

# Health-Related Quality of Life and its Associate Factors among Residents in Tianjin, China: Findings from 2023 National Health Service Survey

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## Objectives

- ◆ To examine the health-related quality of life (HRQoL) among residents in Tianjin, China, by using the EQ-5D-5L and investigate the factors that influence the HRQoL.

## Methods

### ◆ Data source

Data used in this study were obtained from the 2023 National Health Service Survey (NHSS) in Tianjin.

### ◆ Study population

Respondents aged  $\geq 15$  years completed the EQ-5D-5L through face-to-face interviews.

### ◆ Measures

#### ✓ Dependent variable

The EQ-5D-5L utility score was calculated using the Chinese EQ-5D-5L value set.

#### ✓ Independent variable

##### - demographic and socioeconomic

(i.e., gender, age, employment status)

##### - health behaviors

(i.e., physical activities, medical examinations)

##### - disease-related characteristics

(i.e., chronic disease, discomfort in 2 weeks)

#### ✓ Statistical analysis

- Ordinary least square regression (OLS) model

## Results

### ◆ Baseline characteristics

- ✓ A total of **3,744** respondents (48.48% male, mean [SD] age 53.48 [17.20]) were included in this study.
- ✓ The mean (SD) EQ-5D-5L utility value was **0.95 (0.16)**.

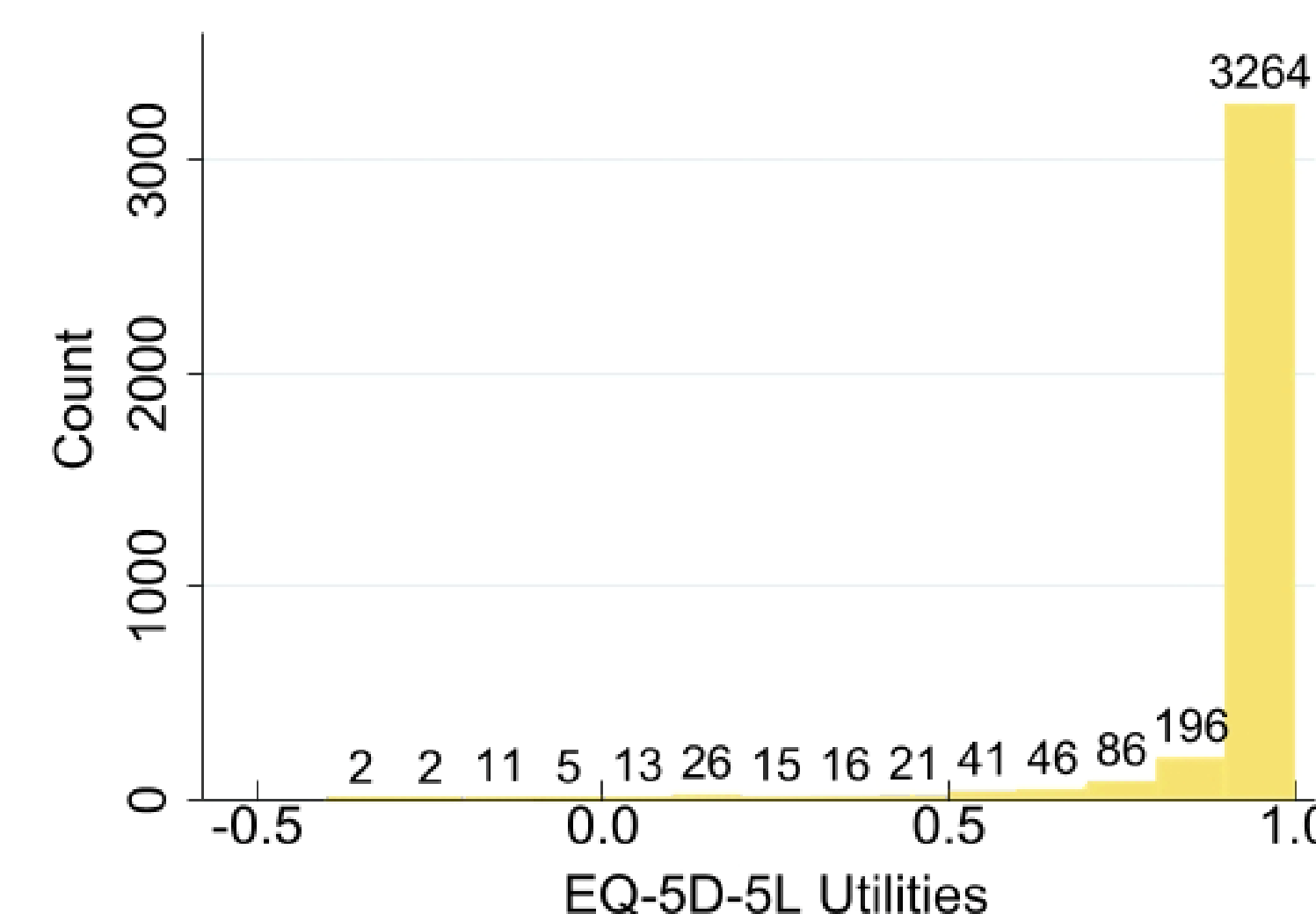


Figure 1 Distribution of EQ-5D-5L Utilities

Dimension	Reported problems (%)
Mobility	9.32%
Self-care	4.90%
Usual activity	7.29%
Pain/Discomfort	16.40%
Anxiety/Depression	7.24%

Table 1 Proportion of individual reporting problems in each dimension of the EQ-5D-5L

### ◆ Associate factors of HRQoL

OLS model showed that lower EQ-5D-5L index scores were associated with older age, lower levels of education, recipients of medical assistance, jobless situation, lack of medical examinations, diabetes, hypertension, and other chronic diseases, discomforts in 2 weeks, accidental injuries, and more of regular physical activities.

## Conclusions

- ◆ Overall, the Tianjin residents have a good level of HRQoL. Low socioeconomic status, bad health behaviors and various disease and injury situations were associated with poor HRQoL.

Independent variables	$\beta$	p
<b>Sex (male)</b>	0.00378	0.420
<b>Age group(15-29)</b>		
30-44	-0.00141	0.896
45-59	0.00179	0.872
60-74	-0.0163	0.203
75-	-0.0681***	0.000
<b>Education(Primary or lower)</b>		
Junior high school	0.0280***	0.000
Senior high school	0.0144*	0.082
College or higher	0.0127	0.147
<b>Medical assistance(Yes)</b>		
No	0.0889***	0.000
<b>Work status(Employed)</b>		
Retired	-0.00771	0.363
Student	-0.0152	0.299
Unemployed	-0.0193	0.186
Jobless	-0.0435***	0.000
<b>Medical examinations in the past year(Yes)</b>		
No	-0.0186***	0.000
<b>Diagnosis of hypertension(Yes)</b>		
No	0.0280***	0.000
<b>Diagnosis of diabetes(Yes)</b>		
No	0.0214***	0.006
<b>Diagnosis of other chronic diseases(Yes)</b>		
No	0.0906***	0.000
<b>Suffer from disease within two weeks(No)</b>		
Yes	-0.0161**	0.016
<b>Accidental injury(Yes)</b>		
No	0.0914***	0.000
Don't know(remember)	0.0567	0.323
<b>Regular physical activities(1 time/week)</b>		
2(times/week)	-0.0118	0.111
3(times/week)	-0.0170**	0.039
4(times/week)	-0.0451***	0.005
5(times/week)	-0.0505***	0.000
<b>Constant</b>	0.702***	0.000
R-squared		0.231

Standard errors in parentheses\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 Result of OLS model