.3	7.9	1.1	3.0
Lebanese	2016	1.4	5.4	15.3	
	2017	10.2	6.5	10.7	
	2018	9.7	6.5	10.9	
	2019	13.5	11.5	7.7	5.3
	2020	21.6	10.6	2.6	6.0
	2021	21.3	18.3	5.6	4.7

Table 102: 2021 Demographic comparisons against a PSS service[116]

Demographic	Significance (Y/N)[117]	Percentage Point Difference[118]	Comment
Nationality			

116 Due to space and readability considerations, the percentage point differences are not cited here but can be found in the SPSS tables accompanying this report.

117 Green = Significant

118 Only applicable when statistically significant

SDC		17.0	Marj least knowledgeable about PSS services. Other SDCs similar
Catchment			
Literacy			
Marriage			
Participation		19.4	Participation in Medair activities more likely to know of PSS services

2021 Observations

Awareness of PSS services is low among both Syrians and Lebanese and usually understood as support groups. Only about one third of the respondents could cite at least one PSS service available. The most commonly cited service is for support groups (about 25%) while the other services were cited by less than 10% of the respondents. Counselling was the second most cited service although this varied quite a bit between Syrians (7.9%) and Lebanese (18.3%). Lebanese are more aware of counselling as an option. Overall though, there is limited knowledge among the population regarding PSS options and the only service that is even somewhat broadly recognized are the support groups.

Participation in Medair activities is important for increasing awareness of PSS services. There were no differences among social factors in terms of awareness of PSS services. Literacy and age of marriage didn't affect PSS knowledge. SDC location did have an effect only in the sense that Marj SDC respondents were substantively less likely to be aware of PSS services. However, the other SDCs had similar awareness percentages. In contrast, participation in Medair activities had an enormous effect on knowing of PSS services (more than 19 ppt). This pattern is also triangulated with FGDs where participants as a whole were more positive and aware of PSS services than is apparent in the survey patterns. The FGD participants are more likely associated with Medair activities. However, FGD respondents also noted that they mostly talk to family and friends when under PSS needs rather than accessing services.

Multi-Year Observations

While still low, there has been increasing awareness of PSS since 2016, especially among Syrian households. Knowledge of PSS services has increased since 2016 by a substantive margin, even if overall they are not well known yet. The biggest gains are among the Syrian populations. The Syrians reported more than a 25 ppt increase since 2016 while Lebanese stayed more stable.

By far the biggest increase is related to the spread of support groups (Greater than 20 ppt for both groups) although counselling has also increased markedly from practically zero in 2016 to more than 10% of the sample in 2021. Syrians tended not to cite medicine as an option at all throughout the project years while there has been a decline in the percentage of Lebanese (which started small even so) in citing medicine as an option.

Indicator 40: Percent of respondents who correctly identify where to access PSS services.

Table 103: Respondents can cite at least one PSS trained service location [119]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	21.7	18.1	16.5	17.3	8.2	12.8	Increasing
Lebanese	32.4	25.2	21.4	24.0	18.8	26.4	Stable until 2021 then increasing.

Table 104: Percent of Respondents who can cite each PSS trained service location.

Nationality	Year	SDC	Clinic	NGO	Hospital
Syrian	2016	7.9			5.2
	2017	5.8			2.4
	2018	12.8	1.6	3.6	0.3
	2019	7.1	5.4	5.3	0.1
	2020	13.4	2.2	2.8	0.5
	2021	14.7	5.7	3.4	0.2
Lebanese	2016	5.2			21.8

119 From question "if you are someone you cared about needed PSS services, where would you go?"

	2017	5.6			13.3
	2018	7.2	14.2	2.3	2.8
	2019	2.5	16.5	3.6	2.1
	2020	6.5	17.2	4.2	0.4
	2021	9.1	24.4	3.3	0.8

Table 105: 2021 Demographic comparisons against a PSS location[120]

Demographic	Significance (Y/N)[121]	Percentage Point Difference[122]	Comment
Nationality		10.7	
SDC		24.7	Marj lowest awareness. Brital highest awareness.
Catchment			
Literacy		10.2	Literate mothers more knowledgeable
Marriage			
Participation		8.4	Participation in Medair activities reduces awareness of PSS Locations

2021 Observations

There is low awareness of where PSS services can be resourced and confusion over what this means. When asked about locations for PSS services, a minority of respondents cited PSS locations for trained service provision (such as SDCs or hospitals). About half of the respondents could name a PSS location. However, the majority of these sources were informal options such as friends, family, religious figures and so forth. When only looking at the percentage of respondents who cited a specialized service such as an NGO, mental health clinic, or SDC, the numbers were much lower. Only about a quarter of the respondents cited a PSS trained service location.

Oddly, participation in Medair activities was inversely related to citing a specialized PSS location. Among the social factors, besides nationality, levels of literacy and SDC location affected knowledge of locations. Marj SDC reporting the lowest percentages and Brital the highest. While the previous indicator noted that participation in Medair activities was influential in being able to cite the existence of a PSS service, the same factor reduced the likelihood of knowing where such a resource could be accessed.

It could be that respondents are being misled by the questions. The exact phrasing is "if you or someone you knew needs psychological support, where can you go for this type of service?" - the question as phrased may be leading respondents to think about "to whom would they go to talk about psychological issues?" – which in turn would be more likely to lead them to think about informal conversations or talking to religious figures for solace.

Multi-Year Observations

Even though knowledge of locations is low, it has been increasing over time with Syrians tending to cite SDCs most often while Lebanese cited clinics most often. Across the project cycle, there has been an increase in the percentage of respondents who can cite PSS support, but most of this increase is driven by respondents identifying informal sources of support such as friends or religious figures. In 2016, there was a significant difference between Syrians and Lebanese regarding PSS sources, but by 2020, this gap had closed until 2021 when there was a sudden increase among Lebanese in citing trained PSS locations. It could be that the awareness raising around mental health issues associated with the pandemic increased awareness of PSS locations. Lebanese are more likely to cite a clinic as the PSS location (24%) while the most common cited source among Syrians are the SDCs (14%).

There has become an increasing recognition among Syrians on the importance of getting support for trauma and depression but there is still limited knowledge regarding where to access this type of support. Until 2021, the Lebanese populations had not changed as much over time which suggests that the driver of the change may be awareness raising campaigns among the refugee populations. The participation in Medair activities has had an inverse relationship to PSS locations over multiple years which suggests that perhaps there is a gap in Medair activity programming regarding PSS trained service locations and accessing PSS. In future programming,

120 Due to space and readability considerations, the percentage point differences are not cited here but can be found in the SPSS tables accompanying this report.

121 Green = Statistically significant

122 Only applicable when statistically significant

it may be helpful to place more emphasis on raising awareness among both populations regarding what is meant by PSS support and where it can be accessed.

Indicator 41: Percent of respondents who discussed PSS with a trained provider.

Table 106: Respondents discussed PSS any source.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	24.3	26.1	22.0	17.2	NA	NA	Slight increase but stable since 2019
Lebanese	23.3	24.1	12.7	17.0	NA	NA	Slight increase but stable since 2019

Table 107: Respondents discussed PSS with trained service provider.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	18.0	16.0	17.1	10.9	NA	NA	Slight increase
Lebanese	15.5	12.6	6.1	9.6	NA	NA	Volatile stable

Table 108: Percent of Respondents who discussed PSS with following sources.

Nationality	Year	SDC	Clinic	NGO
Syrian	2016			
	2017			
	2018	5.0	0.8	5.3
	2019	2.8	0.9	13.7
	2020	6.6	0.5	9.2
	2021	9.2	0.7	8.6
Lebanese	2016			
	2017			
	2018	3.6	4.1	1.3
	2019	1.1	2.1	3.0
	2020	4.9	3.3	5.1
	2021	6.0	6.3	5.2

Table 109: 2021 Demographic comparisons against a PSS discussion trained source[123]

Demographic	Significance (Y/N)[124]	Percentage Point Difference[125]	Comment
Nationality			
SDC		11.0	Talia significantly lower percentages than the other SDCs
Catchment			
Literacy			
Marriage			

123 Due to space and readability considerations, the percentage point differences are not cited here but can be found in the SPSS tables accompanying this report.

124 Green = Significant

125 Only applicable when statistically significant

Participation		14.2	Participation in Medair activities more likely to have a PSS discussion.

2021 Observations

Very few women are having PSS discussions with trained service providers. When asked if they had had discussed PSS advice with someone, less than a quarter of the respondents in 2021 said they had and only about 16% actually had the discussion with a trained service provider – the remainder being informal discussions with family and friends. In terms of where they go to seek the advice, for Syrians, SDCs are slightly more likely than other options, but not substantively different. For Lebanese, the women tended to be equally distributed among SDCs, clinics, or NGOs. However, for both populations, having PSS discussions with a trained service provider is not common, even in the midst of the social stress such as the pandemic.

Participation in Medair activities helps promote PSS discussions. Among the social factors, whether a household had participated in Medair activities had the most correlation with seeking out PSS discussions with trained service providers. No other social factor was correlated with seeking out services so there is no difference in terms of vulnerability. SDC location did have an influence in that Talia SDC households were substantively less likely to seek out PSS discussions, but the other SDCs had similar percentages among themselves. This suggests that Medair activities do increase the awareness and opportunity for having PSS discussions.

Multi-Year Observations

There has been little change over the years in women seeking out PSS advice. There have been small increases since 2017 in seeking out PSS discussions of about 6-8 ppt for both nationalities. However, the biggest gains were from 2017 to 2018 and since 2018, there has been little change in the percentages of women seeking PSS discussions with trained service providers. Syrian women are very slightly more likely to seek PSS discussions with trained providers than Lebanese, but the small numbers involved means that these differences are within the margin of error for the sample.

SDCs are becoming more common as a source for PSS discussions. Up until 2020, the only source to grow consistently had been the percentage citing a specialized NGO for services (although the percentages are small for all sources). In 2021, there was a modest increase in the percentages of women seeking PSS discussions at SDCs for both Syrian and Lebanese women.

Knowledge of and accessing services for PSS has continued to be low but Medair activities could add value. The overall evidence suggests that even as knowledge of the existence of PSS services is still low among the respective populations and actually accessing these services is even less common. However, for knowledge of services, and actually having PSS discussions, participation in Medair activities has been one of the few social factors to be consistently correlated over the years (although it is strange that participation in Medair activities actually reduced knowledge of PSS locations). The positive effects of participation in Medair activities suggest that more emphasis on this in future programming activities would add value.

Indicator 42: Percent of women who report that they would be comfortable and able to access PSS services.

Table 110: Respondents comfortable to access PSS.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	66.1	67.3	77.3	48.3	48.6	79.3	Increased in 2019 but slight decline since
Lebanese	71.5	74.5	77.2	52.2	57.4	83.2	Increased in 2019 but slight decline since

Table 111: Respondents able to access PSS.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	56.8	53.1	49.4	36.9	40.7	53.1	Increased in 2019 but stable since
Lebanese	65.4	68.8	57.7	45.3	55.6	61.9	Increased in 2019 but stable since

Table 112: 2021 Demographic comparisons against comfort and ability to access.

Demographic	Comfort Significance (Y/N)[126]	Percentage Point Difference[127]	Comment
Nationality			
SDC		18.0	Brital lowest and Qabb Elias highest
Catchment		7.2	Those living inside the catchment would be more comfortable accessing services
Literacy		8.1	Literate mothers more comfortable accessing
Marriage			
Participation			
Demographic	**Ability to Access. Significance (Y/N)[128]**	**Percentage Point Difference[129]**	**Comment**
Nationality		8.4	Lebanese more able to access
SDC		26.7	Marj least able and Qabb Elias most able
Catchment			
Literacy		9.2	Illiterate women less able to access services
Marriage		7.4	Early marriage women less able to access services
Participation			

2021 Observations

Most women say that they are able and comfortable to access PSS services (but they do not actually access them). The percentages of respondents who said that they would be comfortable and able to access PSS services is high. About 70% of the sample (both Syrian and Lebanese) said that they would be comfortable accessing these services and about 60% of the sample said that they would be able to access the services.

Vulnerable households face more barriers to accessing PSS services. Only about a quarter of the respondents were able to cite a location for accessing PSS services, but more than double this percentage said that they would be able to access the services. It is likely that respondents are interpreting this question to mean whether they have any restrictions on their movements that would potentially restrict their access to a service. If this is the case, then it is of concern that about half of the respondents are reporting restrictions to accessing PSS services either through socially or culturally. For those respondents who would not feel comfortable or able to access, about half of these said that it would be because it was too expensive while the other half stated that it would be because they would prefer no one knew they were accessing it. Among the social factors, women who were married early and illiterate women were less likely to be able to access services. It may be worthwhile to include future programming that addresses potential restrictions to movements.

Multi-Year Observations

PSS services are slowly gaining access, but the gains happened in 2018 and there is (a slight) increase in discomfort with accessing services. When looking over the entire five-year project cycle, the response patterns for comfort and access are very low in 2017 (discounting an unusually high 2016 value which was a sampling error). Between 2018 and 2019, there was a substantive increase for both nationalities and both dimensions. In both comfort and accessibility. From 2019 onwards, there has been a slow increase, but very small, in terms of respondents feeling that they would be able to access PSS services. However, there has been a small decline from 2019 in respondents saying that they would be comfortable accessing PSS services. The percentages are still relatively high (70%) but have declined about 9 ppt since 2019. It is positive that there appears to be a growing familiarity with PSS services, but the decline in comfort may be a point to consider in future programming. This is positive as it suggests that there is a growing familiarity with PSS as an option even though overall values are still low.

126 Green = Significant

127 Only applicable when statistically significant

128 Green = Significant

129 Only applicable when statistically significant

Vulnerable households continue to face barriers over the years. Among the social factors, nationality makes a difference in that Lebanese are more likely to be comfortable and able to access PSS services than Syrians. Literate households where women married later are also more comfortable and able to access services. It is interesting that participation in Medair activities used to have an effect on comfort and access in previous years, but this difference is not apparent in 2021. This suggests that there is potential for future programming in PSS to increase participants comfort and awareness of the services.

Indicator 43: Percent of women who report accessing PSS services in past six months.

Table 113: Respondents who report PSS need (sad, stressed, pressure)

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	77.9	72.3	75.7	75.2	60.6	80.9	Stable from 2018
Lebanese	77.6	75.7	69.5	70.7	51.7	78.5	Stable from 2018

Table 114: Respondents who accessed PSS all sources.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	49.3	50.1	42.7	42.4	41.0	43.1	Increasing slightly
Lebanese	56.8	53.7	42.7	48.9	47.5	48.5	Stable

Table 115: Respondents who access PSS from specialized services.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	3.9	2.1	3.1	3.0	2.8	3.7	Stable
Lebanese	2.8	5.0	2.5	6.0	9.3	8.9	Stable slight decrease

Table 116: Percent of Respondents who accessed PSS from following sources.

Nationality	Year	SDC	Specialized Clinic	NGO	Clinic	CHV[130]	Family or Friend	Mosque or church
Syrian	2016	1.0	1.0	0.0	1.0	1.0	39.4	0.7
	2017	1.2	1.2	0.4	0.4	0.4	36.5	2.0
	2018	0.9	0.5	0.3	0.8	0.3	39.8	0.9
	2019	1.1	0.3	0.0	0.5	0.7	38.9	1.0
	2020	0.6	0.7	0.2	0.5	0.1	48.2	0.5
	2021	2.7	0.4	0.2	0.4	0.1	45.8	0.8
Lebanese	2016	1.0	1.7	0.3	5.9	0.3	40.9	1.3
	2017	0.6	1.6	0.0	6.5	0.3	41.9	1.9
	2018	0.8	1.0	0.4	3.8	0.2	44.0	1.7
	2019	0.0	0.2	0.2	2.1	0.0	40.2	1.5
	2020	0.7	0.6	0.1	3.3	0.0	50.3	0.6
	2021	0.1	0.6	0.0	1.5	0.1	54.3	1.4

2021 Observations

Nealy 80% the respondents reported feeling sad or stressed but almost no one seeks specialized PSS support - relying on themselves or friends and family. In 2021, more than three quarters of the respondents reported experiencing PSS effects. However, the percentage of respondents who accessed PSS services is very low (less than 4% of those with a need). About half of the respondents did report having discussions with family or friends, with religious figures or other forms of informal support. If PSS services are narrowed to the provision of specialized services from SDCs, clinics or other trained service providers, the responses are very small. Only 3.5% overall reported access PSS services from a trained provider. None of the social factors were correlated with seeking PSS support from a trained provider because the overall values were too low.

Multi-Year Observations

130 Community Health Volunteer

There has been no real change in the percentages of respondents in PSS need, even though the pandemic occurred. The percentage of respondents reporting feeling sad, stressed or under pressure has stayed stable since 2018. Between 2017 and 2018, there was an increase in the percentage of women with PSS need, but since then it has not changed. Even in 2021 during the pandemic, the percentages were stable within the margin of error. There is also little difference between nationalities.

Very few respondents access specialized PSS services, and this has not changed over the years except for a slight decrease in Lebanese women accessing specialized PSS services. For Syrian women, throughout the entire cycle, the percentage seeking out specialized PSS services has been stable between 2-3% each year. For Lebanese women, values are also low, but have declined from 9% in 2016/2017 to between 2-3% in 2021. The vast majority of respondents with PSS need state that they either deal with it on their own or they discuss with family and friends. This has stayed stable throughout the entire cycle.

There has been little change in where respondents get trained SPSS support but there was a slight increase in the use of SDCs in 2021. The percentages are very small, but the general patterns reflect how Lebanese and Syrians access services. Lebanese were slightly more likely to access PSS from clinics while Syrians were slightly more likely to access services from SDCs. In 2021, there was a slight uptick in the percentage of Syrians who accessed SDCs. There was a slight decline in discussing the family and friends, so a small percentage of women opted to shift from talking with family and friends to going to the SDCs.

What can be inferred from these patterns is that respondents do value the support from informal sources for addressing PSS need but have not yet become accustomed to using specialized services for PSS support. Given the degree of need in the sample, this could be an important consideration for future programming to further expand access to and use of specialized services.

Indicator 44: Percent of women who report accessing PSS services in past six months who are satisfied with the support.

2021 Observations

Almost everyone who accesses PSS services report being satisfied with the service. Only 1 person in the entire sample said that they were not satisfied with the services that they received. The percentage of respondents in the 2021 sample who accessed services from trained providers is too low and the unanimity of satisfaction with services is too high to provide useful analysis of satisfaction with services. Because of the wide consistency in the patterns of response, it is not possible to differentiate relative satisfaction with services provided, even was happy with everything.

Multi-Year Analysis

Satisfaction levels are nearly unanimous across all the years. Very few persons accessed PSS services from trained providers over the project cycle. Among those, no more than 5-10% in any given year were NOT satisfied and these were from the first years in the cycle (culminating with only 1 dissatisfied person in 2021). The response patterns between Syrians and Lebanese were similar within the margin for error.

The high consistency suggests reliability issues with the survey question. Respondents may not be sufficiently knowledgeable regarding what ought to be the quality of support for a PSS service and therefore are not able to judge whether they had received this care or not. To assess quality of care in future programming, it may be useful to consider having mothers respond to whether specific types of items had been covered in their PSS support as a checklist rather than asking for a general satisfaction rating.

4.3.13 Child Registration

This dimension is related to the importance of registration of children in order to allow for access to the national health care systems and is only asked of Syrians refugees. There are two indicators related to this question – first asking whether the children were officially registered in their own country and then whether the children had a birth certificate. The first question focuses on whether they were born in Syria and the second focuses on whether they have a birth certificate.

Indicator 45: Percent of children officially registered in their own country (for Syrians)

Table 117: Respondents who report children born in Syria and registered there.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	3.8	5.5	9.8	15.0	16.5	31.1	Declining
Lebanese	NA	NA	NA	NA	NA	NA	NA

2021 Observations

3.8% of children in the sample under 5 had been born in Syria. This is only 65 children from the entire sample.

Multi-Year Observations

Mothers are not going back to Syria to give birth to children. This question holds little value. There has been a substantive decline since 2016 of children being born in Syrian. **Since 2016, there had been a decline of 30 ppt from 31.1% in 2016** to 65 individual children in 2021. This is not surprising as the protracted nature of the humanitarian crisis has led to families spending years in Lebanon and denotes the importance of ensuring proper registration of children in Lebanon as their residency may take on semi-permanent status. The children born in Syria are the older children in the sample and continue to 'age out' of the sample as the years go on. The average age of children born in Syria is 3 years while the average age in the sample is under 2 years. This is triangulated because the primary reasons given for giving birth in Syria reported by the mothers was that they had been living in Syria at the time. A distant second place was that they had family in Syria and had returned.

Indicator 46: Percent of children without birth certificate

Technical note

This is another negatively phrased indicator which can lead to misinterpretations. A decline in percentages of those without birth certificates is a positive factor.

Table 118: Respondents who report children are without birth certificate.

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	4.4	6.1	6.1	7.7	NA	NA	Declining
Lebanese	NA	NA	NA	NA	NA	NA	NA

2021 Observations

Children without birth certificates are those that were born in Syria, there are no issues with birth registration among those born in Lebanon. The percentage of children without birth certificates is 4.4%. This works out to about 73 children in the entire sample. 80% of the sample reported receiving the birth certificate from the hospital and the remainder from the doctor (who was supposedly in the clinic or hospital). The percentage of children without birth certificates is much higher for those children that were born in Syria (26%) than those that were born in Lebanon (3.5%).

4.3.14 Multi-Year Observations

The percentage of children without a birth certificate is declining as more children are born in Lebanon. This question holds little value. Syrians within the Lebanese system are accessing birth registration appropriately and giving birth within the formal health care system (not informally in ITS settings). As children 'age out' that were born in Syria, the percentage of children without a birth certificate declines. This suggests that although there may be some gains to be made through registration of children who were born in Syria, the issue of birth certificates is not really a systemic issue but more of a case management issue for a very small number of families.

4.3.15 Maternal Mortality Related to Pregnancy

The survey measures maternal mortality through a single indicator: The percent of women's sisters who died due to problems related to pregnancy (within one week after delivery).

Indicator 47: Percent of women's sisters who died due to problems related to pregnancy.

Table 119: Respondents who report sister died within one week of delivery[131]

Nationality	2021	2020	2019	2018	2017	2016	Multi-Year Pattern
Syrian	0.9	1.1	5.9	7.8	NA	NA	Declining
Lebanese	0.7	0.9	6.7	8.1	NA	NA	Declining

2021 Observations

131 Percentage is from those who had sisters

Maternal mortality rates are low but actually are higher than national percentages. Values for 2021 were less than one percent of respondents who had sisters with equal reporting levels between Syrians and Lebanese mothers. No social factors influenced the distribution of these percentages. The maternal mortality rate is apparently low as it translates to just 21 cases out of 2495 reported births from sisters. The question does not specify which year the event occurred, so respondents may be thinking about sisters who died several years ago. However, assuming that these were within this current year, although a small number, this number of deaths translates to a maternal mortality rate of 841 per 100,000 live births. Even if one assumes that the numbers are spread across a decade, this is still a high percentage (84.1 per 100,000 live births). By comparison, Lebanon as a nation reported a maternal mortality rate of 29 per 100,000 live births in 2017.132 This suggests that although the raw numbers are low, there could still be more attention on maternal mortality issues in future programming especially related to improved health care environment. One additional caveat beside time scale is that the survey did not factor in double counting if one mother may have died who had multiple sisters in the survey. Because of the small number of cases involved, even a few double counted sisters could have a noteworthy influence on the live birth ratios.

Multi-Year Observations

Maternal mortality rates have substantively improved over the course of the cycle but are still deceptively high in comparison to national averages. Since 2016, there has been a gradual decline in maternal mortality rates by about 8 ppt. The decline is the same for Syrians and Lebanese. As noted in the Observations section, while the raw number of cases each year are few, the ratios per 100,000 live births would be considered high. For example, the 2018 data is based on 53 deaths per 652 sister births. This translates to a ratio of 8,129 per 100,000 live births if the time scope is a single year or 813 per 100,000 live births if spread across a decade. Even the latter, would be among the highest maternal mortality rates in the world. There have been improvements over time, but more could be considered for strengthening support to maternal mortality rates.

4.3.16 Family Health Status

2021 Observations

Women perceive their family health status to be good. In 2021, a new general question was added to the survey asking about family health status. The results showed that almost all families were positive about their overall health status and this difference was consistent between nationalities (96.1% and 96.9%). The values were so high that there were no differences among the social factors. It is interesting that even though health issues are cited throughout the survey (such as vaccination coverage or sick children) women in general are positive about their family health outlook. This suggests that women do not perceive health to be an issue in their lives.

4.3.17 Conflict and Tensions

Technical Note

In 2021, a series of new questions were added to get an assessment regarding how Syrians and Lebanese perceive themselves to be treated at the SDCs. These questions cannot be compared against previous years.

Table 120: 2021 Perceptions on Conflict and Tensions

Question	Syrian	Lebanese
Percent reporting that SDCs prioritize Syrians	1.7	7.8
Percent reporting that SDCs prioritize Lebanese	29.7	5.5
Percent reporting having faced tensions in the SDCs	17.5	10.6

Table 121: 2021 Demographic comparisons against observing tensions.

Demographic	Significance (Y/N)[133]	Percentage Point Difference[134]	Comment
Nationality		7.1	Syrians more likely to report facing tensions
SDC		11.7	Joub Jannine lowest tensions and Brital highest

132 https://en.wikipedia.org/wiki/List_of_countries_by_maternal_mortality_ratio

133 Green = Significant

134 Only applicable when statistically significant

Catchment		7.4	Those living inside catchment more likely to report facing tensions
Literacy			
Marriage			
Participation		10.0	Those participating in Medair activities reported facing more tensions.

2021 Observations

Few respondents report facing tensions or seeing prejudicial services. The overall percentages show small percentages of respondents perceiving prejudicial behaviour or tensions. About a quarter of the respondents perceived that the SDCs prioritize Syrians and less than 10% perceive SDCs prioritizing Lebanese. Syrians were slightly more likely to perceive the SDCs are prioritizing Lebanese and Lebanese were slightly more likely to perceive SDCs prioritizing Syrians. This is in contrast to the patterns in the FGDs where the FGDs noted that there were tensions or differential treatments between Lebanese and Syrians around the SDCs. Participants in Medair activities did have a higher percentage reporting tensions.

Syrians, living inside the catchment area and were in Brital were more likely to report observing tensions. Among the social factors, Syrians were more likely to report observing tensions in the SDCs as well as those living inside the catchment areas. Among the SDCs, rates were similar, but Joub Jannine reported the fewest tensions (less than 10%) and Brital recorded the highest (more than 20%). Within the FGDs, Syrians were more likely to report discriminatory treatment at the clinics. Some Lebanese respondents noted tensions with Syrians because they felt that the Syrian patients were more likely to receive the subsidized medicines because of their numbers. At the same time, Syrian patients in the FGDs also complained about not getting access to the subsidized medicines through the SDCs. It may be important to consider support to increase the availability of subsidized medicines from the SDC services. This is reflected in the general FGD recommendations where about half of the groups made suggestions for increasing the access and diversity of subsidized medicines.

Tensions are mostly between staff and patients rather than among patients. About half of the respondents who reported tensions identified the tensions as being between SDC staff and patients rather than patients of different nationalities sparring with each other. There are two important patterns among the SDCs though. In Joub Jannine, although it had the lowest reported incidence of tensions, by far the most common source of tension was between patients of different nationalities (65%). This was triangulated from the FGDs where participants from Joub Jannine cited tensions between the Lebanese and Syrians. In contrast, among the SDCs, Brital had the highest percentages citing tensions between staff and patients (73%). This is triangulated from the FGDs where the participants from Brital noted that while there are no problems among nationalities, they did report feeling that a doctor was discriminating among the patients. Other FGD groups also mentioned feeling a degree of discriminatory behaviour from staff and six of the 10 groups made recommendations regarding "the ethical behaviour of staff" as one future recommendation. What is considered to be ethical behaviour was not defined in the FGD, so it is not clear what type of issue the respondents are referencing. It may be worthwhile to explore SDC staff interactions with patients in the SDCs, and in particular in Brital SDC for future programming.

4.3.18 COVID-19

Technical Note

In 2021, because of the pandemic, a series of questions were added to the survey specifically exploring vaccine coverage, willingness to be vaccinated, vaccine concerns and knowledge of where to be registered. These are summarized below.

Table 122: 2021 Perceptions on COVID

Question	Syrian	Lebanese
Percent registered for COVID vaccine on IMPACT	37.5	37.3
Percent receiving at least one dose	9.1	20.6
Percent fully vaccinated	0.5	8.5
Percent of families with all adults vaccinated at least one does	3.6	9.6
Percent willing to be vaccinated	42.8	47.0
Percent reporting vaccine concerns	50.1	44.0

Table 123: 2021 Demographic comparisons against COVID Coverage (at least one dose)

Demographic	Significance (Y/N)[135]	Percentage Point Difference[136]	Comment
Nationality		11.4	Lebanese more likely to have vaccine
SDC		11.5	Marj and Talia highest vaccination coverage
Catchment			
Literacy		6.0	Literate women more likely to be vaccinated
Marriage		6.3	Women marrying later more likely to be vaccinated
Participation			

Table 124: COVID- most frequently cited reasons not vaccinated

Question	Syrian	Lebanese
Not safe to take vaccine still new	20.8	26.0
Will wait until others take it	13.7	21.1
Do not believe in vaccines	17.2	11.4
Allergic or pregnant	8.3	8.7
COVID not an issue	2.1	1.6
Already had COVID	0.2	0.4
Worried about checkpoints	0.0	0.1
Do not trust Ministry of Public Health	4.9	2.4
Fear side effects	25.1	25.2

Table 125: COVID - Challenges for getting the vaccine

Question	Syrian	Lebanese
Do not know where to go	7.8	2.7
Side effects	36.2	28.3
Transportation	3.0	1.2
Do not know how to register	7.9	4.3
No challenges	49.9	56.0

2021 Observations

Vaccine coverage is very low, especially among Syrians. Overall vaccine coverage is still extremely low with only 3.5% of the sample fully vaccinated and another 10% having received the first dose. Lebanese women are more likely to have been fully vaccinated than Syrians but both percentages are quite low (8% vs. 0.5%). Women who are more vulnerable are less likely to be vaccinated. Interestingly, although Marj and Talia SDCs have the lowest percentages on health behaviours, they report the highest vaccine coverage among the SDCs.

Vaccine hesitancy is significant. Only about one-third of the sample is even registered on IMPACT to get the COVID vaccine (same rate for both nationalities). In addition, less than half reported being willing to be vaccinated. In one sense, this is positive in that the differences between willingness and registration are low – meaning people know how to register and have taken this action. However, the large numbers that report not being willing to be vaccinated is a concern.

[135] Green = Significant
[136] Only applicable when statistically significant

Most people do not have challenges in getting the vaccine except for concerns about the side effects. About half of the respondents reported that there were no challenges to getting the vaccines (even if they didn't get vaccinated). About a third were concerned about the side effects of the vaccines. However, more than 90% of the respondents knew where to go, had transportation necessary, and knew how to register.

Vaccine hesitancy is driven by fear of the vaccines rather than dismissing COVID itself. About 80% of the respondents cited a concern connected to the newness of the vaccines – fearing the side effects, not knowing what would happen, being skeptical about vaccines in general, or wanting to let others take it first before they try it. Very few respondents didn't believe that COVID was an issue or felt that they were safe because they had already had COVID. This is consistent with the patterns in the FGDs where respondents noted concerns about the COVID-19 vaccines, saying that they were afraid to get it because it was still under study. This suggests that future programming activities could be most effective focusing on reducing fears about the vaccines rather than trying to raise awareness of how to register, where to go, or about COVID itself.

4.3.19 Conclusions

4.3.20 Overview

Summary tables profiling all indicators and their respective values are found in Annex 3 for both the 2021 dataset and as part of the multi-year analysis. The multi-year analysis highlights which indicators have increased since the start of the project cycle, which have stayed stable or volatile (meaning few conclusions can be drawn) and which have declined. Overall, there has been progress on most indicators across the project cycle. Of the 47 indicators profiled, 25 show positive changes and only 2 show a negative change (measles coverage and staying in hospital more than 24 hours). The remainder are stable or volatile.

However, even though there has been progress, response rates are not yet close to a potential maximum and there are areas that could be addressed in future programming including:

There have been improvements in **health seeking behaviour and declines in incidence of ARI, Diarrhoea and NCD** which suggests positive improvements in the general WASH environment as well as improved lifestyle environment. Treatment behaviour has stayed constant throughout the cycle, and there are positive increases in ORS usage. There is an **unusual increase in the use of painkillers and antihistamines for ARI** treatment.

Reproductive health knowledge has increased over the cycle, but this is largely focused on ANC ad PNC. Most respondents **do not consider FP or STI and most know of only one place to access RH services.** Family planning practices have improved but there are still gaps in terms of **consultation, contraceptive use, or birth spacing practices.**

While overall the birth management cycle is strong, there are **gaps yet in systemic capacities of the health system to meet the demand** because there are fewer options for birth. Because of this, there are problematic patterns in **staying in hospital, the use of C-sections, maternal mortality, and appropriately frequent PNC care.**

Among vaccinations, there is a fundamental under-reporting of vaccine coverage due to the low levels of **vaccine booklet management. The decline in measles coverage and low percentages of age-appropriate vaccines** are gaps to address further. Programming around increased quality of management of the vaccine booklets may have an outsize effect on vaccination coverage and should be considered in future programming.

In terms of percent of respondents using services, the biggest shortfall is for **accessing PSS support. PSS** knowledge about services or locations are not well known and very **few mothers access PSS services** from trained service providers even though three quarters of the respondents reported a type of PSS need. Mothers still prefer to access whatever PSS support they do receive from informal sources and **mothers are not accustomed to using trained service providers.**

4.3.21 Conclusions by Thematic Category

Thematic Structure

The health project logframe measures 47 indicators across 16 dimensions (plus the additional eight added in 2021). The dimensions and indicators are measuring a mix measuring system changes and behaviour changes.

For building conclusions and recommendations, these dimensions and indicator can be aggregated into eight general themes: Health seeking behaviour, mother child health management, reproductive health services, birth

management, vaccinations, and psycho-social support. The additional sections this year include the COVID-19 pandemic questions and the community tensions. These themes will be the organizing framework for discussion of the conclusions and recommendations.

This section concludes with observations related to demographic social factors and the overall trend of the indicators across the entire project with subsequent implications for future programming.

Table 126: Thematic Categories

General Theme	Includes
Health Seeking behaviour	Includes availability of services and locations for services as well as whether services are sought
Mother Child Health (MCH) Management	Primarily behaviour of mothers through measuring incidence and treatment of ARI and Diarrhoea • Also includes NCD knowledge and incidence
Reproductive Health (RH) Services	Primarily system measurement regarding availability of services, locations where services can be accessed, but also includes degree to which these are accessed – focuses on ANC, PNC, FP, and STI • Includes mother's Family Planning behaviour
Birth Management	This would include the range of behaviour around the birth of a child and covers multiple dimensions: • ANC • Delivery • Maternal Mortality • Documentation of child - Birth Certificate and Registration • PNC • Breastfeeding
Vaccinations	Reviews coverage of vaccinations and management of child vaccination status by mothers
Psycho-Social Support (PSS)	Includes availability of PSS services, their locations and also mother behaviour in accessing these PSS services
Community Tensions (new)	Includes perceptions on prejudicial service and tensions faced at SDCs
COVID Vaccinations (new)	Includes vaccine coverage, challenges, willingness, and concerns about the COVID vaccine.

4.3.22 Health Seeking Behaviour

The logic for the establishment of the SDCs has been to reduce the strain on the overall health system architecture and this appears to be valid in logic and successful. The incidence of need for health treatment has stayed consistent throughout the entire five-year cycle and there is no difference among Syrian refugees and vulnerable Lebanese regarding needs over time. The vast majority of respondents (More than 90%) report that they do seek out treatment at least some of the time. What has changed over time – in a positive direction – is the percentage of respondents that are reporting seeking out services all the time they needed health treatment. This increased by more than 12-15 ppt since the start of the project cycle for both Syrian and Lebanese mothers. In addition, the reasons given for not accessing the SDCs do not have to do with quality. The Medair supported SDCs have played an increasingly more prominent role in providing a health treatment option.

Women who cannot read or write, were married early, and who are refugees are more likely to be using the SDCs. A substantively higher percentage of women reported using Medair-supported SDCs since the start of the cycle – nearly 30 ppt. This increase was reported in both Syrians and Lebanese although the SDCs still serve more as the primary resource for Syrians. In particular, SDCs serve as a significant resource for more vulnerable populations. There are fluctuations among the individual SDCs regarding their access which may be an indication that individual SDCs may have diverse levels of quality.

Medair activities are supporting the connections to SDC usage. Those living outside the catchment areas were less likely to use SDCs, but they were accessing their medical care at the same rates as those inside the catchment which reflects that the SDCs are simply one component within the broader options for health care. Those who participated in Medair activities were more likely to seek treatment at SDCs.

4.3.23 MCH Management

There has been a decline in the incidence of all four of these diseases (ARI, Diarrhoea, Diabetes, and Hypertension) since the start of the project cycle. Following on from health seeking behaviour in general,

there have been gains in terms of MCH management including for treatment of children with ARI and Diarrhoea as well as for household level incidence of diabetes and hypertension.

ARI and Diarrhoea

ARI and Diarrhoea incidents are substantively declining which may reflect general improvements in community hygiene infrastructure. ARI incidents have substantively reduced since 2016 by more than 30 ppt and even diarrhoea by more than 20 ppt in the same timeframe. This may reflect general improvements in the community hygiene infrastructure such as improved access to Water, Sanitation and Hygiene (WASH). Rates for WASH related diseases are higher among Syrian refugees than vulnerable Lebanese suggesting that infrastructure quality is still lower in the ITS than in the surrounding communities.

There have been no changes in terms of mothers behaviour in seeking treatment over the project cycle but there is a difference in where treatment is sought with SDCs playing increasingly prominent roles. While there has been a decline in the incidence of these diseases, there does not appear to have been any changes in terms of the mothers' behaviour in seeking treatment over the project cycle. The percentage seeking treatment has always been high, so it is not surprising that there would be little movement on behaviour change. What has changed over the project cycle is where mothers sought treatment. SDCs are playing a much more prominent role as a resource for women to seek treatment for ARI and for diarrhoea. There has been an approximately 20 ppt increase in seeking treatment at SDCs since the start of the project cycle. More so for Syrian mothers, but both groups are using SDCs more. Syrian refugees seek treatment a majority of the time at SDCs with a distant second to pharmacies while Lebanese mothers will tend to access SDCs, clinics, or pharmacies more equally. The increase in SDC usage is associated with a decline in hospital or doctor usage which again, reaffirms the logic that the SDCs are fulfilling their role in helping reduce strain on the health system facilities.

The type of medicine administered to sick children has also changed with increases in ORS and decreases in Zinc supplements. For diarrhoea, there has been an increase in children receiving ORS of more than 30 ppt overall. The gains are actually highest among Lebanese children (40 ppt) but substantive for both. Zinc supplementation is less likely to be part of the treatment and more volatile from year to year which could be related to availability of Zinc within the country overall. For ARI medication, antibiotics have stayed stable across the project cycle. There has been an increase in the administration of both pain killers and antihistamines for ARI as treatment options. The percentage receiving painkillers has particularly increased to about half of the cases for both Lebanese and Syrian children. There is a possibility mothers may be confusing the types of medicines they are receiving.

NCD

NCD changes are milder, but still positive and likely reflect changes in lifestyle or general environment. Diabetes rates have not changed much over the project timeframe but reported incidents of hypertension have declined significantly. While there are genetic components to these two NCDs, these can be mitigated by lifestyle and the reported declines in the relative rates could reflect lifestyle changes among both the Syrian refugees and Lebanese.

Households are relying on the SDCs for subsidized NCD medications, but most households still pay for NCD medications themselves. The SDCs have become an important source for providing subsidized NCD medications, but these are only accessed by a small minority of the households in the sample. Most households, even the Syrians, obtain the medication from pharmacies paying out of pocket.

Project activities may not be leading to this lifestyle change. Project activities emphasize raising awareness about actions to take to reduce NCD. However, while there has been a decline in NCD incidence, there has not been an increase in the level of knowledge regarding ways to reduce NCD. This suggests that awareness raising activities on knowledge are not driving the changes observed in NCD and it may be that the declines are linked to the increased quality of the overall health system or environment.

4.3.24 RH Services and Family Planning

RH Services

Almost all mothers use ANC and PNC services, although not to the full extent recommended, but hardly anyone uses FP and STI services. Medair activities do have influence for ANC and PNC but not for FP and STI. ANC and PNC services are There are four RH services- ANC, PNC, FP, and STI - but ANC and PNC predominate in mothers' minds. In 2020, the vast majority of both Syrian and Lebanese mothers knew of ANC and PNC services. However, less than a third knew of FP and fewer yet knew of STI services. More positively, knowledge of RH services and their locations has increased for both Syrian refugees and Lebanese mothers during the project period with a much greater degree of increase among Syrian mothers. The Syrian mothers have caught up to Lebanese in terms of RH services and locations.

In addition to knowing about the services, there has been an increase in mothers using ANC and PNC services since the beginning of the project cycle, especially for Syrian mothers. However, while almost all mothers are now using ANC and PNC, they are less likely to do the full complement of visits.

There has been no real change in mothers reporting that they accessed FP or STI. It may be important to consider strengthening the FP and STI components in future programming. Participation in Medair activities did result in participants being more likely to seek out ANC and PNC services although did not change FP or STI rates.

SDCs are now a key component of the health system and provide important support to vulnerable populations. There are differences in terms of the locations of services cited. For both populations, SDCs have assumed an increasingly prominent role for RH services. Lebanese mothers were more likely to cite clinics as an RH location while Syrian mothers would cite SDCs. As with general health treatment, SDCs are particularly important for more vulnerable populations including women who cannot read or write or who were married young. Participation in Medair activities is also linked to increased knowledge of RH services and their locations – especially for relying on SDCs as their resource. This is a positive reflection on the role of Medair work in supporting the strengthening of the SDCs for RH services.

Accessing FP services

Mothers are not really discussing family planning systematically and this has not changed since the start of the project although Medair activities seem to encourage more such discussions. When they do discuss family planning, it is mostly informally with family or friends and not with trained service providers. Very few mothers discuss FP with trained service providers, but this is affected by whether they report participating in Medair activities. This has remained constant throughout the project cycle which suggests that project activities are not really changing behaviour on family planning although participation in Medair activities did correlate with women having more conversations with trained service providers.

Delayed pregnancy actions have also not changed since project beginnings. Few mothers with children under two reported using any type of delayed pregnancy methods and only half of these were modern methods. Syrian mothers are much less likely to use delayed pregnancy tactics then Lebanese mothers. The percentage of mothers reported using an FP method has stayed stable across the entire cycle, suggesting little behaviour change has occurred.

Women know about pregnancy risks, and proper birth spacing, but this is not driving changes in delayed pregnancy behaviour, likely because of misunderstandings regarding whether they need to practice contraception. An assumption behind the project logic is that SBCC communication on risks to early pregnancy or what is proper birth spacing should lead to behaviour change in terms of willingness to use FP methods to delay pregnancy. However, this is not observed in the data. Behaviour change does not appear linked to knowledge of risks or proper birth spacing. There is increasing knowledge regarding risks to early pregnancy. However, those women with children under two years of age were LESS likely to be practicing contraception than mothers with children who were over two even though women with children under two are more at risk.

This has implications for SBCC programming because project activities geared to raise awareness on the risks of early pregnancy are not likely to be successful because women already know the risks and still do not change their behaviour.

The barriers to behaviour change do not appear to be linked to cultural values. Only a very low percentage of mothers reported that the reason that they are not using a delayed pregnancy method was because they or their husbands wanted more children. Instead, the most common reasons for not using methods were because they were breastfeeding, did not like the methods, or were already pregnant. Since breastfeeding does not delay pregnancy, this reflects a misunderstanding regarding delayed pregnancy tactics, and this may be a key point of focus to be taken in future SBCC.

4.3.25 Birth Management

ANC visit

ANC appears to be a successful dimension with positive outcomes of which little extra attention is needed. An increasing percentage of mothers have had at least four ANC visits during their pregnancy with 2020 levels extremely high. Nationality matters – about three quarters of Syrian mothers had four visits while nearly all Lebanese mothers did. SDCs are continuing to play a significant role in providing health service options to reduce the strain on the overall health system by being a resource for ANC service. Syrian women were more likely to use SDCs while Lebanese women were more likely to use clinics. The relative differences between Syrian and Lebanese women on the number of visits is in the frequency of visits between the first and last months. Most mothers had their first visit within the first trimester and their last visit within the last month. The biggest change has been in the ANC visit during the first trimester where Syrian women increased by 15 ppt and Lebanese women by 10 ppt. The percentage having their last month visit stayed stable across the project cycle.

Delivery

Women do not give birth outside of the formal health care system. The project logic is concerned about Syrian women have access to formal health care system and avoiding giving birth inside the ITS. This is actually not really an issue in the context. By 2021 almost all mothers give birth in a hospital or clinic. The percentages giving birth in hospital have stayed stable for both groups over the time of the project and most increases are coming from Syrian mothers also accessing clinics as well. Concern over informal births in the ITS do not appear to be warranted any longer as practically all give birth in the formal system. The clinics have provided important local access to women that had been impeded by access in 2016.

Project activities targeting doctors rather than patients would be important for reducing the number of C-sections. The project measures the percentage of mothers having C-sections because of concern of the increase in C-sections as a matter of convenience for either the doctors or the mothers. The percentage of C-sections in the sample is still surprisingly high. The reasons given for a C-sections were overwhelmingly because of a medical need. Less than 10% of the sample who had a C-section said that they had done so for personal preference.

Women are not staying in hospitals a sufficient time after birth – likely due to capacity issues in the formal health care system. Guidelines for delivery from the MOPH recommend that mothers should stay in hospital for a period of time after delivery to ensure proper monitoring the mother and child health. The recommendations are 48 hours for normal births and 72 hours for C-sections. Very few mothers reported staying more than 24 hours and this value has actually declined throughout the project cycle. More vulnerable women tend to stay shorter periods of time which could be indicative of treatment of vulnerable women in the institutions, but it could also be a reflection of the capacity of the system to follow these guidelines. Hospital stays declined very more in 2021 which could be due to pandemic stressors on hospital capacity (and fear of staying in the hospitals. Future programming to expand institutional capacities in the formal health system for delivery may be important.

The health system for delivery experiences a bottleneck because almost all mothers give birth in hospitals or clinics so there are fewer options for distributing health system support. The issues related to C-sections and hospital stays are not things that can be addressed through the SDCs. Women are giving birth in the hospitals and clinics. The implication is that this may result in an overcrowded health system to be able to properly care for mothers. Two ways this might be expressed is through the use of C-sections (for better planning of doctor time) and through shortened hospital stays for mothers after delivery. Both of these factors suggest that there is still a gap in institutional capacities to support delivery.

Maternal Mortality

Maternal mortality numbers are low but reflect that the system is still under stress to support mothers. The percentages of mothers who died within one week of pregnancy are small and declining over time. However, even accounting for ambiguity in the time scope of when the mothers did, this low percentage would translate to a mortality per 100,000 live births rate that would be multiple times higher than the national rate for Lebanon. This is then an indication that there are still constraints in the health system that affect women's health during birth management even though the raw numbers are quite miniscule. The rates are also similar for both Lebanese and Syrian women suggesting that it is a system issue rather than induvial health of populations.

Registration

The issue of birth certification is not really a systemic issue but more a case of those children who happened to be born in Syria and for those children of Syrian mothers born in clinics in Lebanon. Birth certificate possession have improved steadily across the project cycle. However, this is because the greatest gaps in birth certificates were for those children born in Syria. As the mothers stayed in the camps longer and longer, the new born children in Lebanon had birth certificates, especially if they were born in hospitals. The one gap is that it appears that when mothers gave births at clinics, they were less likely to receive the birth certificate than if it was at a hospital. This suggests that clinic documentation support could be further strengthened as part of overall support to expanded institutional capacity at delivery.

For Syrian refugees, birth registration is increasingly taking place in Lebanon as the protracted nature of the crisis expands. The percentage of children born in Syria in the sample has declined since 2016 to currently only about 3% of the entire sample The percentage of children without birth certificates is higher for those children who were born in Syria. Given these two factors combined with the overall high percentages with birth certificates, project activities focusing on obtaining birth certificates for these older children born in Syria and improving clinic capacity for birth certificates would have the best effects.

PNC Visits

Women will do at least one PNC visit, but few are doing the full three PPC visits within the first 40 days. PNC visits are important both in terms of when they occur and how often they occur. Within overall birth management, the frequency of PNC visits is one of the more notable gaps with few women receiving the recommended three PNC visits within 40 days. Almost all mothers reported a medical check of their child at the time of delivery and at least one PPC visit within the first two weeks, but less than 5% of the sample had three PPC visits.

SDCs are increasingly important for PPC care, especially for Syrians. Syrians tended to get their PNC visits at SDCs while Lebanese tended to use clinics. There has been an important shift in relative distribution across SDCs, clinics, and hospitals since 2016. SDCs are much more frequently used for PNC visits, especially for Syrians (45 ppt increase since 2016). Hospital usage has declined substantively, especially for Lebanese. The increasing use of SDCs and decline in hospital usage is important because it again affirms the project logic of the potential of the SDCs to reduce the strain on other parts of the health system, but low numbers of PNC visits remain a challenge.

Breastfeeding

Breastfeeding practices have increased over the cycle but are rarely exclusive breastfeeding. The World Health Organization (WHO) and UNICEF recommend that breastfeeding is initiated within the first hour of birth as it ensures that the infant receives milk that is rich in protective factors. Further, it is recommended to practice exclusive breastfeeding through the first six months as a means to help promote sensory and cognitive development and reduce susceptibility to diseases. Almost all mothers reported breastfeeding their child within the first hour. This percentage has increased since 2016 for both Syrians and Lebanese.

Lack of milk is the main reason for not breastfeeding. Although the WHO has expressed concerns over preferences for formula, the vast majority of women who did not breastfeed was because of the lack of milk which suggests that project activities focused on raising awareness may not change behaviour since the primary barrier appears to be a physical issue unless the breastfeeding awareness is focused on what to do in the case of lack of milk. However, given the small numbers of women reporting this issue, it will not be likely to change population patterns.

Mothers will breastfeed for six months, but not exclusively although 24-hour exclusivity is increasing. Almost all of the mothers reported breastfeeding for six months, but hardly any were doing exclusive breastfeeding for that entire period. It is more common for mothers to have done exclusive breastfeeding in the past 24 hours (about half of the mothers) even if they are not maintaining six-month exclusivity. These patterns combined suggest that mothers are willing to breastfeed and will breastfeed for an appropriate length of time, but long-term exclusive breastfeeding is rare even though they will practice 24 exclusivity periodically throughout the first six months. This suggests that the most useful point of focus in future programming may be to start with increasing the frequency of 24-hour exclusivity throughout the first six months.

4.3.26 Vaccination Coverage

Vaccination coverage is an area of concern and should be a key component in future programming activities as it is one of the few dimensions where there are significant elements that have declined since 2016. Vaccination coverage data is misleading because data is only recorded if it can be confirmed from reviewing the child's vaccine booklet. This is appropriate to mitigate against memory recall errors, but a very low percentage of respondents – in both nationalities – had vaccination booklets. In 2021, Less than half of the mothers could produce a vaccination booklet for their child. This value has actually declined since 2016 as well. Since it is unlikely that the children without vaccine booklets are better covered in terms of vaccinations, this means that the official statistics for vaccine coverage are over-estimating actual coverage.

While measle vaccination coverage has declined since 2016, both Polio and DPT have seen small increases especially for vulnerable families. The 2020 values for measles coverage are slightly more than half of the sample (58%). For Polio, the situation is better with about three quarters (74.1%) of Syrian children in 2020 having polio coverage and about 80% of Lebanese. DPT vaccination coverage is a similar percentage – about 70% of Syrians and 80% of Lebanese. Lebanese children are more likely to have vaccine coverage on all three of these vaccines compared to Syrian children. In addition, mothers who cannot read or write are much less likely to have a vaccine booklet AND are also much less likely to have measles, polio or DPT when they do have the booklet.

The percentage of children with age-appropriate vaccines has increased as well as the average number of vaccines per child but the more vulnerable the household, the lower the vaccine coverage. There are 15 vaccines recommended for children under two in the MOPH guidelines. Among those children with vaccine booklets, only about one-third had recorded all age-appropriate vaccines. There has been a gradual increase in overall vaccine coverage since 2018.[137] The average number of vaccines per child has also increased by about 3 more vaccines per child since 2018. There is a substantial difference by nationality where Lebanese children were more likely to have all vaccines compared to Syrians and mothers with low literacy and early marriage were much less likely to have children with all age-appropriate vaccines.

Medair activities can have influence in vaccine coverage. Interestingly, participation in Medair activities has a big effect on whether a mother has a vaccine booklet and on the average number of vaccines a child may have.

[137] 2017 figures are unusual enough that there may have been a different sampling approach in that year.

This suggests that future activities targeting vaccine booklet maintenance and vaccination could have positive effects on increasing coverage rates.

4.3.27 PSS Services and Access

While a substantive majority of respondents throughout the entire project cycle cited needing PSS support only a small fraction made use of PSS services, although this number is growing slightly. Because of the stress and trauma associated with humanitarian crises, PSS services are often a point of focus in project activities. Almost all of the mothers in the sample reported being sad, stressed, or depressed. However, knowledge of PSS services and where to locate them is low and actually accessing them is relatively rare. When respondents do think of PSS sources of support, they are more likely to think of informal sources such as family and friends than trained service providers.

Most people think of support groups as PSS. The PSS services assessed in the survey were support groups, counselling, medicine, and social workers. By 2021, about one-third of respondents could name at least one PSS service available. This percentage increased since 2016. By far the most commonly cited service was support groups followed distantly by counselling. The PSS services appear to be closely associated in respondents' minds to the SDCs as a service provided by the SDCs because those living outside the SDC catchment areas were much less likely to cite any PSS service. About a quarter of the respondents could cite at least one place to go for PSS support. However, these areas of support were family, friends, or religious figures. A much lower percentage could cite a PSS location that was a trained service provider. This percentage had stayed constant over the project cycle period. Because of this, although about a quarter of respondents did report having discussed PSS with someone, only about 15% of respondents discussed PSS with a trained service provider.

When mothers do seek PSS support which is about half the time - they will do so from informal sources. When specifically asking about whether they had accessed PSS support (as opposed to discussing PSS), about half of the respondents reported accessing PSS, but less than 5% were from a trained service provider. This represented a slight increase from 2016 for Syrians but stable percentages for Lebanese. However, this PSS support was primarily from informal sources. This percentage from a trained PSS service provider has held stable across the project cycle suggesting that behaviour has not changed. They have not yet become accustomed to considering PSS support from specialized services.

4.3.28 Additional Dimensions

Community Tensions

Although there are significant differences in health indicators between the Syrians and Lebanese respondents, few respondents reported observing tensions or seeing prejudicial service although Brital and Joub Jannine SDCs merit further attention. Syrians living inside the catchment areas were more likely to report tensions – in particular in Brital SDC were more likely to report tensions. Tensions were mostly reported between staff and patients except in Joub Jannine where there was a higher percentage of respondents reporting observing tensions between nationalities.

COVID-19 Vaccines

Vaccine coverage is extremely low and vaccine hesitancy is significant but there are few barriers if willingness exists. The primary reasons for hesitancy have to do with fears about the vaccines rather than dismissing COVID as a serious disease. Vaccine coverage could be expanded by focusing on mitigating fears.

4.3.29 Additional Considerations

4.3.30 Social Factors Influence on Programming

Among the six social factors, nationality has the most correlation with the distribution of responses with Syrians often gradually improving to catch up to Lebanese. Lebanese are consistently better responses on health knowledge and behaviour across the majority of the indicators. The effect is large with often a 15-25 ppt difference between Syrian response percentages and Lebanese response percentages. This is not necessarily surprising because the disruption of social connections, relationships, and economic ties that come from displacement for refugees has a disproportionately negative effect even when other factors are equal. In many indicators, the patterns across the cycle were that there would be an increase in Syrian behaviour from 2016 while with Lebanese respondents the patterns stayed more consistent. Because Lebanese response percentages were higher to begin with, this had an effect of often bringing Syrian responses closer to Lebanese responses by 2020.

Illiteracy and age of marriage are significant vulnerability markers which correlate with negative health behaviour. Women who cannot read or write are less likely to have appropriate health knowledge or behaviours

– especially those elements that have to do with management or maintenance. For example, maintaining and updating vaccination booklets, managing birth registration. Among the social factors, literacy levels were the second most influential factor explaining health behaviour after nationality and there were 14 indicators where there was a statistically significant difference between literate and illiterate women in terms of healthy behaviour.

Early marriage is one marker of increased vulnerability and there is a relationship with negative health behaviours. However, women who married early are also less likely to be literate and there is a greater correlation with literacy and positive health behaviours. In none of the indicators did early marriage appear as a factor while literacy levels did not. But there were cases where literacy did appear as an influence when early marriage did not. What this means is that although early marriage and literacy levels are both proxy indicators for vulnerability, literacy has the stronger influence, and it is likely the correlation between early marriage and literacy that is driving the significance of early marriage in the indicators.

SDCs as a whole have played a significant role in the provision of health services – especially to vulnerable populations but attention could be focused on Talia and Marj SDCs for greater focus on project activities. Syrians have greater needs in health knowledge and behaviour than Lebanese and they rely more on the SDCs to access these services. This has led to reduced strain on the other elements in the formal health system and helped improve access to services. However, there was variation among the SDC coverage areas in terms of the health behaviours. Talia and Marj SDCs were often the lowest scoring on the health indicators. This is most likely related to the populations living in these areas rather than the management of the SDCs themselves, but it may be worthwhile to provide extra project activity attention to these two SDC coverage areas.

There are few differences between responses based on catchment location but outside catchment respondents tend to score better. The primary difference is that those living outside the catchment areas are less likely to use the SDCs for their health coverage, but they are getting their health coverage from somewhere. Those living outside the catchment area are more similar to Lebanese respondents in terms of using an array of clinics and hospitals to access health services and they tend to have higher scores on health behaviours than those living inside the catchment areas.

4.3.31 Medair Activities and Future Programming Considerations

Participation in Medair Activities

Participation in Medair activities is associated with positive healthy knowledge and the use of SDCs for health service. Medair project activities are a combination of system strengthening support to the functioning of SDCs and project activities with targeted beneficiaries. The support to the SDCs as a whole have had positive results in strengthening vulnerable women's access to the health systems. This is particularly true for Syrian mothers and those who cannot read or write. Participation in the project activities for individual behaviour change only showed correlation with positive outcomes on 9 of the indicators (19%). There were five areas where the participation in Medair activities influenced the patterns of responses:

1. Increasing the connection between Medair activity participants and **the use of Medair-supported SDCs.** The activities appear to serve a channelling function bringing participants into the SDC centres.
2. Within **the RH dimension,** participation in Medair activities was linked to improved knowledge of locations for accessing RH services and for knowledge specifically of ANC and STI. It was also associated with changes in RH seeking services.
3. In **PSS,** participation was associated with knowledge of PSS services and locations, feeling comfortable with accessing PSS services, and behaviour related to seeking PSS support from trained service providers.
4. In **Family Planning,** participation in Medair activities was associated with women seeking out FP discussions and knowing at least one risk of getting pregnant early.
5. In **vaccination,** participation in activities did improve the average number of vaccines a child had (even if not reaching full age-appropriate coverage).

Future Programming Considerations

Based on the patterns in the findings, there are future programming considerations that were identified for consideration in any future health activities in the camps:

1. **Targeting underlying vulnerability in particular literacy levels.** While there have been changes to health behaviour, the underlying vulnerability related to literacy is the second most influential factor behind nationality in terms of health behaviours. Given the degree of influence literacy has on health behaviours, it may be useful in future programming to integrate an adult literacy component into project activities as an indirect way of improving health knowledge and practices.

2. **Strengthening SDC capacity to support illiterate clients.** Women who cannot read or write are also more likely to depend on the SDCs as the primary source for health services. There may be gains in health coverage in future programming oriented towards supporting SDCs to strengthen their capacity for non-literate clients.

3. **Integrating more FP and STI focused activities.** There is widespread knowledge of ANC and PNC services, but little awareness of FP and STI. More could be done to strengthen those areas in project activities including re-examining barriers to changing FP and STI behaviour. This could include more attention to dispelling myths regarding what inhibits pregnancy.

4. **Focusing natural birth awareness activities towards doctors and health professionals in hospitals and private clinics.** Most of the C-section decisions are made by the doctor, not according to patient preference.

5. **Seeking to strengthen health system capacity for extending post-delivery hospital stays.** The length of stay post-delivery has declined since 2016 suggesting that there are gaps in the health system capacity to attend and manage longer delivery stays.

6. **Strengthening health system capacity for PPC visits and identifying barriers for PPC visits.** The primary barriers to full PPC visits appear to be limitations in health system follow up capacity. Additional work identifying barriers for mothers to conduct a full complement of PPC visits could address the PPC gaps.

7. **Breastfeeding activities focused on increasing the frequency of periodic exclusivity.** Mothers rarely practice full six-month breastfeeding exclusivity but will do shorter-term 24-hour exclusivity. Project activities focused on promoting increased frequency of these 24-hour exclusivities could improve practices.

8. **Focus on vaccine booklet maintenance.** There is a declining percentage of women able to produce vaccine booklets for their children and focusing activities to support obtaining and managing these booklets could improve vaccine coverage.

9. **Strengthening PSS awareness and opportunities.** In future programming it may be helpful to place more emphasis in PSS awareness raising on both what is meant by PSS support and where it can be accessed.

10. **Birthing environment management.** The raw maternal mortality numbers are low but are still sufficiently high to suggest added value in project activities to improve the health care environment around birthing.

11. **Identify SDC specific potential hotspots.** Although conflicts as a whole are not high, it would be worth including project activities to explore tensions between nationalities or tensions between staff and patients in selected SDCs where these appear to be higher.

12. **COVID-19 vaccine hesitancy.** Future activities could strengthen coverage by focusing on mitigating fears around the vaccines (rather than on awareness raising, logistics, or about COVID-19 itself.

Recommendations

After the 2020 annual report, a series of nine recommendations were presented. These recommendations are still relevant for 2021 based on the emergent findings. The following recommendations place structure around the potential project activities cited above. These are structured as eight recommendations to respond to potential future programming. In some cases, the recommendations may lie outside the specific scope of Medair programming in the Bekaa valley but could be considerations for Medair promotion with other health actors. A ninth recommendation is reiterated from last year to emphasize caution in unreliable survey questions which could cause volatile results.

Recommendation 1: Adult Literacy.

Given the prevalence of literacy as an influencer on patterns, consider integrating into future programming additional investment in activities around the promotion of adult literacy for mothers given the effect that literacy has on health behaviours and knowledge. Alternatively, for those variables with significant differences between literacy levels, consider developing materials or training methods which are more friendly for non-literate women.

Recommendation 2: SDC Assessment.

Medair should consider development of an in-depth SDC assessment tool to provide additional detail on the functioning of the individual SDCs supported by Medair especially with respect to how staff are treating patients. There is enough variation among the SDCs even when controlling for socio-demographic factors that follow up assessing individual SDC performances and quality would be a useful next step for providing increased quality of service.

Recommendation 3: Birth Institutional Capacity.

Consider programming that seeks to strengthen the institutional capacity of the formal hospitals and clinics for birth delivery demands. Increasing the capacity for absorption should be accompanied by awareness raising activities directed to doctors and medical officials on three items:

1. Increasing length of stay in hospital after birth,
2. Decreasing reliance on C-sections, and
3. Assessments of conditions that may be contributing to maternal mortality.

Recommendation 4: SDC Post-Delivery Support.

In combination with recommendation 3, to improve the SDC support to mothers post-delivery, consider adding support to SDC capacity to conduct the following activities:

1. Registration case management support to mothers whose children are either:
a. 0-6 months, or b) were born in Syria, to help them acquire birth certification.
2. Increasing capacity of SDCs to provide sufficiently frequent PNC visits and care to mothers within the first 40 days of delivery.
3. Breastfeeding training provided by SDCs to focus on increasing the frequency of 24-hour exclusivity during the first six months.

Recommendation 5: Family Planning.

Continue to provide safe spaces for FP discussions. Consider adjusting activities around family planning practices to consider that knowledge of risks does not appear to lead to behaviour change and that reasons for not using contraception are not likely associated with preference for more children. These adjustments should provide special attention to activities that encourage:

1. Increased consultation on FP with trained providers,
2. Increased use of modern contraceptive practices,
3. Increased knowledge of appropriate contraceptive practice and birth spacing needs.

Recommendation 6: Vaccination Coverage.

1. To strengthen vaccination coverage, consider integrating into new activities two areas of focus:
2. A campaign for mass vaccination of measles,
3. Increased training to mothers – especially ones who cannot read or write – on care and management of vaccine booklets.
4. Strengthening the vaccination tracking system to include SDC nurses calling the mother of the child to remind her of an appointment when a child is due to receive a specific vaccine.

1. Strengthen PSS services programming support through two mechanisms:
2. Strengthening the capacity of the informal sources of support which are the preferred option of mothers through peer-to-peer learning or lay-person trainings to provide basic tools to informal sources for adequate PSS support.
3. Increasing the utilization of available trained service providers for PSS support.

Recommendation 8: COVID-19 vaccine hesitancy.

1. Mitigate vaccine hesitancy through two mechanisms:
2. Continued support to registration and vaccination steps
3. Expand awareness campaigns addressing vaccine fears (rather than on increasing concerns about the risks of COVID itself).

Recommendation 9: Survey Reliability.

Adjust the survey questions for future programming to reduce reliability issues that come from either questions that may confuse respondents or which they may not have the knowledge to know. This includes:

1. Tracking medicine usage and the distinctions between antibiotics, antihistamines, or painkillers
2. Replacing 'satisfaction' questions for RH and PSS services with a checklist of actions that health professionals conducted or not with the respondent when they accessed the service.
3. Adding specific questions regarding comfort and access to FP and STI services rather than general RH services.
4. Asking for medical reasons for actions that may be beyond the respondents' knowledge (such as cause of death, reasons for C-sections, among others)

Annexes

5.1 Annex 1: Terms of Reference

Terms of Reference (ToR) consultants v2.0

5.2 Annex 2: Results Analysis Framework

Analysis Framework 2021.docx

5.3 Annex 3: Summary Table for 2021 and Multi-Year Analysis

2021 Summary Table

2021 Logframe Indicator Summary wi

Multi-Year Summary Table

Table Multiyear Data 2021 0912.docx