Appendix 1: Characteristics of the included DCEs

Supplemental Table 1. Characteristics of the included DCEs

ID	Country	Setting	Type of diseases	Perspective	Domains			
					Capabilities	Efficiency	Affordability	Convenience
Ryan M 2001[1]	UK	Delivery of healthcare in clinics	Rheumatology	Patient	√	√	×	×
Ratcliffe J 2002[2]	England	Treatment of asthma	Asthma	Patient	√	×	√	×
Albada A 2009[3]	Netherlands	Choice of ambulatory hospital care centers	Chronic diseases	Patient	√	√	×	×
Dwight-Johnson M 2010[4]	US	Treatment of depression	Depression	Patient	√	×	√	×
Okumura Y 2012[5]	Japan	Treatment of depression	Depression	Patient	√	×	×	√
Lathia N 2013[6]	Canada	Outpatient treatment of febrile neutropenia	Non-Hodgkin lymphoma	Patient	√	×	√	×
Whitty JA 2013[7]	Australia	Delivery of disease management programs	Chronic heart failure	Patient	√	×	√	×
Groenewoud S 2015[8]	Netherlands	Choice of healthcare providers	Knee arthrosis, Chronic depression, Alzheimer's Disease	Patient	√	√	√	√
Wong SF 2016[9]	Australia	Health care appointments	Cancer	Patient	√	√	√	√
O'Hara NN 2016[10]	Canada	Treatment of shoulder osteoarthritis	Shoulder osteoarthritis	Patient	√	√	√	√
Kruk ME 2016[11]	Ethiopia/Mozambique	Treatment of HIV	HIV	Patient	√	×	√	×
Miners AH 2017[12]	England	Clinic appointments	HIV	Patient	√	√	×	×
Kim WL 2017[13]	Korea	Choice of hospitals	Carpal Tunnel Syndrome	Patient	√	√	√	√

Tinelli M 2018[14]	Cyprus	Diabetes care in community	Diabetes	Patient	√	√	×	×
Zanolini A 2018[15]	Zambia	Choice of clinics	HIV	Patient	√	√	×	√
Mishra V 2018[16]	India	Diabetes care in clinics	Diabetes	Patient	√	√	√	√
Mc Morrow L 2018[17]	UK	Diabetes care in clinics	Diabetes	Patient	√	√	√	×
Oliver D 2019[18]	Canada	Primary care appointments	Chronic diseases	Patient	√	√	×	×
Krinke KS 2019[19]	Germany	Primary care provision	Chronic diseases	Patient	√	×	×	√
Jia EP 2019[20]	China	Medical service utilization	Chronic diseases	Patient	√	×	×	√
Eshun-Wilson I 2019[21]	Zambia	Healthcare service delivery model	HIV	Patient	√	√	×	×
Fletcher B 2019[22]	UK	Management of hypertension	Hypertension	Patient	√	×	√	×
Shen X 2019[23]	China	Medical service utilization	Chronic diseases	Patient	√	×	√	√
Peng YY 2019[24]	China	Medical service utilization	Chronic diseases	Patient	√	×	×	√
Zhu J 2019[25]	China	Healthcare providers for primary care	Diabetes	Patient	√	√	×	×
Zhang H 2019[26]	China	Chronic disease appointments	Chronic diseases	Patient	√	×	√	×
Wang X 2019[27]	China	Urban integrated primary care	Diabetes	Patient	√	×	√	√

Notes: The included studies were sorted according to the date of publication.

"√" meant that attributes were identified in DCEs, while "×" implied that attributes were not identified in DCEs.

The general term "chronic disease" was used in the type of chronic diseases, due to the specific types remained unclear.

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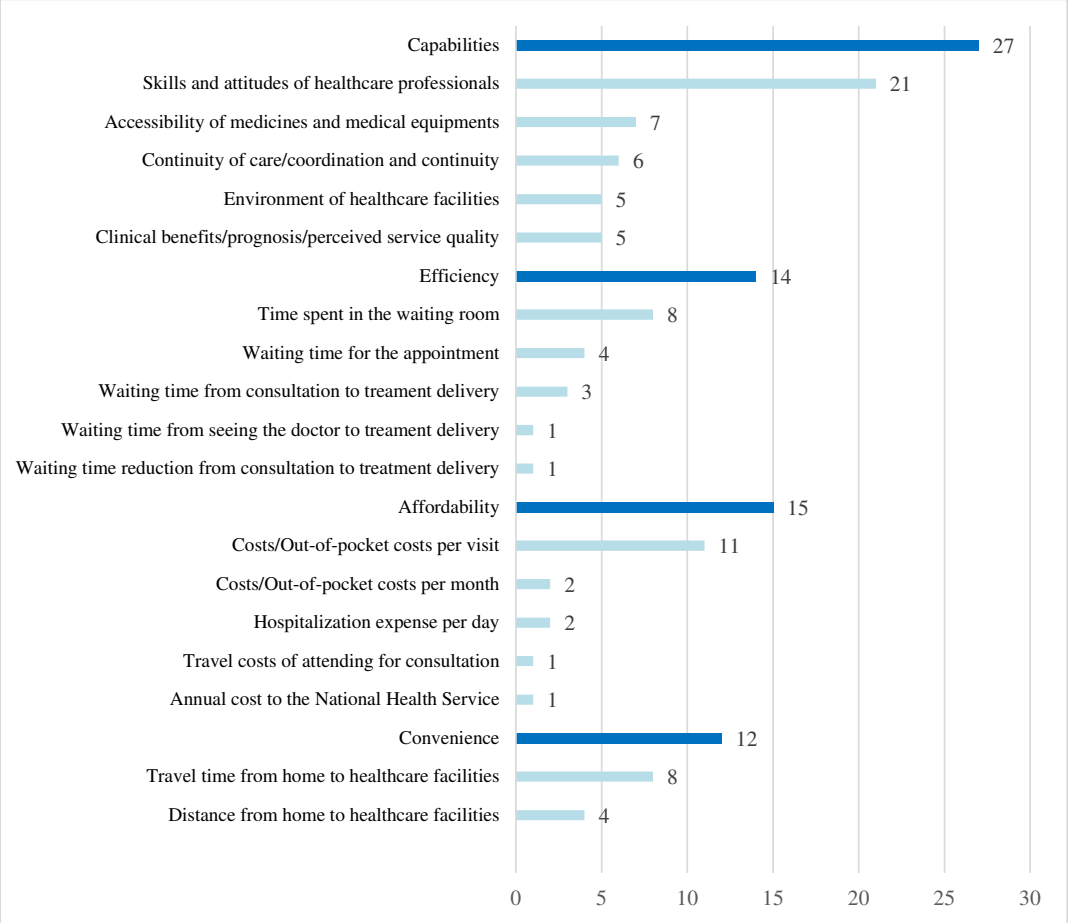
Appendix 2: Domains and attributes in the included DCEs



Supplemental Figure 1. Domains and attributes in the included DCEs

Domains of the attributes

Each attribute in the domains.

Notes: Numbers represent for numbers of literatures that mentioned the relevant domains or attributes. Several literatures had more than one attribute in the same domain. Physician-patient communication was included in the attribute “skills and attitudes of healthcare professionals”.

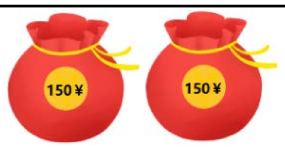
Appendix 3: Explanations to attributes and levels

Investigators were required to convey the following definitions to patients:

- Treatment effects: 'Good treatment effects' means that the ideal treatment goals set out in the evidence-based guidelines for individual patients can be achieved, and your complications disappear; 'Moderate treatment effects' suggests that although the blood pressure is almost to the ideal treatment goals, the complications still exist; 'Poor treatment effects' implies that both blood pressure and complications are not well controlled.
- 'Physician-patient communication' refers to the communication between the physician and the patient. 'Good' suggests that the physician always treats patients with respect, listens carefully when the patient is explaining, and engages the patient in clinical decision-making; 'Moderate' implies that the physician sometimes treats patients with respect, and sometimes feels boring and becomes impolite; listening to patients explaining, but not likely to involve the patient in clinical decision-making; 'Poor' indicates that attitude of the physician is impatient and impolite, never engages the patient in clinical decision-making.
- 'Continuity of care' suggests that the healthcare facility operates in a well-functioning integrated care delivery system, which can provide coordinated healthcare services for chronic disease patients, i.e. the appropriate care and care management is perceived to occur at the right time and in the right order.
- 'Waiting time' is the amount of time for patients seeking care at the healthcare facility before being attended for physician consultation, i.e. the time from registration to seeing a physician.
- 'Travel time' refers to the time it takes for the patient to drive from home to the healthcare facility (one way). In our study, the travel time is measured by taking a taxi or private car.
- The cost is defined as the out-of-pocket costs per visit if reimbursed, including the direct medical costs when accessing care. Those who participate in public health insurance programs may be eligible to receive reimbursement which contributes to reducing the out-of-pocket costs.

Appendix 4: Examples of DCE choice sets

Suppose you have poor blood pressure control, which results in uncomfortable symptoms like dizziness, headache, palpitation, chest pain, shortness of breath, nausea. If you can only choose one type of healthcare service for your first-contact visit, which one would you prefer? Please think carefully and make a trade-off.

Attributes	Type A	Type B
Treatment effects	 Moderate	 Poor
Out-of-pocket costs (if reimbursed)	 CNY 300 per visit	 CNY 150 per visit
Physician-patient communication	 Poor	 Moderate
Continuity of care	 Yes	 No
Waiting time	 Within 0.5 hour	 2 hours
Travel time	 3 hours	 Within 1 hour
Your choice	☐	☐

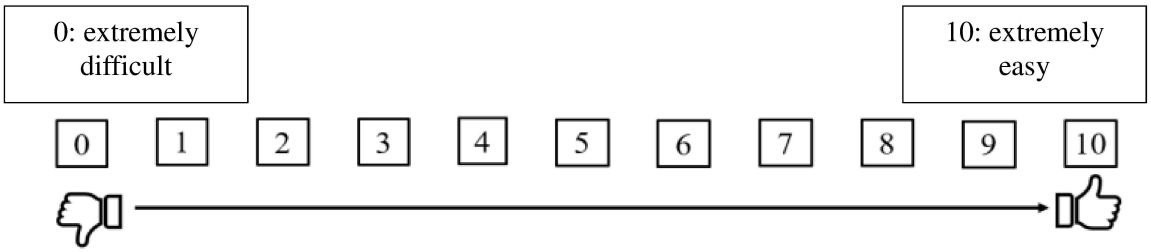
Here are the descriptions of the sampling choice sets.

If you follow the doctor's advice in healthcare facility A, although your blood pressure will be controlled to the ideal treatment goals, severe clinical syndromes and complications still exist. The out-of-pocket cost for your first-contact care in healthcare facility A is CNY 300 per visit. The attitude of the doctor is impatient and doesn't allow you to express your own opinions. However, healthcare facility A would provide you with continuous and coordinated healthcare services. You need to wait for 0.5 hours in the waiting room to see the doctor. It will take you 3 hours to travel from your home to healthcare facility A by car or taxi.

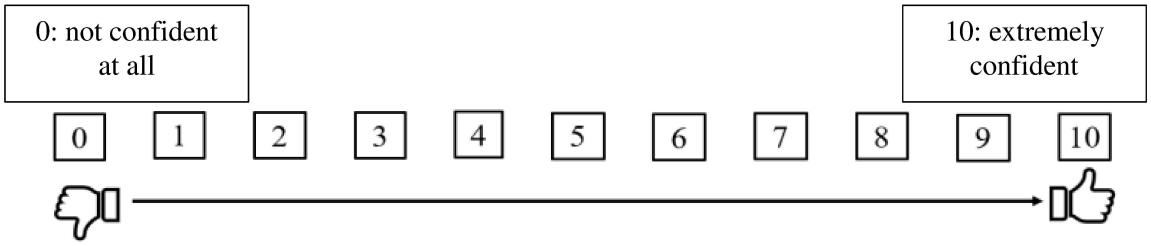
If you follow the doctor's advice in healthcare facility B, both blood pressure and complications will not be controlled at a satisfactory level. However, the out-of-pocket cost for your first-contact care in healthcare facility B is CNY only 150 per visit. The doctor may ask you for your own experience of getting the disease and allow you to express your own ideas, but not likely to make decisions according to your preference and opinions. Healthcare facility B would not provide you with continuous and coordinated healthcare services. You need to wait for 2 hours in the waiting room to see the doctor. It will take you less than 1 hour to travel from your home to healthcare facility B by car or taxi.

Appendix 5: Evaluation of patients' understanding and confidence in DCE choices

1. Do you feel difficult or easy to understand the DCE scenarios and choice sets? Please select the level from zero to 10 and give a tick '√' in the score to reflect your understanding:



2. Are you confident in your choice of healthcare services? Please select the level from zero to 10 and give a tick '√' in the score to represent your confidence:



Appendix 6: Number of patients in the sampled healthcare facilities

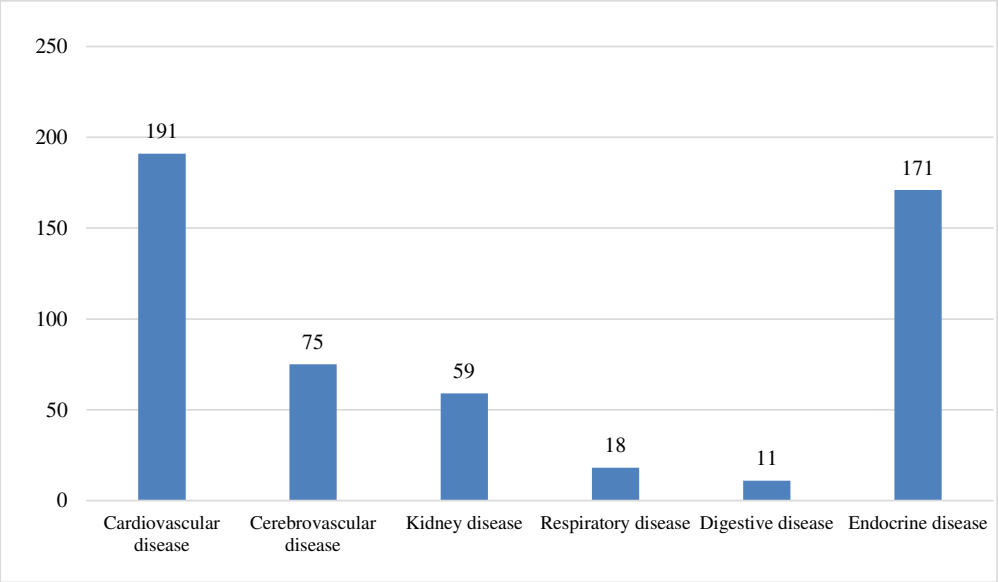
Supplemental Table 2. Number of patients in the sampled healthcare facilities (N=703)

Name of hospitals and health centers	City/District*	Province	Grade#	Number of patients
Affiliated Hospital of Nantong University	Nantong	Jiangsu	3	249
Tongzhou No.3 People's Hospital	Nantong	Jiangsu	2	30
Rudong Yangkou Hospital	Nantong	Jiangsu	1	90
Chongchuan Fumin Health Center	Nantong	Jiangsu	1	29
Xiangshui People's Hospital	Yancheng	Jiangsu	2	113
Dongtai People's Hospital	Yancheng	Jiangsu	2	45
Donghai People's Hospital	Lianyungang	Jiangsu	2	59
Pujiang Community Health Service Center	Pujiang	Shanghai	1	58
Zhuanqiao Community Health Service Center	Minhang	Shanghai	1	30

Notes: *Districts in Shanghai municipality.

#In China, hospitals are divided into three grades, tertiary, secondary, and primary, with tertiary hospitals being the highest grade. The primary healthcare facilities consist of community health service centers or stations, which are located in urban areas, and township healthcare centers, which are located in rural areas. A secondary hospital is similar to a regional hospital. A tertiary hospital is a comprehensive, referral hospital at the city, provincial or national level, with at least 500 hospital beds that are able to provide advanced and specialized medical services.

Appendix 7: Types of comorbidities in the patients



Supplemental Figure 2. Number of patients with comorbidities

Appendix 8: Sensitivity analysis of the mixed logit model

Supplemental Table 3. Estimates of the mixed logit model for patients in Jiangsu province (N=615)

Attributes	Mean (SE)	SD (SE)
Treatment effects		
Poor(ref)	-5.137*** (0.465)	
Moderate	-0.137 (0.104)	-0.889*** (0.196)
Good	5.273*** (0.475)	2.708*** (0.283)
Physician-patient communication		
Poor(ref)	-0.881*** (0.115)	
Moderate	0.003 (0.068)	-0.073 (0.157)
Good	0.878*** (0.107)	0.471*** (0.128)
Continuity of care		
No(ref)	0.368*** (0.059)	
Yes	0.368*** (0.059)	0.471*** (0.110)
Waiting time		
4 hours or longer (ref)	-0.526*** (0.087)	
2 hours	0.090 (0.075)	0.323* (0.153)
Within 0.5 hour	0.436*** (0.073)	0.316 (0.169)
Travel time		
6 hours or longer (ref)	-1.707*** (0.156)	
3 hours	0.302*** (0.076)	0.574*** (0.137)
Within 1 hour	1.405*** (0.128)	0.935*** (0.123)
Out-of-pocket costs per visit (if reimbursed)		
Cost (per CNY50)	-0.191*** (0.024)	0.240*** (0.036)
Log likelihood	-1959.9002	
Observations	9840	

Notes: Ref, reference; SE, standard error; SD, standard deviation; HRQoL, Health-related quality of life; CNY, Chinese yuan.

*p<0.05; **p<0.01; ***p<0.001

Appendix 9: Results of the interaction effects

Supplemental Table 4. Model estimation of the interaction effects between attributes and patients' characteristics

Attributes	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Treatment effects										
Poor(ref)	-4.874***	0.466	-3.352***	0.302	-4.319***	0.439	-3.894***	0.365	-4.340***	0.429
Moderate	0.059	0.155	-0.091	0.110	-0.018	0.133	-0.234*	0.118	-0.180	0.122
Good	4.816***	0.452	3.443***	0.308	4.337***	0.438	4.128***	0.378	4.520***	0.440
Physician-patient communication										
Poor(ref)	-0.692***	0.130	-0.542***	0.104	-0.659***	0.120	-0.772***	0.116	-0.780***	0.122
Moderate	0.038	0.098	-0.102	0.080	-0.021	0.087	0.019	0.083	-0.045	0.082
Good	0.654***	0.121	0.644***	0.097	0.680***	0.110	0.752***	0.107	0.824***	0.113
Continuity of care										
No(ref)	-0.248***	0.075	-0.236***	0.058	-0.190**	0.065	-0.313***	0.063	-0.408***	0.067
Yes	0.248***	0.075	0.236***	0.058	0.190**	0.065	0.313***	0.063	0.408***	0.067
Waiting time										
4 hours or longer(ref)	-0.375***	0.114	0.469***	0.090	-0.439***	0.104	-0.434***	0.095	-0.538***	0.098
2 hours	0.109	0.106	0.008	0.085	-0.029	0.093	0.116	0.086	0.0004	0.085
Within 0.5 hour	0.266**	0.096	0.461***	0.082	0.468***	0.096	0.318***	0.082	0.537***	0.087
Travel time										
6 hours or longer(ref)	-1.763***	0.175	-1.259***	0.127	-1.204***	0.137	-1.451***	0.139	-1.727***	0.170
3 hours	0.253*	0.103	0.159*	0.080	0.136	0.087	0.206*	0.084	0.249**	0.082
Within 1 hour	1.510***	0.154	1.100***	0.114	1.068***	0.123	1.245***	0.122	1.477***	0.150
Out-of-pocket costs per visit (if reimbursed)										
Cost (per CNY50)	-0.202***	0.031	-0.167***	0.025	-0.153***	0.028	-0.168***	0.024	-0.199***	0.028

Interactions with demographics	Income		Age		Comorbidities		Type of healthcare facilities		EQ-5D-5L index value	
Treatment effects										
Moderate	-0.455*	0.204	-0.334	0.188	-0.348	0.191	0.056	0.180	-0.081	0.205
Good	0.406	0.275	2.839***	0.801	0.986*	0.442	0.898*	0.452	1.748**	0.612
Physician-patient communication										
Moderate	-0.201	0.128	0.133	0.126	-0.070	0.130	-0.156	0.121	0.021	0.139
Good	0.377*	0.154	0.442*	0.183	0.272	0.155	0.102	0.149	0.171	0.178
Continuity of care										
Yes	0.185	0.101	0.232*	0.102	0.318**	0.108	0.045	0.093	-0.130	0.110
Waiting time										
2 hours	-0.137	0.139	0.017	0.136	0.143	0.136	-0.193	0.128	0.006	0.152
Within 0.5 hour	0.396**	0.134	0.044	0.130	0.023	0.135	0.315*	0.132	-0.002	0.143
Travel time										
3 hours	-0.075	0.132	0.111	0.125	0.158	0.131	-0.012	0.125	-0.039	0.133
within 1 hour	-0.121	0.159	0.533**	0.189	0.588**	0.176	0.144	0.170	-0.034	0.202
Out-of-pocket costs per visit (if reimbursed)										
Cost (per CNY50)	0.010	0.038	-0.017	0.039	-0.068	0.039	-0.015	0.037	0.002	0.042
Log likelihood	-2271.4592		-2283.4658		-2278.9024		-2289.7129		-2280.1412	
Participants	703		703		703		703		703	
Observations	11248		11248		11248		11248		11248	

Notes: Ref, reference. Monthly household income: CNY 4000 or less=0, Higher than CNY 4000=1; Age: Young or middle-aged (aged 64 or younger)=0, Elderly (aged 65 or older)=1; Comorbidities: No comorbidities=0, With comorbidities=1; The most frequently visited healthcare facilities: Community health centers=0, Secondary or tertiary hospitals=1; EQ-5D-5L index value: 0.85 and below=0, Higher than 0.85=1.
*p<0.05; **p<0.01; ***p<0.001