Health Service Access Survey among Non-camp Syrian Refugees in Irbid Governorate, Jordan

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Study proposal

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Study type	Cross-sectional household survey
Study design	Two-stage cluster sampling
Study period	63 months
Study site	Irbid governorate, Jordan
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Collaborating institutions	Ministry of Health Jordan

CONTENTS

LIST OF ABBREVIATIONS

95% CI	95% confidence interval
ANC	Antenatal Care
CMR	Crude mortality rate
GIS	Geographic Information System
GPS	Geographical Positioning System
MoH	Ministry of Health
MSF	Médecins sans Frontières
MSF-OCA	Médecins sans Frontières – Operational Centre Amsterdam
MSF-OCBa	Médecins sans Frontières – Operational Centre Barcelona
MSF-OCP	Médecins sans Frontières – Operational Centre Paris
NCD	Non-communicable disease
PPS	Probability proportional to size (sampling)
U5MR	Under 5 mortality rate
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

1. INTRODUCTION

1.1. CONTEXT

The Syrian refugee crises

Since the beginning of the Syrian war in March 2011, more than 630,000 refugees have entered the neighbouring Jordan. As of November 2015, UNHCR registered 630,776 Syrian refugees in Jordan, the majority of which reside outside of refugee camps, and live in the Jordanian communities [1].

Of all regions in Jordan, Irbid governorate hosts the second largest number of non-camp refugees in Jordan (139,751, 22.2%) following Amman governorate, which hosts the majority of 169,234 (26.8%) of Syrian refugees living outside a camp [1].

From the early days on, Jordan has been supporting arriving refugees and camps were made available for the most vulnerable. However, as of mid 2012 however, the Jordanian government started to stepwise limit the entry into the country and implemented stricter rules on already entered Syrian refugees. Currently, it is not allowed for refugees to work inside Jordan; further, individuals living in one of the camps are not allowed to resettle within the communities without a Jordanian sponsor.

Figure 1: Map of Jordan. Study region Irbid governorate

1 UNHCR (2015). Syria Regional Refugee Response. http://data.unhcr.org/syrianrefugees/country.php?id=107# (accessed 15.11.2015)

Health care service for non-camp Syrian refugees in Jordan

Legal restrictions of the refugees also affect health services: Health services for all refugees were free-of-charge in Ministry of Health (MoH) facilities since the beginning of the crisis. However, following a change in law in November 2014 the non-camp refugees have now to pay for these services. While UNHCR and partners aim to support health care service for non-camp refugees too, the capacity and coverage are not meeting the needs, especially in current times of significant funding shortages [2],[3].
This situation is likely going to exacerbate the already tight financial situation for the large number of non-camp refugees and impact health services utilization of the population.

Main causes of morbidity and mortality
As for many middle-income countries, non-communicable diseases (NCDs), such as heart and lung diseases, cancer or diabetes, are the main causes of morbidity in the region [(4)]. For both, Syria and Jordan, the age-standardized mortality from NCDs in 2012 was equally high, i.e. 572.7 and 640.3 deaths per 100.000 population respectively and thus more than 10-fold higher than the mortality rates from communicable diseases [(4)] (Tab.1).

Table 1: Age-standardized mortality rates for Syria and Jordan. 2000 & 2012 [(4)]

		Age-standardized mortality rate by cause (per 100 000 population)			
		All Causes	Communicable & other Group I	Non-communicable diseases	Injuries
Jordan	2012	746.3	52.5	640.3	53.5
	2000	849.1	71.5	715.1	62.5
Syrian Arab Republic	2012	921.7	41.0	572.7	308.0
	2000	765.6	64.5	663.1	38.0

Despite the lack of comparable data, there is some evidence that the situation among the non-camp refugees of Syria is similar: a recent household survey revealed for example a high morbidity due to non-communicable diseases among the Syrian refugee population living in Jordan it was estimated that about 43% of all households (95%CI 40.5 to 46.4%) had at least one adult member with a chronic condition, including diabetes, hypertension, cardiovascular diseases, chronic respiratory diseases and/or arthritis [(5)].

2 UNHCR: 3RP Regional Progress Report. June 2015. http://www.unhcr.org/558aa6566.html (accessed 19.01.16)

3 UNCHR press release, June 2015. http://www.unhcr.org/558acbbc6.html (accessed 19.01.16)

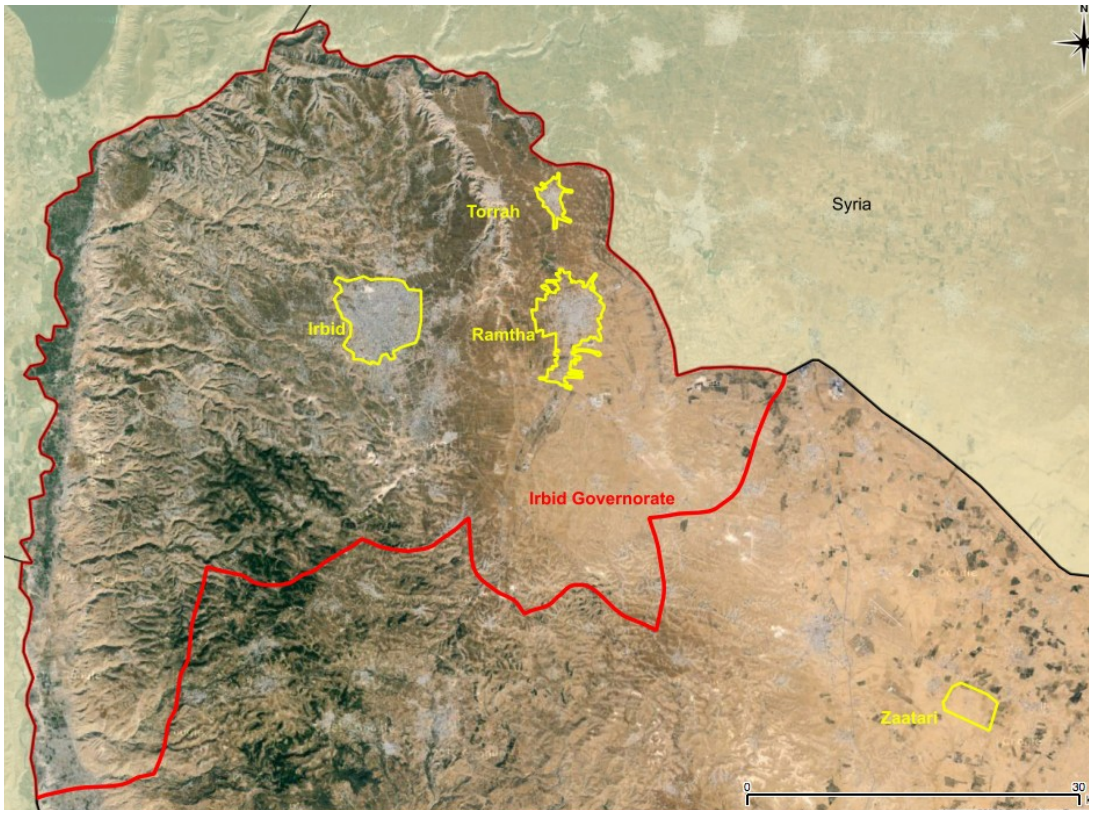
4 WHO: Global Health Observatory Data Repository, http://apps.who.int/gho/data/node.main.12?lang=en

5 Syrian Refugee Health Access Survey in

MSF Activities in Irbid

To address the health care needs of the non-camp Syrian population, MSF-OCA established two clinics in Irbid City for NCD diagnosis, treatment and care. The first clinic initiated patient recruitment in December 2014 and the second in April 2015. At the end of 2015, the two clinics had a cohort of 2914 patients, who were actively receiving medical care for an NCD. Furthermore, MSF-OCBa is starting an NCD project in Torrah in the Northeast of Irbid governorate (Fig. 2).

Figure 2: Map of Irbid governorate and MSF project locations.
Irbid: NCD project (OCA) and maternal/neonatal health project (OCP); Torrah: NCD project (OCBa); Ramtha: Surgical war wounded project (OCA); Zaatari: post-surgery care (OCA)



Jordan. UNHCR/Johns Hopkins/Jordanian UST/WHO, December 2014

1.2. BACKGROUND & JUSTIFICATION FOR THE STUDY

Surveys were conducted in the past studying access to health services for non-camp Syrian refuges in Jordan [5,6]. In June 2014, UNHCR and partners conducted a comprehensive access survey including general as well as specialized health care. Among others, the main reported barriers to accessing specialized care were provider costs as well as lack of knowledge where to go [5].
However, six months after the introduction of the cancellation of the free-health-care law, a survey conducted amongst Syrian refugees reported an increased proportion of Syrians not being able to access medicines or care for chronic conditions compared to 2014 when services were still free of charge [6]. This information suggests that access to care has been reduced following the change of law, even though the aforementioned survey used a small sample size limiting the ability to conduct sub-analyses of this result.

Existing evidence suggest that health care needs for Syrian refugees are numerous, and exceeding capacities of current actors, including MSF [5,6]. And although NCDs are the main causes of mortality and morbidity, barriers to health care are expected to be present across a wide range of services, including general health care, health care for children as well as antenatal care. To fully understand the access to the most crucial health services of Syrian refugees in Irbid, this large and comprehensive household survey is planned.

One of the main aims of the survey is to ~~develop~~ inform an advocacy strategy, which will be used to lobby~~ing~~ with other stakeholders to remove expected barriers to care, for example, by improving availability, accessibility, affordability and/or acceptability of existing services. It is thus crucial for MSF to undertake our own, independent study of the health-care-access situation for Syrian refugees.

6 Health access and utilization survey among non-camp refugees in Jordan. UNHCR, May 2015

2. OBJECTIVES

2.1. PRIMARY OBJECTIVES

- To determine the level of access to health care services for Syrian refugees living out-of-camp in Irbid governorate, Jordan.

2.2. SECONDARY OBJECTIVES

- To describe the socio-demographic characteristics of the surveyed population including age, gender, disabilities, time living in Jordan, living conditions, and legal status
- To describe the economic situation of the surveyed households with regards to income & income sources, dependency on humanitarian assistance, household expenditures and direct and indirect expenditures on health
- To characterize health care utilization of non-camp Syrian refugees including frequency & type of services used as well as the main reasons for requiring medical care
- To estimate coverage with the most crucial health services such as vaccination coverage of ~~1-year-old~~ under 5-year-old children, coverage with services for non-communicable diseases and maternal health coverage.
- To estimate the coverage of MSF services including specifically NCD care as well as ~~mother~~ ANC and child health care
- To estimate health service needs by estimating the household- prevalence of NCDs as well as the birth rate.
- To identify barriers to accessing general-, as well as specialized health care services with regards to economic constraints, barriers resulting from knowledge gaps as well as limitations in accessibility and/or acceptability of existing services.
- To identify risk factors for not accessing general and specialized health services as needed.
- To estimate retrospectively the crude mortality rate (CMR) and specific mortality rates for the total population and for children under five years of age (U5MR).

3. STUDY TYPE & DESIGN

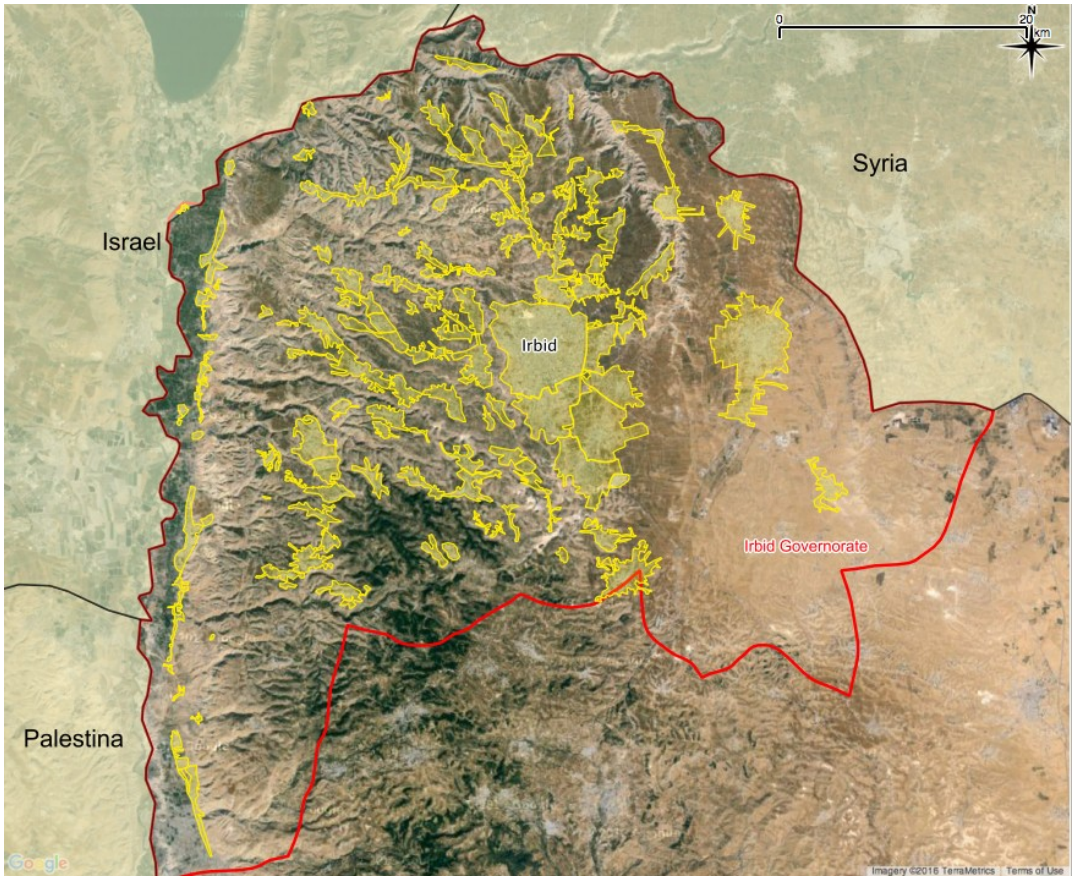
Cross-sectional household survey using a two-stage cluster sampling design

4. STUDY AREA

The study will be conducted in Irbid governorate, which includes the entire catchment area of the MSF-OCA NCD project in Irbid City as well as the MSF-OCBa NCD project in Torrah. Selected northern neighbourhoods of Irbid City will be excluded due to security constraints.

Most of the study area is not inhabited and mountainous terrain (Fig. 3). The majority of Syrian refugees (approx. 60%) live in urban and peri-urban areas of Irbid and Ramtha, while approx. 40% live in the rural areas (Fig. 3).

Figure 3: Map of inhabited areas in Irbid governorate.
Inhabited areas = yellow



5. STUDY POPULATION

The study population will consist of Syrian refugees living in Irbid governorate.

As of December 2nd, 2015, a total of 139,638 Syrian refugees were registered to live in approx. 22000 households outside the refugee camps in Irbid governorate. The refugee population figures were made available by UNHCR and will be used for sampling (see 7.2 for more details).

5.1. INCLUSION AND EXCLUSION CRITERIA

The target population for this survey is defined as Syrian refugees living in households in Irbid governorate in Jordan.
The household head will be prioritized for the interview, especially for the socio-demographics and economics questions (refer to section 8. for more details on questionnaire contents). Questions related to child health and ANC will be preferably asked to the women/ mother/care-taker directly. Similarly, questions related to NCDs will be preferably asked to the affected person directly. If these persons are not available, the household head or other suitable household member will be asked instead.
Only one household member will be selected randomly if more than one person qualifies.

General and specific inclusion and exclusion criteria are as follows:

General criteria
A person will be included in the study if s/he satisfies all of the following criteria:

- Living in the selected household (see chapter 6.1. for the definition of a household)

and

- Informed consent has been given by the head of the household (see chapter 6.1. for the definition of the head of household and chapter 10.1. for details on the informed consent form)

and

- Arriving in Jordan in or after January 2012

and

- Arriving in Jordan at least 6 months prior to the interview

A person will be excluded from the study if s/he satisfies one of the following criteria:

- Refusal to participate in the study

Additional specific criteria for the different survey topics

- General adult health: ≥ 18 years of age
- NCD adult: ≥ 18 years of age and living with one or more of the following conditions: hypertension, cardiovascular condition, diabetes, chronic respiratory disease, thyroid disease, musculoskeletal condition, neurological condition, cancer
- Child health: under 5 years of age~~age between 12-23 months~~
- ANC: female and aged 15-49 years old and had a live birth in the past 12 months in Jordan

6. DEFINITIONS

6.1. HOUSEHOLD DEFINITIONS

Definition(s) of household
A household will be defined as a person or a group of people, who live together in the same unit and who are under the responsibility of the head of household. The whole household will be included, no matter the age of the household member or the relation with the other members. The household definition includes all individuals who have been living in the household at any time during the recall period, including those who arrived or departed within the recall period.

Definition of head of household
The head of household is defined as follows:

- Adult household member, ≥ 18 years *and*
- Can give accurate information on all demographic and health issues in his/her household (can describe with reasonable accuracy the events that occurred during the recall period), *and*
- Has lived in the household the entire recall period, *and*
- Is present at the time of the survey

Definition of permanent member of the household
A permanent member of the household is defined as a person who lived regularly in the household, under the responsibility of the head of the household.

6.2 RECALL PERIODS

The recall period for is approximately 6 months; it is the same for both, health access survey questions as well as mortality questions. To reduce the recall bias, an event from the local events calendar will be chosen that occurred about 6 months prior to the interview. The event will be identified once the starting date of the survey has been determined.
The recall period for all ANC related questions covers the time of the last pregnancy with birth in Jordan.

7. SAMPLE SIZE AND SAMPLING

7.1. SAMPLE SIZE

Sample sizes for the health access survey questions were calculated using OpenEpi [7] and STATA 13 (StataCorp, College Station, TX, USA). Sample size for the mortality survey was calculated with the help of ENA for SMART 2011 software [8].

Results from the two most recent UNHCR household surveys [9,10] were used for reference values, both of which had similar design and objectives. The key criteria for sample size calculation are listed in Table 2.

Table 2: Criteria for the calculation of the sample size

Criteria	
Confidence interval	95%
Design effect	2.0
Non-response rate	10%
Mean household size	6.5
% of households with children <5 years of age	65%~~52%~~
Household NCD prevalence	40%
NCD patients who needed medical care in the last 6 months	80%
NCD patients who did not access care although they needed it	45%
Recall period	180 days
Mortality (per 10,000/day)	0.2

An estimated number of 2616 households need to be interviewed, which will be sampled in 327 clusters of 8 households. This sample size was calculated to estimate reasons for not accessing NCD care with a reasonable precision: Based on previous surveys, it was assumed that the main barriers to accessing NCD care were affordability 60%, accessibility 20% and knowledge 10%. This surevy will be able to determine similar estimate values with a precision of (60% +/- 7.4%), (20% +/-6.0%) and (10% +/-4.5%) respectively (Table 2).

With the exception of "Barriers to ANC", the sample size of 2616 households will be sufficient to estimate values for the other key indicators with the precision listed in Table 3.

Table 3: Estimates and expected precision for key indicators of the study

7 http://www.openepi.com/Menu/OE_Menu.htm

8 http://www.nutrisurvey.de/ena2011/main.htm

9 Health access and utilization survey among non-camp refugees in Jordan. UNHCR, May 2015

10 Syrian Refugee Health Access Survey in Jordan. UNHCR/Johns Hopkins/Jordanian UST/WHO, December 2014

Indicator	Assumed value estimates and precision
Reasons for not accessing NCD health care (barriers)	Reason1, e.g. affordability: 60% +/- 7.4% Reason2, e.g. accessibility: 20% +/-6.0% Reason3, e.g. knowledge: 10% +/-4.5%
Reasons for not accessing overall /general health care (barriers)	Reason1: 60% +/- 8.4%, Reason2: 20% +/-6.7%, Reason3: 10% +/-5.2%
Percentage of diabetic adult patients who have been seen at least once in the last 6 months	80% +/-7.2%, 65% +/-8.6%, or 50% +/- 9.0%
Antenatal care coverage - at least one visit (%)	85% +/-4.8%
Measles immunization coverage among 1-year-olds (%)	60% +/-6.2%
Reasons for not accessing ANC (barriers)	Reason1: 60% +/- 17.2%, Reason2: 20% +/-14% Reason3: 10% +/-10.5%
CMR	0.2 +/- 0.08 per 10.000/day

7.2. SAMPLING

A two-stage cluster sampling methodology will be chosen as an adaptation of the standardized method recommended by the WHO [(11)]; a 327 cluster x 8 household design was selected.

In the first stage, 327 clusters will be selected from all villages, towns and city districts situated in the study area. Clusters will be selected using ~~systematic~~ sampling with probability of allocation proportional to the respective refugee population size of each village (probability proportional to size or PPS). Utilized population data of UNHCR-registered Syrian refugees living in the various villages and towns was provided by UNHCR. It is assumed that the geographical distribution of registered and unregistered refugees does not differ, thus these data were used for sampling in this survey, which aims to include also unregistered refugees.

The GIS based sampling method will be used to select one survey starting point per cluster in the villages, each of which leading to 8 interviewed households. Using the Quantum GIS software (QGIS) and the Google satellite imagery of Irbid governorate, the geographical boundaries of the previously selected villages or city district will be generated. Official

11 Henderson RH, Sundaresan T. Cluster sampling to assess immunisation coverage: A review of experience with simplified sampling methodology. Bulletin of the World Health Organization 1982(60):253-60

municipal boundaries for GIS software use (shapefiles) do not exist for lower levels than governorates of Jordan.
Within the drawn boundaries, QGIS will generate random coordinates, which will be used as starting points for the survey. The first Syrian household that will be interviewed is the one closest to the random GPS point. Another 7 households are subsequently identified by referral by the first interviewed household (snowball sampling). The reason for using snowball sampling is that a community within a community has to be identified, which is expected to be a time consuming process in certain areas for the survey. To reduce the logistical- and human resources requirements and financial requirements, snowball sampling will be used.
The number of starting points per cluster will be proportional to population size and were generated in the first stage of the sampling protocol. GPS coordinates of the starting points will be exported to Android-based mobile devices, which will be used by interview teams for GPS-tracking and survey data collection.

If all households of a selected village are included in the study before completing the required number of households, the cluster will be continued by selecting the (geographically) closest village. The chosen sampling methodology will again be used in the closest village to select the first household in the village.

If for unforeseen reasons a selected village cannot be visited, it will be replaced by selecting the (geographically) closest village. The chosen methodology will again be used in the closest village to select the first household in the village.
The most likely reason that could prevent a visit to certain villages is a lack of security due to family- and/or political/religious motivated clashes. The security will be reviewed before selecting the survey starting points and each morning prior to dispensing the interview teams to the clusters. The project coordinator of the MSF project in irbid is responsible for the security review and ultimately gives clearance for the survey areas.

8. DATA COLLECTION

In the households selected according to the above methodology, the purpose of the survey will be explained to the head of the household in the language he or she is familiar with. Written consent will be obtained to conduct the interviews and recorded prior to the interview. If they decline to participate this will be accepted, written down and the next household approached; the number of household refusals should be noted and a household participation ratio included in the study report.
If household members are absent at the day of the survey, the interview team will commence and identify an alternative Syrian household nearest to the empty household using methodologies to identify the first household of a cluster.

The household interviews will be based on a questionnaire that consists of the following sections:

- Socio-demographics: Age, gender, disability and legal status of all household members. Educational level of the household head. Time living in Jordan and living conditions of the household.

- Economic situation of the household: income and income sources, dependency on humanitarian assistance, household expenditures and direct and indirect expenditures on health
- General health for adults: utilization, type of services used, and main reasons for requiring medical care. Access to general health care and reasons for not accessing care. Knowledge & utilization of MSF services in the region.
- Specialized health care service for adults:
    - NCDs: NCD prevalence among surveyed household adults, health service utilization, type of services used, medication prescription and interruption of supply. Access to NCD health care and reasons for not accessing care.
    - Maternal health among surveyed household women: ANC utilization, type of facilities used, access to ANC and reasons for not accessing it.
- Health for children: utilization, type of services used, main reasons for requiring medical care, vaccination coverage.
- Mortality: death of any household member in the last 6 months and reason of death.

Refer to Appendix 1 for key indicators of this survey, and to Appendix 2 for the Questionnaire.

9. DATA ENTRY AND ANALYSIS

Data will be entered using a mobile data collection system based on the free, open-source toolbox ODK (Open Data Kit) (http://opendatakit.org).
The toolbox will be used to develop the survey questionnaire, to allow interview teams collecting and entering data during the survey using a tablet. Each tablet will contain the data of one interview day (i.e. max. 8 interviews). At the end of every interview day, all teams will return to the MSF office, where the ODK app will automatically transfer the data to the MSF ODK server in India once the table connects to the secured MSF WifFi. The server stores all survey data, is regularly backed-up. Access to the server is password protected and limited to the study principle investigator. ~~Finally~~From the server, data aggregates will be exported for analysis using the same ODK toolbox. Data analysis will be conducted using STATA 12 (StataCorp, College Station, TX, USA).

All data will be anonymised (neither names nor exact location of the household ~~are not~~ will be collected) and electronic files stored password-protected by MSF. Only study investigators will have access to these data files. Data cleaning will be done to check for inconsistencies in data entry and responses.

No name-related data will be collected during the survey; therefore no participants will be identifiable after the survey has been completed. No GPS-data will be collected that allows the location of the household, however, the GPS coordinates of the centre of the cluster will be recorded households will be linked to the respective starting point, which will be GPS-tagged (see sampling strategy for more details). Noteworthy, an identification of single households will not be possible.

All indicators will be calculated as proportions with 95% confidence intervals (95%CI). Estimates of actual design (cluster) effect will also be calculated for each variable and those with effects greater than 1 will be reported. Where appropriate, differences in proportions will be measured using Pearson $\chi 2$ test and p-value (p) will be presented.

Risk factors for not accessing general and specialized health care of Syrian refugees will be identified using a logistic regression model. Primary outcome will be "not accessing care as needed", which is defined as "not seeking" or "not receiving care". Statistical significance will be determined using Likelihood Ratio test.

The mortality rate will be calculated as No. of deaths per 10000 per day.

The person-time will be counted individually for every household member using the beginning of the recall period or the date of birth or the arrival time in the household as individual starting point. The person-time count will end either with the day of the interview or the day of departure from the household or the day of death of the household member. The sum of individual person-days will be used as denominator.

Ninety-five percent confidence intervals will be calculated and adjusted for the design effect.

10. ETHICAL ISSUES

The study will be conducted in accordance with the World Medical Assembly (WMA) Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects[12].

The study protocol will be submitted to the Ethics Review Board of MSF. It will also be presented to the ethics committee of the MoH of Jordan for approval.

Authorities and communities in the study area will be informed about the purpose of the study, an information sheet will be provided and their endorsement will be sought. The objectives and methodology of the survey will be shared with the MoH as well as local municipalities. Importantly, directorates of the Ministry of ~~Social Development~~Health as well as community associations are present in the majority of villages in Irbid governorate and will be contacted with support from the Irbid governor, informed and asked to support the publicity around the survey.

MSF-OCA commits to sharing study results with everybody who has participated in the study. The local ministry and other stakeholders will be informed about the findings in a detailed report.

The MSF medical responsible in the field will advise the study team on the referral practices when finding sick people in the study villages as well as procedure regarding psychosocial issues or victims of violence. Psychological first aid training for the interviewers will be part of their training package.

12 [http://www.wma.net/en/30publications/10policies/b3/] (accessed January 04, 2016)]

10.1. WRITTEN CONSENT FORM

Written consent will be sought from all heads of households participating in the study, which will be recorded prior to the interview. The household head will provide written consent for overall household members and each selected individual interviewed for subsequent questionnaire sections will be asked for verbal consent, which will be recorded in the data collection tool. For children, the consent of the guardian will be obtained.

All data will remain anonymous throughout the data entry and analysis process. Identifiable data will not be collected. All subjects included in the surveys will have the survey procedures explained to them in a language with which they are familiar. Everyone will be offered the opportunity to refuse participation in the study at any time without penalty and no incentives or inducements will be provided to any respondents. Everyone is completely free to participate or not.

In case the study participant is illiterate, verbal consent will be obtained and recorded on the consent form. The interviewer will witness the verbal consent by signature of the named interviewer on the consent form.

10.2. RISKS AND BENEFITS OF THE STUDY AND CONTINGENCY PLANS

This survey does not cause any physical harm to participants. Nevertheless, asking the heads of households for details of health of household members may be relatively intrusive. Using local staff and careful training on interview-techniques will be provided to all interview teams to limit this.

The survey could create tensions with the government of Jordan if the survey results are perceived as critical of government policies. This will be addressed by sharing and discussing objectives and outcome indicators of the study with the respective authorities prior to starting the survey. Furthermore, communication and results will be handled with utmost transparency and preliminary results of the survey will be shared and discussed with authorities before being published by MSF.

The identification of barriers to accessing health care will be used for advocacy by lobbying with other organizations to ensure that the mandated agencies and donors take their responsibilities in removing those barriers. It is anticipated that additional and extended engagement will lead to improved health care provision for current non-camp Syrian refugees in Irbid.

11. COLLABORATION

MSF-OCA is the study sponsor and is responsible for the funding. It is in charge of the field part of the study, the analysis and report writing. Permission for publication must be obtained from MSF-OCA.

This study will be conducted in collaboration with the Ministry of Health in Jordan, who will also be a co-investigator and will be reviewing the scientific article and give final approval of the version to be published.

Study results will belong to MSF-OCA.

12. IMPLEMENTATION OF THE STUDY IN THE FIELD

12.1. SELECTION AND TASKS OF THE STUDY TEAMS

The task of the interviewers will be to collect the necessary data for the study.
Each study team is composed of two interviewers, one male and one female interviewer. To finalise the field part in a reasonable time we need 20 study teams of two people each (see also chapter 12.5.). 2616 households can be surveyed in approx.17 days if one team completes one cluster of 8 households per day.

General selection criteria for all interviewers:

- Able to read and write in English *and*
- Fluent in the local language Arabic, *and*
- Available for the ENTIRE time of the study (training and interview days), *and*
- Motivated to participate in the study, *and*
- Not biased in expectations of the outcome of the study
- Any nationality

- Experience with interviews in difficult settings and study populations would be an advantage

12.2. SUPERVISION

The principal investigator is the overall responsible for the final version of the protocol, overall quality of the survey and data analysis, and the final report

The principal investigator will ensure that the following tasks are performed:

- Preparation of all necessary documents and data tools (protocol, questionnaires, informed consent forms) for the study
- Preparation of the field component of the study (training of the study teams, logistics) together with the MSF team in the field
- Follow-up of the field component of the study
- Data analysis
- Report writing

During the actual data collection, at least two additional supervisors will be selected from local experienced MSF staff who will visit the teams at least once per day without prior

notice. He/she will ensure that interviews will be actually conducted, data entry is good and interviewer behavior is appropriate.

12.3. SUGGESTED MSF SUPPORT IN THE FIELD

- Human resources support will be needed, such as hiring study team/interviewers and a translator for the principal investigator
- Logistic support will be needed for study preparation at the field level, such as organizing sufficient cars, drivers and prepare movement scheduled for the interview teams, providing communication tools and MSF ID (e. g. aprons, vests or arm bands) to the study teams.

12.4. TRAINING OF THE STUDY TEAM AND PRE-TESTING OF THE QUESTIONNAIRES

Three days training will be given to all interviewers to familiarise them with the background of the study, the questionnaires, the information sheet and the informed consent form. Interviewers will be extensively trained on respectful behaviour, how to adequately approach households and explaining the purpose of their visit. Furthermore, interviewers will be trained on referral practices when finding sick people in the study villages as well as procedures and first-aid regarding psychosocial issues or victims of violence. The training will be given in English (with Arabic translation if required) by the principal investigator. It consists of an intensive review of the questionnaires and the information sheet and practicing using ~~including~~ role-plays. As the interviews will be held in the national language, the principal investigator should ensure that all interviewers are using the same and correct wording for providing information to the households and for the interviews.
The 3~~2~~-days training will be finished with a pilot study in a place, which is outside of the study area. The pilot study allows for the testing and possible final adaptation of the questionnaires and informed consent to field conditions.

12.5. TIMEFRAME

Activities listed will be conducted in parallel.
Since the principal investigator is based in Irbid, thus preparation can and will be spread over a longer time frame.

- Preparation of mobile data collection: development of survey questionnaire for tablets, testing system including data entry and extraction for analysis, installing all devices and checking their correct function (4 weeks)
- Human resources: Recruitment of interviewers (3 weeks)
- Preparation: Organize cars, plan vehicle movements, organize material for the survey, finalize training material (2~~1~~ weeks)
- Training: 3~~2~~ days training including the pilot study (split of large group in 2, hence training will be taking place over 6~~4~~ days)
- Interview days (17 working days = 3.5 weeks)

- Analysis & report writing (4-6 weeks)

13. LOGISTIC

13.1. SUPPLIES NEEDED

Supplies for the conduct of the study will be purchased at the project level.
See table 4 for a list of required supplies.

Table 4 Supplies needed for the field part

Item	No. needed per team	No. needed for 20 teams
Back pack/shoulder bag	1	20
Pen & paper	1	20
Aprons, vests, arm bands or similar with MSF ID / logo	2	40
Tablet for data collection	1	21

13.2. TRANSPORT NEEDED

More than 50% of the clusters are located in densely populated urban areas, where the survey teams can be dropped in the morning and collected in the evening whereas activities during the day do not require a car.

For teams working in rural areas, one car is needed per team. The survey will be thus organized in a way that at least half of the 20 teams are collecting data from urban environment to reduce the needs for available cars. It is anticipated that 10 cars are needed for 17 days. A contingency transport plan will be made, e.g. including on-demand arrangements with a local transport/taxi company to rent a car/driver for a few hours if needed.

Appendix

Separate files *Health service access survey*
→ **Key indicators:** *Health service access survey, MSF-OCA Irbid, Jordan, 2016*
→ **Questionnaire:** *Health service access survey, MSF-OCA Irbid, Jordan, 2016*