# Satisfaction with mobile health clinic services in support of Universal Health Coverage and Oman's Vision 2040 health agenda

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#### **Abstract**

**Background:** Mobile health clinics play a vital role in achieving Universal Health Coverage, particularly in disaster-prone areas. However, little is known about patients' satisfaction with their use in Oman.

Aim: To investigate satisfaction with mobile health clinic services during health emergencies in Oman.

**Methods:** This cross-sectional survey collected data from 180 individuals aged  $\geq$  16 years in Balad Seet and Yasab on the use of mobile health clinics during natural disasters between July 2022 and April 2024 in Oman. We used the patient satisfaction questionnaire short form to evaluate patients' satisfaction with services across 7 domains and used  $\chi^2$  test to analyse the association between categorical variables and satisfaction.

**Results:** Almost all (90.6%) the study participants said they were satisfied with the mobile health clinic services. There were significant associations between sociodemographic characteristics and participant satisfaction levels between Balad Seet and Yasab. Participants from Balad Seet reported consistently higher satisfaction levels than those from Yasab, across all domains.

**Conclusion:** This study highlights the potential of mobile health clinics for providing services in remote areas and during health emergencies in Oman and the potential contribution to achieving Universal Health Coverage and Oman's Vision 2040 health agenda.

Keywords: mobile clinic, health emergency, disaster, patient satisfaction, Oman

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#### Introduction

Mobile health clinics (MHCs) play an important role in achieving Universal Health Coverage (UHC) in Oman, especially during emergencies and disasters (1-3). MHCs can reach remote areas or communities affected by disasters, providing essential medical care to those who may otherwise have difficulty accessing services. During emergencies, MHCs can be rapidly deployed to disaster zones, offering immediate medical attention to injured and sick individuals. MHCs can be equipped to provide a variety of services, including vaccination, chronic disease management, reproductive health care and mental health support. By providing health care services directly to people, MHCs can help bridge access gaps towards achieving the UHC goals in Oman. Widespread use of MHCs can help meet one of the health objectives of Oman Vision 2040, which aims to create a decentralized healthcare system that operates with quality, transparency, fairness and accountability (4).

A United Nations Office for Disaster Risk Reduction report estimates that the world could face 1.5 disasters per day by 2030, highlighting the importance of governments adopting a think resilience approach (5). MHCs can be a key tool for the health sector to deliver services in affected

and remote areas, and to significantly reduce mortality and morbidity rates during emergencies and disasters (6).

Oman has often encountered natural disasters, especially floods, which pose a major challenge to the realization of UHC. Natural disasters often lead to whole communities being cut off from public health access, thus worsening the health care crisis (7). The World Risk Report 2023 highlights the vulnerability of Oman to natural disasters (8). Oman ranks 71st among 193 countries globally, with a World Risk Index of 7.53, indicating a high probability of experiencing natural disasters. Oman is the 14th most-at-risk Arab country, as indicated in the World Risk Report: exposure, 6.68; vulnerability, 8.48; susceptibility, 14.18; lack of coping capacities, 4.81; and lack of adaptive capacities, 8.94. Oman's World Risk Index increased from 7.21 in 2022 to 7.53 in 2023, suggesting a potential upward trend in natural disaster risk (8).

The geographical diversity in Oman, such as mountainous terrain and large deserts and coastal areas, makes access to medical services difficult. In many parts of the country, especially those that are far from urban centres, people rely mostly on local health centres for primary medical attention (9). Natural disasters leave remote communities particularly vulnerable when

essential infrastructure, is destroyed and residents struggle to reach public health care facilities (10). This necessitates a new approach in health care delivery; one that is adaptable and resilient for disaster-prone areas (11). Mobile clinics, with their ability to be deployed on demand, offer a promising solution to bridge this critical gap in health care access.

This study aimed to document the challenges faced by health systems during emergencies and natural disasters and the development and testing of a potential solution for achieving UHC in Oman.

# **Methods**

# Study setting

This cross-sectional observational study was conducted in Balad Seet and Yasab, which are mountainous villages situated in Rustaq Wilayat, under the South Batinah Governorate. As of March 2024, the population was 523 in Balad Seet and 123 in Yasab (12). Both villages are situated in a remote region far from primary health care facilities, and are characterized by infrastructure limitations, such as unpaved roads that are susceptible to disruption during emergencies and natural disasters. MHCs have been operational in these areas during emergencies and disasters, such as extreme weather conditions or flooding, which render health facilities inaccessible.

#### MHCs in South Batinah Governorate

MHCs played a vital role in responding to health crises during natural disasters (tropical weather with floods) between July 2022 and April 2024 (13–15). On 15 July 2022, an MHC in Yasab provided health services to 30 people with mild to moderate conditions who could not reach health facilities. An MHC in Balad Seet treated 43 patients with mild to moderate conditions on 13 February 2024, 47 patients on 29 February 2024, and 25 patients on 9 March 2024. In total, MHCs treated 130 patients who could not reach hospital because of flooding.

## Sample size and sampling

We recruited 92 participants aged ≥ 16 years from Balad Seet and 88 from Yasab. To enhance sample representativeness, stratification was used based on block population, male-to-female ratio, age group and education level. Purposive random sampling was used for recruitment, which involved selecting participants who met predetermined inclusion and exclusion criteria. Purposive sampling involved intentional selection based on specific criteria, whereas in random sampling, participants were selected based on chance, where everyone had an equal chance of being selected. We combined both methods to maximize the number of participants. Data was collected directly from patients who had used our MHCs by themselves or had a family member who did so in the past. Data from family members (aged ≥ 16 years) of patients who visited the MHCs were also collected. Thus, a greater number of participants could be included in this study, ensuring perspectives from direct and indirect users. Data collection was carried out between July 2022 and April 2024 using a questionnaire distributed online via Google forms or hard copies for those who had no internet access.

# Partcipant satisfaction

Participant satisfaction with the MHCs was evaluated using the Patient Satisfaction Questionnaire Short Form (PSQ-18), developed by Marshall and Hays in 1994 (16). This validated instrument is a Likert-scale questionnaire comprising 18 items categorized into 7 domains: general satisfaction (items 3 and 17); interpersonal manner (items 10 and 11); communication (items 1 and 13); technical quality (items 2, 4, 6 and 14); financial aspects (items 5 and 7); time spent with physician (items 12 and 15); and accessibility and convenience (items 8, 9, 16 and 18) (17). Response options range from "strongly disagree" to "strongly agree". Higher scores indicate greater participant satisfaction. The overall participant satisfaction score was categorized into 3: poor (< 25th percentiles), satisfactory (25th-75th percentiles), and good/highly satisfactory (> 75th percentiles).

# Ethics approval

Permission for the study was obtained from the Planning and Studies/Directorate of Health Services, South Batinah Governorate/Ministry of Health (Oman) via Research Code 02062024. This study was also approved by the Center for Studies and Research, Directorate General of Planning and Studies, Ministry of Health, Oman (Approval No: MOH/CSR/24/28351). The study adhered to the Declaration of Helsinki.

#### Statistical analysis

The data were refined and organized using Microsoft Excel. Statistical analysis was performed using SPSS version 27. Socioeconomic status was assessed using an updated version (January 2021) of the revised Kuppuswamy scale (18).  $\chi^2$  tests were used to identify any potential associations between participant satisfaction and sociodemographic characteristics within each district. F tests and t tests were used to assess mean differences between variables. Linear regression analysis was conducted to explore the linear relationship between social factors and participant satisfaction levels.

#### **Results**

The demographic characteristics of the 180 participants are summarized in Table 1. There was a wide range in age, with nearly half (48.3%) falling between 39 and 55 years and 44.4% between 16 and 34 years. Males constituted the majority of the sample population (67.2%) and most participants were married (79.4%). Educational attainment varied, with 36.7% holding a university degree, 32.8% a diploma, 28.9% completing only school education, and 1.7% possessing a master's degree or higher. Most participants had children, with 41.1% having > 3 and 35.6% with 1–3. There was a high level of participant satisfaction,

Table 1 Association between sociodemographic characteristics and participant satisfaction with mobile clinic services in Balad Seet and Yasab

Sociodemographic characteristics and satisfaction level	Category	Balad Seet n = 92 No. (%)	Yasab n = 88 No. (%)	Overall n = 180 No. (%)	χ²
Age (years)	16-34	38 (41.3)	42 (47.7)	80 (44.4)	9.66
	39-55	52 (56.5)	35 (39.7)	87 (48.3)	(P = 0.008)
	>60	2 (2.1)	11 (12.5)	13 (7.2)	
Gender	Male	80 (86.9)	41 (46.5)	121 (67.2)	33.260
	Female	12 (13.0)	47 (53.4)	59 (32.7)	(P < 0.001)
Marital status	Single	12 (13.0)	20 (22.7)	32 (17.7)	8.937
	Married	80 (86.9)	63 (71.5)	143 (79.4)	(P = 0.011)
	Widower	0 (0.0)	5 (5.6)	5 (2.7)	
Education level	School	21 (22.8)	31 (35.2)	52 (28.8)	8.29
	Diploma	48 (52.1)	11 (12.5)	59 (32.7)	(P < 0.001)
	Bachelor's degree	20 (21.7)	46 (52.2)	66 (36.6)	
	Master's degree and higher	3 (3.2)	0 (0.0)	3 (1.6)	
No. of children	0	20 (22)	22 (25)	42 (23)	5.031
	1-3	27 (29)	37 (42)	64 (36)	(P = 0.081)
	>3	45 (49)	29 (33)	74 (41)	
Participant satisfaction	Satisfactory	81 (88)	82 (93)	163 (91)	1.38
	Good/highly satisfactory	11 (12)	6 (7)	17 (9)	(P = 0.178)

with 90.6% reporting satisfactory experiences and 9.4% good or highly satisfactory experiences.

There were several significant associations between sociodemographic characteristics and participant satisfaction levels, with differences observed between Balad Seet and Yasab. Age, gender, marital status and education level all showed significant associations with participant satisfaction ratings (P < 0.05). A closer look at the ages of participants revealed that those aged  $\geq$  60 years comprised 2.2% of participants in Balad Seet compared to 12.5% in Yasab. Similarly, the gender distribution differed substantially, with 87% of Balad Seet participants being male compared to just 46.6% in Yasab. Overall satisfaction level remained high at both sites (90.6% reporting satisfactory experiences).

The distribution of the study population according sociodemographic characteristics, participant satisfaction domains, and overall participant satisfaction is summarized in Table 2. Significant associations between age and participant satisfaction were observed across several domains. Analysis of variance revealed significant differences in technical quality (F = 6.04, P < 0.01), communication (F = 3.2, P < 0.01), financial aspects (F = 6.6, P < 0.01) and overall satisfaction (F = 5.31, P < 0.01) across the different age groups. The oldest group (≥ 60 years) reported the highest mean scores for these domains compared to younger participants. Gender only showed a significant association with the interpersonal manner domain (t = 4.13, P < 0.01). Marital status showed significant differences, but only for technical quality (F = 6.01, P < 0.01) and financial aspects (F = 3.15,

P<0.01). Location (Balad Seet vs Yasab) revealed significant differences across all domains except accessibility and convenience. Participants from Balad Seet reported consistently higher satisfaction levels than those from Yasab across all domains.

Linear regression analysis was carried out to explore the correlation between different dependent and independent variables. The linear effects between the overall satisfaction score of different variables such as age, gender, location, marital status, number of children and education level are presented in Table 3. The correlation coefficient (R) and the adjusted coefficient of determination (adjusted R²) were 0.307 and 0.089, respectively.

A significant majority of respondents (90.6%) rated their level of satisfaction as satisfactory, whereas a smaller proportion (9.4%) gave a good/highly satisfactory rating. This suggested that almost all participants were satisfied with the services provided by MHCs. Notably, there were no responses in the poor category.

Accessibility and convenience, and general satisfaction received the highest satisfaction scores of 81.1% and 78.3%, respectively. Communication followed closely, with a score of 77.5%, and overall satisfaction was 72.8%. Technical quality and financial aspects had moderate ratings of 70.8% and 69.3%, respectively. Interpersonal manner (65.6%) and time spent with the physician (61.9%) received the lowest scores among the evaluated domains of participant satisfaction.

Table 2 Sociodemographic characteristics and participant satisfaction (N = 180)	cteristics and par	ticipant satisfaction (	N = 180)					
Sociodemographic variables	General satisfaction	Technical quality	Interpersonal manner	Communication	Finance	Time spent with physician	Accessibility & convenience	Overall satisfaction
Age (years)	F = 1.59	F = 6.04*	F = 0.616	$F = 3.2^*$	$F = 6.6^*$	F = 1.3	F = 1.7	$F = 5.31^*$
16–34	3.96±0.48	3.53±0.49	3.31±0.80	3.9±0.61	3.3±0.70	3.0±.068	4.1±1.2	3.6±0.45
39-55	3.83±0.45	3.41±0.46	3.27±0.44	3.7±0.63	3.4±0.73	3.1±0.61	3.9±0.44	3.5±0.34
09 <	4.11±0.50	3.90±0.56	3.31±0.21	4.2±0.63	4.1±0.62	3.3±0.77	4.3±0.46	3.94±0.25
Gender	t = 1.40	-0.001	4.13*	-1.6	0.115	0.49	-1.54	-0.025
Male	3.9±0.62	3.5±0.52	3.4±0.64	3.8±0.66	3.4±0.67	3.1±0.62	3.9±0.50	3.6±0.38
Female	3.8±0.59	3.5±0.44	3.01±0.49	3.9±0.55	3.4±0.84	3.0±0.72	4.2±1.4	3.6±0.44
Maritalstatus	F = 0.53	6.01*	0.02	0.91	3.15*	0.25	1.99	1.85
Single	3.8±0.65	3.49±0.57	3.30±0.69	3.80±0.71	3.33±0.88	3.09±0.6	4.34±1.92	3.67±0.60
Married	3.93±0.61	3.48±0.48	3.28±0.62	3.88±0.63	3.47±0.70	3.09±0.6	3.99±0.49	3.62±0.35
Widowed	3.90±0.54	4.25±0.0	3.30±0.27	4.20±0.27	4.20±0.27	3.30±1.0	4.15±0.29	3.97±0.24
Educational level	F = 1.443	0.385	5.003*	2.088	0.719	2.537	0.948	2.227
School	3.88±0.57	3.49±0.48	3.20±0.52	3.70±0.57	3.35±0.78	2.91±0.62	4.01±0.43	3.56±0.34
Diploma	4.04±0.58	3.56±0.50	3.53±0.68	3.93±0.59	3.52±0.69	3.20±0.69	4.06±0.49	3.72±0.38
University degree	3.83±0.68	3.48±0.53	3.14±0.60	3.97±0.71	3.52±0.74	3.16±0.65	4.13±1.39	3.650.47
Master's degree and above	3.67±0.29	3.33±0.14	3.0±0.0	3.67±0.29	3.33±0.58	2.67±0.29	3.25±0.50	3.28±0.29
No. of children	F = 0.473	0.328	0.072	1.054	0.669	0.126	1.772	0.175
0	3.83±0.67	3.51±0.54	3.31±0.86	3.87±0.68	3.36±0.80	3.06±0.57	4.29±1.70	3.67±0.53
1–3	3.95±0.62	3.46±0.49	3.28±0.59	3.96±0.54	3.48±0.78	3.09±0.72	3.96±0.46	3.62±0.36
>3	3.93±0.59	3.53±0.49	3.26±0.48	3.80±0.68	3.52±0.65	3.12±0.67	4.01±0.48	3.64±0.36
Location	$t = 3.34^*$	3.56*	*80.9	2.26*	2.07*	1.55**	-0.16	3.55*
Balad Seet	4.06±0.58	3.63±0.46	3.53±0.72	3.98±0.61	3.58±0.67	3.17±0.68	4.05±0.48	3.74±0.35
Yasab	3.76±0.62	3.37±0.51	3.02±0.35	3.77±0.64	3.35±0.78	3.02±0.63	4.07±1.2	3.53±0.43

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Table 2 Linear reg	rección ana	ลโซราร คริ ค	verall safistactic	in scores with d	lemographic variables
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Variables	Unstandardized coefficients		Standardized coefficient	95% Confidence interval	t	Significance	R²
	В	SE	β				
Constant	2.288	0.189	-	11.40-17.62	12.093	0.000	R = 0.307
Age	0.002	0.003	0.151	1.54-1.72	1.794	0.075	Adjusted R <sup>2</sup> = 0.089
Gender	0.113	0.106	0.449	1.26-1.40	6.638	0.000	0.009
Marital status	0.015	0.046	0.065	1.80-1.95	0.746	0.456	
Education level	0.013	0.071	0.138	1.99-2.24	2.019	0.045	
No. of children	0.001	0.040	-0.241	2.06-2.29	-2.575	0.011	
Location	0.019	0.084	0.107	1.42-1.56	0.223	0.824	

#### **Discussion**

This study investigated the effectiveness of MHCs in achieving UHC during disasters in Oman. Data were collected from 180 participants with diverse demographic characteristics in Balad Seet (n = 92; 51.1%) and Yasab (n = 88; 48.9%). Nearly half (48.3%) of the participants were aged 39-55 years, and 44.4% were aged 16-34 years. Males constituted most of the sample (67.2%) and most participants were married (79.4%). Educational attainment varied, with 36.7% holding university degrees and 32.8% diplomas, 28.9% completed only school education and only 1.7% had a master's degree or higher. Most of the participants had children, with 41.1% having > 3. These findings suggest a potentially growing population in these communities, highlighting the need for government re-evaluation of available essential services, including health care, infrastructure and communication networks, to achieve UHC.

Seven different domains of general satisfaction, technical quality, interpersonal manners, communication, financial aspects, time spent with doctor, and accessibility and convenience were considered to determine the satisfaction level of the participants. Technical quality referred to the quality of the medical services that patients received. The MHCs were able to provide excellent medical care, with all necessary equipment and devices available to monitor vital signs and achieve accurate diagnosis. All the doctors were licensed by the Ministry of Health with adequate medical training. Interpersonal manner of the doctors during treatment helped to build trust, foster clear communication, and ensure effective delivery of medical services. This relationship, based on mutual respect and understanding, enhanced patient satisfaction and contributed to better treatment outcomes. Local Arabic language was used for clear communication with the patients and to ensure accurate data collection and effective healthcare delivery. Accessibility and convenience referred to the distance from the patient's house and the ease with which they could access the MHC.

Participant satisfaction was high, with 90.6% reporting satisfactory experiences and 9.4% good or highly satisfactory levels. Regression analysis suggested a signifi-

cant association between overall satisfaction of patients and various socioeconomic variables. Number of children had no significant association with patient satisfaction, whereas gender and education level had a significant association. Our results were consistent with those of Mahapatra et al. in in India (19), which reported that patient satisfaction was significantly influenced by occupation, tribe and socioeconomic status. The higher satisfaction levels in one area than the other reflected the quality of services provided by mobile clinics. All these findings highlight the importance of MHCs in underserved and remote areas, where public health facilities are often lacking. Policymakers should consider expanding MHCs to tribal and underserved communities to enhance primary health care access and ensure equitable health service delivery.

Traditionally, fixed health centres are vulnerable to environmental damage and struggle to meet the surge in service demand during disasters, which indicates the need for strategic alternatives, such as MHCs offering flexible and immediate service delivery (20). The high overall satisfaction rates suggest positive reception of MHCs and their effectiveness in bridging healthcare delivery gaps during emergencies.

Significant associations were observed between patient satisfaction and demographic characteristics, including age, gender, marital status and educational level. These findings highlight areas for targeted improvement. Older patients, particularly those residing in Yasab, exhibited higher satisfaction with technical quality and communication. Conversely, males in Balad Seet reported greater satisfaction with interpersonal manner. Such discrepancies suggest the need for MHCs to tailor their services to better address the specific needs of diverse demographic groups.

Our study revealed that location played an important role in patient satisfaction. Patients from Balad Seet generally reported higher satisfaction across various domains than those from Yasab, except for accessibility and convenience. These finding suggest that, while MHCs are effective in improving overall healthcare delivery, specific locations may have unique challenges that require customized approaches. For example, the

lower satisfaction rates in Yasab could be addressed by enhancing communication and technical quality of services in this area.

Our study highlighted the challenges posed by inaccessible roads during natural disasters, which significantly complicates health care access for residents of remote and affected areas. In such situations, MHCs can function as temporary medical centres, providing crucial medical services to those in need. Previous studies (21) align with these findings and reinforce the importance of MHCs in ensuring uninterrupted medical services and in contributing to achieving UHC in Oman. The Ministry of Health is committed to deploying more MHCs in disaster-prone regions to ensure UHC in Oman.

This study had some limitations. The study population was small, because data were collected from only 2 mountainous villages, which may not fully represent the diversity of remote areas in Oman. There were concerns about data privacy, particularly in rural settings with limited secure data management systems. Future studies should include larger, more diverse populations

from more remote areas to strengthen the findings and address these limitations.

#### Conclusion

This study reported a significant increase in participant satisfaction with MHCs, which are pivotal in achieving UHC in Oman, particularly during emergencies and disasters. By enhancing access, MHCs can reach remote and disaster-affected areas, providing crucial medical care to underserved populations during emergencies. MHCs offer rapid response and immediate medical attention, addressing both acute and chronic health needs. This aligns with Oman Vision 2040 health objectives for creating a decentralized healthcare system characterized by quality, transparency, fairness and accountability. We recommend that governments adopt a think resilience approach for improving emergency and disaster management. Further studies are required to address the setup of MHCs in disaster-prone areas and evaluate their impact and effectiveness in different governorates in Oman.

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**Conflict of interest:** None declared.

# Satisfaction à l'égard des services de cliniques mobiles à l'appui de la CSU et du programme d'action sanitaire de la Vision 2040 d'Oman Résumé

**Contexte:** Les cliniques mobiles jouent un rôle essentiel pour instaurer la couverture sanitaire universelle (CSU), en particulier dans les zones sujettes aux catastrophes. Toutefois, peu d'informations sont disponibles sur la satisfaction des patient(e)s à l'égard de leur utilisation à Oman.

**Objectif:** Étudier la satisfaction par rapport aux services des cliniques mobiles pendant les situations d'urgence sanitaire à Oman.

**Méthodes:** La présente enquête transversale a permis de recueillir des données auprès de 180 personnes âgées de 16 ans et plus dans les provinces de Balad Seet et de Yasab concernant l'utilisation de cliniques mobiles durant les catastrophes naturelles entre juillet 2022 et avril 2024 à Oman. Nous avons utilisé la version courte du questionnaire de satisfaction des patient(e)s pour évaluer leur satisfaction à l'égard des services dans sept domaines et nous avons utilisé le test  $\chi^2$  pour analyser l'association entre les variables catégorielles et la satisfaction.

**Résultats:** Presque tous les participants à l'étude (90,6 %) ont exprimé leur satisfaction à l'égard des services des cliniques mobiles. Des associations significatives ont été observées entre les caractéristiques sociodémographiques et les niveaux de satisfaction des participants de Balad Seet et Yasab. Dans tous les domaines, les participants de Balad Seet ont signalé des niveaux de satisfaction systématiquement plus élevés que ceux de Yasab.

**Conclusion :** La présente étude souligne le potentiel des cliniques mobiles à fournir des services dans des zones reculées et pendant les situations d'urgence sanitaire à Oman, ainsi que la contribution potentielle à la réalisation de la CSU et du programme d'action sanitaire de la Vision 2040 d'Oman.

# الرضا عن خدمات العيادات الصحية المتنقلة في أثناء الطوارئ الصحية في منطقتين في سلطنة عُمان

هيثم بن سالم الحكماني، غسن بن محمد الذهلي، يوسف بن سعيد الكلباني

### الخلاصة

الخلفية: تضطلع العيادات الصحية المتنقلة بدور حيوي في تحقيق التغطية الصحية الشاملة، ولا سيها في المناطق المعرضة للكوارث. ومع ذلك، فإن المعلومات المتاحة عن مدى رضا المرضى عن استّخدامهم هذه العيادات في سلطنة عُهان محدودة للغاية.

الأهداف: هدفت هذه الدراسة إلى استقصاء مدى الرضاعن خدمات العيادات الصحية المتنقلة في سلطنة عُمان في أثناء الطوارئ.

طرق البحث: جمع هذا المسح المقطعي بيانات 180 فردًا ممن تبلغ أعهارهم 16 عامًا فأكثر في منطقتَي «بلدسيت» و «يصب» بشأن استخدام العيادات الصحية المتنقلة في أثناء الكوارث الطبيعية في سلطنة عُهان في الفترة بين يوليو/ تموز 2022 وأبريل/ نيسان 2024. واستخدمنا استبيان قياس درجة رضا المرضى بهدف تقييم رضاهم عن الخدمات في 7 مجالات، واستخدمنا اختبار مربع كاي (2χ) لتحليل الارتباط بين المتغيرات الفئوية ومستوى الرضا.

النتائج: أبدى جميع المشاركين في الدراسة تقريبًا (6.09٪) رضاهم عن خدمات العيادات الصحية المتنقلة. وظهرت روابط ذات شأن بين الخصائص الاجتهاعية والسكانية ومستويات رضا المشاركين في منطقتَي «بلد سيت» و«يصب». وأفاد المشاركون في المسح من «بلد سيت» باستمرار بمستويات رضا أعلى من نظيرتها في «يصب»، في جميع المجالات.

الاستنتاجات: تسلط هذه الدراسة الضوءَ على إمكانات العيادات الصحية المتنقلة لتقديم الخدمات في المناطق النائية وفي أثناء الطوارئ الصحية في سلطنة عُمان، والإسهامات المكنة في تحقيق التغطية الصحية الشاملة وبرنامج رؤية عُمان 2040 الصحي.

## References

- World Health Organization. Delivering health in some of the worlds' worst crises through mobile clinics and medical teams
  [website]. Geneva: WHO; 2019 (https://www.who.int/news-room/feature-stories/detail/delivering-health-in-some-of-the-worlds-worst-crises-through-mobile-clinics-and-medical-teams, accessed 24 March 2025).
- 2. Sheerazi S, Sarah A, von Schreeeb J. Use of mobile health units in natural disasters a scoping review. Cambridge University Press 2022. https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/use-of-mobile-health-units-in-natural-disasters-a-scoping-review/1696FF1FC643B9533D065969901483B7
- 3. MoH launches mobile clinic in Mahda for uninterrupted healthcare. Muscat Daily. 29 April 2024 (https://www.muscatdaily. com/2024/04/29/moh-launches-mobile-clinic-in-mahda-for-uninterrupted-healthcare/, accessed 15 March 2025).
- 4. Oman Vision 2040. Vison document, page 22 (https://www.oman2040.om/assets/books/oman2040-en/index.html#p=23, accessed 15 March 2025).
- 5. United Nations Office for Disaster Risk Reduction. UN disaster summit concludes with Bali Agenda for Resilience to prevent world from facing 1.5 disasters a day by 2030 [website]. UNDRR; 2022 (https://globalplatform.undrr.org/news/un-disaster-sum-mit-concludes-bali-agenda-resilience-prevent-world-facing-15-disasters-day-2030, accessed 19 March 2025).
- 6. Pan American Health Organization. Mobile clinics: ensuring equitable access to quality health care in the Northeast. Washington, DC: PAHO; 2023 (https://www.paho.org/en/news/28-4-2023-mobile-clinics-ensuring-equitable-access-quality-health-care-northeast, accessed 24 March 2025).
- 7. Dollarhide EN. Mapping Magan: the ancient social landscape of north-central Oman [thesis]. New York University; 2019.
- 8. Bündnis Entwicklung Hilft and Institute for International Law of Peace and Armed Conflict. World risk report. Berlin: Bündnis Entwicklung Hilf; 2023 (https://reliefweb.int/report/world/worldriskreport-2023-disaster-risk-and-diversity, accessed 15 March 2025).
- 9. Al Khalili S, Al Maani A, Al Wahaibi A, Al Yaquobi F, Al-Jardani A, Al Manji A et al. Challenges and opportunities for public health service in Oman from the COVID-19 pandemic: learning lessons for a better future. Front Public Health. 2021 Dec;9:770946. PMID:34957024 https://pubmed.ncbi.nlm.nih.gov/34957024/
- 10. Balharith M, Alghalyini B, Al-Mansour K, Tantawy MH, Alonezi MA, Almasud A. et al. Physical accessibility, availability, financial affordability, and acceptability of mobile health clinics in remote areas of Saudi Arabia. J Fam Med Primary Care. 2023 Sep;12(9):1947–56. PMID:38024907 https://pubmed.ncbi.nlm.nih.gov/38024907/
- 11. Al Rashidi B, Al Wahaibi AH, Mahomed O, Usman Langrial S, Al Awaidy ST. Role of primary healthcare in the response to COV-ID-19: the Oman experience. J Emerg Medi Trauma Acute Care. 2021 Jul;1:3. https://doi.org/10.5339/jemtac.2021.3
- 12. National Center for Statistical Information. Population, housing and household statistics. Oman: NCSI; 2022 (https://www.ncsi. gov.om/Elibrary/LibraryContentDoc/bar\_Population,%20housing%20and%20household%20statistics%202023\_d13817bf-bao3-4aa9-8541-8cb36c865134.pdf, accessed 19 march 2025) (in Arabic).
- 13. Alasfoor D. Exploring access to primary health care among diabetic patients in Oman [thesis]. University of Oxford; 2020.

- 14. Al-Zaabi S, Al-Zadjali S. Qualitative analysis of early warning: a case study from Oman. Int J Disaster Risk Reduction. 2022;68:102731. https://www.sciencedirect.com/science/article/abs/pii/S2212420921006920?via%3Dihub
- 15. Gharbal A, Al-Lawati N, Al-Sumri N, Al-Raisi S. The usability of telephone-based telemedicine in primary healthcare: a quantitative evaluation and a hypothesized framework of determinants from the physicians' perspective in Oman. Health Sci Q. 2023;3(2):75–94. https://journals.gen.tr/index.php/jsp/article/view/1925
- 16. Marshall GN, Hays RD. The patient satisfaction questionnaire short-form (PSQ-18). Santa Monica, CA: Rand; 1994. https://www.rand.org/content/dam/rand/pubs/papers/2006/P7865.pdf
- 17. Likert R. A technique for the measurement of attitudes. Arch Psychol. 1932;140:1–55. https://psycnet.apa.org/record/1933-01885-001
- 18. Majumder S. Socioeconomic status scales: Revised Kuppuswamy, BG Prasad, and Udai Pareekh's scale updated for 2021. J Fam Med Prim Care. 2021;10(11):3964. PMID:35136753 https://pubmed.ncbi.nlm.nih.gov/35136753/
- 19. Mahapatra B, Moinudeen SAK, Bhattacharya P, Mukherjee N, John D, Jayanna K. Assessment of patients satisfaction with mobile medical clinics in the two districts of north Bengal, India. Int J Community Med Public Health. 2023 Nov;10(11):4212–8. https://dx.doi.org/10.18203/2394-6040.ijcmph20233453
- 20. Seyed MM, Mahmood NM, Ahmad A, Naser H. Risk analysis and safety assessment of hospitals against disasters: a systematic review. J Educ Health Promot. 2021 Nov 30;10:412. PMID:35071618 https://doi.org/10.4103/jehp.jehp\_1670\_20
- 21. McGowan CR, Baxter L, Deola C, Gayford M, Marston C, Cummings R. Mobile clinics in humanitarian emergencies: a systematic review. Confl Health. 2020 Jan 30;14:4. https://doi.org/10.1186/s13031-020-0251-8