



Supplementary Material

Characteristics of Non-Emergent Visits in Emergency Departments: Profiles and Longitudinal Pattern Changes in Taiwan, 2000–2010

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Table S1. Average marginal effect (AME) by factors for non-emergent ED visits from three representative study cohorts (LHID2000, LHID2005, LHID2010) in Taiwan. ($n = 1,000,000$ for each cohort, total ED visits, $n = 475,862$).

	Average marginal effect (AME) ¹			
	AME	(95 % C.I.)	P-value	Sig. ²
<u>Systematic-level factor</u>				
2000	-2.72	(-3.09--2.35)	<0.001	***
2005		-base level-		
2010	3.72	(3.38-4.05)	<0.001	***
<u>Personal-level factors</u>				
<u>Demographic factor</u>				
Gender				
Female		-base level-		
Male	-5.89	(-6.18--5.60)	<0.001	
Age group				
0-19		-base level-		
20-39	-3.55	(-4.07--3.04)	<0.001	***
40-59	-4.69	(-5.23--4.16)	<0.001	***
60-79	-4.43	(-4.96--3.91)	<0.001	***
80-	-7.48	(-8.18--6.78)	<0.001	***
<u>Socio-economic factors</u>				
Income (NTD)				
Dependent		-base level-		
1-19999	-1.62	(-2.05--1.19)	<0.001	***
20000-39999	-0.48	(-0.97-0.01)	0.057	
40000-	1.13	(0.45-1.80)	0.001	**
Geographical Residence				
Northern area		-base level-		
Eastern area	-2.65	(-3.47- -1.83)	<0.001	***
Middle area	3.95	(3.53-4.36)	<0.001	***
Southern area	2.66	(2.31-3.01)	<0.001	***
Urbanization of living area				

Most urbanization	0.03 (-0.35-0.41)	0.871	
More urbanization	-base level-		
Middle urbanization	-0.61 (-1.04--0.19)	0.005	**
Less urbanization	-0.75 (-1.21--0.29)	0.001	**
Least urbanization	-2.41 (-2.94--1.87)	<0.001	***

Past health utilization in last year

Any hospitalization

None	-base level-		
One time	-1.97 (-2.40--1.54)	<0.001	***
>= two times	-4.39 (-4.95--3.83)	<0.001	***

No. of ED visits

None	-base level-		
Low (1-2 times)	-0.96 (-1.28--0.63)	<0.001	***
High (>=3 times)	-2.45 (-2.90--2.01)	<0.001	***

No. of outpatient visits

Low (0-11 times)	-base level-		
Middle (12-26 times)	0.39 (0.04-0.74)	0.03	*
High (>= 27 times)	0.91 (0.51-1.32)	<0.001	***

No. of TCM³ outpatient visits

None	-base level-		
Low (1-2 times)	0.89 (0.49-1.30)	<0.001	***
High (>= 3 times)	1.23 (0.84-1.63)	<0.001	***

ED visit-level factors

Hospital accreditation level

Medical centers	-3.18 (-3.52--2.84)	<0.001	***
Metropolitan hospitals	-base level-		
Local community hospitals	0.31 (-0.04-0.67)	0.085	

Season

Spring (Mar-May)	0.46 (0.07-0.85)	0.02	*
Summer (Jun-Aug)	3.06 (2.67-3.45)	<0.001	***
Fall (Sep-Nov)	1.11 (0.71-1.51)	<0.001	***
Winter (Dec-Feb)	-base level-		

Holiday

No	-base level-		
Yes	0.54 (-0.01-1.10)	0.056	

Day of the Week

Sunday	2.13 (1.42-2.85)	<0.001	***
Monday	1.09 (0.54-1.64)	<0.001	***
Tuesday	0.93 (0.37-1.49)	0.001	**
Wednesday	0.44 (-0.13-1.00)	0.129	
Thursday	-base level-		
Friday	0.49 (-0.08-1.05)	0.091	

Saturday	0.53 (-0.16-1.23)	0.131	
Cost-sharing			
Yes	-base level-		
Waived	3.15 (2.74-3.56)	<0.001	***

¹ AME were calculated using a logistic model adjusted for listed factors in addition to Charlson's index. The most frequent level of each factor was used as the base value. ² Significance level: *: P<0.05; **: P<0.01; ***: P<0.001. ³ TCM: Traditional Chinese Medicine was considered a mainstream visit in addition to outpatient clinics and covered in Taiwan's insurance scheme.



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