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= ABSTRACT =

**A study on appropriateness of price of medical care  
service in health insurance**

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By expanding health insurance, customers will carry a smaller burden of medical costs. As a result, the number of visits to a physician increase and this result in the improvement of medical accessibility. But medical care utilization may be changed not only by insurance status but also by socio-demographic factor, economic status and other factors. The question thus remains, at which level of accessibility and what price of medical care service in health insurance will the customer and the medical care service be satisfied.

The price of medical care service is comprised of the customer's out-of-pocket money and the costs not covered by health insurance. If the price of medical care services in health insurance are appropriate, medical care utilization should not differ because of the difference in income status or the acuteness of illness. But If the price is not adequate, low income groups will receive relatively low medical care utilization, particularly in the case of chronic disease. The purpose of this study is to evaluate the differences in medical care utilization among the various income groups and those with varying acuteness of illness.

The major hypotheses to test in this study are : ( ) whether there are differences in medical care utilization among different income groups exist, ( ) whether differences in medical care utilization among different income groups exist with the hospital type. ( ) whether differences in medical care utilization among different income groups exist with the acuteness of illness and with age.

The data was collected from the JongRo District Health Insurance Society in Seoul. A total of 118,336 persons were selected as the final sample for this study.

The major findings of this study were as follows ;

1. The volume of ambulatory utilization among users was statistically

significant by income level.

2. Among different income groups, the volume of ambulatory utilization was statistically significant by the acuteness of illness.

3. Higher income groups with chronic diseases had a greater volume of ambulatory utilization than other groups.

Key words : income, utilization volume, acuteness of illness

## I.

### 1.

1977 12  
가 가  
가 가 . 가  
가 1.7 , 2 가  
( , 1986).  
36.8% , 68.7% 가 ( , 1985).  
가  
가 가  
가 (Kleinman et al., 1981; , 1988; , 1990),  
가

( , 1992. , 1994).

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1989).

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2.

(acuteness)

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가 .  
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## II.

1.

1996 6 가 43,750  
가 118,336  
가 가 2,455 115,881  
6 (96 1 96 6 )  
1996 6

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 가 ,  
 ( , , 가 ) .

2.

가 , ,  
 가  
 25% , 25%  
 2).  
 가

RAND (Lohr, 1986)  
 가 (medical effectiveness group)  
 가  
 (A00- A09), (H10.1- 10.3), (H65.0- H65.1),  
 , (J01- J03), (J12- J18), (J20- J22) 8  
 (E00- E07), (E 10- E 14),  
 (I10- I15), (H65.2- H65.3), , (I49- I50),  
 (J41- J42) 7

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2)  
 (51,198.57 ± 14,649.65), (21,288.47 ± 5,062.22), (10,044.84 ± 3,112.66)

1.

1.

1)

(AGE)

(SEX)

0 :

1 :

(INCOME)\*

2)

(HOSPITAL)

1)

2)

3)

(ACUTE)

0 :

1 :

(PHOS1)

(

/

) × 100

(PHOS2)

(

/

) × 100

2.

(VISIT)

\*

( 25%)

( 25%),

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3.

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LOGVISIT =(AGE, AGE<sup>2</sup>, SEX, INCOME, ACUTE, PHOS1, PHOS2,  
INCOME\*ACUTE) ..... 1

1

test) , (ANOVA) (Chi-square) (Kruskal-Wallis

(multiple regression)

### III.

1.

가 115,881  
 2 . 15 49 가 61.4% 14 18% ,  
 50 21% . 50.1% ,  
 49.9% 가 .







가 , 25%  
 25% , 가  
 . 가  
 (power) .  
 . 가 가

5. :

	N	±	N	±
	12,372	5.4 ± 6.7 <sup>b</sup>	248	5.3 ± 6.6
	21,739	5.1 ± 6.0	435	5.1 ± 6.1
	8,230	5.5 ± 6.8 <sup>b</sup>	165	6.4 ± 9.8
F-	24.39 <sup>***</sup>		2.26	

<sup>b</sup> : (tukey)

\* : p<0.05 \*\* : p<0.01 \*\*\* : p<0.001

6. ( : %)

	1	2	3	4	5	6	
	23.9	16.9	11.6	9.4	6.8	31.5	100
	25.7	17.5	11.8	8.8	7.2	29.1	100
	24.0	15.9	11.4	9.5	7.2	32.1	100

\*  $\lambda^2 = 44.09$  (p<0.05)

4 가 1-5 가

70% 가

( 6). 가 1-3 가 4

2) 가

가

가

( 7). 가

7. ( : )

	N	±	N	±	N	±
	4,389	3.8 ± 4.7 <sup>b</sup>	785	3.4 ± 4.2	9,343	5.0 ± 6.3 <sup>b</sup>
	6,260	3.4 ± 3.8	1,108	3.5 ± 5.9	16,931	4.8 ± 5.8
	2,665	3.8 ± 4.6 <sup>b</sup>	611	3.6 ± 5.0	6,375	5.2 ± 6.5 <sup>b</sup>
F-	11.26 <sup>***</sup>		0.21		8.80 <sup>***</sup>	

<sup>b</sup> : (tukey)  
<sup>\*</sup> : p<0.05    <sup>\*\*</sup> : p<0.01    <sup>\*\*\*</sup> : p<0.001

3)

15,919

37.6%

8

가

가

8.

( : )

	N	±	N	±
	3,371	3.3 ± 3.4	1,428	4.1 ± 5.1
	6,653	3.7 ± 4.0 <sup>a</sup>	1,550	4.1 ± 4.0
	2,051	3.5 ± 3.8	866	4.0 ± 4.1
	12,075	3.6 ± 3.8	3,844	4.1 ± 4.5
F-		11.24 <sup>***</sup>		0.16

<sup>a</sup> : (tukey)

\* : p<0.05    \*\* : p<0.01    \*\*\* : p<0.001

( 9).

. 14

가

15-64

. 65

가 . 가  
가

9. ( : )

	0- 14	15- 64	65	0- 14	15- 64	65
	4.0 ± 4.0	2.9 ± 2.9	3.4 ± 2.9	4.5 ± 4.0	3.8 ± 3.9	4.7 ± 7.3
(N)	(1,235)	(1,904)	(232)	(61)	(964)	(403)
	4.3 ± 4.4	2.8 ± 3.0	3.2 ± 2.9	3.9 ± 2.9	4.0 ± 4.0	4.5 ± 4.4
(N)	(3,978)	(2,473)	(202)	(116)	(1,104)	(330)
	4.5 ± 4.6	2.9 ± 3.1	3.2 ± 3.3	3.2 ± 2.4	3.8 ± 4.1	4.4 ± 4.3
(N)	(727)	(1,727)	(197)	(24)	(552)	(290)

F-

\* : p<0.05 \*\* : p<0.01 \*\*\* : p<0.001

4.

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( )<sup>2</sup>가

가 가







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가 가 가  
가 가 .  
, 가 (severity)  
,  
, (prestige) 가

가

(Stewart & Enterline, 1961; Kleinman et al, 1981; , 1990;  
, 1992). , 가 ( , 1996).  
, , , 가

가

가

가

, 가 가  
가 (multicollinearity) 가  
(aggregated-level unit)

(ecological fallacy)가 (Conner & Gillings, 1981).

가 가 6 가

가

Lohr(1986) RAND

가 가

가

(Birch et al,

1993; . , 1994).

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가 가 .

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115,881

42,341

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1996 1

1996 6

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2.

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3. , 14

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4. 가

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1994; 27(1): 117-34

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1990; 6: 61-91

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1994; 4(2): 58-76

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1992; 2(1):

167-203

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1986;

19(1): 137-45

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1987; 20(2): 287-300

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가

1988; 21(2): 419-30

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1989; 9

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