



# A cross-sectional survey of sociodemographic characteristics, primary care health needs and living conditions of asylum-seekers living in a Greek reception centre

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## Abstract

**Background** In 2019, a migrant camp on the Greek island of Samos designed for 650 people was home to a growing population of over 5500. We aimed to quantitatively describe living conditions and health needs in the camp.

**Methods** A questionnaire was designed with reference to international humanitarian standards, following a consultative process with the asylum-seeker population. Domains assessed included demographics, living conditions, safety/vulnerability, and health. The questionnaire was piloted and then conducted in June 2019 on a sample of asylum seekers.

**Results** Five hundred participants, predominantly from Afghanistan and the Democratic Republic of Congo (DRC). Of these, 79.4% lived in tents. Respondents cared for a total of 570 children; 20.6% of women were pregnant, 35.4% had experienced violence, 83% psychological distress, 71% skin disease, 66% diarrhoea and vomiting, and 64% respiratory disease. Accommodation, sanitation, and nutrition fell below internationally recognised standards, and poor access to water was significantly associated ( $p < 0.001$ ) with respiratory disease, diarrhoea and vomiting, skin disease, and psychological distress.

**Conclusions** Living conditions in the Samos camp fall below basic humanitarian standards and are associated with poor health status. Further research is imperative to analyse and monitor the diverse, varying needs of asylum-seekers and inform policies to improve conditions.

**Keywords** Greece · Health · Living conditions · Migration · Reception centre · Gender-based violence · Nutrition · Asylum-seekers

## Introduction

One percent of the world's population is displaced, the majority in exile for over 4 years according to United Nations High

Commissioner for Refugees (UNHCR) data (Devictor and Do 2017). There are currently over 30,000 asylum-seekers living in camps on Greek islands, fleeing conflict in Africa and the Middle East. High levels of migration alongside restricted movement from the islands into mainland Europe have led to massively overcrowded camps.

These camps are intended as short-term holding centres while asylum-seekers' applications are processed. However, UNHCR reports that due to the lengthy asylum procedures and a backlog of over 90,000 cases many asylum-seekers are left in limbo for years awaiting asylum, resettlement, or deportation. Rates of acute and chronic health issues, sexual and gender-based violence (SGBV), and nutritional deficiencies are high in the camps and are compounded by inadequate healthcare services. The poor living conditions, physical illness and injuries, lack of social support, and uncertainty about the future all contribute to the development of significant emotional distress and poor mental health in asylum-seeker

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populations (Arsenijević et al. 2018; Bjertrup et al. 2018; Episkopou et al. 2019; Hémono et al. 2018; Kakalou et al. 2018; Kotsiou et al. 2018; Stathopoulou et al. 2019).

Samos is the third largest of five Greek island ‘hotspots’ for asylum-seekers in the Aegean Sea. These islands are common targets for asylum-seekers attempting to reach the European Union (EU) due to their physical proximity to Turkey. Samos is located 2 kilometres from the Turkish coastline, and hosts an estimated 6700 asylum-seekers despite an official capacity of only 650, according to UNHCR data. Many of these people reside outside the official camp in informal settlements on the surrounding hillside, living in makeshift shelters and tents provided by non-governmental organisations (NGOs) (Arsenijević et al. 2018; Kotsiou et al. 2018).

Routine camp monitoring data are collected by organisations such as the United Nations High Commissioner for Refugees (UNHCR) and Médecins Sans Frontières (MSF) through visits by independent observers only. Overall living conditions and experiences of asylum-seekers in Greece are poorly understood, except through a few qualitative studies (Bjertrup et al. 2018; Episkopou et al. 2019). In this paper, we describe health issues and needs based on asylum-seekers’ lived experiences, benchmarked with international standards from UNHCR [needs assessment for refugee emergencies (NARE Handbook)] and the Sphere Association Handbook. The Sphere Handbook (1997) is a widely used set of minimum acceptable standards in humanitarian action.

## Methods

### Study design

In June 2019, three local medical and psychosocial wellbeing NGOs conducted a cross-sectional, quantitative survey exploring health needs of asylum-seekers as impacted by living conditions in the camp. The survey was a health needs assessment (HNA), outlined by the National Institute for Clinical Excellence England (NICE) as “a systematic method for reviewing the health issues facing a population, leading to agreed priorities and resource allocation that will improve health and reduce inequalities”. The survey was carried out to inform NGO policy in Samos.

The questionnaire was designed following consultation with members of the asylum-seeker population through focus groups in each of the main languages spoken in the camp (French, Arabic, Farsi, and English). This was done to ensure inclusion of the population’s perspectives and priority topics. Questionnaire topics used parameters from the Sphere Handbook — an internationally recognised set of minimum humanitarian standards (The Sphere Handbook 2018). Questions fell into four categories: (i) demographics, (ii) living conditions (including food and sanitation), (iii) safety and

vulnerability, and (iv) health. Most were closed questions with binary (“yes” or “no”) responses. Questions were compiled with members of the asylum-seeker population to ensure that phrasing of questions was accurate, uniform, and culturally acceptable in each of the four major languages, as per the NARE handbook recommendations.

The asylum-seekers involved in questionnaire design advised that outright explanation of SGBV (including rape, domestic violence, female genital mutilation, forced marriage, abduction, and sexual coercion) or specific questioning may have been offensive to participants, so the question was worded broadly as, ‘have you been a victim of sexual violence while on Samos?’. Likewise, there was concern that asking directly about involvement in violence might be construed as suggesting fault, and therefore two questions were included, one asking about ‘witnessing’ violence, and another regarding being a victim of violence.

The questionnaire was piloted in each language to determine acceptability and comprehension. The final questionnaire design was then reviewed and validated by the field researchers and supervisors.

A sample size of 500 participants was selected, representing approximately 11% of the estimated asylum-seeker population on Samos at the time. The benefits of a larger sample size were considered to be outweighed by the necessity to complete the survey in a short timeframe, in order to provide an accurate cross-section reflecting camp demographics in July 2019, not distorted by new arrivals and departures.

Participants were recruited by convenience sampling, i.e., all attendees at the three NGO services were invited to complete the pre-tested and validated questionnaire until the quota of 500 was reached. Probability-based sampling methods were not possible due to logistical constraints. Response rate varied by question due to the necessary freedom for participants to leave questions blank, but was over 80% for all questions analysed. A small number of participants declined to participate due to privacy concerns; however, whilst low, the refusal rate was not recorded.

Questionnaires were distributed alongside routine daily activities at the NGOs to all attendees over 18 years of age. All participants provided prior informed verbal consent to data usage by third parties for research and advocacy. In line with best practice, and protecting the respondent right to anonymity as defined by the American Anthropological Association guidelines, written consent in signature form was not obtained. Volunteers at the centres assisted with obtaining consent and distributing questionnaires to participants after being trained in standard good practice outlined by UN policy. Volunteers explained (i) the study purpose, (ii) that involvement would not affect participants’ asylum cases or access to healthcare or other services, and (iii) that participants could leave questions blank if they did not wish to respond. Most

participants completed the questionnaire themselves, while a few with limited literacy were assisted by an interpreter (volunteer, friend, or family member). These individuals were predominantly females.

On completion, questionnaires were index numbered, and results entered into an electronic database stored on a password-protected computer. Completed paper questionnaires were stored locked in an NGO office. Permission was granted by the NGOs to undertake statistical analysis on the anonymous existing dataset in order to disseminate findings to a wider audience. Ethical approval to analyse and publish findings as a secondary resource was obtained from the University of Sheffield Research Ethics Committee.

## Data analysis

Data are presented in descriptive statistics and frequency tables, with further analysis comparing relative frequencies between different groups using chi squared tests and risk ratios. Statistical significance was set at  $p < 0.05$ . Statistical analysis was completed using R software (version 3.6.2; The R Foundation for Statistical Computing, Vienna, Austria).

## Results

### Demographics

Three hundred and three participants were male, and 175 were female. Participants were mostly young adults, with only 28 participants over 50 years of age (Table 1). Most participants were from Afghanistan and the Democratic Republic of Congo (DRC) (Fig. 1). Similar numbers of men and women were recruited across age groups, and from all countries except DRC, where the male: female ratio was greater than 2:1 (68 men: 33 women).

Two hundred and thirty-eight participants were living alone on Samos, and 227 were living with their families. Respondents reported caring for a total of 570 children, including 384 children under 10 years old. Ninety-one families had more than three children. Thirty-six female participants reported being pregnant (Table 2).

### Living conditions

In total, 269 participants lived in the camp and 271 lived in informal settlements outside the camp (Table 3); 49.8% of male participants lived in informal settlements, compared to 28.6% female participants ( $p < 0.01$ ). Seven pregnant women lived in the informal settlements, as did 66 participants with families (Table 4).

Three hundred and ninety-seven participants lived in tents, while 83 lived in containers shared with up to 50 others. Of the

**Table 1** Demographic data

	Number	Percentage of total ( $n=500$ ) (%)
Sex		
Male	303	60.6
Female	175	35.0
Unreported	22	4.4
Age		
18–21	102	20.4
22–30	194	38.8
31–49	153	30.6
50+	28	5.6
Unreported	23	4.6
Country of origin		
Afghanistan	172	34.4
DRC	104	20.8
Iraq	33	6.6
Syria	31	6.2
Kuwait	29	5.8
Other	120	24.0
Unreported	11	2.2

participants living with their families, 169 lived in tents and 52 in containers. Of the 36 pregnant participants, 24 lived in tents (Table 4).

Participants reported living in the camp for up to 39 months, with a median of 5 months. Only 136 participants had asylum interviews scheduled in 2019 (enabling them to move from Samos or be deported to Turkey).

### Food and nutrition

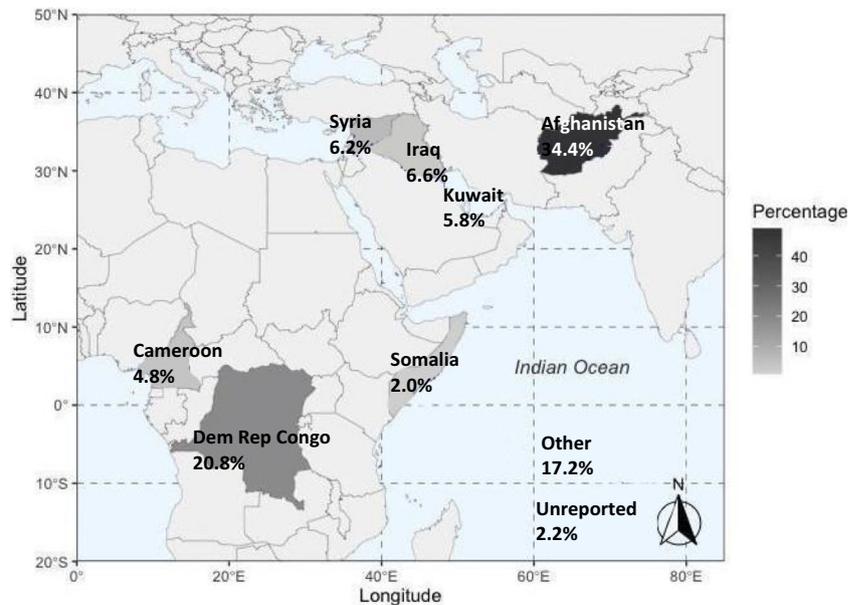
Four hundred and eight participants, including 24 pregnant women, reported waiting  $> 1$  h in the food queue for every meal; 237 of the participants did not eat the food provided in the camp, instead purchasing food in local shops. The proportion of those waiting  $> 1$  h in informal settlements was significantly higher than that in the camp ( $p < 0.05$ ) (Table 5).

One hundred and twenty-two participants ate only one meal per day. Among 227 participants with families, 78 ate less than three meals per day, with 29 eating one. Likewise, of 36 pregnant women, 14 ate less than three meals, and six had just one. Among 238 living alone, 88 ate one meal per day. These were mostly young males.

### Water, hygiene, and sanitation

Three hundred and sixteen participants lacked access to the 15 litres of clean water daily required by the SPHERE

**Fig. 1** Map illustrating population by country of origin



standards for drinking and domestic hygiene. The vast majority had witnessed others defecating in the open in their area, and felt unsafe using the toilet at night. Both of these factors were significantly higher ( $p < 0.001$ ) in the informal settlements (98.3% witnessing open defecation, 86.7% feeling unsafe), compared to the camp (72.2% open defecation, 70.1% feeling unsafe) (Table 6). Across both camp and informal settlements, 478 participants witnessed rats, snakes, or other pests in their area, and 445 reported insect infestation in their dwelling (Fig. 2).

### Safety and vulnerability

A total of 177 participants had experienced physical violence while on Samos. Among these, 123 were male, and 49 were female (including 12 of 36 pregnant participants). Just 163 of participants had not witnessed violence, and only 99 felt safe in their accommodation at night (Fig. 2, Table 7). A total of 39 participants were victims of SGBV while on Samos, 28 men and 11 women. Women from the DRC reported the highest incidence of SGBV, with over one in three women having been victims. No women from Afghanistan, Syria, or Iraq

**Table 2** Family units

	Number	Percentage of total ( $n=500$ ) (%)
Family unit		
Single adult	238	47.6
Family	227	45.4
Unreported	35	7.0
Pregnant	36	20.5 (of 175 females)

reported SGBV. Females living alone in the camp had 5.41 (1.42–20.65) relative risk of being victims of SGBV compared with females living with families.

### Health and illness

Four hundred and twelve participants reported psychological distress while on Samos. Three hundred and fifty-three reported skin complaints (such as scabies or burns from open fires or stoves) and 294 had dental issues; 331 reported diarrhoea and vomiting, and 319 reported respiratory symptoms (Fig. 2, Table 8). Those who could not access the 15 l of water had 1.65 (1.28–2.14) relative risk of having a skin disease

**Table 3** Living conditions

	Number	Percentage of total ( $n=500$ ) (%)
Dwelling place		
Camp	269	53.8
Informal settlements	207	41.5
Unreported	24	4.8
Dwelling type		
Container	83	16.6
Tent	397	79.4
Unreported	20	4.0
Asylum interview year		
2019	136	27.2
2020	69	13.8
2021+	144	28.8
Unknown	60	12.0
Unreported	91	18.2

**Table 4** Living areas and accommodation types, according to gender and family status, including pregnancy

	Sex				Family members: number (%)	Pregnant Women: number (%)
	Men: number (%)	Women*: number (%)	No response: number (%)	Total: number (%)		
<b>Living area</b>						
Camp	145 (47.9)	118 (67.4)	6 (27.3)	269 (53.8)	151 (66.5)	26 (72.2)
Informal settlements	151 (49.8)	50 (28.6)	6 (27.3)	207 (41.4)	66 (29.1)	7 (19.4)
No response	7 (2.3)	7 (4.0)	10 (45.4)	24 (4.0)	10 (4.4)	3 (8.3)
Total	303	175	22	500	227	36
<b>Accommodation type</b>						
Tent	257 (84.8)	129 (73.7)	11 (50.0)	397 (79.4)	169 (74.4)	24 (66.7)
Container	37 (12.2)	44 (25.1)	2 (0.1)	83 (16.6)	52 (22.9)	9 (25.0)
No response	9 (3.0)	2 (1.1)	9 (40.9)	20 (4.0)	6 (2.6)	3 (8.3)
Total	303	175	22	500	227	36

\*Including pregnant women

( $p < 0.001$ ), 1.62 (1.26–2.09) relative risk of having a respiratory disease ( $p < 0.001$ ), 1.58 (1.23–2.04) relative risk of having diarrhoea or vomiting ( $p < 0.001$ ) and 1.75 (1.27–2.39) relative risk of having a psychological disorder ( $p < 0.01$ ). Those who ate their own food had 1.48 (1.14–1.93) times the risk of having diarrhoea and vomiting than those who ate camp food ( $p < 0.01$ ).

## Discussion

This study presents a broad range of key indicators illustrating conditions in the Samos reception centre. It offers insight into how these conditions impact on asylum-seeker safety and health. We use novel methodology guided by the priorities of the resident asylum seeker population and recognised international standards. Our findings highlight a significant deficit in provision of basic needs — housing, nutrition, and sanitation — as was identified by representatives from UNHCR and

the European Committee of Social Rights (Brownson et al. 2009).

### Safety in the camp

The dangers on Samos are qualitatively described in UNHCR observational reports detailing asylum-seeker families and unaccompanied minors housed in “squalid” tents and overcrowded barracks. Sanitary facilities reportedly lack lighting or locks, making them “no-go zones” for females at night. This observation was reinforced by the data that was collected surrounding perceived safety and open defecation. We found higher rates of reported physical violence compared with previous studies in Greece, which may imply increasing tensions in the camp, or perhaps reflects the benefits of our confidential approach to data collection and analysis of anonymised responses (Farhat et al. 2018; Kakalou et al. 2018). The finding that single women have 5.41 times the relative risk of being victims of SGBV is new and concerning, considering the apparent lack of prioritisation in housing women in the formal camp where they might find protection from improved lighting and marginally better toilet facilities (Fig. 3).

### Vulnerability to disease

The high incidences of respiratory, diarrhoeal, and dermatological illnesses, and psychological distress significantly associated with inadequate access to clean water, indicate a disease-burden arising from prolonged time living in the overcrowded camp — findings also supported by previous literature (Bjertrup et al. 2018;

**Table 5** Food and nutrition

	Number	Percentage of total ( $n=500$ ) (%)
<b>Food acquisition</b>		
Camp food	236	47.2
Own food	237	47.4
Unreported	27	5.4
<b>Meals eaten per day</b>		
0–1	122	24.4
2	118	23.6
3+	205	41.0
Unreported	55	11.0

**Table 6** Water, hygiene, and sanitation

	Number			Percentage of total (n =500) (%)			Total percentage of respondents to question (%)	
	Yes	No	Unreported	Yes	No	Unreported	Yes	No
	Access to 15 litres clean water	159	316	25	31.8	63.2	5.0	33.5
Witnessed open defecation	361	115	24	72.2	23.0	4.8	75.8	24.2
Pests present in living area	478	8	14	95.6	1.6	2.8	98.4	1.6
Insects present in tent	445	33	22	89.0	6.6	4.4	93.1	6.9

Hémono et al. 2018; Stathopoulou et al. 2019). They also reinforce qualitative and smaller studies on the specific disease-burden in European reception centres (Blitz et al. 2017; Hémono et al. 2018; Kakalou et al. 2018; Kandylis et al. 2019). Asylum-seekers are particularly vulnerable to infectious diseases for many reasons including malnutrition, poor rates of vaccination, overcrowding, and poor hygiene facilities (Kakalou et al. 2018; Stathopoulou et al. 2019). The widespread low dietary intake we found is non-specific but may indicate a lack of food provided by the camp. The high incidence of diarrhoeal disease, significantly greater in those attempting to prepare their own food, may reflect inadequate provision of means to cook or store food hygienically. Greek authorities provide no stoves, or fuel for cooking. The high rates of self-reported respiratory and diarrhoeal disease in our study population suggest a need for more rigorous infectious disease

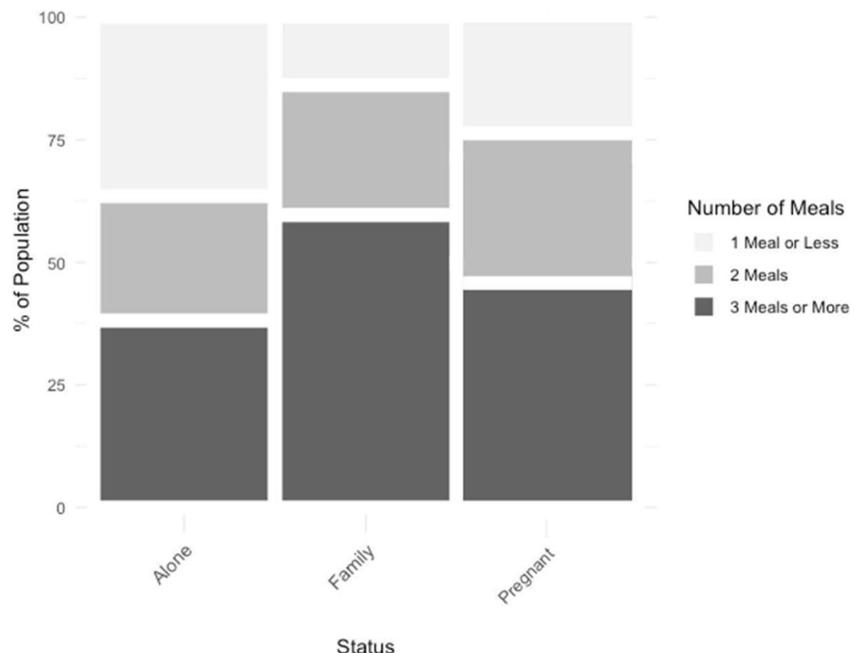
surveillance and management. In the event of an epidemic, it is unlikely there would be sufficient resources to respond quickly and effectively (Rojek et al. 2018).

High rates of gynaecological disease have been described elsewhere, but this topic was excluded from our questionnaire based on advice around culture and acceptability from asylum-seeker team members (Hémono et al. 2018; Kofman 2018; Masterson et al. 2014). We did identify a high rate of pregnancy and consequently a need for adequate perinatal care.

**Sexual and gender-based violence (SGBV)**

Despite the high rates and dire consequences of SGBV in reception centres, there is a paucity of literature on the topic (Olsen and Scharffscher 2004). Over 13.4% declined to answer the question — the second highest non-response rate in the questionnaire. This is likely due to the previously discussed non-specific phrasing of the questions on this topic

**Fig. 2** Table illustrating meal consumption daily by population sub-groups



**Table 7** Safety and vulnerability

	Number			Percentage of total (n=500) (%)			Percentage of respondents to question (%)	
	Yes	No	Unreported	Yes	No	Unreported	Yes	No
	Feel safe in accommodation at night	99	354	47	19.8	70.8	9.4	21.9
Feel safe in toilet at night	102	348	50	20.4	69.6	10.0	22.7	77.3
Witnessed physical violence	284	163	53	56.8	32.6	10.6	63.5	36.5
Victim of physical violence	177	268	55	35.4	53.6	11.0	39.8	60.2
Experienced sexual violence	39	394	67	7.8	78.8	13.4	9.0	91.0

contributing to varied interpretations of ‘sexual violence’ and perhaps under-reporting or non-responses, alongside the inherent cultural sensitivity of the question. This sensitivity is worsened by the often-necessary presence of friends, family, partners, and interpreters during questionnaire completion (particularly among less educated and more vulnerable women).

We did find, however, an unexpectedly high incidence of SGBV against males and against women from DRC. We also found that women living alone were at significantly greater risk of being victims of SGBV when compared with women living with families.

We could not draw firm conclusions about SGBV in the reception centre on Samos, but our data strongly indicates a need for further research to identify and protect vulnerable individuals living in these camps. Data also suggest that further identification and protection of single women as being more vulnerable than those in families is necessary.

**Implications for practice and future research**

This broad study sheds light on areas such as SGBV, malnutrition, specific disease incidence, and the health

of vulnerable asylum seekers, highlighting the need for further research. Our results, among others, call for provision of multidisciplinary healthcare and psychosocial input in the Samos camp, informed by further research (Bjertrup et al. 2018; Blitz et al. 2017; Hémono et al. 2018; Orcutt et al. 2019). When people living in the camp guide this research it provides invaluable, specific insight into their needs. Further, the backlog of asylum applications must be addressed in order to alleviate strain on limited resources in the Samos camp.

**Strengths**

Our novel survey method captures asylum-seeker perspective through the design and nature of the study itself. This both provides a new, in-depth and representative picture of the realities of camp life and empowers those personally affected by it to shape the priorities of research. The self-reported and anonymous nature of the questionnaire allows participants to report honestly on conditions without fear of their asylum application being affected. Finally, we were confident that questions written were culturally specific and sensitive.

**Table 8** Health and Illness

	Number			Percentage of total (n=500) (%)			Percentage of respondents to question	
	Yes	No	Unreported	Yes	No	Unreported	Yes	No
	Psychological distress	412	42	46	82.4	8.4	9.2	90.7
Respiratory illness	319	128	53	63.8	25.6	10.6	71.3	28.7
Dermatological illness	353	95	52	70.6	19.0	10.4	78.8	21.2
Diarrhoea/ Vomit	331	120	49	66.2	24.0	9.8	73.4	26.6
Dental issues	294	153	53	58.8	30.6	10.6	65.8	34.2

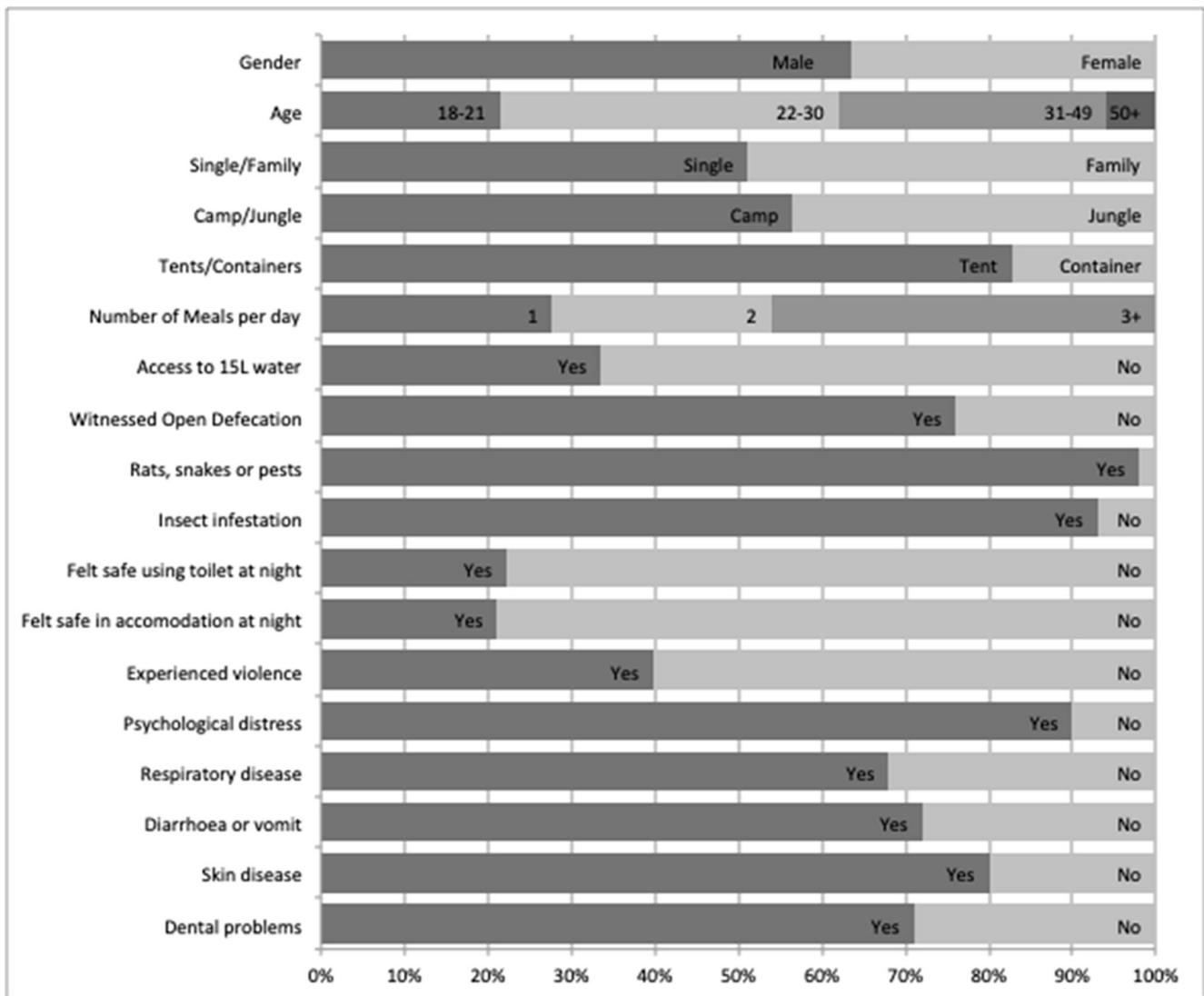


Fig. 3 Summary of living conditions experienced by the total population who answered each question

## Limitations

Self-reported questionnaires are naturally at risk of response bias. We addressed this by thoroughly explaining to participants the purpose of the study, and that their responses would not affect their relationships with NGOs or immigration services. Non-responses were another limitation but do highlight culturally sensitive topics. As discussed, the presence of an interpreter may have affected responses to sensitive questions.

Self-reported incidence of medical conditions is probably less accurate than rates diagnosed by a physician, but may also reveal higher incidence of conditions not routinely screened for by medics, including perhaps psychological distress. Finally, recruitment using convenience sampling from a clinic and wellbeing centre may have introduced sampling error, recruiting only those well enough mentally and physically to

attend, or equally excluding those relatively fit and healthy adults with no need for support from NGOs at that time.

## Conclusions

Living conditions in the Samos camp fall far below basic humanitarian standards, and are associated with overall poor health status in the camp population. More research is essential to analyse and monitor the diverse and varying needs of asylum-seekers in the Greek island hotspots. The confidential nature of our survey designed with representatives of the study group yielded novel and valuable insights, and could be an effective method for future research in asylum-seeker communities. Migration is an urgent global health issue, and new perspectives on camp design and management

## Appendix

We are gathering data about the living conditions in the camp that affect health. To do this we are asking patients to help us by answering the following questions. All information collected will be anonymous, with no names, or personal data involved, but will be shared with MSF and other partner organisations for use in advocacy. You are free to refuse to participate in the whole survey, or not answer some particular questions.

### Background Information:

1. How old are you? (Please circle)

18-21

22-30

31-50

50+

2. What is your gender?

Male

Female

Other

3. Are you here as a single adult or as part of a family? (Please circle)

Alone

Family

4. What is your country of origin? (Please circle)

1. Syria

5. DRC

2. Cameroon

6. Kuwait

3. Iraq

7. Somalia

4. Afghanistan

8. Other

5. Where are you currently staying? (Please circle)

Camp

Jungle

6. What form of accommodation are you in?

Tent

ISO Box

7. How long have you been on Samos? \_\_\_\_\_ months

8. How many people do you share your accommodation with?

\_\_\_\_\_ people

9. How many meals are you eating per day?

\_\_\_\_\_ meals

10. Do you mostly cook for yourself or eat food provided by the camp? (Please circle)

Cook myself

Eat food provided

11. Are you able to get daily food provided by the camp within 1 hour? (Please circle)

Yes

No

12. Are you able to access at least 15L clean water per day? (Please circle)

Yes

No

13. Have you witnessed people in your area urinating or defecating in the open in your area? (Please circle)

Yes

No

14. Have you witnessed rats, snakes, cockroaches or other pests in your area? (Please circle)

Yes No

15. Have you experienced fleas, bed bugs, scabies or other insects infestations in your dwelling place? (Please circle)

Yes No

16. What year is your asylum interview in? (Please circle)

2019. 2020 2021 2022 No date.

**Safety & Vulnerability:**

17. Are you pregnant? (Please circle)

Yes No

18. How many children are with you? (Please circle)

\_\_\_\_\_ children

19. How many children are under 10 years old?

\_\_\_\_\_ children

20. Have you witnessed physical violence in the camp or jungle? (Please circle)

Yes No

21. Have you been a victim of physical violence in the camp or jungle? (Please circle)

Yes No

22. Have you been a victim of sexual or gender based violence in the camp or jungle? (Please circle)

Yes No

23. Do you feel safe using toilet facilities at night? (Please circle)

Yes No

24. Do you feel safe in your current accommodation at night? (Please circle)

Yes No

**Health:**

25. Have you suffered with skin disease on Samos? (Please circle)

Yes No

26. Have you suffered with diarrhoea or vomiting on Samos? (Please circle)

Yes No

27. Have you suffered with a respiratory illness on Samos? (Please circle)

Yes No

28. Have you suffered from psychological distress on Samos? (Please circle)

Yes No

29. Have you suffered with dental problems on Samos? (Please circle)

Yes No

*Thank you for your responses and help. Please hand the form back to reception.*

should be considered to sustainably accommodate both asylum-seeker and host population needs.

**Abbreviations** DRC, Democratic Republic of Congo; EU, European Union; MSF, Médecins Sans Frontières; NARE Handbook, Needs assessment for refugees emergencies Handbook; NGO, Non-governmental organisation; NICE, National Institute for Clinical Excellence; SGBV, Sexual and gender-based violence; UNHCR, United Nations High Commissioner for Refugees

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**Availability of data and materials** The data are available on reasonable request from the corresponding author.

## Declarations

**Ethics approval, consent to participate** All participants provided informed consent for their participation in the quality improvement study undertaken by the NGOs on Samos. This included consent for the use of third parties for research and advocacy. Ethical approval for the analysis and publication of this data was obtained from the University of Sheffield (reference number 032544).

**Consent for publication** The data were provided by the NGOs as applicable — all data were anonymous.

**Competing interests** None

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