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# Optimizing patient autonomy: a discrete choice experiment on preferences and disparities in healthcare provider selection

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## Abstract

**Background** In 2023, Israel introduced a legislative reform that, according to the Israeli Ministry of Health, aims to improve transparency and expand options for healthcare providers. This reform seeks to enhance patient choice, improve service quality and accessibility, foster competition and strengthen the public health system. The goals also include empowering patients to fully exercise their rights and make more informed healthcare decisions.

**Objectives** This study explores public preferences regarding hospital choice before the 2023 reform, evaluates the relative importance of key hospital attributes influencing decision-making, assuming a baseline of high-quality care and analyses how these preferences vary across demographic and socio-economic groups.

**Methods** Utilizing a discrete choice experiment involving 2117 participants, this study quantifies preferences for different hospital attributes, including hospital type, geographical location, and appointment availability. The study design incorporates attributes identified through a literature review and expert interviews, optimized to estimate trade-offs between attribute levels.

**Results** Findings indicate a strong preference for shorter waiting times and proximity to specialized services. Significant disparities emerge among respondents, particularly between those with public versus additional voluntary insurance coverage and across population groups (i.e. Arabs and Jews). A notable proportion of Arab respondents preferred the existing hospital choice regime over any suggested attribute combinations.

**Conclusions** While legislative reforms are designed to enhance patient involvement in decision-making, substantial gaps remain between policy intentions and actual public preferences. Although increased autonomy and choice empower patients, they can also introduce challenges, such as decision fatigue and the consumer paradox, potentially undermining reform effectiveness. Our findings underscore the need for more nuanced, patient-centred health policy approaches. Future research should focus on strategies that better address the diverse needs and preferences of the population, ultimately enhancing healthcare system efficiency and equity.

**Keywords** Selective-contracting, Health services choice, Public preferences, Health reform

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## Background

As countries strive to optimize their healthcare systems, balancing costs, quality, and access remains a pivotal challenge. Israel, a country known for having a strong public health system and a national health insurance law [1], has recently introduced legislative reform [2] with the stated aim, according to the Ministry of Health,



of improving transparency and expanding options for healthcare providers – empowering individuals to make more informed, independent choices about their care (hereafter, 2023-reform). Our study aims to investigate pre-reform public preferences regarding healthcare provider selection, evaluate the importance of various attributes influencing patients' choices – such as provider type, location and appointment availability – and analyse how these preferences vary across demographic and socio-economic groups.

In our study, “attributes” refers to specific features of the hospital options available for choice, with “hospital choice” as the primary decision context. Findings from this study, in the context of a health system, may deepen our understanding of how patients prioritize these attributes, ultimately providing valuable insights for other countries considering expanding patient choice.

Access to quality healthcare is a fundamental human right and a key determinant of overall health outcomes [3]. In many countries, the provision of healthcare is a complex system involving multiple stakeholders, including hospitals, insurers and the general public. In principle, there is an insurer (public or private) that is responsible for providing various health services to patients when needed, either through the insurer's service providers employers or through the purchase of the services from private providers. This broad framework encompasses systems where insurance and service delivery are fully integrated as well as arrangements where health care purchasing is done by individual insurers (also termed “selective contracting”) [4]. Through selective contracting, individual insurers create a network of providers from which their insured members can choose to receive care.

This is not without controversy, especially with the economic theory suggests that competition can enhance quality and accessibility of services and reduce costs and selective contracting by definition reduces competition. However, healthcare systems have distinctive characteristics, including high regulation, information asymmetry and non-standardized products, which complicate the relationship between patient free choice market-based delivery systems and health outcomes and service quality, with several studies showing a positive [5, 6], negative [7] or mixed [8] effect between the two.

Since the 1990s, several countries have implemented reforms to expand patient choice among hospitals, aiming to encourage competition, improve efficiency, and empower patients [9].

While the expansion of patient choice is intended to enhance individual autonomy and improve access to healthcare services, research has also identified potential drawbacks. In their systematic review, Sharma and

Sharma [10] highlighted the paradox of variety associated with consumer choice. The paradox of variety, encompasses two conflicting dynamics: variety-seeking behaviour and choice overload. On one hand, consumers prefer more variety and options; on the other, excessive choice can backfire, leading to negative consequences. In other words, too many options can overwhelm rather than benefit patients [11]. This paradox can hinder decision-making and ultimately reduce patient satisfaction and engagement, as noted by scholars, such as Bikki Tran Smith [12]. Understanding these complexities is crucial when designing reforms aimed at increasing patient involvement and autonomy.

When presented with the option to choose, patients often consider a variety of factors related to a hospital's attributes. Key considerations include quality of care, location, price, travel expenses, staff attitude and reputation. Patients frequently make trade-offs between these attributes to arrive at a decision [13–16]. However, exercising the right to choose and the various factors influencing a choice, differ between different population groups. In a systematic review conducted by Aggarwal et al., in 2017, which encompassed a diverse array of studies from the USA, Europe, Canada and Australia, exploring the impact of healthcare reforms aimed at giving patients more choice among healthcare providers, some interesting trends emerged. The analysis revealed that older patients and those from lower socio-economic backgrounds often preferred seeking medical care at healthcare facilities close to their homes. The review also emphasized the significant role of waiting times in influencing patients' decisions, with evidence suggesting that individuals were more likely to switch healthcare providers if shorter waiting periods were offered [17].

An independent study conducted in England revealed significant findings, particularly in relation to disparities in waiting times for non-emergency coronary revascularization procedures across different population groups. These disparities persisted even after the introduction of healthcare reforms designed to empower patients in selecting their healthcare providers [18].

### **Israel's healthcare system and provider choice**

Since 1995, all Israeli citizens have been required to have public health insurance through one of four health plans. The health plans (HPs) are responsible for providing a range of health services as defined by the National Health Insurance Law (NHIL). They fulfil this obligation either through their own healthcare providers or by selectively contracting with external providers. Some HPs own hospitals and typically prefer to refer patients to their own facilities for healthcare services. Pre-2023 reform, and in accordance with the NHIL, in a situation where the

HP has several service providers, it could have established selective contracts for certain services, with the obligation to make them publicly available to its insured members [19]. Referrals to service providers were solely managed by the HPs at its discretion.

A significant provider-choice reform in the regulation of the selective contracting was implemented in September 2023, [20] aiming, according to the Israeli Ministry of Health (MoH), to enhance patient choice and involvement in the selection process. Under this new regulation, for each referral to a service outside the HP, the HP must offer a minimum of four service providers. This includes at least two “supercentres” and two of the four hospitals in the patient’s district. Additionally, the HP is required to present all available healthcare providers options on the referral form to increase transparency. Exceptions to this include specific services where patients retain the freedom to choose any medical centre, such as oncological and *in vitro* fertilization (IVF) treatments.

In a 2016 survey conducted in Israel, 74% of respondents stated that having the ability to choose a hospital in case of need was important to them. When asked about the key factors influencing their hospital choice, they identified the hospital’s professional standards, staff attitude and hospitalization conditions as the most significant considerations. Additionally, hospital reputation, proximity to their place of residence and waiting times were also highlighted as important factors. Additionally, a higher proportion of individuals in the lower income quintile reported forgoing necessary treatment or medication owing to financial constraints compared with those in higher income groups (14% versus 8%, respectively). However, an opposite trend was observed concerning waiting times, where individuals in the lower income quintile being less likely to discontinue treatment due to long waits compared with those with higher income (20% versus 29%, respectively). This phenomenon contributed by the authors to the potential accessibility of private healthcare services higher income individuals [21].

The objectives of our study were threefold. First, we measured the relative importance of various feasible alternatives of hospitals’ selection and their attributes. Next, we assessed the trade-offs between the levels of these attributes. Finally, we estimated logistic models to identify the characteristics of respondents who prefer one alternative over another.

## Methods

To accomplish our study objectives, we used the discrete choice experiment (DCE) technique, a choice-based survey that quantifies preferences for attributes (or characteristics) of hospitals’ services (including non-urgent surgeries and outpatient clinics). The DCE has its theoretical roots in Lancaster’s theory of value and consumer theory [22]. It assumes that goods or services can be described by attributes and the levels of these attributes.

Traditional surveys and opinion trackers are widely used to understand public opinion. However, these methods are limited in their ability to quantify and assess the relative influence of hospital attributes on individuals’ preferences. In contrast, discrete choice experiment (DCE) is a widely used scientific method for elicitation of patient preference on the basis of giving attributes and alternatives [23, 24].

DCEs present participants with a series of hypothetical alternatives that resemble real-life scenarios and ask them to select their preferred option. In our study, the DCE included three attributes related to hospitals’ services which were selected through a literature review, analysis of position papers submitted by different stakeholders to the Israeli Ministry of Health (MoH) regarding the upcoming reform in the Israeli health plans selective contracting with hospitals, and interviews with experts. The attributes and their levels, reported in Table 1, relate to hospitals’ location, type, and accessibility. Attributes were displayed to the respondents in three sequential tables (hereafter, DCE-tables), each showcasing two alternatives consisting of different combinations of the

**Table 1** The different attributes and their levels included in the discrete choice experiment questionnaire

Attribute	Definition	Levels
Hospital type	Differentiates between tertiary care hospitals, which offer advanced medical treatment and specialized services, and general hospitals, which provide a broad range of healthcare services	1. Only tertiary care hospitals 2. All hospitals
Location	Hospital geographical location relative to the patient’s residence	1. Only within the district of residence 2. Any where in the country
Appointment availability	Defines the strategy for scheduling patient appointments, either aligning with patient hospital preferences or optimizing for the shortest wait time	1. According to availability at patient-selected hospitals 2. Scheduled at the hospital offering the earliest available appointment

levels of the three attributes. For each table, respondents were requested to a choice task, i.e. to indicate their preferred alternative.

### The DCE Tables

The design specified each attribute with two levels defined as binary variables (see Table 1). Attributes and levels were combined into a pairwise choice-task resulting in eight alternatives. The superior alternative (where all attributes were set to level 2) and the inferior alternative (where all attributes were set to level 1) were excluded from the DCE-tables – resulting in six alternatives. The design was optimized for estimating trade-offs between attributes' levels – resulting in three tables with three choice tasks.

Each choice task varies in the attributes presented:

- DCE-Table 1: alternative A prioritizes shorter waiting times (WT=2) over greater distance flexibility (D=2), with hospital type restricted to tertiary care hospitals only (HT=1).
- DCE-Table 2: alternative A combines shorter waiting times (WT=2) and greater distance flexibility (D=2) with a limited hospital type (HT=1), while alternative B offers access to all hospital types (HT=2) but requires longer waiting times (WT=1) and restricted distance (D=1).
- DCE-Table 3: alternative A prioritizes distance flexibility (D=2) over shorter waiting times (WT=2), with hospital type including all possible hospitals (HT=2).

Initially, respondents were presented with a description of the attributes, their corresponding levels, and a clear description of the tasks. Each of the choice tasks consisted of two unlabelled hospital choice alternatives, denoted as “alternative A” and “alternative B”. Participants were asked to indicate their preferred alternative: A, B or the current situation (i.e. hospitals' choice availability as it was at the time of the survey regulated by their insurer health plan).

Except for the three attributes included in the DCE-tables, several other attributes were identified in literature review, such as financial coverage which is irrelevant owing to full public insurance coverage customary in Israel. Attributes that either were not mentioned in the position papers or were believed insignificant or irrelevant to Israel by the experts, were omitted from the

**Table 2** Respondents characteristics

Characteristic	N = 2117 <sup>a</sup>
Age, years	51.46 (13.47)
Sex	
Male	1028 (49%)
Female	1089 (51%)
Religiosity	
Secular	1164 (55%)
Traditional	235 (11%)
Orthodox	195 (9.2%)
Ultra-orthodox	119 (5.6%)
Arab – Muslim	276 (13%)
Arab – Christian	71 (3.4%)
Druze	57 (2.7%)
HMO	
Clalit	1144 (54%)
Macabbi	628 (30%)
Meuhedet	226 (11%)
Leumit	119 (5.6%)
Private insurance	
None	437 (21%)
HMO additional insurance	611 (29%)
Private insurance	369 (17%)
Both	700 (33%)
Hospital distance	
< 30 min	1663 (79%)
30–45 min	429 (20%)
> 60 min	25 (1.2%)
Marital status	
Single	289 (14%)
Married	1533 (72%)
Divorced	219 (10%)
Separated	10 (0.5%)
Widower	66 (3.1%)
Family income	
Way below average	402 (21%)
Below average	326 (17%)
Average	404 (21%)
Above average	447 (24%)
Way above average	224 (12%)
Refuse to respond	81 (4.3%)
Questionnaire	
Hebrew questionnaire	1713 (81%)
Arabic questionnaire	404 (19%)

<sup>a</sup> Mean (SD); n (%)

The table summarizes demographic and other characteristics of the 2117 respondents. Continuous variables are presented as mean and standard deviation (SD), while categorical variables are presented as number and percentage

**Table 3** Regression results: preference for current health plan-determined provider over changes

Predictors	Current status Odds ratios
Intercept	0.07*** (0.02–0.30)
Age	0.99 (0.98–1.01)
Female	0.90 (0.65–1.24)
Additional insurance	0.48*** (0.34–0.68)
Live in rural area	1.05 (0.73–1.49)
Arabic	3.09*** (2.13–4.46)
Healthy	0.97 (0.67–1.43)
Previous experience	0.99 (0.71–1.37)
Observations	2014
$R^2$	0.050
AIC	1125.196
log-Likelihood	–554.598

Note: \* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$

The table presents the regression results for participants who preferred the current system, in which the health plan determines the health provider. The results are displayed as odds ratios, with corresponding confidence intervals provided. The reference group consists of participants who indicated that some change is needed

DCE-tables. Nonetheless, at the end of the DCE section, respondents were asked to prioritize the three most significant attributes when choosing a hospital from a list of 12 attributes identified in literature. These attributes included: physical conditions of the hospital, the quality of service and attitude of the staff, a specific doctor affiliated with the hospital, waiting times, hospital recommendations from family physician, hospital proximity to respondent's home, tertiary hospital/level one centre, centre of excellence or specialists in the required field, personal positive experiences with the hospital, knowing someone who works at the hospital, recommendations from friends or relatives and an open-ended option for respondents to specify other factors under "other". Additionally, respondents had the option to indicate if the choice of hospital is unimportant to them.

### Study sample and questionnaires

The survey was conducted during January 2023 (prior to the implantation of the 2023 reform), among a representative sample of the Israeli population. Two questionnaires were used, one focused on non-urgent surgeries and the other on outpatient clinics. Both questionnaires were written in Hebrew, translated into Arabic, and sent to a representative sample of the Israeli population aged 35 years and over, by an external company (iPanel) which specializes in computerized surveys. The questionnaires were sent to participants as a digital link to be

completed online. As iPanel builds its panel on the basis of pre-defined criteria and distributes surveys through its internal distribution list, a classic response rate was not applicable. Instead, the surveys remained open to eligible participants until the target number of responses was achieved.

The study design was reviewed and approved by the Research Ethics Committee for Human Medical Research at the Faculty of Sciences, Medicine and Dentistry – The Hebrew University, approval number 8012023 on 8 January 2023. All respondents provided electronic informed consent to participate in the study.

### Questionnaires

The two survey questionnaires consisted of three sections:

- I. General information: the first section was the same for both questionnaires and was designed to gather general information, including demographics, education, family income, insured health plan and insurance coverage (i.e. ownership of voluntary insurance).
- II. Service-specific information: the second section was adjusted according to the specific hospital service (i.e. non-urgent surgeries/outpatient clinics) and included questions on distance from the nearest hospital, self-reported health status, presence of chronic illness and 2 years prior to the survey experience with hospital services. Those respondents who had used hospital services were further asked about their experience with the services, including experience with their health-plan's financial administrative payment process and the continuity of care in the community. To ensure data integrity and detect automated responses, a "test" question was included at the end of the questionnaire, consisting of a demographic item cross-verified against the respondent's earlier answers.
- III. DCE tables and attribute preferences: the third section was consistent across both questionnaires and included the DCE tables as well as a question ranking the importance of 12 healthcare attributes. The introduction to the DCE tables provided a description of the current situation regarding patient choice and instructions on how to complete the DCE tables.

### Empirical strategy

We assume a linear additive utility function, and according to utility maximization theory, we assume that respondents choose the alternative that maximizes their utility. The



individual,  $i$ , specific indirect utility function,  $V$ , of alternative,  $j$ , in DCE-table,  $t$ , is a function of the hospital choice attributes' levels,  $A_{jt}$  in alternative  $j$ :

$$V_{ijt} = f(A_{jt}). \quad (1)$$

We mapped the respondents' preferences according to the attribute level trade-offs as described in Box 1:

<b>Attribute</b> HT: Hospital type D: Distance from the respondent's residence WT: Appointment availability	DCE-Table 1		
	A>B		
	WT=2>D=2	HT=1	
	DCE-Table 2		
	A>B		
	WT=2&D=2	HT=1>HT=2	WT=1&D=1
	DCE-Table 3		
	A>B		
	D=2>WT=2	HT=2	

Note: '1' = level that was set fixed in alternative  $j$ ; 'A>B' = Alternative A was chosen as preferred over B; Attributes' levels according to Table 1.

#### Box 1 Attribute level trade-offs

To identify respondents' profiles, we assume that respondent  $i$  choice of alternative  $j$  with attribute level  $A_{jp}$  is a function of the respondent demographics and socio-economic characteristics,  $X$ , health status,  $H$  and previous experience,  $E$ :

$$A_{ijt} = g(X_i, H_i, E_i). \quad (2)$$

Therefore, in our aim to derive the individuals' latent indirect utility function,  $V$ , we proceeded by estimating function  $g$  for each of the DCE tables. This estimation involved comparing the profiles of individuals who chose alternative A to those who chose alternative B. Individuals who selected the current situation over the other two alternatives were considered as missing values in the multivariate analysis, which aimed to estimate the profile of individuals who chose B compared with A. Additionally, we conducted an estimation of the profile of individuals who selected the current situation compared with those who chose either A or B.

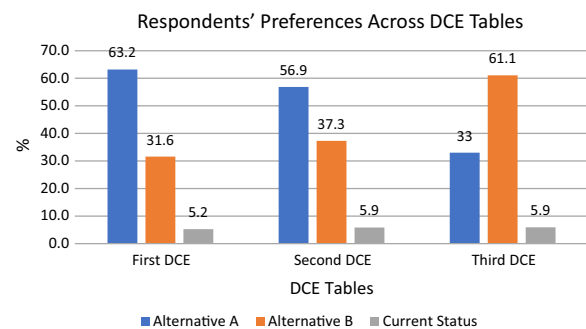
The multivariate analysis included both odds ratios and marginal effects, each offering distinct insights into the relationships between independent variables and the outcome. Odds ratios quantify the change in the odds of selecting an alternative across different groups or conditions, while marginal effects estimate the change in the probability of an outcome resulting from a unit change in an independent variable. Together, these measures provide a more comprehensive understanding of the factors influencing respondents' choices.

## Results

The characteristics of the respondents are summarized in Table 2. A total of 2117 participants completed the questionnaires, with 404 (19%) respondents who completed the questionnaire in Arabic. Among the respondents the average age is 51.4 (SD: 13.4) years, and 1089 accounting for 51% of the sample, identified themselves as woman. A considerable majority of respondents (79%) reported having additional voluntary health insurance, either health-plan's supplementary insurance or commercial health insurance, and 42% of these respondents possessed both types of additional insurance. Notably, there was a significant difference between respondents on the basis of the language of the questionnaire, with 83% of Hebrew-speaking respondents reporting additional insurance compared with only 62% of Arabic-speaking respondents ( $P < 0.001$ ).

Owing to Israel's small geographical area and the distribution of its population and medical centres, the majority (98.8%) of respondents lived within a 45-min distance from the nearest hospital, as reflected in the survey. This accessibility is primarily a result of the country's hospital distribution and urban density rather than its geographic size alone. In terms of self-reported health status, 29.5% reported their general health status as "very-good", and 52.5% as "good". In addition, 31% reported they suffer from a chronic disease.

Figure 1 presents respondents' preferences according to the attribute level trade-offs as described in Box 1. The findings reveal a notable trend wherein a significant majority of respondents demonstrated a clear preference for one of the alternatives. In contrast, only a marginal percentage, ranging between 5.2% and 5.9%, expressed a



**Fig. 1** The distribution of respondents' preferences across three discrete choice experiment (DCE) tables, each offering two alternative options (A, B) and a "current situation" option, which represents the default where the health plan selects the provider on behalf of the patient. The figure explores respondents' preferences for different healthcare attribute trade-offs: hospital type (HT), distance (D) from the respondent's residence and appointment availability (WT). See Box 1 and Table 1 for attribute definitions and levels

preference for the current situation (i.e. hospitals' choice availability as it was at the time of the survey regulated by their insurer health plan).

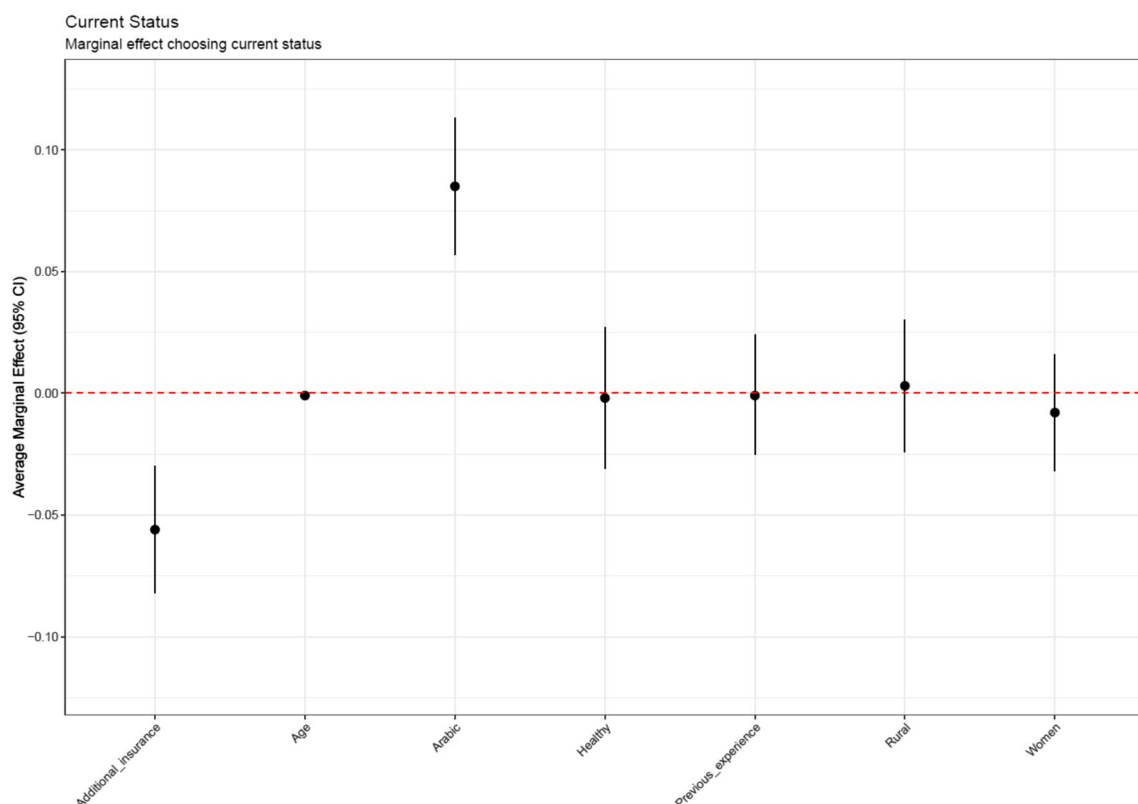
Across all DCE tables, the alternative with the shortest waiting times was consistently the most preferred choice, with selection rates ranging from 57 to 63%. This preference for shorter waiting times remained stable when analysed by type of insurance coverage, with selection proportions ranging from 54 to 62% among those with basic coverage and from 58 to 64% among those with additional insurance. A subgroup of 198 respondents chose the existing situation as their preferred alternative in at least one of the questions with 56 of them consistently choosing the current situation in all three questions. Those respondents were less likely to have additional insurance [odds ratio (OR) 0.48; confidence interval (CI) 0.34–0.68] and three times more likely to have responded to the Arabic questionnaire (OR 3.09; CI 2.13–4.46) as shown in the regression results presented in Table 3. The marginal effect analysis presented in Fig. 2 indicates that having an additional insurance decreased the likelihood of choosing the current situation in 5% and answering

**Table 4** Distribution of factors influencing hospital choice among individuals

Population hospital choice factors	
Characteristic	N=2117 <sup>a</sup> (%)
Physical conditions (spacious rooms, cleanliness, parking)	32
Good service and attitude	43
Attending physician works at the hospital	24
Short waiting times	64
Family doctor's recommendation	16
Proximity to home	24
Super-centre hospital	10
Center of excellence or an excellent specialist in required field	51
Positive past experience	16
Personnel/familiarity with hospitals staff	3.1
Recommendation of a friend/relative	5.3
Not important to choose a hospital	1.0

The table presents survey responses in which participants were asked to identify the three most important factors in their decision-making process when selecting a hospital. The percentages represent the proportion of respondents who ranked each factor among their top three choices

<sup>a</sup> Percentage of respondents choosing each factor as one of the three most important factors



**Fig. 2** Marginal effects on choosing current status. The marginal effects of various factors on the likelihood of respondents choosing the current healthcare status, with confidence intervals. Factors include additional insurance, age, arabic (language of the questionnaire), health status, prior experience, living in rural area and sex – women. The dotted red line represents no effect (zero). Each point indicates the average marginal effect

the Arabic questionnaire increased this likelihood by 7% holding all other factors constant.

Finally, Table 4 reports responses from individuals asked to identify the three most crucial factors in choosing a hospital. Here as well, waiting times emerged as the most important factor, with 64% of respondents highlighting it as a key factor. Following closely, the availability of specialized expertise or a centre of excellence in the required medical field was deemed essential by 51% of participants. Additionally, good service and a positive attitude from hospital staff were important to 43% of those surveyed. It is worth noting that only a small proportion of respondents (1%) claimed that the selection of a hospital was not important to them. Surprising disparities emerged in this context as well, with 3.4% of respondents possessing basic coverage indicating that selecting a hospital was not of significant importance, in contrast to the mere 0.4% of individuals with additional insurance.

## Discussion

This study aimed to explore public preferences regarding hospital choice prior to the Israeli 2023 reform, evaluate the relative importance of key hospital attributes influencing healthcare decision-making – specifically hospital type, location and appointment availability, assuming a baseline of high-quality care – and analyse how these preferences vary across demographic and socio-economic groups.

The findings highlight significant disparities in public preferences related to hospital choice. While there is a general preference for greater choice across all groups, support for the pre-reform system of restricted patient choice was more commonly associated with individuals who have only public health insurance coverage and those who completed the survey in Arabic.

This inequality is particularly evident when considering the structural biases inherent in the pre-reform system, which often prevents individuals from effectively exercising their right to choose. Instead, decisions were frequently made by health plans, whose priorities may not always align with the needs and preferences of patients. Our research underscores this issue, illustrating that the presented alternatives – while seemingly advantageous to patients – can inadvertently perpetuate discrimination and disadvantage. This aligns with existing literature, which suggests that healthcare reforms aimed at expanding choice can inadvertently widen gaps in healthcare access between social groups, as different populations may utilize expanded options unequally [18, 25].

Another notable finding is that participants in our study prioritized shorter waiting times for medical services, with geographic proximity identified as the second most important attribute. This preference was consistent

across both outpatient clinics and surgical services, as well as in relation to respondents' previous experiences within the healthcare system. While the 2023 reform introduces changes that may be perceived by the majority of the public as welcome and appropriate, waiting times – identified as the most important attribute – are not addressed within the reform [2]. Moreover, the reform's focus on expanding patient choice could inadvertently lead to longer waiting times at popular hospitals, potentially undermining public perceptions of the reform's deservingness. Public assessments of a policy's "deservingness" – particularly among its intended beneficiaries – play a critical role in shaping support for the policy's sustainability [26]. A failure to address waiting times may diminish public approval, ultimately jeopardizing the long-term viability of the reform.

The main limitation of our study is the reliance on online questionnaires administered to a representative sample of the Israeli population, which may introduce selection bias. This method depends on individuals with internet access and the willingness to complete the survey. To address this limitation, we implemented measures to control the sampling process, ensuring that respondents' background characteristics reflected the broader Israeli population.

Another limitation is the generalized approach of the questionnaires, which addressed two types of medical services without considering the specific nature of the service, the complexity of respondents' medical conditions or the urgency of the required care. These factors can significantly influence preferences. Consequently, the responses obtained may reflect generalized preferences rather than those specific to particular situations.

While our study offers valuable insights into the attributes preferred by respondents, further research is needed to investigate public preferences for specific services and their relation to patients' medical conditions.

## Conclusions

This study does not directly evaluate whether the 2023 reform will promote equality but instead identifies public preferences and potential barriers to its equitable implementation. The findings reveal significant disparities in public preferences regarding hospital choice, emphasizing the critical importance of addressing shorter waiting times and geographic proximity – attributes most valued by participants.

By shedding light on these disparities, our study provides valuable insights into pathways for developing policies that expand choice while implementing mechanisms to ensure equitable access and mitigate unintended consequences, such as choice overload and widening disparities in access to care.



## Abbreviations

HP	Health plan
DCE	Discrete choice experiment
MoH	Ministry of Health
HT	Hospital type
D	Distance
WT	Waiting time

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Not applicable.

## Author contributions

Empirical strategy S.B.G. Study design and conception, data collection, analysis and interpretation of results and drafting the manuscript: G.L. and S.B.G. All authors reviewed the results, made important edits to the manuscript and approved the final version of the manuscript.

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## Availability of data and materials

We will share our statistical code, study protocol and study tools upon request.

## Declarations

### Ethics approval and consent to participate

We have no conflicts of interest to disclose.

### Consent for publication

Not applicable.

### Competing interests

The authors declare no competing interests.

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