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Medair Health Project in Bekaa Valley– Lebanon

Health and Nutrition Knowledge, Practices and Coverage Household Survey 2018

Part 2 – 2016 to 2018 Comparison Report

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Medair Health Project – Lebanon
Health and Nutrition Knowledge, Practices and Coverage Household
Survey Analysis and Report 2018
Part 2 – Comparison Report: 2016-2018

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Declaration of Conflicts of Interest

The independent consultant data analysts are not and never have been employees of Medair and have no familial or financial relationships with any Medair staff other than the contractual relationship in relation to this consultancy. We declare no conflict of interest exists.

Medair staff designed the survey tool and conducted data collection.

Glossary of Acronyms

The following acronyms and terms are used in this report.

AES	Australian Evaluation Society
ANC	Antenatal care
Aoi	Area of Intervention (the 5km radius surrounding each of the SDCs assisted by Medair)
ARI	Acute Respiratory Infection
CBO	Community Based Organisation
CHVs	Community Health Volunteers
CMW	Community Midwife
DPT	Diphtheria and Pertussis and Tetanus
EBF	Exclusive Breastfeeding
EU-MADAD	European Union regional trust fund in response to the Syria crisis
FP	Family Planning
Government of Canada-IHA	International Humanitarian Assistance
HFPH	Healthy family peaceful house
HH	Households
HHS	Household Survey
IAMP 56	Inter-Agency Mapping Project
IBM SPSS	A statistical analysis software package produced by IBM
IS	Informal Settlement
ITS	Informal Tented Settlement (survey)
KPC	Knowledge, practice, coverage
LEB	Lebanese respondents to the survey
MMR	Measles, Mumps, Rubella
MoPH	Ministry of Public Health
MoSA	Ministry of Social Affairs
MS	Microsoft
MSF	Medicins Sans Frontiers/Doctors without Borders
NCD	Non-Communicable Diseases
NGO	Non-Governmental Organization
ODK	Open Data Kit (digital survey software programme)
ORS	Oral Rehydration Solution
PHC	Primary Health Care
PNC	Postnatal care

PSS	Psycho Social Support
PTSD	Post-traumatic stress disorder
RH	Reproductive Health
SDC	Social Development Centre
SGBV	Sexual or gender-based violence
SPHERE	The humanitarian charter and minimum standards in humanitarian response
SS	Statistically Significant
STI	Sexually Transmitted Infections
SYR (IS)	Syrian refugee respondents in the survey who live in an informal settlement.
SYR	Syrian refugee respondents
ToR	Terms of Reference
UNCEF	United Nations Children Fund
UNHCR	United Nations High Commission for Refugees
VaSyR	Vulnerability Assessment of Syrian Refugees in Lebanon
WHO	World Health Organisation

1. Introduction

In 2018 the Syria crisis entered its seventh year with almost 1 million registered, and many more unregistered Syrian refugees continuing to reside in Lebanon, a third of whom reside in the Bekaa Valley (UNHCR Data Portal, November 2018). Syrian refugees make up as much as a quarter of Lebanon's total population, with 80% of these refugees being women and children. The presence of refugees in such high numbers has strained the political, economic and social stability of the country. Difficult living conditions are exacerbated by the weather and often poor sanitation and hygiene in refugee settlements. These, in turn, have a strong impact on the public health situation among refugees and increase the risks of outbreaks of communicable diseases.

Since 2014 Medair has been supporting the Ministry of Social Affairs (MoSA) **Social Development Centres** (SDC) by implementing a project to improve refugees' and affected host communities' access to primary health care (PHC) services. In 2018, Medair supported seven clinics in Central, West and North Bekaa with **a focus on mother and child health** in addition to mental health and psychosocial support. Medair provides these SDCs with human resources, medicines, equipment, capacity building and supportive supervision to each of the clinics.

At the community level, Medair's **Community health volunteers** (CHVs) have been trained on relevant health topics and referral systems. These CHVs in the SDC catchment areas deliver to households messages mainly related to reproductive health, newborn and child health, mental health and well-being and gender. These messages address the specific barriers Syrian refugees and vulnerable Lebanese face and reinforce the benefits of adopting healthy norms. **Community midwives** (CMWs) provide antenatal care, postnatal care and family planning. CHVs and CMWs carry out household visits, community outreach in informal settlements within SDC catchment areas and meet refugees and vulnerable host communities in community shared places.

2. Purpose and Scope of the Comparison Report

Medair conducted its first KPC survey of the Syrian refugee population residing in Lebanon in November 2015. Medair has repeated the survey each year since, with the purpose of providing *"robust data that will inform Medair, MoSA, MoPH and other NGO programming and provide a strong evidence base to current and potential donors."*

The overall purpose of this Part Two report is: *"to carry out a comparative analysis of the 2018 dataset, with those of 2017 and 2016, to contextually identify and explore statistically significant trends between the three surveys and propose ways forward, including areas for qualitative research, for Medair, MoSA, MoPH and other NGOs. This is intended as a first step towards the dissemination and application of findings."*

The analysis and reporting will be based on, but not restricted to, key health and nutrition related indicators, including the following thematic areas:

- Health seeking behaviour
- Diarrhoea and respiratory tract infection management for children
- Vaccinations
- Reproductive health (including antenatal care, postnatal care and family planning)
- Breastfeeding practices
- Access to reproductive and psychosocial services

3. Objectives of the Report¹

1. Analyse the 2016, 2017 and 2018 data sets together and provide a tabular presentation of point estimates for all required indicators, including 95% confidence interval and statistically significant trends, inclusive of disaggregation of Syrian and vulnerable Lebanese population groups
2. Provide a concise 6-8 page commentary² around the trends revealed by the data. This is to be presented in the context of the environment of the Bekaa, drawing on relevant literature as it relates to the national public health situation.
3. Provide written recommendations on areas for further, qualitative, study that would benefit from exploration of underlying causal factors for notable movements in indicators, inclusive of recommended approach and next steps

4. Methodology

4.1 Document Review

Desktop review was performed on

- Medair's project design documents
- previous Medair KPC surveys
- external reports and survey related to Lebanon's health care system and the Syrian refugee response
- The questionnaire used by Medair to collect the data under review in this report

4.2 Household Surveys

In 2018, the survey was conducted using a two-stage cluster design to enable the calculation of 95% confidence interval point estimates with acceptable degrees of precision. The sampling frames were distinct for both Syrian refugees (made up of those living in informal settlements and those not) and vulnerable Lebanese, such that two cluster surveys were conducted.

The target respondents were women of child bearing age with children under the age of 5. The data was collected by approximately 70 enumerators, trained and supervised by Medair staff, using tablets and ODK (Open Data Kit) data collection software.

The sampling frame was taken from the Syrian refugee population in informal settlements and vulnerable Lebanese population with a 5km radius from the Cadasters where the seven Ministry of Social Affairs Social Development Centres (SDC) supported by Medair are located. Syrian informal settlements were covered using 46 survey clusters, and vulnerable Lebanese communities were covered using 30 clusters. To ensure representation, the sampling frame employed probability proportionate to size (of population) (PPS) to select clusters and then individual households for participation in the survey. Sample sizes were calculated to ensure 95% confidence level with 6% margins of error.

In 2016 and 2017, similar surveys in Medair's areas of intervention (Aols) were conducted using 30 clusters for Syrian and 30 for Lebanese communities.

¹ Extracted from *Evaluation ToR*, pp.5-6

² Excluding tabular presentations.

Table 1 - Number of survey respondents in Medair's Aol after data cleaning

Target population	2016 ³	2017 ⁴	2018
Syrian refugees	367 (34% in informal settlements)	395 (39% in informal settlements)	1482 (100% in informal settlements)
Vulnerable Lebanese	385	385	751
Totals:	752	780	2233
Locations:	Baalbek (North Bekaa)	Baalbek (North)	Baalbek (North Bekaa)
	West Bekaa	West Bekaa	West Bekaa
	Zahle (Central)	Zahle (Central)	Zahle (Central)
	Rachiya	Rachiya	

2016 data was collected 10th - 16th December 2016. The full 2016 report is available [here at academia.edu](#).

2017 data was collected between 26 - 29th of December 2017. The full 2016 report is available [here on Medair's website](#).

2018 data was collected between 10th – 21st December 2018

4.3 Data analysis

The data was analysed using IBM SPSS (Version 25) Complex Samples module, employing analysis plans that catered for the cluster sampling design. Most of the data being categorical variables, the chi-square was used to determine statistical difference between the two groups: vulnerable Lebanese and Syrian refugees.

Frequency calculations included: percentage, unweighted count, and 95% confidence intervals. Some additional cross tabulations were used to confirm statistically significant differences with the chi-square in most cases, p-values and odds ratio. All the working files have been supplied to Medair: datasets, analysis scripts, analysis plans and outputs.

Most data analyses were converted to MS Excel to enable the generation of reader-friendly tables and graphs used throughout the report.

Where radical differences were evident between 2018 results and previous years, forensic recalculations of 2017 data were performed to establish whether the differences are a result of data collection questions, or formulae used by analysts differed, or whether the difference is real. Where necessary, such explanations are provided in the tables and narratives of this report.

4.4 Limitations of the comparison report

Modification of some questions compared to previous years' surveys.

Some themes were surveyed this year using different question approaches to previous years. This reduced or removed year-on-year comparability. The most salient example is in relation to exclusive breastfeeding (EBF) practices. This year employed an alternative definition of EBF, based on recall of the first 6 months of each child's life. Whereas 2017 employed the WHO/FANTA III protocols that only rely on recall of feeding in the previous 24 hours in an infant's life. Secondly, in the past, surveillance of vaccination utilised information on vaccination cards

³ Medair 2016 KPC Report, p.29

⁴ Medair 2017 KPC survey Aol raw data analyses

plus maternal recall for those without a vaccination card. This year, the survey used only information on vaccination cards.

Disagreements between 2018 and previous years' analytical formulae.

In some cases, we, the 2018 data analysts, disagreed with formulae used in previous analyses. An example is in relation to a question about seeking family planning information from a trained service provider. Previous years' analyses reported all who sought family planning information, regardless of who the source was. In 2018, we only included those who sought services specifically from a trained service provider and excluded those who sought advice from sources that are not trained. We have not amended the 2018 results, but have added explanations where necessary, and calculated and presented the alternative result using previous formulae, where useful.

Not disaggregated data from previous years.

In previous years some indicators were reported with only an aggregated result that combined Syrian and Lebanese results. Therefore, disaggregated trends could not be specifically provided. Where this is the case, 2018 results have been compared to the aggregate previous result. In other cases, only one nationality's data were reported, in which cases, we have presented 2018 data for both nationalities, but only commented on the trend for the one with longitudinal data to compare.

Co-contributors to results by other dispensaries

In addition to the 7 SDCs (also known as dispensaries) supported by Medair, there exist at least 16 other dispensaries in the same Cadasters. Some, though not all, of these are supported by NGOs. Thus, observed change over time in relation to health services is the result of efforts by Medair, other NGOs and relevant Lebanese ministries.

5. Results

5.1 Interpreting the results:

The following tables present Medair's KPC findings for surveys conducted in 2016, 2017 and 2018. Comparison descriptions refer only to the difference between 2016 and 2018 results.

This is for two reasons:

1. Genuine change is more observable over a longer period of time than one year
2. 2017 results have many radical change results that are difficult to reconcile with 2016 and 2018 results

Change between 2016 and 2018 was assessed by calculating the p value of the difference between the two results by using a two-tailed chi-square test. p values were interpreted via the following conventions: p values < 0.05 indicate statistically significant change. P values ≥ 0.05 are not statistically significant.

Some data for past years is incomplete, such as disaggregation by nationality, or the confidence intervals. To recover such details would require new analyses of the raw data. For present comparison needs, the level of detail available is considered sufficient for purpose.

Where data is presented without reference to a nationality (i.e. LEB or SYR), this refers to the aggregate result of both sub-populations.

5.2 Definitions of change descriptions:

No ss change: 'no statistically significant change'. The difference in 2016 and 2018 results is small and possibly only the result of measurement error

Deterioration: a statistically significant reduction in coverage that contributes to a poorer health result across the population

Improv't: a statistically significant increase in the coverage that contributes to an improvement in health across the population

Decrease (=improv't): a statistically significant reduction prevalence of a condition or behaviour, that contributes to better health

Increase/decrease: a statistically significant change in an indicator that is not linked to an improvement or deterioration in health outcomes (e.g treatment in a private clinic vs. treatment in a dispensary)

Option not included in 2018 survey / Not monitored in 2018: means question of a response option used in previous years' questionnaire was not offered in 2018

NR: Not recorded in past years' data interpretation, so not available for comparison with 2018 findings.

5.3 Health seeking behaviour

Health care access general

Topic	Summary Indicator	Aol (2016)	Aol (2017)	Aol+ (2018)	Statistical Difference (b/n 2018 vs. 2016)
Health care access general	% of residents in catchment area of SDCs who went to a health facility when they needed medical services (measured by survey)	90.6% [87.0, 93.3]	92.5% [88.8, 95.0]	LEB: 95.3% [93.7,97.0] SYR: 91.8% [90.3,93.3] Aggregate: 93.0% [91.8,94.1]	Improvement of the 2018 vs. 2016 aggregate Result for Lebanese is a ss improvement over the 2016 aggregate. Result for Syrian refugees is not statistically different from 2016 aggregate

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
In the last year, have you or your child/children needed medical services?	Yes	83.7% [79.8, 87.0] LEB: 81.5% [76.1, 85.9] SYR: 86.4% [80.4, 90.8]	68.8% [62.7, 74.3] LEB: 62.7% [54.0, 70.6] SYR: 73.5% [65.3, 80.3]	LEB: 85.2% [81.0,88.7] SYR: 86.6% [83.9,89.0]	No ss change
Which health facility did you go to? (asked if respondent reported going to a health facility when they needed the medical services)	SDC	23.5% [18.1, 29.9] LEB: 14.9% [10.0, 21.7] SYR: 33.2% [25.1, 42.3]	40.9% [35.7, 46.2] LEB: 31.2% [23.4, 40.4] SYR: 47.1% [42.3, 51.9]	LEB: 42.9% [36.1,50.0] SYR: 81.5% [77.5,85.0]	Improv't for LEB Improv't for SYR
	Private clinic	29.1% [23.0, 36.1] LEB: 43.6% [36.2, 51.3] SYR (IS): 15% [8.7,21.3]	20.6% [16.3, 25.8] LEB: 30.7% [24.6, 37.5]	LEB: 50.8% [43.9, 57.5] SYR: 9.9% [7.8,12.6]	No ss change for LEB Decrease for SYR
During the last month how often have you come in contact with each of the following?	No contact with health staff	80.7% [75.3, 85.1] SYR: 90.7% [86.7, 93.6]	72.5% [68.6, 76.1] SYR: 75.9% [71.0, 80.2]	Not monitored in 2018	
	No contact with community health workers	91.3% [88.0, 93.7] SYR: 92.8% [88.9, 95.3]	78.5% [73.8, 82.5] SYR: 77.4% [71.1, 82.7]	Not monitored in 2018	
	No contact with health educator	95.4% [92.9, 97.1] SYR: 96.4% [91.7, 98.5]	86.8% [82.9, 90.0] SYR: 84.7% [79.1, 89.1]	Not monitored in 2018	
Where do you prefer to get general information or advice on health or	Doctor	37.1% [31.0, 43.7]	58.1 % [52.1, 63.8]	Not monitored in 2018	

nutrition?		LEB: 47.3% [39.1, 55.6] SYR: 24.8% [18.5, 32.4]	LEB: 67.8% [61.5, 73.5] SYR: 50.7% [42.9, 58.5]		
	Community health workers	6.8% [4.9, 9.2] LEB: 5.4% [3.4, 8.5] SYR: 8.4% [5.4, 12.7]	1.9% [1.0, 3.6] LEB: 1.5% [0.6, 3.4] SYR: 2.2% [0.9, 5.3]	<i>Not monitored in 2018</i>	
	Husband	8.3% [6.5, 10.5] SYR: 4.8% [2.8, 8.2]	14.9% [11.6, 19.0] SYR: 15.7% [10.8, 22.5]	<i>Not monitored in 2018</i>	
	Sister	6.7% [4.8, 9.3] SYR: 4.3% [2.4, 7.6]	12.3% [9.6, 15.6] SYR: 11.4% [8.2, 15.7]	<i>Not monitored in 2018</i>	
	No one	17.5% [12.8, 23.4] LEB: 11.8% [7.3, 18.6] SYR: 24.3% [16.6, 34.1]	4.2% [2.5, 7.0] LEB: 3.1% [1.2, 8.0] SYR: 5.1% [2.8, 9.0]	<i>Not monitored in 2018</i>	
	Television	22.8% [17.8, 28.8] LEB: 33.7% [27.7, 40.2] SYR: 9.8% [6.6, 14.2]	3.7% [2.1, 6.5] LEB: 6.6% [3.5, 12.2] SYR: 1.5% [0.7, 3.4]	<i>Not monitored in 2018</i>	
	Internet	17.4% [12.8, 23.3] LEB: 28.0% [21.9, 34.9] SYR: 14% [10.4, 17.6]	8.5% [5.7, 12.6] LEB: 13.1% [7.9, 21.1]	<i>Not monitored in 2018</i>	
In the past month, have you received any health messages from the following?	Internet	LEB: 48.2% [41.8, 54.7] SYR: 7.8% [4.7, 12.5]	LEB: 59.1% [51.5, 66.3] SYR: 16.2% [13.0, 19.9]	<i>Not monitored in 2018</i>	
	SMS	29.9% [23.1, 37.8] LEB: 14.0% [9.4, 20.2] SYR: 7.2% [4.0, 12.5]	34.7% [27.6, 42.5] LEB: 34.4% [26.8, 43.0] SYR: 15.5% [10.5, 22.4]	<i>Not monitored in 2018</i>	
What services did you receive from Medair?	Transportation voucher	30.5% [16.8, 48.9] LEB: 20.4% [7.0, 46.7] SYR: 34.1% [16.6, 57.4]	4.5% [1.6, 11.8] LEB: 0.0% SYR: 5.3% [2.0, 13.7]	<i>Not monitored in 2018</i>	

Health care access: We see, in Figure 1, that the demand for health assistance and also, in Figure 2, the level of health care access across the two populations has remained approximately constant over the two years (adjusting for calculation differences). What has changed substantially since 2016 is the dramatic increase of Syrian refugees accessing health services at Social Development Centres (SDCs) / dispensaries. This has increased from being the health contact point for 33.2% in 2016 to 81.5% in 2018. This result implies that the work done by Medair’s health outreach teams (community midwives and health volunteers) to increase primary health care access has yielded results, as well as the Ministry of Social Affairs (MoSA), Ministry of Public Health (MoPH), and that done by other NGOs.

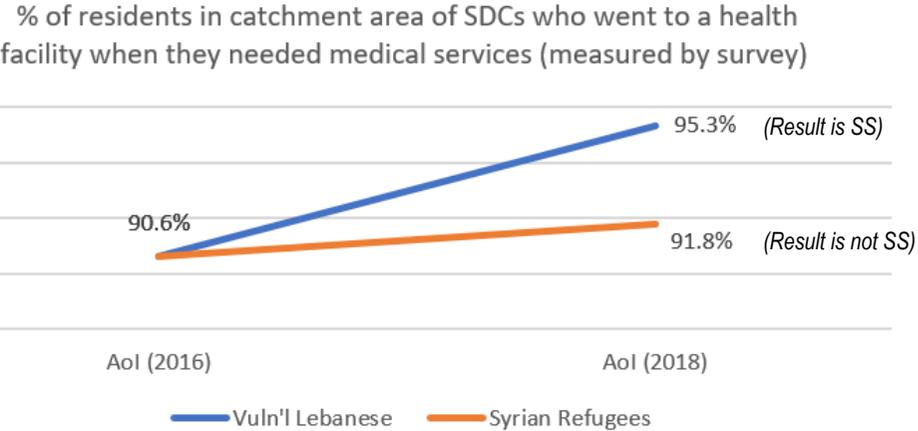


Figure 1

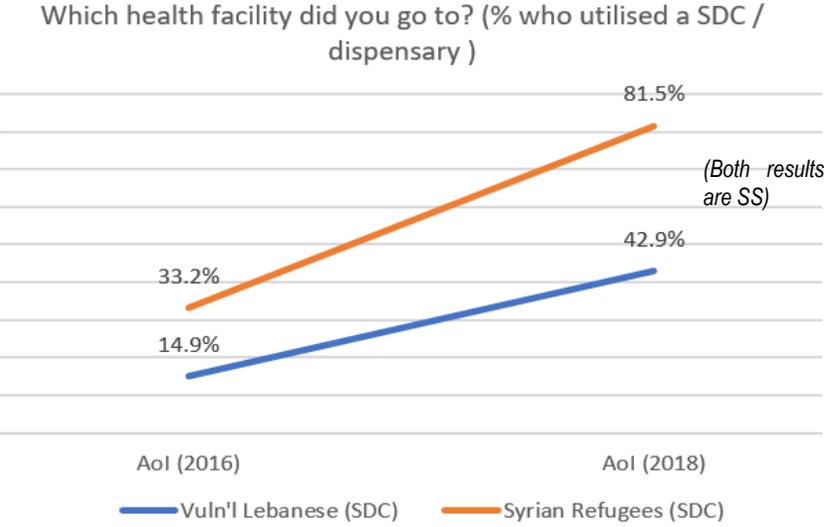


Figure 3

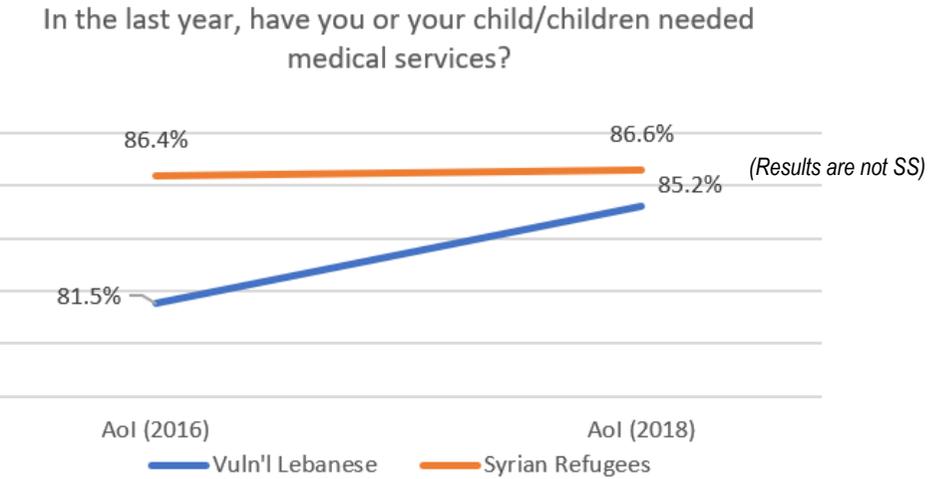


Figure 2

Non-Communicable Diseases (NCD)

Topic	Summary Indicator	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
Knowledge about NCD prevention	% of women who know 2 or more ways to reduce the risk of NCDs	LEB: 60.6% [52.2, 68.5] SYR: 29.3% [23.3, 36.1]	LEB: 65.4% [59.1, 71.2] SYR: 51.8% [43.8, 59.8]	LEB: 57.7% [52.4, 62.8%] SYR: 26.7% [23.3, 30.4]	No SS change <i>(The 2018 analysts rechecked 2017 calculations. The differences are not due to calculation differences)</i>

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
How do you think people can reduce the risk of getting these diseases?	Reduce sugar	44.3% [37.9, 50.9] SYR: 32.5% [24.8, 41.4]	57.8% [52.9, 62.6] SYR: 54.1% [47.5, 60.5]	LEB: 52.3% [47.9, 56.7] SYR: 27.2% [22.9, 31.9]	Improv't for LEB Small deterioration for SYR
	Reduce stress	SYR: 11.8% [7.2, 18.9]	SYR: 26.8% [20.1, 34.6]	LEB: 36.2% [31.9, 40.8] SYR: 20.1% [16.6, 24.2]	Improv't for SYR
	Stop smoking	4.0% [2.5, 6.4] LEB: 7.2% [4.8, 10.6] SYR: 0.2% [0.1, 1.0]	12.3% [9.3, 16.0] LEB: 14.5% [10.6, 19.4] SYR: 10.6% [6.7, 16.2]	LEB: 18.1% [14.8, 22.0] SYR: 5.8% [4.4, 7.6]	Improv't for both
	Exercise	SYR: 0.7% [0.2, 2.4]	SYR: 4.9% [3.0, 7.8]	LEB: 13.7% [10.4, 17.8] SYR: 4.2% [2.8, 6.2]	Improv't for SYR
	Do not know	29.6% [23.1, 37.1] LEB: 13.9% [9.3, 20.2] SYR: 48.7% [40.7, 56.8]	13.0% [9.9, 16.8] LEB: 6.7% [4.3, 10.3] SYR: 17.8% [13.6, 22.9]	LEB: 14.1% [11.2, 17.7] SYR: 39.8% [34.1, 45.8]	Reduction for SYR (=Improv't)
	Number of methods known=0	35.5% [28.1, 43.5] SYR: 55.5% [46.4, 64.3]	23.9% [19.8, 28.5] SYR: 29.6% [24.3, 35.4]	('don't know' + 'nothing' responses) LEB: 17.3% [14.1, 21.0] SYR: 49.2% [44.2, 54.2]	Reduction for both (=improv't)

Hypertension and diabetes are major causes of morbidity and mortality in Lebanon. Nationally, diabetes prevalence is at 14.6% (International Diabetes Foundation) and hypertension at 29.3% (Mouhatadi BB, et al., 2018). There was no statistical change in the proportion of vulnerable Lebanese or Syrian refugee women who could cite two or more ways to reduce the risk of NCDs (see Figure 4).

However, progress is occurring. In figure 6, the proportion of Syrian refugee women who could not cite any ways to reduce risk decreased from 48.7% down to 39.8%: an 18% improvement.

Among Syrian refugees, though awareness overall remained low, knowledge had increased in relation to needing to reduce stress. Despite some increases, knowledge remained very poor in relation to other factors such as stopping smoking, exercising, and eating healthier foods. Medair is only conducting NCD awareness-raising from one SDC, and thus, promotional coverage is low.

% of people who cited each method to reduce risk of getting NCDs?

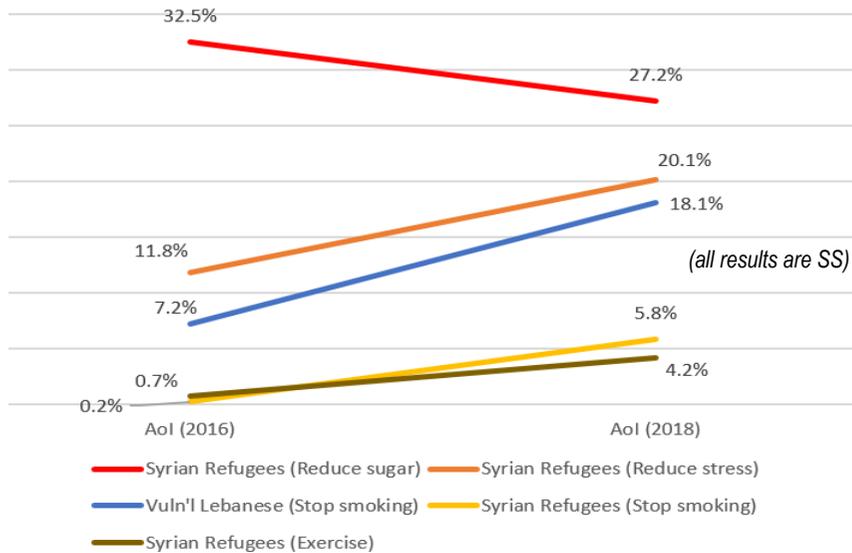


Figure 6

% of women who know 2 or more ways to reduce the risk of NCDs

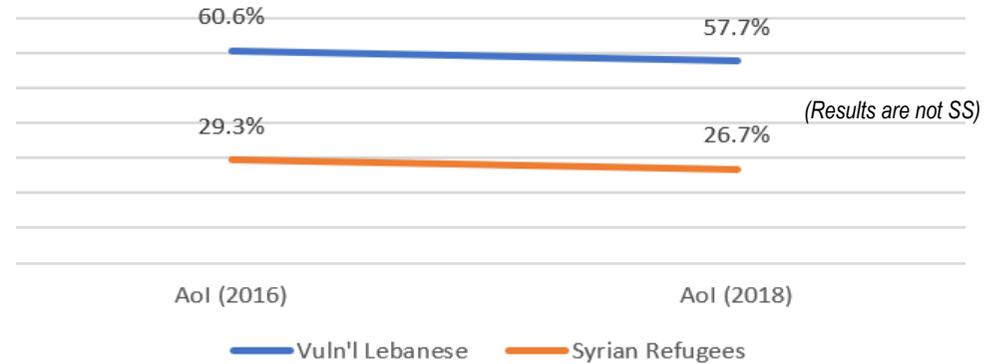


Figure 4

% of people who could cite no methods to reduce the risk of getting NCDs?

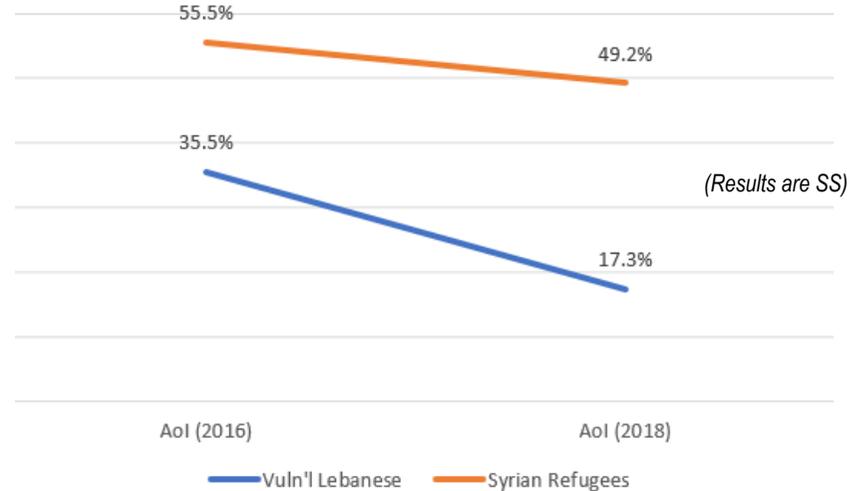


Figure 5

5.4 Diarrhoea and respiratory tract infection management for children

Topic	Summary Indicators	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
ORS and zinc for diarrhoea	% of children under 5 years with diarrhoea receiving ORS or zinc supplementation	<p>ORS or Zinc: LEB: 22.0% [14.0, 32.8] SYR: 40.9% [29.6, 53.2]</p> <p>ORS: 23.9% [18.1, 31.0] Zinc: 8.0% [4.8, 13.1]</p>	<p>ORS or Zinc: 65.0% [54.1, 74.6]</p> <p>ORS: 34.8% [26.7, 44.0] Zinc: 34.0% [27.1, 41.8]</p>	<p>ORS or Zinc: LEB: 39.4% [30.9,48.5] SYR: 30.6% [25.1,36.8]</p> <p>ORS and Zinc LEB: 7.0% [3.9,12.3] SYR: 2.7% [1.5,4.7]</p> <p>ORS: LEB: 42.7% [32.7,53.4] SYR: 38.1% [31.8,44.8]</p> <p>Zinc: LEB: 10.9% [6.9,16.9] SYR: 8.7% [6.0,12.4]</p>	<p>ORS or Zinc: Improv't for LEB No SS change for SYR (We rechecked 2017 calculations. The differences are not due to calculation differences)</p> <p>ORS: Improv't for LEB Improv't for SYR</p> <p>Zinc: No SS change</p>
Health care seeking for children with ARI	% of children under 5 with fast or difficult breathing for whom advice or treatment was sought from an appropriate health facility or provider	55.6% [47.8, 63.2]	59.7% [52.0, 67.0] ⁵	LEB: 74.7% [68.6,79.9] SYR: 62.5% [57.7,67.1]	<p>Improvement of the 2018 vs. 2016 aggregate</p> <p>Both groups achieved a statistically significant higher result than the 2016 aggregated result.</p>

⁵ 2017 note: List of appropriate health facilities: hospital, health centre, clinic, community health workers

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
Did any of your children under the age of 5 experience any of the following in the past two weeks?	Diarrhoea	37.8% [33.8, 41.9] LEB: 35.1% [30.4, 40.1]	29.0% [23.7, 34.9] LEB: 23.3% [17.5, 30.3]	LEB: 16.9% [13.6, 20.8] SYR: 25.1% [22.3, 28.1]	Decrease for both (=improv't)
	Cough	68.5% [62.9, 73.7] LEB: 69.4% [62.3, 75.7]	58.6% [53.4, 63.7] LEB: 52.7% [46.7, 58.7]	LEB: 45.0% [39.1, 51.1] SYR: 51.1% [47.7, 54.4]	Decrease for both (=improv't)
	Difficulty Breathing	41.5% [35.5, 47.9] LEB: 40.9% [34.3, 47.8]	27.4% [22.1, 33.3] LEB: 22.5% [15.8, 31.0]	LEB: 19.0% [15.0, 23.8] SYR: 25.0% [22.4, 27.9]	Decrease for both (=improv't)
	Cough or difficulty breathing	72.2% [66.6, 77.1] LEB: 73.1% [65.7, 79.4]	63.3% [57.7, 68.5] LEB: 56.2% [50.1, 62.2]	LEB: 48.9% [42.3,55.5] SYR: 55.7% [52.2,59.1]	Decrease for both (=improv't)
	Cough and difficulty breathing	37.9% [31.7, 44.6] LEB: 37.3% [30.8, 44.3] SYR: 38.7% [27.7, 51.0]	22.5% [17.6, 28.2] LEB: 19.0% [12.5, 27.7] SYR: 25.1% [18.7, 32.9]	LEB: 15.2% [11.9,19.3] SYR: 20.4% [17.7,23.4]	Decrease for both (=improv't)
	Fever	57.9% [53.0, 62.6] LEB: 53.0% [47.9, 57.9]	46.9% [41.2, 52.7] LEB: 37.1% [31.2, 43.3]	<i>Not monitored in 2018</i>	
	Any sickness	85.1% [81.2, 88.3] LEB: 85.2% [80.7, 88.8]	74.0% [69.4, 78.2] LEB: 67.4% [62.1, 72.2]	<i>Not monitored in 2018</i>	
What was given to treat the child's cough or fast breathing?	Cough drops	LEB: 60.8% [53.1, 67.9]	LEB: 77.7% [68.6, 84.7]	LEB: 70.6% [64.7, 75.8] SYR: 69.5% [64.1, 74.3]	Increase for LEB
	Antihistamines	20.0% [15.1, 26.0] LEB: 27.1% [20.7, 34.6]	6.5% [4.1, 10.2] LEB: 8.4% [4.8, 14.3]	LEB: 23.0% [17.5,29.8] SYR: 15.6% [12.5, 19.2]	No ss change for LEB Decrease for SYR (=improv't)
	Antibiotics ⁶	20.9% [18.0, 23.8]	NR	LEB: 41.5% [34.8,48.5] SYR: 40.7% [34.6,47.0]	

Overall, the proportion of households with a child suffering an ARI or diarrhoea in December 2018 is lower than in 2016 or 2017. This outcome achieves the Sphere standard that the “incidence of major communicable diseases is stable or not increasing against pre-crisis level” (Sphere 2018, Communicable diseases standard 2.1.1: Prevention).

⁶ For the treatment of ‘cough’ and ‘fast breathing’ implying lower respiratory tract infection, Antibiotics is important regimen. Despite the question asking about medicines for the symptom of cough or fast breathing (not necessarily implying LRTI), we present the antibiotics prescription rate too as it is therapeutic while the others are just symptomatic (Namseon)

We observe that, for both Lebanese and Syrians, treatment-seeking behaviours have improved: in 2016, an aggregate baseline of 55.6% of mothers sought medical assistance for a child with ARI. In 2018, this had increased to 74.4% among vulnerable Lebanese mothers (a 34% improvement), and 62.7% of Syrian refugee mothers (a 12% improvement). Thus, we observe that rates of child illness have declined over the last two years, and the proportion of parents taking children suffering an ARI for professional health care has increased.

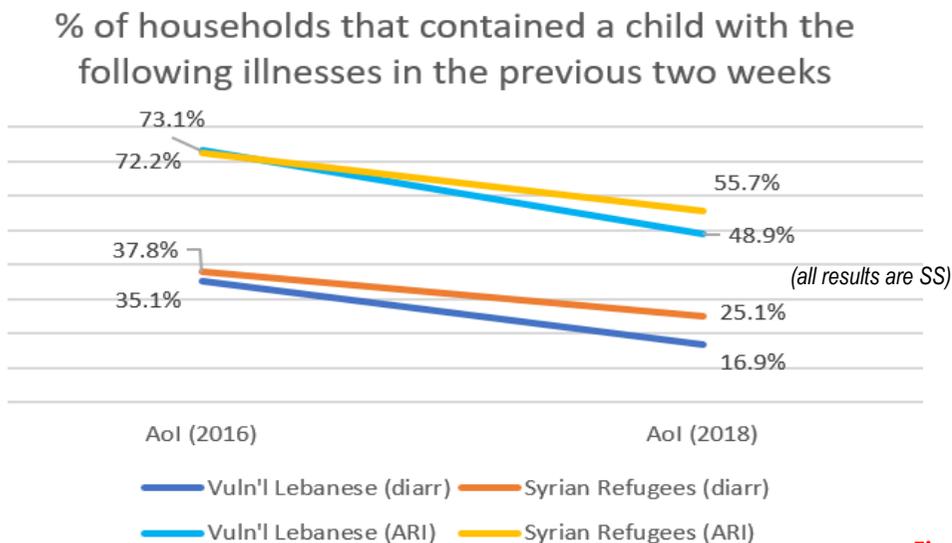


Figure 7

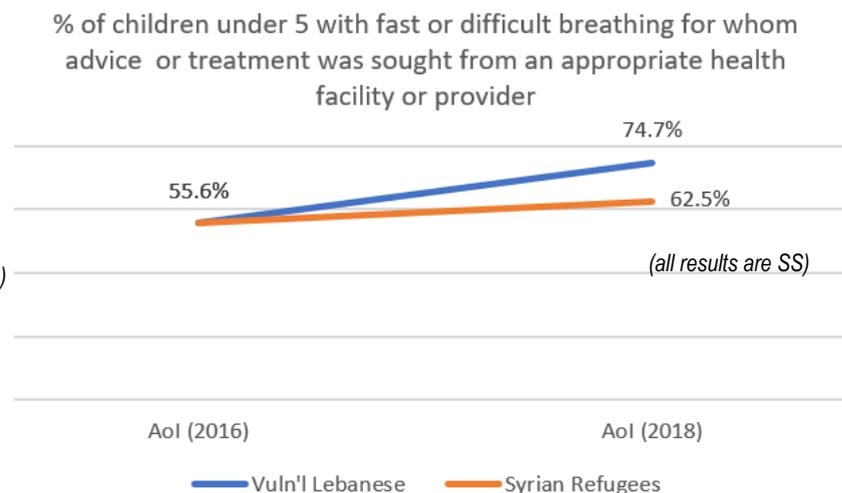


Figure 8

Treatment of children with diarrhoea

Question	Answer	2016 (AoI)	2017 (AoI)	2018 (AoI)	Statistical Difference (2018 vs. 2016)
How long after you noticed the child's diarrhoea, did you give treatment?	Two days	6.5% [3.9, 10.4]	16.4% [11.4, 23.1]	LEB: 7.9% [4.2,14.4] SYR: 12.6% [9.1,17.2]	No ss change for LEB Improv't for SYR
What was given to treat the diarrhoea?	Nothing	LEB: 12.8% [7.4, 21.3]	LEB: 0.5% [0.1, 2.4]	LEB: 10.2% [5.7,17.7] SYR: 16.9% [13.0,21.8]	No ss change for LEB
	ORS	23.9% [18.1, 31.0]	34.8% [26.7, 44.0]	LEB: 42.7% [32.7,53.4] SYR: 38.1% [31.8,44.8]	Improvement of the 2018 vs. 2016 aggregate Both groups achieved a statistically

					significant higher result than the 2016 aggregated result.
	Zinc	8.0% [4.8, 13.1] LEB: 6.1% [3.2, 11.3] SYR: 9.9% [4.8, 19.3]	34.0% [27.1, 41.8] LEB: 30.4% [19.9, 43.4] SYR: 36.0% [27.3, 45.7]	LEB: 10.9% [6.9,16.9] SYR: 8.7% [6.0,12.4]	No SS change
	Injection	4.5% [2.5, 8.2] LEB: 4.2% [1.7, 9.9]	16.9% [10.0, 27.0] LEB: 24.4% [10.6, 46.6]	LEB: 3.6% [1.6, 8.3] SYR: 6.0% [3.8, 9.5]	No ss change for both
	Home remedies	11.2% [7.5, 16.4] SYR: 13.5% [7.8, 22.3]	5.2% [2.7, 9.8] SYR: 3.6% [1.3, 9.7]	Home therapies LEB: 10.0% [5.6, 17.2] SYR: 6.8% [4.1, 11.0] Herbal Remedies LEB: 2.7% [0.9, 8.3] SYR: 2.3% [1.1, 4.7]	
	ORS or Zinc	31.3% [23.6, 40.3] LEB: 22.0% [14.0, 32.8] SYR: 40.9% [29.6, 53.2]	65.0% [54.1, 74.6] LEB: 56.8% [40.1, 72.0] SYR: 69.5% [55.2, 80.8]	ORS or Zinc: LEB: 39.4% [30.9,48.5] SYR: 30.6% [25.1,36.8] ORS and Zinc LEB: 7.0% [3.9,12.3] SYR: 2.7% [1.5,4.7]	Improv't for LEB No SS change for SYR
	Antibiotics			LEB: 63.6% [54.2, 72.1] SYR: 74.7% [68.5, 80.1]	
When your child had diarrhoea, where did you first go for advice or treatment?	Health facility	46.9% [39.0, 55.0] SYR: 38.5% [27.7, 50.5]	64.6% [56.0, 72.3] SYR: 64.9% [54.6, 73.9]	LEB: 31.8% [22.5,42.9] ⁷ SYR: 55.8% [48.7,62.7]	Deterioration for LEB Improv't for SYR
When the child had diarrhoea, did you breastfeed him/her less than usual, the same amount, or more than usual?	Breastfed + More	SYR: 0.4% [0.1, 2.9]	SYR: 10.2% [3.5, 26.6]	Not monitored in 2018	
When the child had diarrhoea, was she/he offered less than usual to drink, about the same amount, or more than usual to drink?	Non breastfed + More	21.0% [15.3, 28.1] SYR: 23.7% [15.5, 34.4]	5.0% [1.7, 13.4] SYR: 2.0% [0.3, 14.1]	Not monitored in 2018	

⁷ 2018 Note: Place of diarrhoea treatment: 'Health facility' has been interpreted as 'dispensary' in 2018

Sphere standard 2.1.3 aspires to ensuring “People have access to effective diagnosis and treatment for infectious diseases that contribute most significantly to morbidity and mortality.” ORS is the most important treatment for protecting the life and health of children with diarrhoea. We see an improvement in the proportion of children being given ORS when sick with diarrhoea. From an aggregate 2016 baseline of ORS being provided to 23.9% of sick with diarrhoea, this increased to 42.7% for children in vulnerable Lebanese households (a 79% improvement), and up to 38.1% for children in Syrian refugee households (a 59% improvement).

The second-most important line of treatment for children with diarrhoea is provision of zinc to edify their immune systems. We observe no statistically significant improvement in the proportion of sick children receiving zinc supplementation (figure 10).

Thus far, in relation to preventable diseases, the KPC study has focussed questions on treatment, as per project indicators. It contains no assessment of respondents’ knowledge about prevention of such illnesses. It may be appropriate, in the future, to incorporate some questions to test mothers’ prevention knowledge (as per Sphere key indicator for Communicable Diseases⁸).

When your child had diarrhoea, where did you first go for advice or treatment? (% who answered 'a health facility')

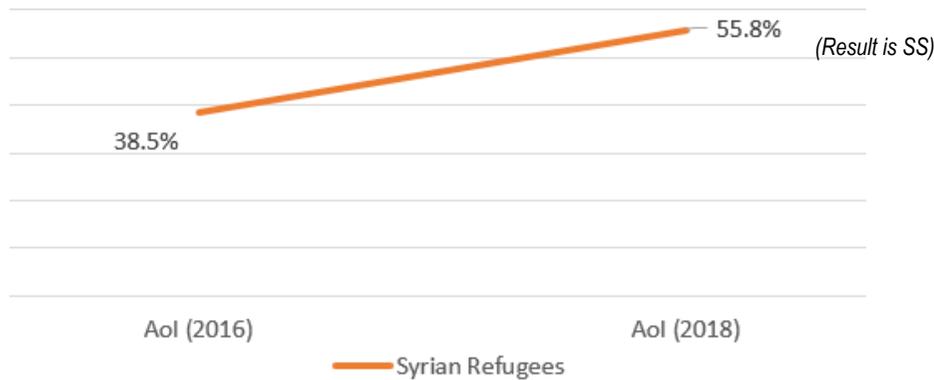


Figure 9

% of children under 5 years with diarrhoea receiving ORS or zinc supplementation

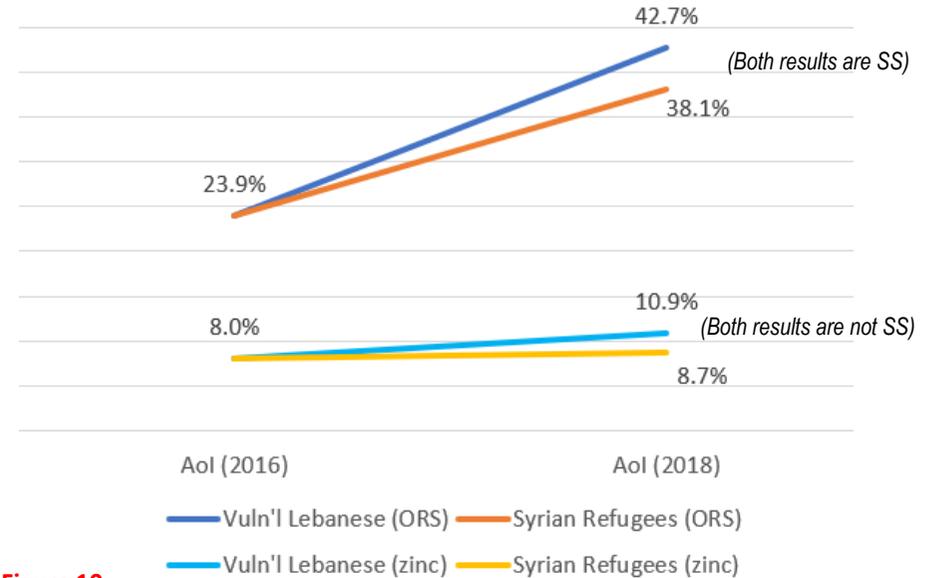


Figure 10

⁸ Sphere key indicators for Communicable diseases standard 2.1.1: Prevention: 'Percentage of affected households who can describe three measures they are taking to prevent communicable diseases'

5.5 Vaccinations

Topic	Summary Indicators	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
Measles vaccination coverage	% of children aged 6 months- 5 years who are vaccinated for measles in clinics coverage area Note: Vaccination activities at the same time.	Including recall: 71.3% [66.0, 76.0] Partial⁹: LEB: 50.9% [43.3, 58.4] SYR: 33.7% [27.5, 40.5] Full: LEB: 39.8% [32.1, 48.1] SYR: 19.8% [15.8, 24.4]	Including recall: ¹⁰ LEB: 79.1% [72.6, 84.5] SYR: 61.2% [55.1, 67.0] Partial: LEB: 51.3% [43.3, 59.2] SYR: 33.2% [25.4, 42.0] Full: LEB: 32.5% [26.3, 39.3] SYR: 11.9% [7.8, 18.2]	Partial: ¹¹ LEB: 31.8% [27.4,36.4] SYR: 23.8% [19.9,28.1] Full (inc MMR1): LEB: 20.9% [16.7,25.7] SYR: 15.4% [12.6,18.6]	SS deterioration in both – see following note: <i>2018 figures use only mothers who presented a vaccination card. To improve accuracy, recall from mothers without a card was excluded from the survey, though recall was included in previous surveys. This might account for generally lower results in 2018.)</i> <i>(2018 Note: Partial covers one measles shot. Full includes MMR1 as well.</i>
Fully immunized children	% of children age 12-23 months who received age appropriate vaccination at time of survey	Children 1-2 years 10.7% [6.8, 16.4] Children 1-5 years LEB: 27.1% [20.9, 34.5] SYR: 11.6% [7.0, 17.2]	Children 1-2 years ¹² 6.8% [4.0, 11.3] Children 1-5 years LEB: 22.1% [16.5, 28.9] SYR: 8.3% [4.6, 14.6]	Children 1-2 years ¹³ LEB: 7.7% [4.9,11.9] SYR: 7.9% [5.4,11.4] Children 1-5 years LEB: 10.0% [7.4,13.3] SYR: 6.5% [4.8,8.9]	No ss change for 1-2 y.o. (which, given the change in calculation approach, may represent an improvement in the true result in the community. See note, We may also speculate on a real improvement for children under 2 when compared with the results of children aged up to 5 years old. Given that most essential vaccines are given before 2 years old, these older children are a

⁹ 2017 Note: Vaccination: The partial indicator includes even one dose of MMR: “The MMR vaccine is very safe and effective. Two doses of MMR vaccine are about 97% effective at preventing measles; one dose is about 93% effective.” (CDC, www.cdc.gov/measles/vaccination.html)

¹⁰ 2017 Note: The survey asks vaccination questions to mothers about their youngest child between 1 and 5 years old

¹¹ 2018 Note: Partial covers one measles shot. Full includes MMR1 as well. Unlike previous years, 2018 figures use only mothers who presented a vaccination card: recall from mothers without a card was excluded from the survey. This might account for generally lower results in 2018.

¹² 2017 Note: This indicator has been changed and more complex in 2017 since it includes data collection of the boosters as well, which was not the case in 2016. A large percentage of children are deemed not fully vaccinated because cards could not be copied (42.5% for Bekaa 2017, 41.8% for Medair’s AOI in 2017 and 42.5% for Medair’s AOI in 2016).

¹³ 2018 Note: ‘Fully immunised’ in 2018 follows exactly the vaccination calendar of the Lebanese Ministry of Public Health.

Topic	Summary Indicators	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
					<p>proxy for coverage in previous years)</p> <p>SS deterioration for 1-5 y.o (which may represent no change, given the change in calculation approach in 2018 – see note)</p> <p>Note: 2018 figures use only mothers who presented a vaccination card. To improve accuracy, recall from mothers without a card was excluded from the survey, though recall was included in previous surveys. This might account for generally lower results in 2018.)</p>

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
Did you ever have a vaccination card for your child?	Yes (asked if no card)	SYR: 41.8% [26.0, 59.5]	SYR: 16.6% [8.3, 30.4]	LEB: 82.8% [79.8, 85.5] SYR: 68.4% [64.8, 71.7]	Improv't for SYR
May I copy the information from the vaccination card?	Penta1 + Received	SYR: 71.4% [61.1, 79.8]	SYR: 87.1% [81.0, 91.5]	LEB: 84.7% [81.1, 87.7] SYR: 75.6% [71.5, 79.2]	No ss improv't
	Penta2 + Received	SYR: 62.0% [47.5, 74.5]	SYR: 81.4% [74.9, 86.5]	LEB: 74.9% [69.7, 79.4] SYR: 64.5% [60.1, 68.6]	No ss improv't
	Penta3 + Received	SYR: 51.8% [39.5, 63.9]	SYR: 71.7% [62.4, 79.5]	LEB: 63.3% [57.3, 68.5] SYR: 49.7% [44.6, 54.8]	No ss improv't

The proportion of mothers who possessed a vaccination card for their child has increased markedly since 2016. Among Syrian refugee mothers, the proportion increased by 64% from 42.8% to 68.4%.

In relation to the proportion of children who have been vaccinated, we cannot draw conclusions about change over time. In 2016 and 2017, the survey relied on a combination of vaccination cards and recall by mothers who did not possess a card. In 2018, the survey only counted the results for those who could produce a card and excluded recall. This appears to have had a considerable effect on the results. Nominally, the results indicate a reduction in coverage. While the 2018 result is a more reliable finding, the time trend that indicates a reduction in coverage is not likely to be a reliable indicator of change over time, due to the change in measurement approach.

The 2018 results (reported in the Medair 2018 KPC Study, Part 1), found that, generally, vaccination rates are low for vulnerable Lebanese and Syrian refugee children. Only around a third of children under five have been immunised against measles or polio or diphtheria, Pertussis and Tetanus (DPT). This is well below the SPHERE aspiration that the humanitarian community ensure 95% vaccination coverage of children (Sphere child health standard 2.2.1).

% of Syrian children who have received PENTA 3 dose?

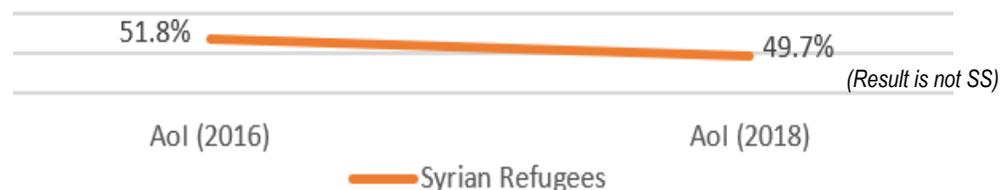


Figure 11

5.6 Reproductive health (including antenatal care, postnatal care and family planning)

Access to Reproductive Health (RH) Services

Topic	Summary Indicators	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
Health care access RH	% of mothers of children under 5 who report accessing RH support services in the 6 months prior to the survey	RH: 50.1% [44.7, 55.5]	RH: ¹⁴ 54.8% [49.8, 59.7]	RH: LEB: 51.4% [47.0,55.7] SYR: 43.6% [38.6,48.7]	RH: No ss change for LEB Deterioration for SYR
FP discussion with health provider	% of mothers of children under 5 who report discussing FP with a trained service provider in the 12 months preceding the survey	28.8% [23.6, 34.6]	23.2% [18.2, 29.0]	LEB: 10.8% [8.3,13.8] SYR: 6.8% [5.4,8.6]	The questions around this indicator were quite different in 2016, 2017 and 2018. This may have influenced the

¹⁴ 2017 Note: The data from the PSS section in 2017 cannot be interpreted due to a constraint error. However, respondents were asked about comfort level with such services: vulnerable Lebanese were 1.6 times more likely to report being comfortable with accessing psychosocial support services (61.5%, n=218) than Syrian refugees (50.2%, n=184); p value=0.047.

Topic	Summary Indicators	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
					responses. Therefore, we cannot be certain whether the difference between 2016 and 2018 is real or a result of respondents' understanding of the different questions asked.
ANC visits	% of mothers of children under two years of age who had 4 comprehensive antenatal visits when they were pregnant with their youngest child	LEB: 74.2% [63.3, 82.8] SYR: 41.9% [32.4, 52.1]	LEB: 67.4% [58.4, 75.3] SYR: 47.6% [40.7, 54.6]	LEB: 76.5% [70.7,81.4] SYR: 55.8 [51.1,60.3]	No change for LEB Improv't for SYR
PNC visits	% 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 after discharge from health facility	LEB: 86.9% [80.4, 91.5] SYR: 63.5% [56.2, 70.3]	LEB: 78.2% [70.8, 84.2] SYR: 62.4% [55.4, 60.0]	LEB: 83.5% [77.8,88.0] SYR: 84.4% [80.0,87.9]	No change for LEB Improv't for SYR
Use of modern FP methods	% of mothers of children 0-23 months who are using a modern contraceptive method.	27.3% [22.3, 32.8]	26.9% [21.8, 32.7]	LEB: 27.3% [21.4,34.1] SYR: 15.8% [12.8,19.3]	No ss change for LEB Deterioration for SYR
Registration of newborn Syrian children	% of children under 5 years officially registered in their country (for Syrians)	NR		22.3% [19.5,25.4]	New measure

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
Women in the targeted communities who correctly identify available RH services:	PNC	SYR: 37.2% [31.3, 43.4]	SYR: 53.7% [44.4, 62.8]	LEB: 69.7% [63.2, 75.5] SYR: 54.0% [50.7, 57.4]	Improv't for SYR
What types of services are available for reproductive health in your community?	ANC	LEB: 87.3% SYR (IS): 75.8%		LEB: 86.6% [80.9,90.7] SYR: 75.0% [67.0,81.6]	No ss change
	FP	LEB: 20.8% SYR (IS): 7.3%		LEB: 17.3% [13.5,21.9] SYR: 9.4% [6.4,13.5]	No ss change
	STI treatment	NR	NR	LEB: 13.4% [9.7,18.3] SYR: 9.6% [6.6,14.0]	
	Do not know	6.4% [4.5, 9.2]	3.4% [2.3, 4.9]	LEB: 6.7% [4.7, 9.4]	No ss change

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
		SYR: 10.4% [7.3, 14.7]	SYR: 3.6% [2.3, 5.8]	SYR: 8.4% [6.7, 10.5]	
Where can you access reproductive health services in your community?	SDC	15.7% [11.2, 21.6] LEB: 6.8% [4.1, 11.1] SYR: 26.4% [19.0, 35.5]	34.9% [28.8, 41.6] LEB: 19.8% [14.9, 25.8] SYR: 46.8% [39.8, 53.9]	LEB: 27.2% [21.9, 33.2] ¹⁵ SYR: 71.2% [66.5, 75.5]	Improv't for both
For any type of reproductive healthcare needs, would you feel comfortable accessing one of these services?	Yes	94.3% [91.0, 96.0] LEB: 94.7% [91.5, 96.7] SYR: 93.9% [89.7, 96.4]	86.5% [82.7, 89.6] LEB: 89.1% [84.2, 92.6] SYR: 84.5% [79.0, 88.9]	LEB: 85.6% [82.9, 88.0] SYR: 80.5% [77.8, 83.0]	Deterioration for both
Where did you access those services? (asked if any RH services sought in past 6months)	SDC	17.6% [11.2, 26.5] LEB: 4.8% [2.2, 10.0]	38.2% [29.8, 47.2] LEB: 19.9% [12.6, 30.1]	LEB: 25.3% [20.4, 31.0] SYR: 72.0% [67.4, 76.2]	Improv't for both
Where did you access those services? (asked to Syrian refugees)	ANC + Leb	SYR: 66.6% [59.0, 73.5]	SYR: 79.7% [75.2, 83.7]	SYR: 83.1% [80.4, 85.4]	Improv't for SYR
	Delivery + Leb	SYR: 68.1% [61.3, 74.2]	SYR: 82.1% [77.6, 85.8]	SYR: 84.9% [82.2, 87.4]	Improv't for SYR
	PNC + Leb	SYR: 57.2% [52.4, 61.8]	SYR: 78.8% [71.9, 84.3]	SYR: 84.7% [82.3, 86.8]	Improv't for SYR

Overall awareness about the availability of reproductive health services has improved. Among Syrian refugee women, those who were aware of PNC services increased from 37.2% in 2016 to 54.0% in 2018: a 45% improvement (see figure 16).

Medair staff report that, in practice according to the midwives and CHVs, women have shown better acceptance regarding the usage of modern FP methods. So it is surprising that we see deterioration among Syrian refugees.

Overall demand for reproductive health services appears to be approximately constant over time. The 2018 survey registered a small statistically significant decline in access for Syrian women. The proportion of women who are aware that RH services are available at SDCs / dispensaries increased threefold: among vulnerable Lebanese women from 6.8% in 2016 to 27.2% in 2018 (see figure 12). Among Syrian refugee women, this awareness increased from 26.4% in 2016 to 71.2% in 2018.

Syrian women are opting more and more to seek RH services in Lebanon than returning to Syria for them. This is evidenced by the higher proportion of Syrian mothers who accessed such services in Lebanon in 2018, instead of Syria. Those who accessed ANC in Lebanon increased by 25%, the proportion who delivered in Lebanon increased by 23%, and the proportion who accessed PNC in Lebanon instead of Syria increased by 48% (See figure 13).

Traditionally, WHO has recommended a minimum of four ANC contacts during pregnancy (WHO, 2017). Access to ANC appears constant for vulnerable Lebanese women, with 76.5% who gave birth attending at least four ANC sessions in 2018, and an improvement for Syrian women attending at least four ANC sessions: from 41.9% of women who gave birth to 55.8%: a 33% increase.

¹⁵ 2018 Note: Place of RH access 'SDC has been interpreted as 'dispensary' in 2018

For postnatal care, WHO recommends that new mothers receive at least four PNC contacts in the first six weeks (WHO, 2015a). The proportion of vulnerable Lebanese mothers who attended any PNC sessions in two weeks after delivery remained constant at 83.5% of new mothers in the 2018 survey, and an improvement in the proportion of Syrian refugee new mothers: increasing from 63.5% in 2016 to 84.4% in 2018: a 33% improvement.

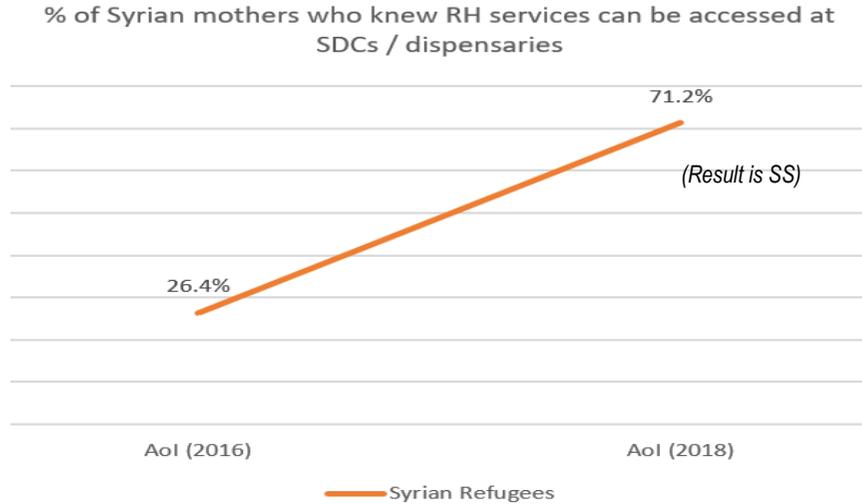


Figure 15

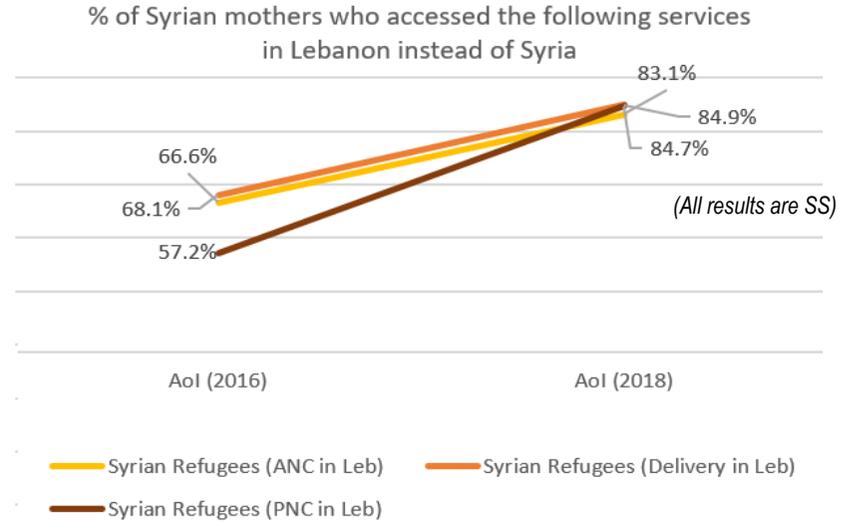


Figure 14

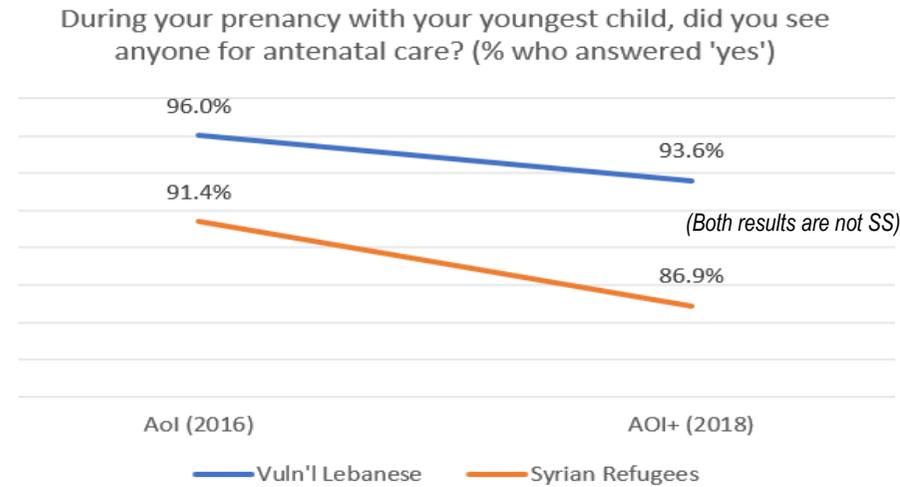


Figure 13

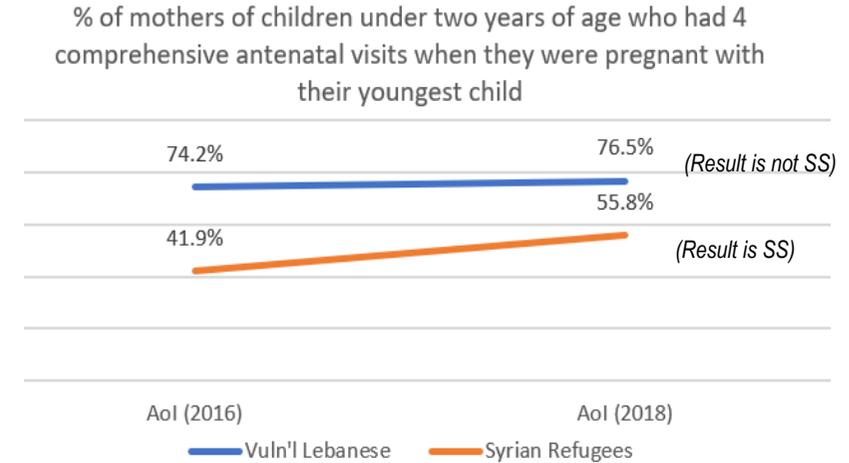


Figure 12

The following sections delve into greater detail into behavioural trends in relation to ANC, delivery and PNC and Family Planning.

ANC visits

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
During your pregnancy with your youngest child, where did you receive antenatal care?	Your residence	3.3% [2.0, 5.5] LEB: 0% SYR: 7.6% [5.0, 11.3]	28.0% [22.4, 34.4] LEB: 25.7% [18.5, 34.0] SYR: 29.9% [21.8, 39.3]	LEB: None reported SYR: None reported <i>Default Option not included in 2018 survey</i>	
	Private clinic	57.3% [50.0, 64.3] LEB: 74.9% [69.7, 79.5] SYR: 34.1% [27.6, 41.2]	36.3% [29.7, 43.4] LEB: 51.7% [43.1, 60.2] SYR: 24.2% [18.1, 31.6]	LEB: 84.9% [81.3, 87.8] SYR: 38.1% [34.0, 42.4]	No ss change for both
	Dispensary	NR	NR	LEB: 17.0% [13.4, 21.3] SYR: 59.2% [54.2, 64.1]	
During your pregnancy with your youngest child, how many months pregnant were you when you received antenatal care?	First ANC +1 st month	SYR: 28.7% [22.2, 36.2]	SYR: 43.4% [38.4, 48.5]	(within month 1) LEB: 58.6% [53.1, 63.9] SYR: 35.2% [31.9, 38.8]	Improv't for SYR <i>(We rechecked 2017 calculations. The differences are not due to calculation differences)</i>
	Last ANC +9 th month	SYR: 86.2% [80.6, 90.3]	SYR: 71.9% [62.6, 79.7]	LEB: 82.5% [77.3, 86.8] SYR: 78.8% [74.7, 82.4]	Deterioration for SYR
During your pregnancy with your youngest child, how many times did you receive ANC?	No ANC	LEB: 3.9% [2.1, 6.9]	LEB: 14.9% [11.0, 19.8]	LEB: 6.4% [4.7, 8.7] SYR: 13.0% [10.8, 15.6]	Increase for SYR (=deterioration)

Delivery

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
What was the reason that you did not deliver in a hospital or clinic?	Transport	2.0% [0.5, 8.2] SYR: 2.2% [0.5, 9.0]	23.7% [11.1, 43.4] SYR: 33.1% [16.8, 54.8]	LEB: 33.3% [4.1, 85.4] SYR: 13.5% [8.2, 21.4]	
	Labour was too quick	NR	NR	LEB: 33.3% [4.1, 85.4] SYR: 30.8% [23.7, 38.9]	
	Too expensive	NR	NR	LEB: 100.0% [100.0, 100.0] SYR: 48.1% [38.6, 57.7]	
Who assisted with the delivery of your youngest child?	Nurse	38.1% [31.4, 45.2] LEB: 52.4% [44.4, 60.2]	21.7% [16.6, 27.9] LEB: 21.8% [14.2, 31.8]	<i>Not a listed option in 2018</i>	
	Doctor	NR	NR	LEB: 98.2% [97.1, 98.9] SYR: 84.0% [80.9, 86.7]	

Postnatal Care (PNC)

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
After giving birth with your youngest child, where did you receive post-partum care?	Your residence	8.4% [5.0, 13.8] LEB: 4.8% [1.9, 11.6] SYR: 15.5% [8.7, 26.1]	59.1% [52.1, 65.8] LEB: 50.5% [41.4, 59.6] SYR: 65.6% [56.0, 74.0]	<i>Not a listed option in 2018</i>	
	Hospital	27.2% [20.8, 34.7] SYR: 34.1% [22.5, 48.0]	13.7% [11.0, 16.9] SYR: 10.8% [8.3, 13.9]	LEB: 29.4% [25.0, 34.1] SYR: 32.4% [28.1, 37.0]	No ss change for both
	Private clinic	53.3% [45.5, 60.9] LEB: 63.2% [55.1, 70.6] SYR: 33.3% [23.5, 44.7]	13.4% [9.8, 17.9] LEB: 21.8% [16.4, 28.5] SYR: 7.0% [4.2, 11.5]	LEB: 64.3% [58.7, 69.6] SYR: 24.3% [20.9, 28.1]	No ss change for LEB Reduction for SYR (The 2017 and 2018 figures are genuinely different. It is possible that the questions were asked differently, e.g. 2017 numbers would be higher if they included the "private hospital" response, a response which was not included in the 2018 survey.)
	dispensary	NR	NR	LEB: 12.6% [9.2, 17.0] SYR: 42.2% [37.3, 47.2]	

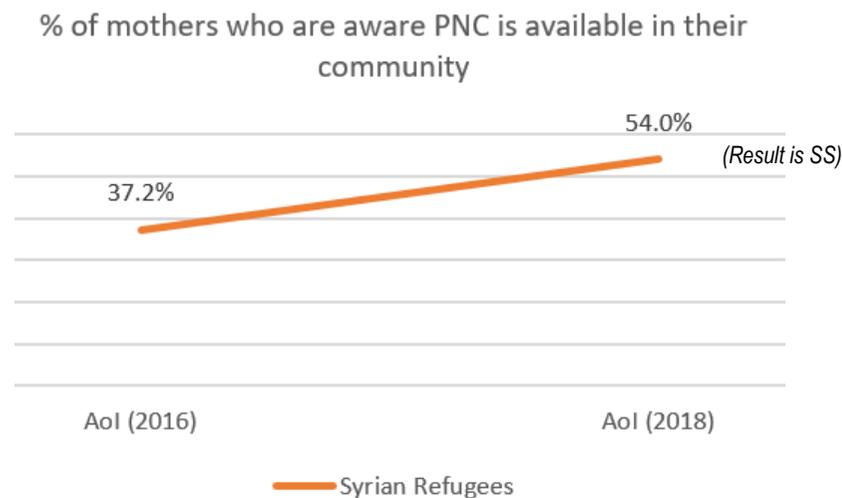


Figure 17

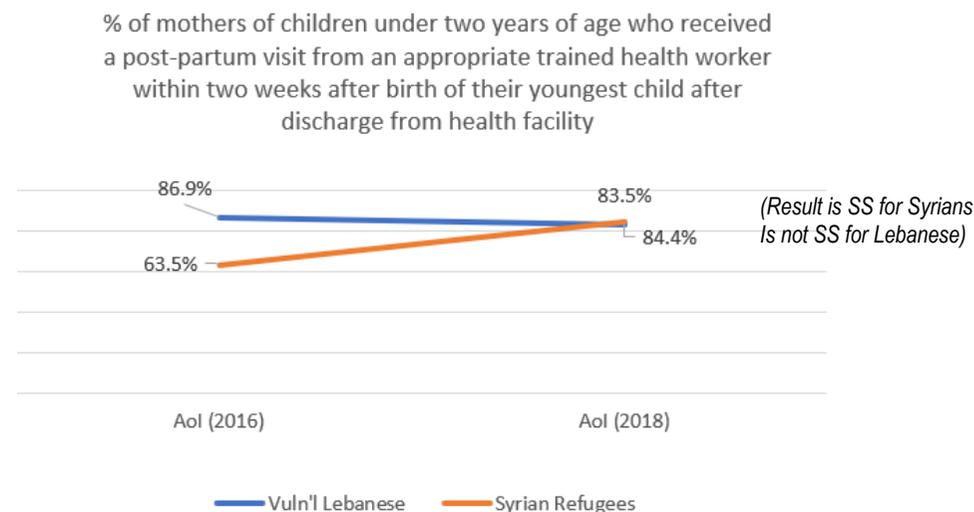


Figure 16

Family Planning (FP) and child spacing

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
What are the risks of getting pregnant too soon after the birth of a child?	Baby born too small	6.2% [4.2, 9.2] LEB: 9.4% [6.5, 13.5] SYR: 2.3% [0.8, 6.1]	21.4% [17.5, 25.9] LEB: 26.3% [20.6, 33.0] SYR: 17.6% [13.0, 23.5]	LEB: 14.3% [10.5, 19.1] SYR: 8.5% [6.7, 10.9]	Improv't for both
	Baby born too early	6.1% [4.1, 9.2] LEB: 8.0% [4.9, 12.8] SYR: 3.8% [2.0, 7.4]	14.4% [11.0, 18.6] LEB: 18.9% [13.3, 26.1] SYR: 11.0% [7.6, 15.7]	LEB: 9.4% [6.8, 12.8] SYR: 4.7% [3.3, 6.5]	No ss change
	Do not know	21.9% [15.5, 29.9] LEB: 16.6% [9.6, 27.1] SYR: 28.5% [18.4, 41.3]	7.5% [5.3, 10.5] LEB: 5.0% [3.0, 8.1] SYR: 9.4% [6.2, 14.1]	LEB: 11.00% [7.7, 15.6] SYR: 22.7% [18.7, 27.3]	Improv't for both

The proportion of mothers of a child under 5 accessing family planning advice was quite low in 2018, at 10.8% of vulnerable Lebanese women, and 6.8% of Syrian refugee women. The survey questions used to measure this indicator changed each year from 2016 to 2017 to 2018. Thus, we are not able to interpret whether the apparent decrease in accessing FP advice is real or a result of respondents' understanding of the different questions used.

Health messages about birth spacing appear to be gradually making their way through both populations. We see in figure 18 that the proportion of women who know of no risks from short birth spacing has reduced by 20% among vulnerable Lebanese mothers and by 34% among Syrian refugee mothers. In figure 19, we see that awareness of some risks are increasing more than others.

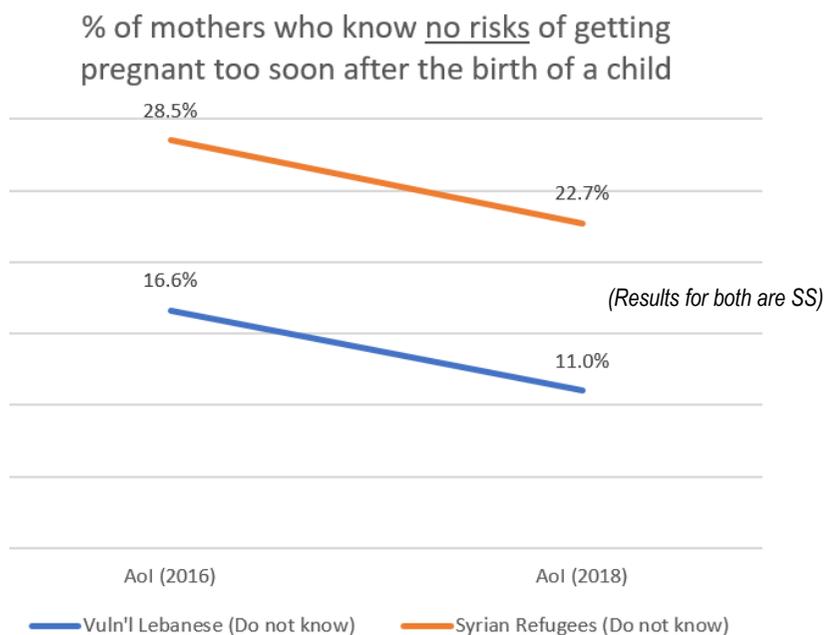


Figure 18

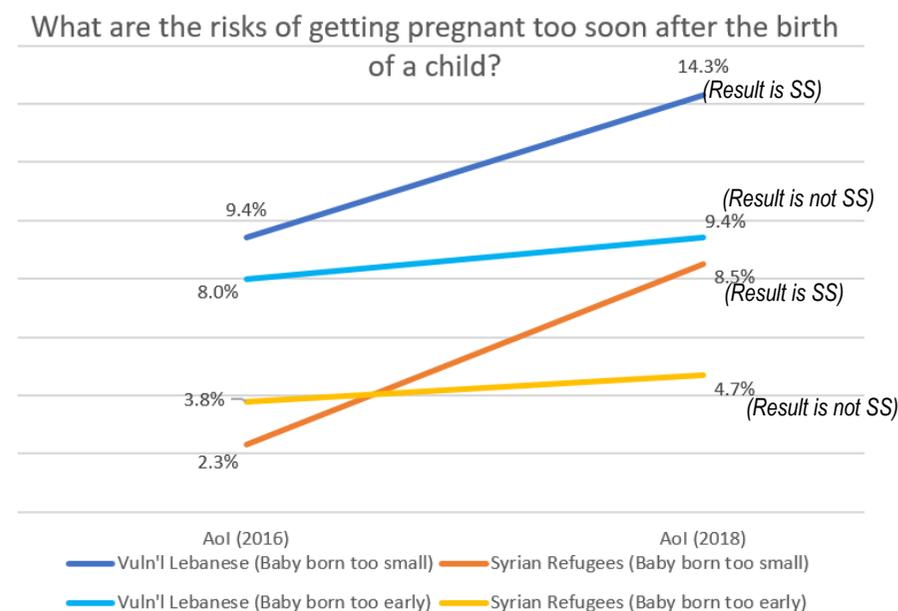


Figure 19

5.7 Breastfeeding practices

Topic	Summary Indicator	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
Exclusive BF	% of infants 0 - 5 months who are exclusively breastfed	LEB: 25% [20.6, 29.4] SYR (IS): 35% [26.6, 43.4]	19.2% [12.2, 28.7] ¹⁶	LEB: 25.4% [17.3,35.7] SYR: 32.9% [27.8,38.5]	No SS change for both

The 2018 result is similar to 2016 findings. The 2017 result was a little lower, possibly due to the 2017 survey using a different set of questions that focussed only on the 24-hour period prior to the survey, which is the measurement approach of the WHO standard health indicator for EBF (WHO, 2015). In 2016 and 2018, the approach asked the mother of children aged 0 to 5 months old, whether anything other than breastmilk was ever fed to the child.

Other data from the 2018 survey confirmed that breastfeeding practices are far from optimal among both vulnerable Lebanese and Syrian refugee mothers: a third of Syrian infants and more than half of Lebanese infants were breastfed for less than six months, and between a third and a fifth of newborns were not given breastmilk in their first hour of life. UN agencies recommend newborns are breastfed within the first hour of life, exclusive breastfeeding for the first 6 months of life and receive continued breastfeeding until at least 1 year (UNICEF 2010).

5.8 Access to psychosocial services

Topic	Summary Indicator	Aol (2016)	Aol (2017)	Aol (2018)	Statistical Difference (b/n 2018 vs. 2016)
Health care access RH and PSS	% of mothers of children under 5 who report accessing PSS support services in the 6 months prior to the survey	PSS: 39.4% [34.5, 44.3]		PSS: LEB: 24.5% [18.4,31.8] SYR: 17.6% [13.7,22.3]	PSS: Deterioration for both

¹⁶ 2017 note: This indicator was reconstructed based on a combination of questions and measured differently from 2016

Question	Answer	2016 (Aol)	2017 (Aol)	2018 (Aol)	Statistical Difference (2018 vs. 2016)
<i>Mothers of a child under 5 in the targeted communities who correctly identify available PSS services:</i>	No services*	64.6% [59.7, 69.3] LEB: 60.7% [55.4, 65.8] SYR: 69.4% [61.0, 76.6]	28.2% [22.6, 34.6] LEB: 28.7% [21.1, 37.7] SYR: 27.8% [20.2, 37.0]	LEB: 33.7% [27.1, 41.1] SYR: 22.7% [18.5, 27.6]	Indeterminate when considering 'no service' and 'don't know' responses are interchangeable.
What types of support services are available in your community for someone who feels very sad, stressed, lonely, under pressure or affected by trauma?	Don't know	NR	NR	LEB: 44.5% [39.9, 49.2] SYR: 57.1% [50.9, 63.0]	
<i>% WGMB in the targeted communities who correctly report where to access PSS services:</i>	Specialized hospital	14.7% [11.2, 19.2] LEB: 22.4% [18.0, 27.7] SYR: 5.4% [2.8, 10.3]	4.7% [2.8, 7.9] LEB: 9.4% [5.6, 15.2] SYR: 1.1% [0.4, 3.2]	LEB: 4.0% [1.1, 12.8] SYR: 0%	Deterioration compared to 2016, but consistent with 2017.
Where can you access this type of support services in your community?	Other clinic*	18.6% [14.2, 24.0] SYR: 12.9% [8.4, 19.4]	9.1% [6.2, 13.1] SYR: 2.8% [1.3, 5.9]	LEB: 24.6% [17.9, 32.8] SYR: 5.4% [3.1, 9.1]	Definition 'other clinic' is vague and may have changed year by year. In 2018 it was interpreted as (other NGO's clinic)
	Dispensary	6.7% [4.9, 8.5]	NR	LEB: 21.4% [15.6, 28.7] SYR: 33.3% [23.7, 44.6]	
If you or someone you care for felt very sad, stressed, lonely, under pressure or affected by trauma, would you feel comfortable accessing one of the support services in your community?	Yes	82.7% [77.8, 86.8] LEB: 84.6% [78.2, 89.4] SYR: 80.4% [72.3, 86.6]	59.2% [51.5, 66.4] LEB: 62.3% [52.9, 70.9] SYR: 56.5% [45.0, 67.4]	LEB: 52.0% [46.3, 57.6] SYR: 48.3% [42.5, 54.1]	Deterioration for both
% of mothers of children under 5 years receiving PSS services who report satisfaction with support provided	Satisfied or very satisfied	LEB: 77% [64.3, 89.7] ¹⁷ SYR (IS): 48% [33.2, 62.8]		LEB: 97.6% [93.0, 99.9] SYR: 95.5% [89.4, 99.9]	Improvement for both

¹⁷ 2016 sample size and CIs not reported for this question. So 2018 sample sizes were used to estimate the 2016 CIs]

Sphere standards aspire to all people in a humanitarian response setting having “access to healthcare that addresses mental health conditions and associated impaired functioning” (Sphere Standards 2.5). The data suggest that, over time, awareness of and access to psychosocial support services has deteriorated. Nominally, the lead indicator above suggests an improvement due to the reduction in those who report there are no PSS services in their area. However, the proportion who report that they don’t know if any such services exists is higher than the % who reported ‘no services’ exist.

As we see in figure 20, the proportion who reported that they would feel comfortable accessing PSS services has also declined since 2016. Among Lebanese, this decreased 39% from 84.6% in 2016 to 52.0% in 2018. Among Syrian refugee women, those who would be comfortable accessing PSS services decreased 40% from 80.4% to 48.3%.

The World Health Organisation IASC Reference Group for Mental Health and Psychosocial Support in Emergency Settings recommends that the foundation of building resilient mental health for displaced populations starts with social considerations in community and family, and basic security. Community health workers, leaders and volunteers from among the affected population can play roles in monitoring and improving such an enabling environment (IASC, 2010).

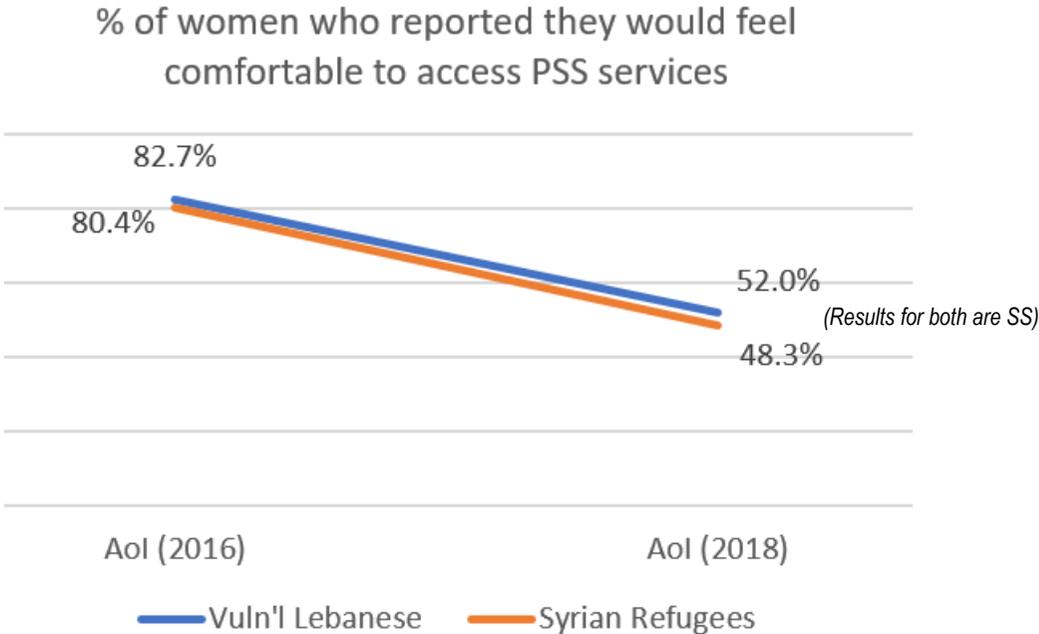


Figure 20

6. Recommendations for further qualitative study

Cost of Health care access.

For vulnerable Lebanese and Syrian refugee women, cost was reportedly one of the most significant barriers to accessing health care. More investigation is required to understand what specific services were considered prohibitively expensive, and solutions developed. The KPC surveys can be mined for further insights into this question, as well as additional qualitative primary research.

Exclusive Breastfeeding.

EBF is the most effective intervention to decrease child morbidity and mortality and provides health advantages that last throughout the newborn's entire life (Gatti, 2008). Among the vulnerable Lebanese and the Syrian refugee population, we have observed low practice of EBF over the first six months of life, and even lower rates of continuation of breastfeeding to 12 months. This report recommends analysis to learn what are the attitudinal and socio-cultural barriers that prevent mothers from successfully exclusively breastfeeding their newborns. To formulate an effective strategy to increase EBF practice, Medair and the wider Syria Crisis response community will need to deeply understand the psychological and social influences on a mothers' ability and willingness to persevere with EBF. Numerous research frameworks and research models are available to research the barriers and potential strategies to overcome them (for example, see Avis, 2016).

The same analytical strategy can also be applied to understanding the consistently sub-optimal **vaccination coverage of young children** in the study areas. Vaccinations are provided free in Lebanon (UNHCR, 2016). Thus, other barriers to access need to be better understood and addressed to increase coverage.

Non-Communicable Diseases

Knowledge of the causes or mitigations of hypertension and diabetes remains low among Syrian refugee women. The 'Part 1' report of this KPC study also revealed that prevalence is also high, especially among vulnerable Lebanese households. The causal behaviours in Lebanon and individual response options are well-known to the health community (Mouhatadi et al., 2018). However, the full range of optimal behaviours may be too broad for individuals to learn and adopt. Therefore, some research is recommended to identify the top one or two causal factors. Medair and partner agencies would then be in a position to design a long-term, multi-stimulus awareness-raising and behaviour change campaign that explicitly targets those one or two causal factors, and the social, economic and structural factors that reinforce those negative behaviours.

Access to medication for NCDs: The 2017 report indicated that access to medicines in the areas of implementation are limited. More specific evidence would support this contention. The 2018 survey data can be mined for more insights, which time did not permit for this report, and additional primary qualitative data gathered too.

Medair is conducting NCD awareness activities in just one of its seven supported SDCs: at Brital. The survey data could be further mined to explore whether results around knowledge and behaviours are different close to this area of implementation compared to the other six.

Diarrhoea Treatment

While treatment of acute respiratory infection with a course of antibiotics is appropriate (Countdown to 2015 and Health Metrics Network), it is not recommended to treat diarrhoeal infections (WHO and UNICEF, 2013). Yet, our study observed that two thirds of Lebanese and three quarters of Syrian refugee children with diarrhoea in the area of intervention report being prescribed antibiotics, while less than seven percent are being treated with the optimal combination of ORS and zinc supplementation. These findings may represent substandard practices of health staff, or a lack of awareness by mothers of what is being prescribed and therefore, misreporting in the survey. This report recommends that Medair investigate the knowledge and practices of health care staff at clinics assisted by them to determine whether the treatment practices reported by mothers in the survey reflects the reality, and, if so, what is the source of the misinformation.

Reproductive Health

WHO recommends that to reduce maternal and infant mortality, all mothers should remain in hospital for at least 24 hours for uncomplicated deliveries (WHO, 2014). This is not occurring for the majority of Syrian refugee mothers and newborns. The 'Part 1' report of this KPC study proposed that cost is the principal factor in new mothers leaving the hospital early. Therefore, joint agency exploration and planning is recommended to identify solutions that would enable vulnerable Syrian and Lebanese mothers to remain in hospital longer after giving birth, without incurring burdensome expenses.

Family Planning

This longitudinal study observes a decrease in the proportion of Syrian refugee mothers using modern contraception. Given the capacity-building being invested into SDCs in relation to family planning and contraception capacity, this result is not intuitive. The 'Part 1' report of this KPC study also revealed that half of all pregnancies to Syrian refugee women and a third of pregnancies to vulnerable Lebanese women were not planned. Research is also recommended to understand and respond to the knowledge, social, economic and gender barriers that restrain mothers' ability and/or willingness to adopt a strategy to increase spacing between pregnancies.

End of report

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