

(National Health Examination Survey)

A Study on Major Health Components of National Health Examination Survey in Korea

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- Abstract -

The purpose of this study was to identify the major health components and measurements to be conducted in National Health Examination Survey (KNHES). The prevalence and severity of disease, acceptability of population and the possibility of standardization of measurement were considered as guideline for selecting the components.

On the base of magnitude and severity of disease, chronic liver disease, hepatic cancer, gastric ulcer, stomach cancer, essential hypertension, cerebrovascular disease, ischemic heart disease, pulmonary tuberculosis, lung cancer, DM, breast cancer, cervical cancer, arthritis and intervertebral disc disorder were selected as the preliminary target diseases.

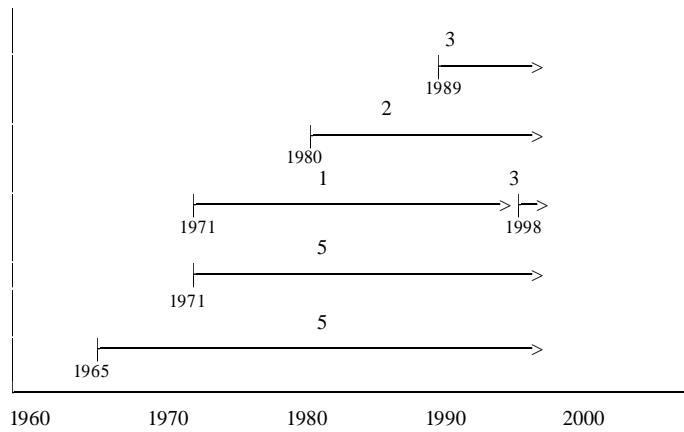
Questionnaire survey for 648 persons in 'K' city and medical specialists in five clinical societies were conducted for evaluating the acceptability of general population for the measurements and the possibility of standardization for the procedures.

In conclusion, the major target diseases were chronic liver disease, hypertension and DM and the total cholesterol, high density lipoprotein, triglyceride, total protein, albumin, hemoglobin, hematocrit, platelet count, anti-HBs, HBsAg, height and weight were selected for basic physical components..

Key words; Survey, Examination, Health Component, Target Disease

I.

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 1950 1960 5.1% (1965) 가
 . 1995 1.0% 20 가
 (, 1997),
 가 1965 가 5
 가
 90% 가
 1971 5
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 , 1980 가 1971
 1988
 . 1995
 1989 3 < 1 > .



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1989

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(, 1994).

(measuring the prevalence and comorbidity of diasese) 2) (analyzing the relationship between health and risk factors) 3) (establishing reference standard) 4) (monitoring the secular trends in health status) (USDHHS, 1997).

가

가

II.

1.

가 .
< 1>.

1.

가 () ()

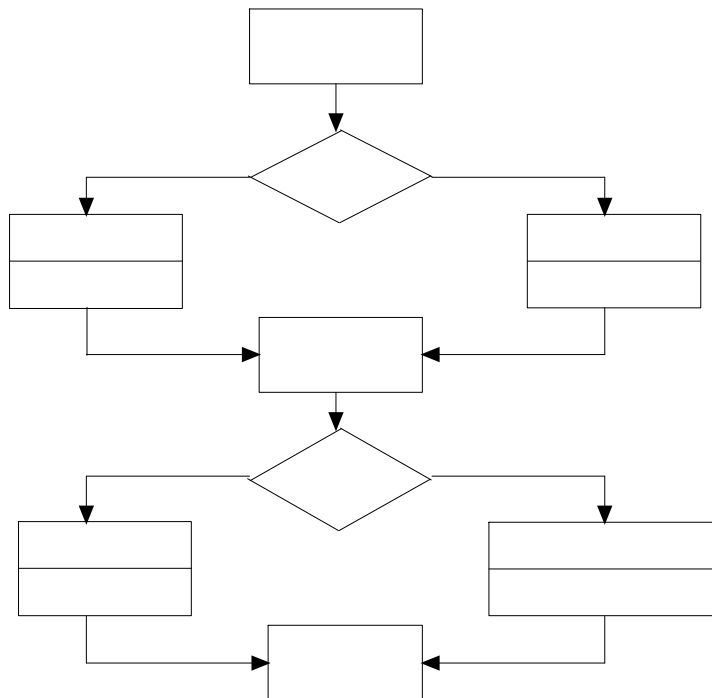
가

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- : 1) National Center for Health Statistics Series 1, No.4., 1973
- 2) Wilson JMG, Jungner G. Principles and practice of screening for disease. Pub Health Pap No. 34. Geneva, WHO, 1968

5

< 2>.



2.

1) 1995

20

10

2) 1995

10

3.

< 3 >

1)

'K' 20-69

648

'K'

8

, 8

'A' , 'B' , 'C'

648

< 2 >.

2.

	'A'		'B'		'C'		
20-39	49	67	70	66	32	33	317(48.9)
40-59	61	55	40	40	38	22	256(39.5)
60-69	9	14	13	18	10	11	75 (11.6)
	119	136	123	124	80	66	648(100.0)

2)

가

5

가

3.

			1. 2.
			1. 2. 3.
			1. 2.
			1. 2. 3. 4. 5.
		1. 2. 3.	(1,2,3)
			1. 2. 3.
	1)	, lipid profile, EKG, chest PA, PFT, Gastroscopy, AST/ALT, albumin, bilirubin, alkaline phosphatase, US, -feto protein, IVP, U/A, fasting blood sugar, OGTT, plain X-ray, Pap smear, mammography	1. 2. 3.
	가		1.가 2. 3. 가
		(, , , , ,), (Hgb,Hematocrit,WBC, RBC, Plt, MCV, MCH, MCHC), (T.Cholesterol, HDL, TG, BUN, Creatinine, AST/ALT, T.Protein, Albumin), (U/A routine, RBC, WBC) (, Anti-HBs, HBs Ag, Anti-HCV, AFP, Anti-HIV, PT, aPTT, Bleeding time, Coagulation time)	1. 2. 3.

1)

III.

1.

1)

1995

298

20

10

< 4 > .

4.

(1995)

1		4,158		253,274		3,922	387,993
2		3,703		229,974		2,821	357,622
3		3,096		200,660		2,537	349,362
4		2,850		141,224		2,379	199,166
5		2,693		120,435		2,100	179,655
6		2,678		99,881		2,066	167,962
7		2,608		81,236		1,944	133,402
8		2,506		68,248		1,859	126,563
9		2,088		65,288		1,786	64,887
10		2,017		41,709		1,536	63,260
		128,486		8,771,477		193,219	10,527,408
		156,883		10,073,406		216,169	12,557,280

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:

17 , 1996

2)

1995

103

(, ,),

,

< 5 > .

5. (1995)

	10		10	
1	75.6	12.8	83.9	18.3
2	47.8	8.1	20.2	4.3
3	33.6	5.7	19.8	4.3
4	33.2	5.6	17.0	3.6
5	28.1	4.7	13.7	3.0
6	17.4	2.9	10.9	2.4
7	16.4	2.8	10.4	2.3
8	16.1	2.7	9.6	2.1
9	12.4	2.1	4.0	0.9
10	5.6	0.9	4.0	0.9
	306.2	51.7	266.1	57.9
	592.4	100.0	459.6	100.0

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: , , 1997

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4 5 6 .

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가

가 .

6.

	,		x	
		x		x
	.		x	x
		x	x	
		x		
		x	x	
	(,)		x	x
			x	

2.

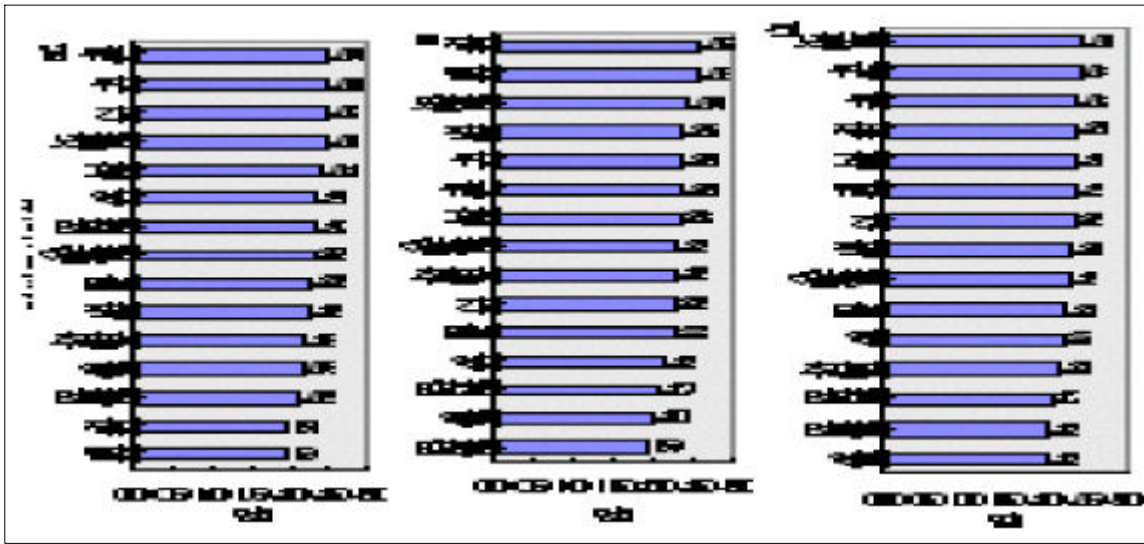
1)

(1)

가 , (2.16) (2.17)
 가 , ,

<

3>.



(1), (2), (3)

3.

(2)

가
 , , 가 60
 , 가 < 7>.

7.

	20-39		40-59		60-69	
1						
2						
3						
4						
5						
	2.16	2.20	2.16	2.06	2.21	2.31

2)

(1) 13가
 (OGTT)

< 1>

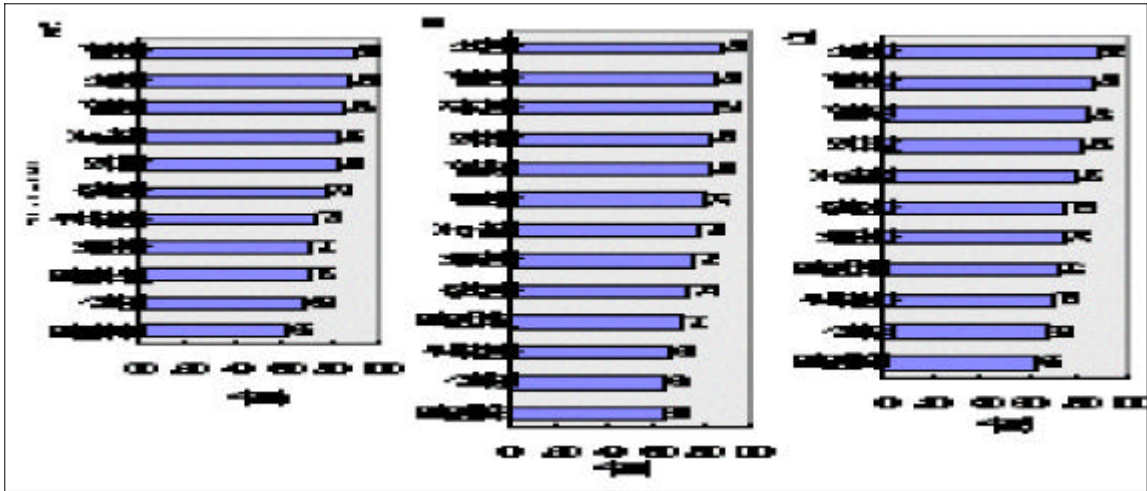
가 가 ,

가

가 ,

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< 2>



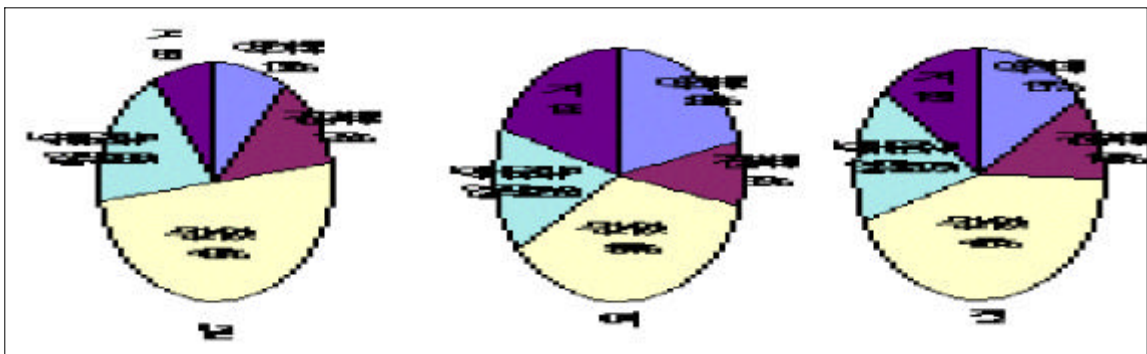
4. (%)

8.

	20-39		40-59		60-69	
1						
2						
3						
4	X-ray		X-ray			
5						
(%)	71.1	67.7	72.7	77.1	71.8	85.2

(2)

42.8%가 ‘ , , ‘ (17.6%)’, ‘ (15.1%)’, ‘ (10.8%)’, ‘ (13.7%)’ < 5>. 60 ‘ , 가 < 9>.



5.

(2) 가 11
 . 가 2.73, 가 2.75
 가 (2.4)
), (2.2), (2.6), (2.6),
 가 (2.2)
 가 (2.2), (2.4), 가 (2.6),
 (2.3) (2.5) .

11. 가

	1)	2)	가 2)
AST/ALT		3.0	3.0
Albumin		2.2	3.0
Bilirubin		2.2	3.0
Alk. Phos.		2.6	3.0
U-S		2.8	2.2
AST/ALT		2.8	3.0
Albumin		2.4	3.0
Bilirubin		2.2	3.0
Alk. Phos.		2.4	2.8
-feto protein		2.8	3.0
U-S		2.8	2.0
Gastroscopy		2.8	2.4
Gastroscopy		3.0	2.4
Lipid profile		2.8	2.8
BP		3.0	3.0
BP		2.8	3.0
BP		2.6	3.0
EKG		3.0	2.8
Lipid profile		3.0	2.8
Chest PA		3.0	2.6
		2.8	2.6
Chest PA		3.0	2.6
Chest PA		3.0	2.4
PFT		3.0	3.0
fasting b-sugar		3.0	3.0
75gm OGTT		2.8	3.0
Mammography		2.8	2.5
Pap smear		3.0	3.0
Plain X-ray		2.2	2.3
Plain X-ray		2.2	2.3
		2.72	2.71

) 1)

2) (3), (2), (1)

(3)

(2.8) , (3.0) (3.0) (3.0) .
 (2.8) (3.0), (2.8) (2.8)가 B
 (2.8) (2.8) 가 .

12. () : 1)

2.72	(3.0)- (3.0)- (2.6)- (2.6)- (2.4)
2.67	Hgb(3.0)-Hct(2.8)-Plt(2.8)-WBC(2.6)-MCHC(2.6)-RBC(2.4)-MCV(2.4)
2.73	T.chol(3.0)-HDL(3.0)-TG(3.0)-T.Protein(2.8)-Albumin(2.8)-AST/ALT(2.6)-Creatinine(2.4)-BUN(2.2)
2.67	U/A(2.8)-RBC(2.6)-WBC(2.6)
2.29	Anti-HBs(2.8)-HBs-Ag(2.8)-Anti-HCV(2.6)-Anti-HIV(2.5)-AFP(2.2)-PT(2.2)-aPTT(2.2)-BT(2.0)- (1.8)-Coag. T.(1.8)

) 1) (3), (2), (1)

4) < 6 >

< 13 > .

13.

1)	1	2	2)	3)	4)
	++	+			
	++	-	(B)	Alpha-fetoprotein, Anti-HBs, HBsAg	U-S
	+	++	()		
	++	+++	/		
	++	+	/		-
	++	+	(/)	()	
	+	++	/		
	++	-		()	
	+	-			
	++	+++	/	(OGTT)	()
	++	+++	,	Pap-smear	
	+	+	()	mammography	
	+++	++	,		
	++	+	,		

: 1)

2)

3)

4)

IV.

1.

(CDC, 1994).
 (field survey) (record survey) 가
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 (National Center for Health Statistics) (the
 Division of Health Examination Statistics: DHES) (WHO
 Collaborating Center for Health and Nutrition Examination Survey)
 1960
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 (Health Examination Survey) (WHO , 1994;
 , 1990). 1960 1
 , 1970 가
 . 1988 1994 3 7
 2 , 1998 6 4
 (USDHHS, 1997).

14.

1960	1962	NHES	18	79
1963	1965	NHES	6	11
1966	1970	NHES	12	17
1971	1975	NHANES	1	74
1976	1980	NHANES	6	74
1982	1984	Hispanic HANES	6	74
1988	1994	NHANES	2	
1998	2004	NHANES		

: 1) NHES(National Health Examination Survey)

2) NHANES(National Health And Nutrition Examination Survey)

가 (Mobile Examination
 Center) . 가 (Computer Assisted Personal
 Interviewing: CAPI) 가
 (Pen Computer) ID bar-code
 ,
 가
 가

가
35 (NHES) 1960 1 (USDHHS, 1994). 가

(Database)가
가 가 가
3 (NHANES II) 가 (NHANES III)가 가 1994 2
가 가 X-ray

가
가
가
가
가
가

2.

가 가
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가 가 가
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가 가
(magnitude) (severity)

가

‘K’

가

가

task force

3.

가

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1960

1

(USDHHS, 1973).

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1991

0.11%

40

69

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271

가

(, 1994).

(OGTT)

40-60

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3.

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가 .

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, , B .

- , , , . , 1995
- . 1997
- . 1992 . 1994
- . , 7 . 1995
- . , 5 . 1992
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