

# **National Cancer Control Program in Korea**

**Keun-Young Yoo**

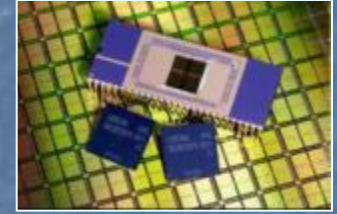
<b>Professor</b>	<b>Seoul National University College of Medicine (SNUCM)</b>
<b>H. President</b>	<b>National Cancer Center, Korea (NCC-K)</b>
<b>Secretary-General</b>	<b>Asian Pacific Organization for Cancer Prevention (APOCP)</b>

# Health and Welfare Statistics

## Republic of Korea

population:  
(ranked 18<sup>th</sup> in the world)

49 M (south)  
23 M (north) as of 2008



life expectancy:

75.7 yrs (M) / 82.4 yrs (F)

aging (65+):

9.0% (2005)  
20.0% (2026)

population IR:

0.33% (2008)



health insurance:

universal coverage

per capita GNI:

USD 20,045 (2007)

major industries:

semiconductors, automobiles, ships, mobile telecoms,  
chemicals, steels, consumer electronics





# Incredible Changes in Korean Society from Agricultural to Highly Advanced Industrial Country

**Cause of death = infections**  
**Life expectancy < 45 yrs**  
**Per capita GNI < US\$200**  
**Traditional medicine**



**1954**



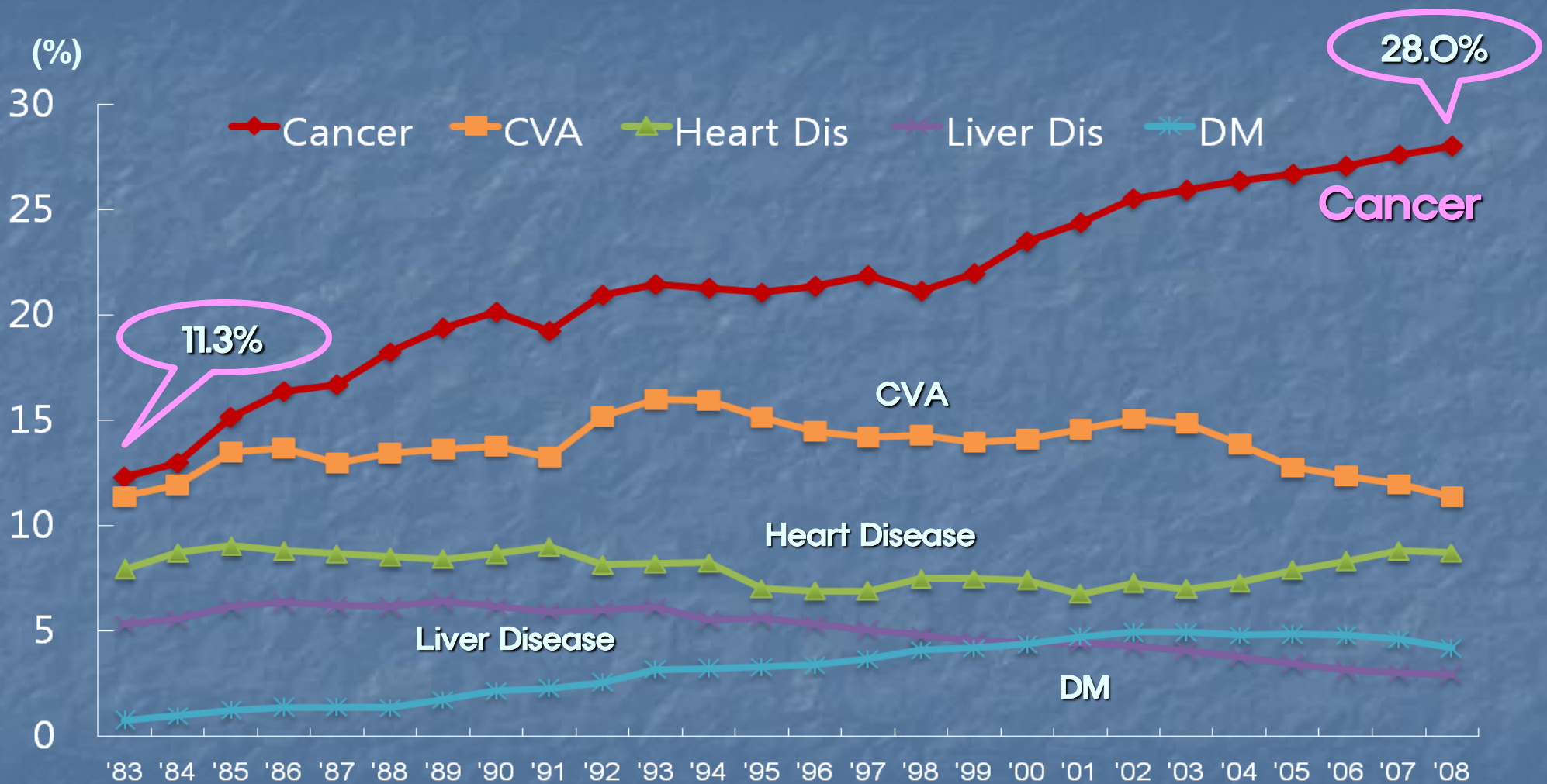
**Korea**

**Cause of death = cancer**  
**Life expectancy = 79 yrs**  
**Per capita GNI = US\$20,000**  
**Universal health insurance**



**2010**

# Causes of Deaths in Korea

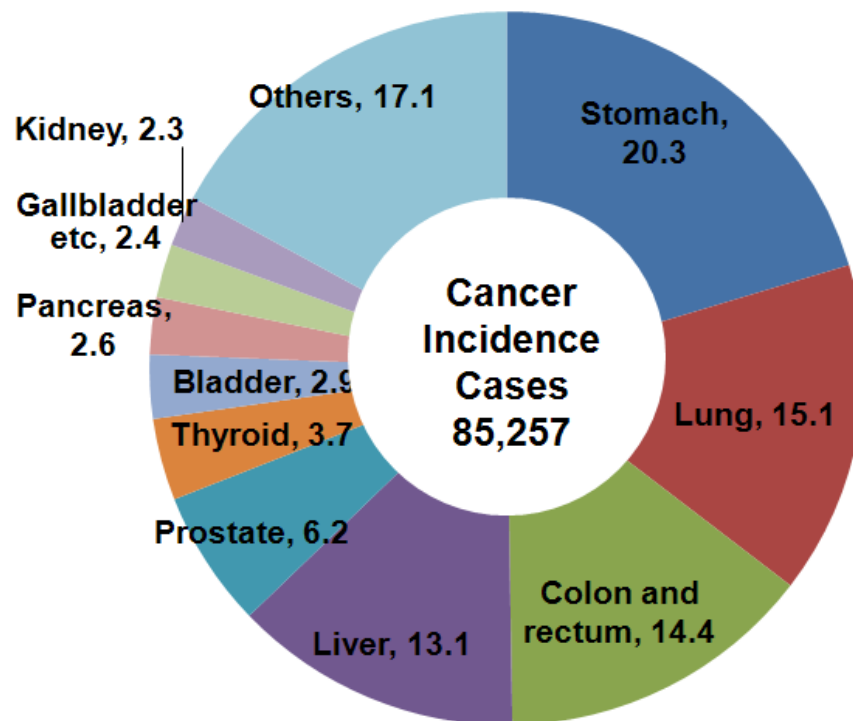


Source: Korea National Statistical Office, 2008

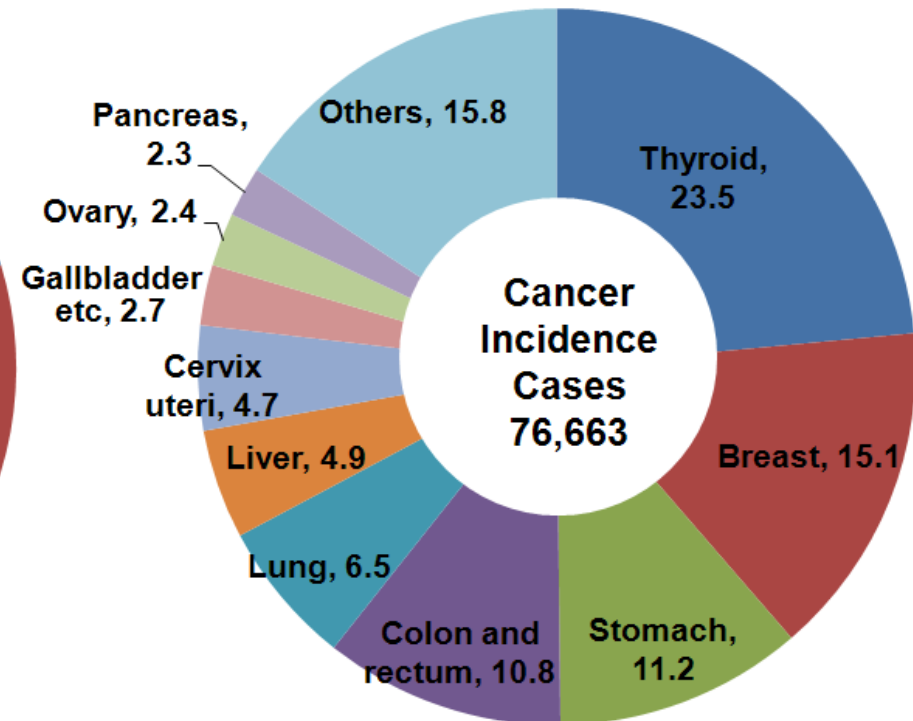


# Relative Frequency of Incident Cancer Cases in Korea 2007

(Unit: %)



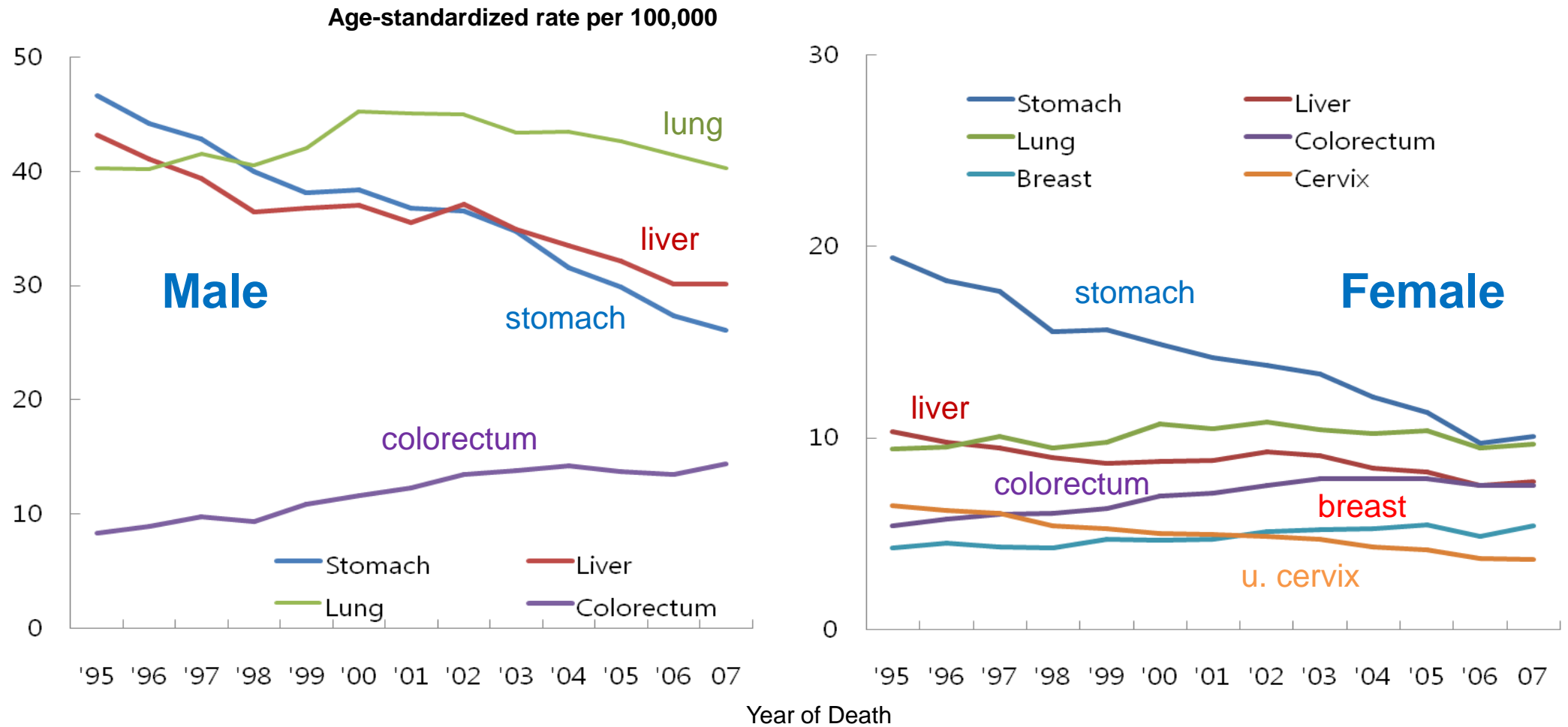
Male



Female

Source: Korea Central Cancer Registry, 2010

# Trend in Major Cancer Mortality Rates

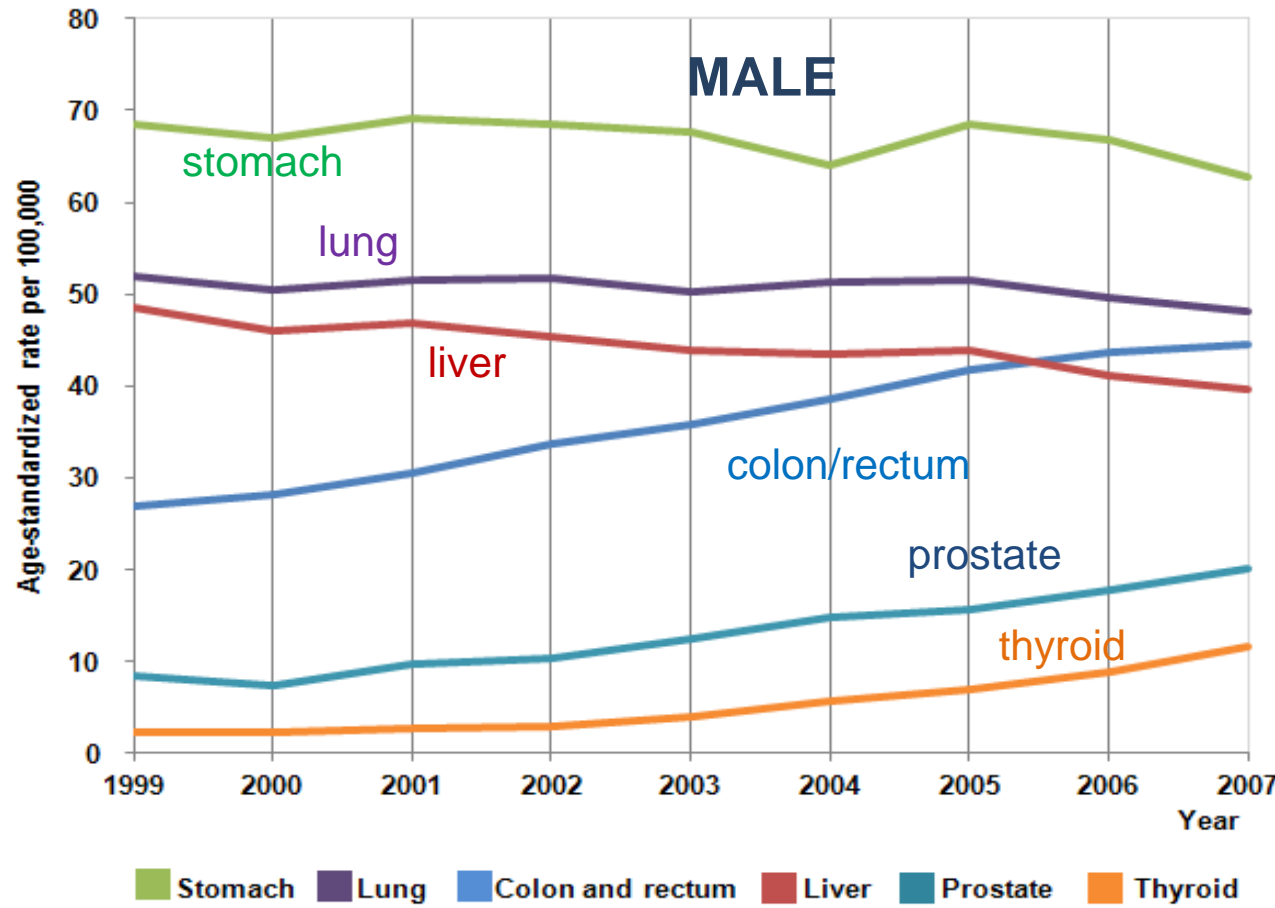


Source: Annual Report of Causes of Death, Korea National Statistical Office  
(age-standardized rates on the 2000 Korea registration population )



# Trend in Age-standardized Incidence Rates of Cancer

## Male, Korea Central Cancer Registry, 1999-2007



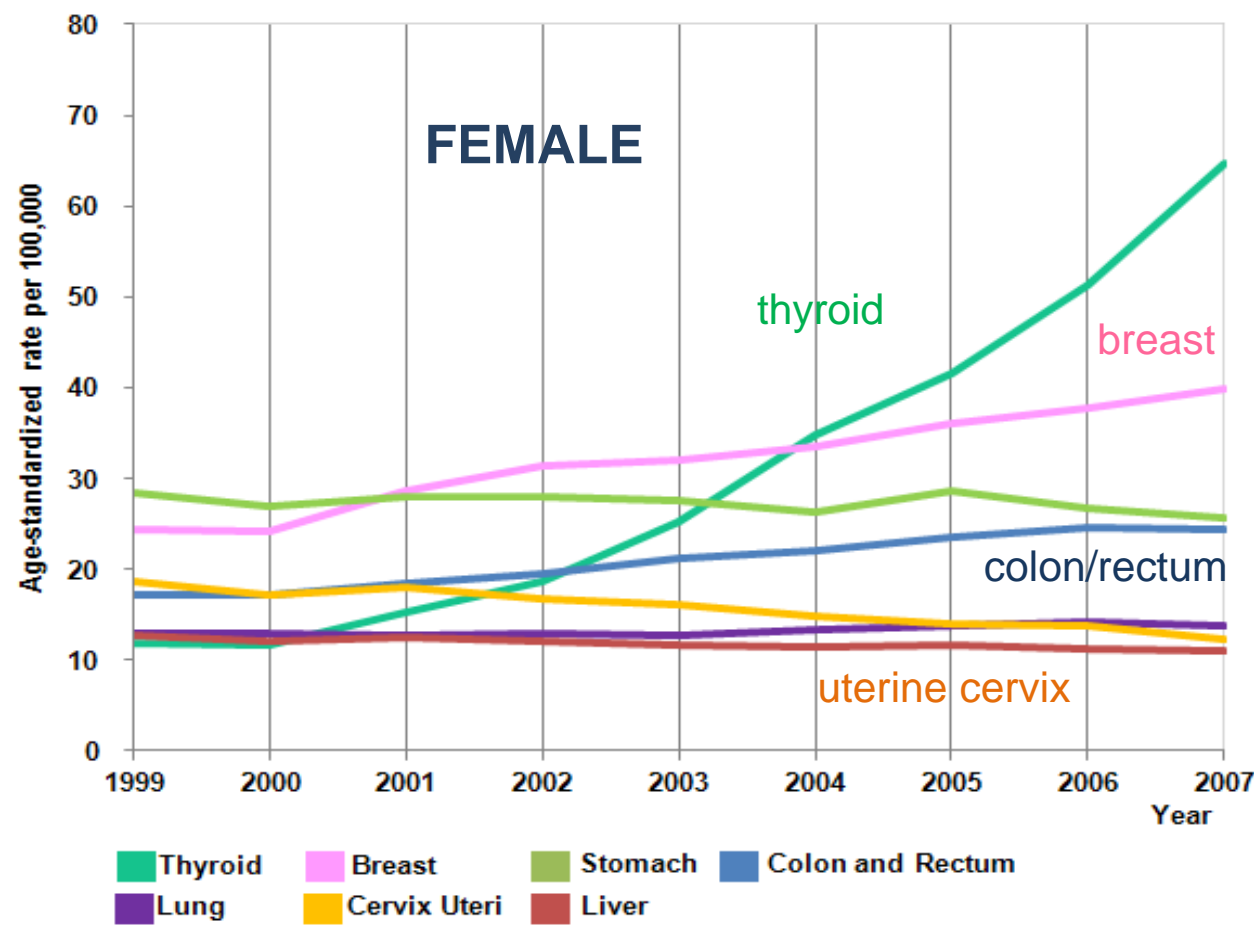
Site	Year		Annual percent change (%)
	1999	2007	
Stomach	68.4	62.8	-0.7
Lung	51.9	48.1	-0.6
Colon and rectum	27.0	44.5	7.0 *
Liver	48.5	39.6	-2.2 *
Prostate	8.5	20.1	13.2 *
Thyroid	2.3	11.6	24.5 *

\* P < .05

Source: Korea Central Cancer Registry, 2010

# Trend in Age-standardized Incidence Rates of Cancer

Female, Korea Central Cancer Registry, 1999-2007



Site	Year		Annual percent change (%)
	1999	2007	
Thyroid	11.9	64.8	26.0 *
Breast	24.5	39.9	6.6 *
Stomach	28.3	25.7	-0.7
Colon and Rectum	17.1	24.3	5.3 *
Lung	12.9	13.7	1.2 *
Cervix uteri	18.6	12.2	-4.9 *
Liver	12.6	10.9	-1.6 *

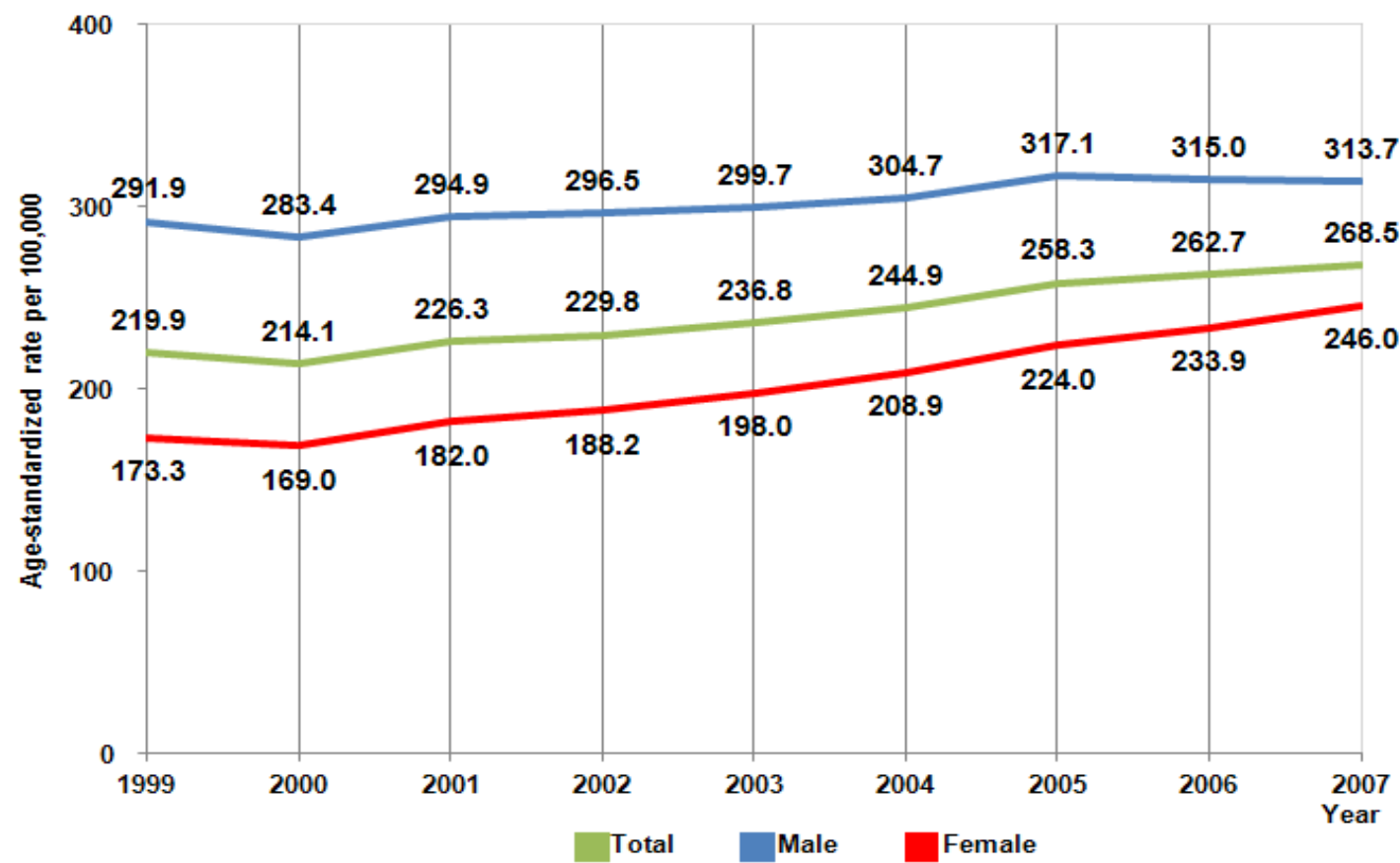
\* P < .05

Source: Korea Central Cancer Registry, 2010



# Trend in Age-standardized Incidence Rates of Cancer

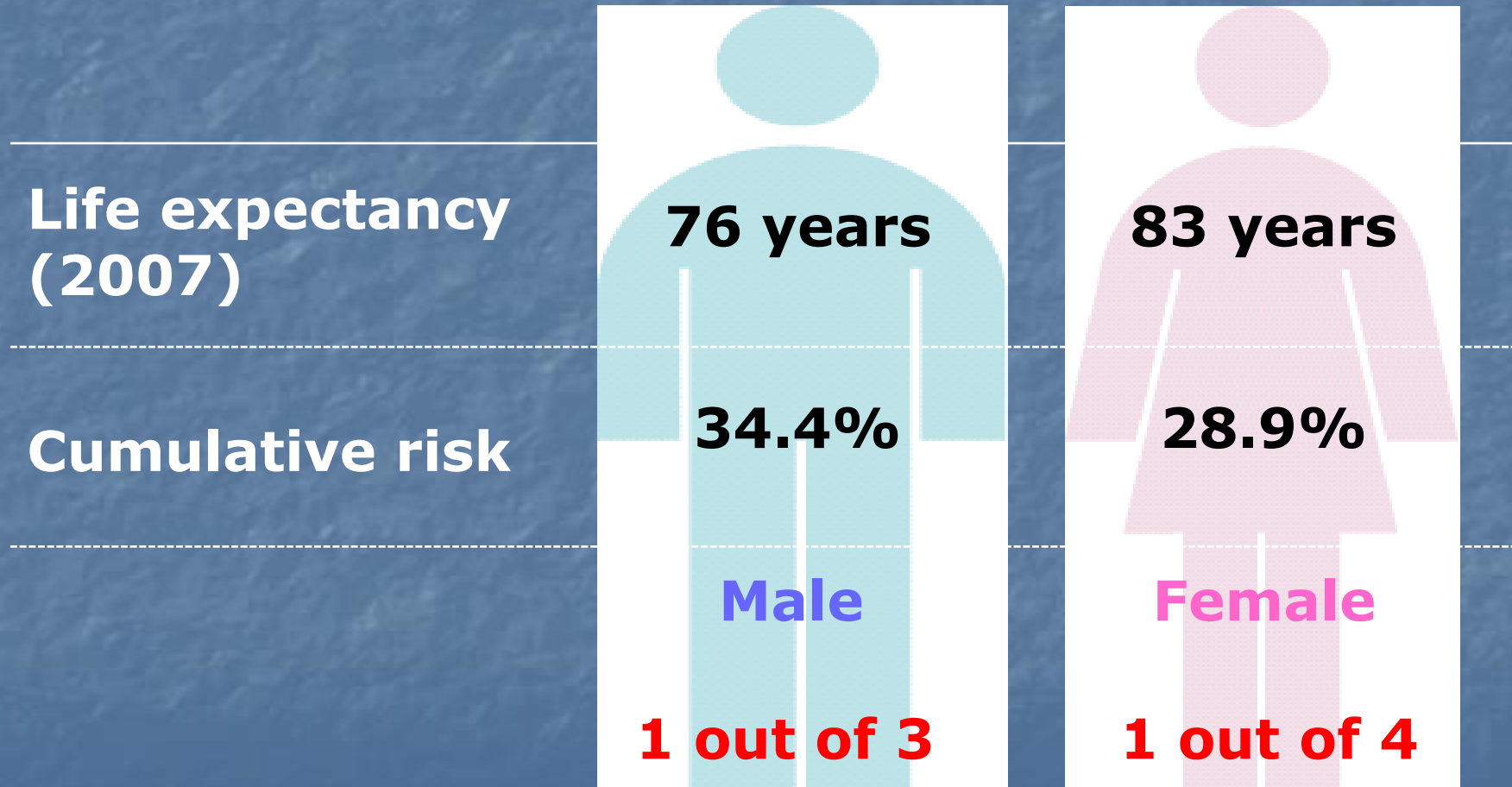
Korea Central Cancer Registry, 1999-2007



Sex	Annual Percent Change (%)
Total	2.9 *
Male	1.3 *
Female	4.9 *
	* P < .05

Source: Korea Central Cancer Registry, 2010

# Cumulative Risk of Cancer in Korea

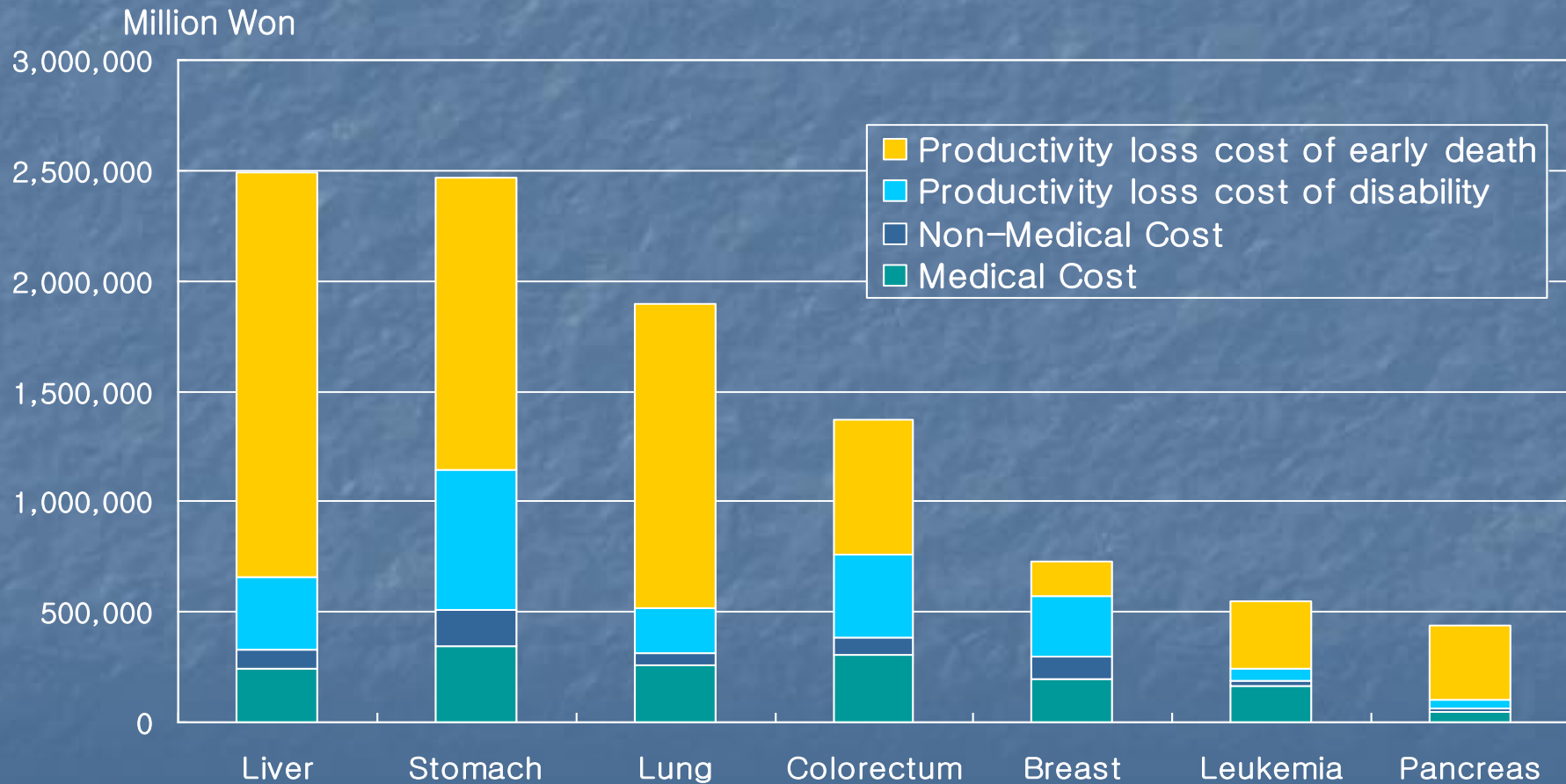


Source: Korea National Statistical Office, 2009



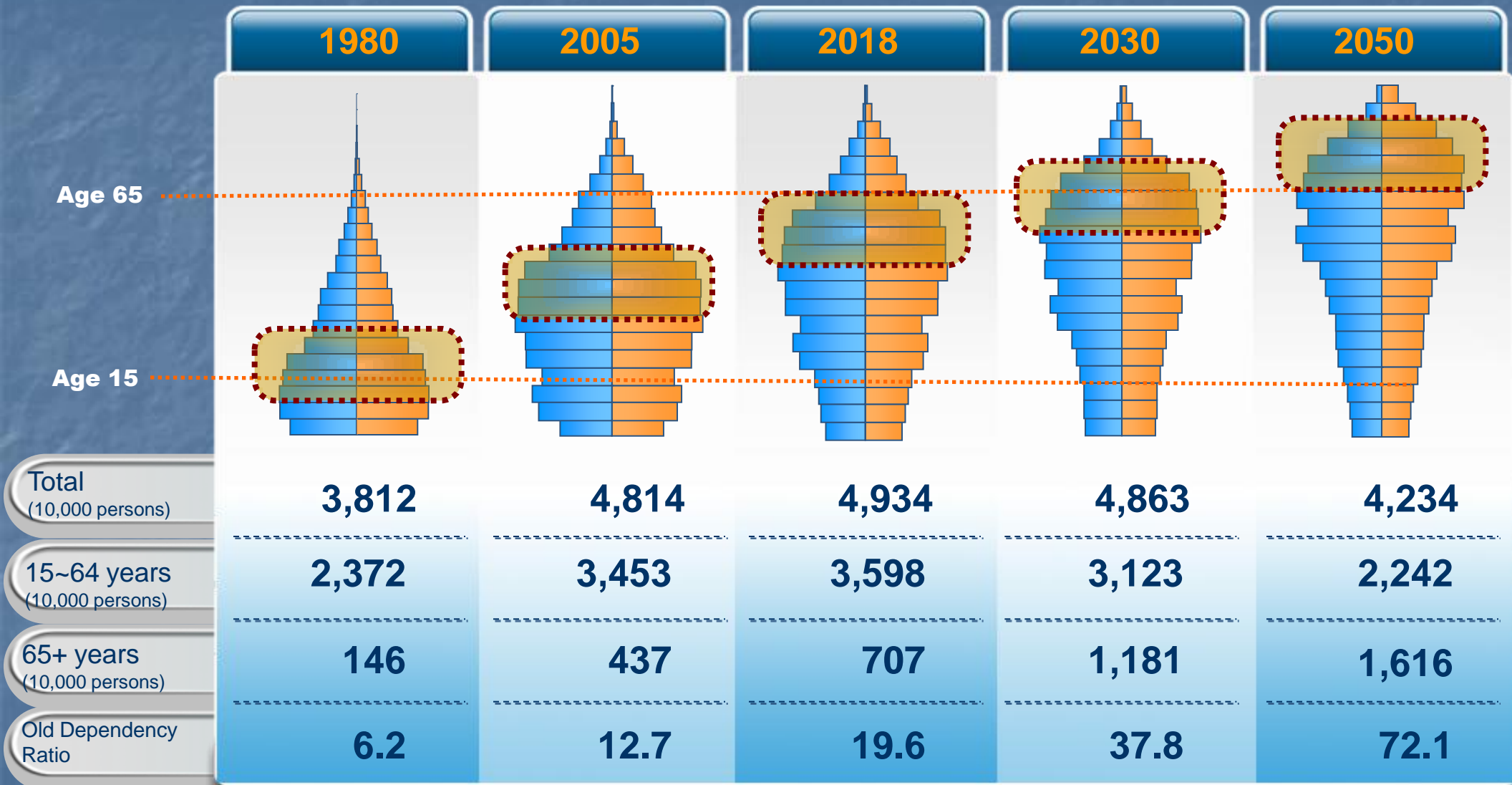
# Economic Burden of Cancer Korea, 2005

**Total : 14 billion USD (1.7% of GDP)**



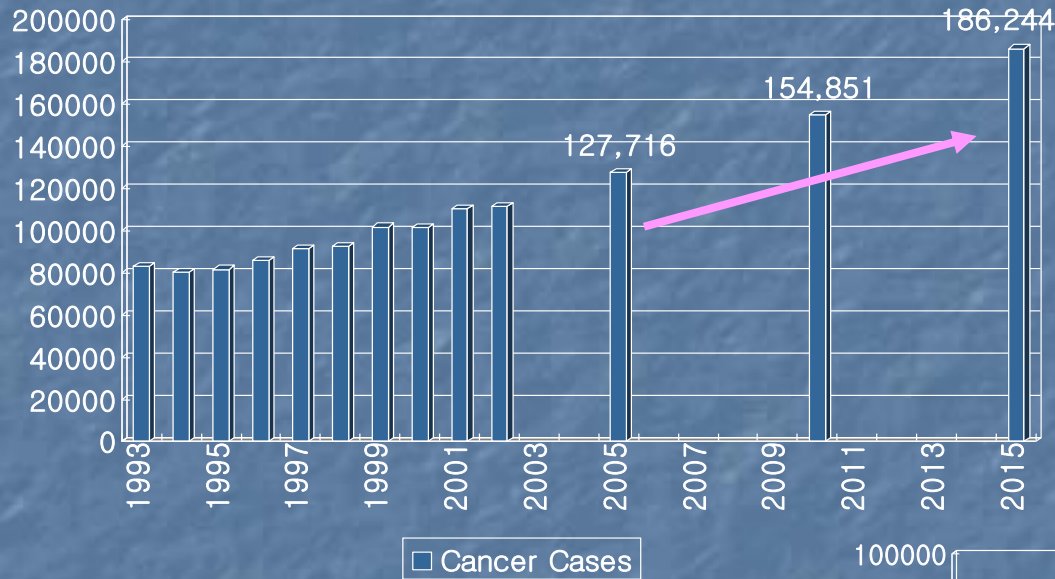
Source: Kim et al. Eu J Cancer Care 2007

# Age Tsunami: Baby Boomer born 1953-1958



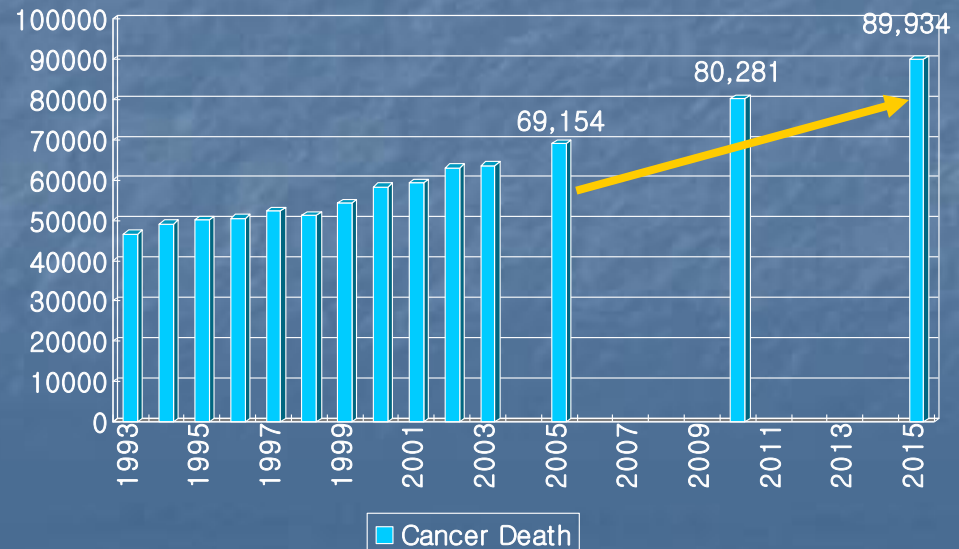


# Estimated Cancer Incidences and Cancer Deaths by 2015



**45.8% increase  
in cancer incidences**

**30.0% increase  
in cancer deaths**



# National Action against Cancer in Korea

- |       |   |                  |
|-------|---|------------------|
| 1996  | 1 <sup>st</sup> Term 10-year Plan for Cancer Control                              | 第1期 癌征服推進事業      |
| 1999  | National Cancer Screening Program   | 國家癌檢診事業          |
| 2000  | Cancer Control Division, Health Promotion Bureau,<br>Ministry of Health & Welfare | 保健福祉部 健康增進局 癌管理課 |
| 2001  | National Cancer Center  | 國立癌센터(中心)        |
| 2003  | National Cancer Act   | 癌管理法             |
| 2004  | Regional Cancer Centers   | 地域癌센터(中心)        |
| <hr/> |   |                  |
| 2006  | 2 <sup>nd</sup> Term 10-year Plan for Cancer Control                              | 第2期 癌征服推進事業      |

**The 1<sup>st</sup> Term of 10-Year National Cancer Control Plan**

# **Infrastructure for National Cancer Control Program**

# National Cancer Screening Program

## 國家癌早期檢診事業

Target Population	Medicaid	NHI Beneficiaries <sup>1</sup>
Starting Year	1999	2002
Target Cancer for Screening	Stomach Breast Cervix Liver <sup>3</sup> Colorectal <sup>4</sup>	Stomach Breast Cervix <sup>2</sup> Liver <sup>3</sup> Colorectal <sup>4</sup>

1. Lower 20-50 % of premium of National Health Insurance

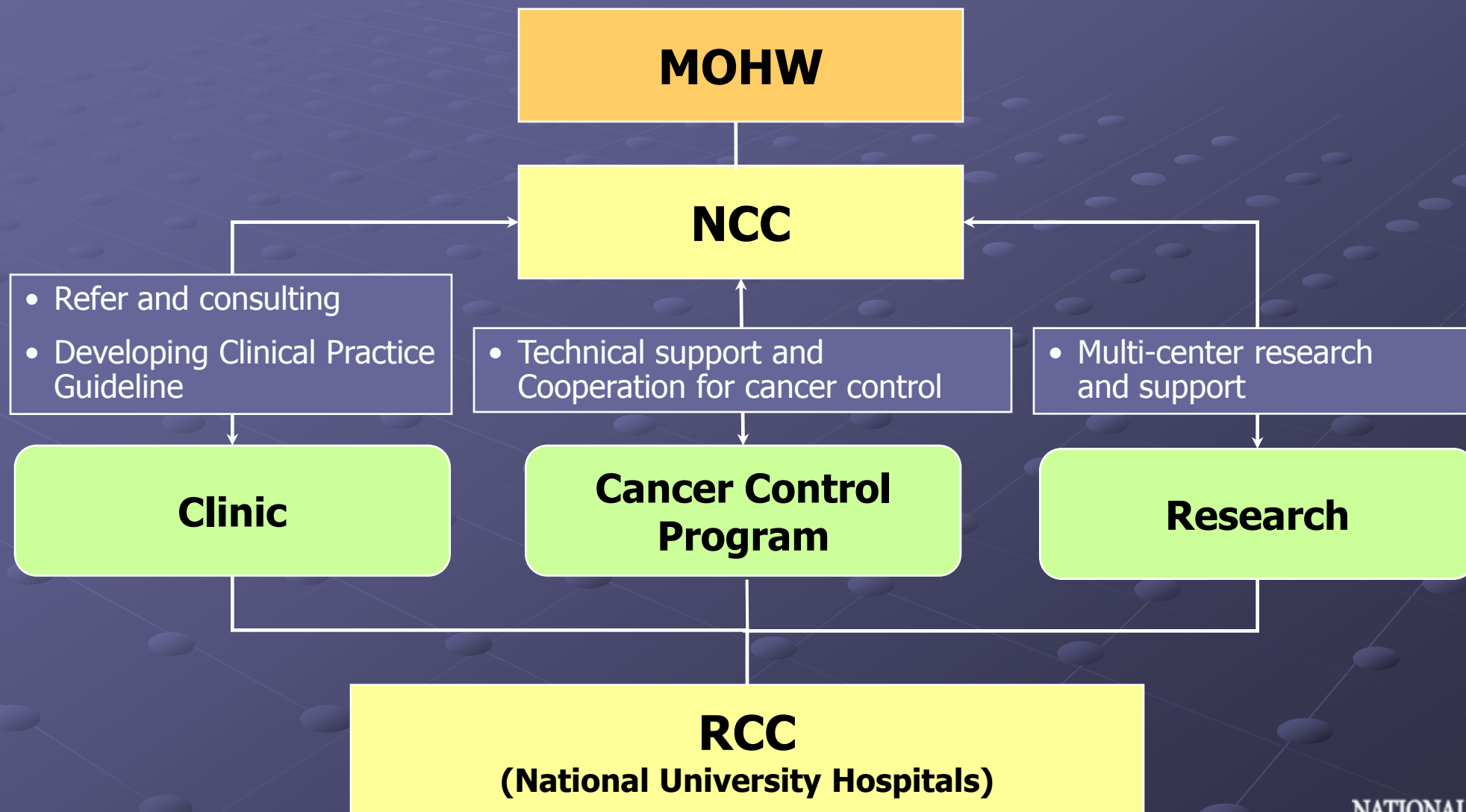
2. Included in the routine health check-up since 1988

3. Included in NCSP since 2003

4. Included in NCSP since 2004



# Framework of Regional Cancer Center



# National Cancer Center of Korea

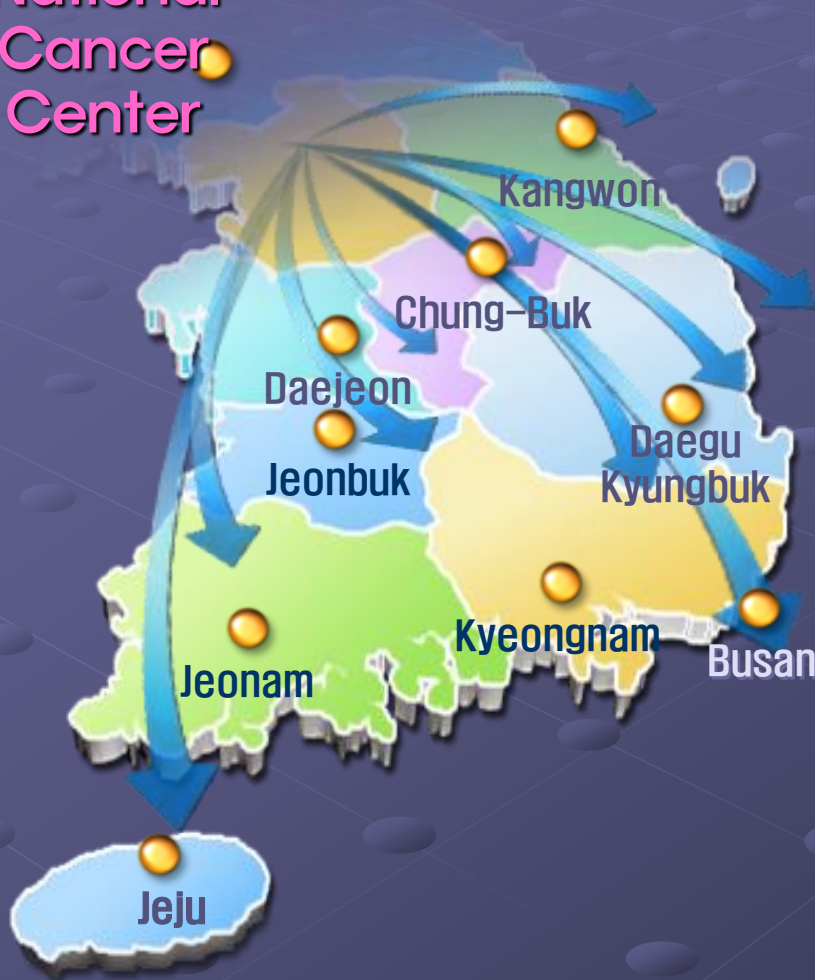
국립암센터 國立癌中心



# National/Regional Cancer Centers in Korea

## 國立癌中心 / 地域癌中心

National  
Cancer  
Center



- 9 RCCs were designated since 2004
- financial and technical support by the Central and Local government (USD 20 million for each RCC)

- to provide clinical services for cancer patients at the local level
- to facilitate national cancer control program including cancer prevention and screening
- to perform population-based researches on collaboration basis, i.e., multi-center trials, tumor banks and genome cohort



# Cancer Registry System in Korea

(since 1980)

## Hospital Cancer Registries

hospital-based  
since 1980  
headquarter :  
NCC  
  
coverage:  
95% of all  
cancers

## Regional Cancer Registries

population-based  
  
Seoul / Busan  
Daegu / Gwangju  
Incheon / Daejeon  
Ulsan / Jeju  
  
coverage :  
50% of population



## Site-specific Cancer Registries

Academic Societies: breast, uterine, cervix etc.



# Cancer Statistics in Korea

## **Mortality**

(戶籍法, 統計法)

National Death Certificate

National Statistical Office

## **Incidence**

(癌管理法)

(國立癌센터法)

The Korea Central Cancer Registry : since 1980  
nationwide hospital-based cancer registry  
covers 90% of all cancer cases

Regional Cancer Registry : 8 geographical areas

## **Medical utilization**

(國民健康保險法)

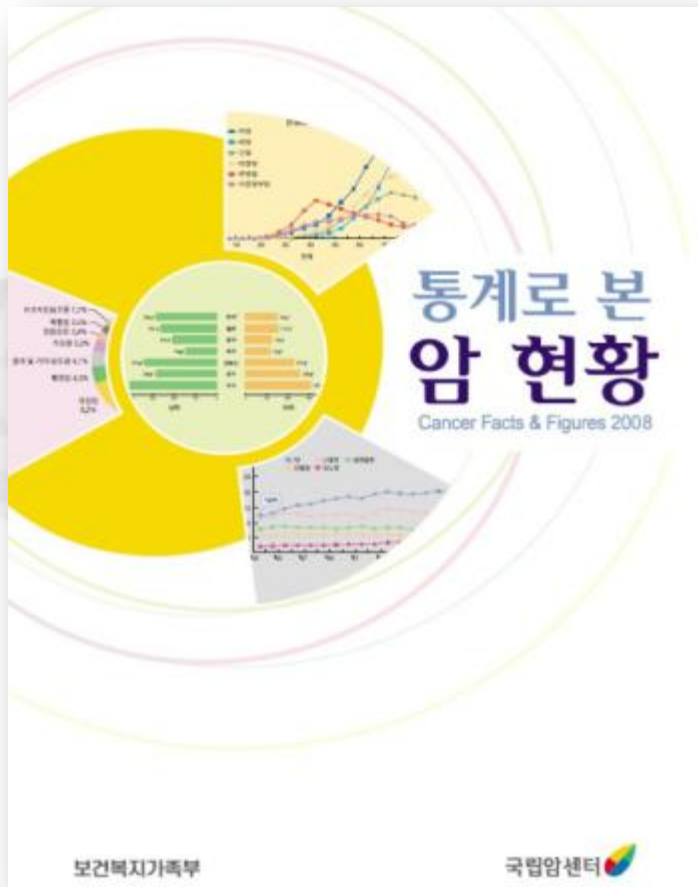
Health Insurance : universal coverage since 1988



**Korean ID** 13 digits **住民登錄番號**

# 2008 Cancer Facts & Figures

## ■ Korean Cancer Fact Book (March 21, 2008)



- 1 Cancer Burden
- 2 Cancer Prevention
- 3 Cancer Screening
- 4 Cancer Care Costs
- 5 Palliative Care / Cancer Survivor
- 6 Cancer Infrastructure
- 7 10 year Cancer Control Plan

# GLOBOCAN 2008

Cancer Incidence and Mortality Worldwide

## ABOUT

[The GLOBOCAN project](#)

[The cancer dictionary](#)

[The population dictionary](#)

[Data sources and methods](#)

## FACT SHEETS

-- Select a cancer --

or

Eastern Asia



## ONLINE ANALYSIS

[Tables](#)

[Graphs](#)

## GLOSSARY OF TERMS

## REFERENCE

## ACKNOWLEDGEMENTS

## LINKS

## UPDATES

## THE GLOBOCAN PROJECT

Welcome to the **GLOBOCAN** project. The aim of the project is to provide contemporary estimates of the incidence of, and mortality from, cancer worldwide. Estimates of cancer incidence and mortality have been prepared separately for each sex and for ten broad age groups. Please note that:

1. The GLOBOCAN estimates for **2008** are based on the most recent data available at IARC and on information published in the literature.
2. Because the sources of data are continuously improving in quality and extent, estimates may not be truly comparable over time. Differences may be the result of a change in the methodology and should not be interpreted as a time trend effect.

### Usage:

- For a quick access to a summary of the burden of cancer in a country or for a cancer, use the *FACT SHEETS* option. Fact sheets were developed to provide a quick overview of frequently-requested cancer incidence and mortality statistics.
- If you want to perform simple analysis or create your own graphs using GLOBOCAN data, use the *ONLINE ANALYSIS* menu.

### Notes:

- The material extracted from this website is in the public domain. You may use it "as is" but **must cite** the corresponding reference.
- The Cancer Information Section (CIN) of IARC reserves the right to update or change information contained in the databases.
- IARC has proprietary rights to the materials on the Website. Systematic retrieval of data to create or compile, directly or indirectly, a new product is prohibited.

Should you find any error, inconsistency or mistake, please contact the CIN section at IARC.

# National Cancer Act, revised in 2006

- central and regional government must establish the plan for cancer control every 5 years
- establish National Cancer Control Committee
- support cancer research
- establish cancer registry & National Cancer Screening Program
- start National Hospice-Palliative Care Program
- amend cancer registration law based on “Statistics Law”
- establish National Cancer Prevention Day – March 21th (3-2-1)
- activate cohort study, regional cancer center
- quality assessment of cancer screening program
- support cancer burden of cancer patients



# National R&D Program for Cancer Control (since 1996~)

## Causes and Mechanisms of Common Cancers

- Cancer etiology
- Cancer metastasis and progression
- Tumor immunology
- Functions of tumor suppressors

## Cancer Therapeutic Technologies

- Surgical, radiological chemo-therapeutics
- Anticancer drug candidates
- Bone marrow transplantation
- Molecular/cellular therapeutics for cancer
- Alternative medicine for cancer
- Multi-institutional clinical trials for cancers

## Cancer Diagnostic Technologies

- Diagnosis of precancerous lesions
- Discovery of new tumor markers
- Development of new diagnostic technologies using novel targets or tools
- Studies on the movement, storage and reproduction of diagnostic media

## Cancer Prevention and Control

- Intervention studies on risk factors for cancer prevention
- Cancer education, awareness, and information
- Enhancing the quality of cancer screening
- Improving of life for cancer patients and palliative care
- Cancer control policies

# Plans for Activating Cancer Research

increasing the government R&D budget for cancer to  
300 million USD per annum  
→ 0.3% of the total government budget



- strengthening infrastructure
  - cancer cohort, tumor bank, cancer information
- translational research: from bench to bedside
- activating clinical trial: multi-institutional clinical trials

# Health Promotion Fund

Ministry of Health & Welfare

## Health Promotion Act (1995)

major source : tobacco sales tax  
(KT&G: Korea Tobacco & Ginseng Co.)  
Korea Tomorrow & Global

15 cents / 1.5 ~ 2.0 dollars / pack ( ~ 2004)

35 cents / 1.9 ~ 2.5 dollars / pack (2005.1.1)

**Health Promotion Fund:** 1.9 billion USD (2008)

- infrastructure for health promotion
- social indirect investments for health
- **genome cohort : 10 million USD (2006)**

保健福祉部  
健康増進基金



# Korean Genome Epidemiologic Study: KoGES

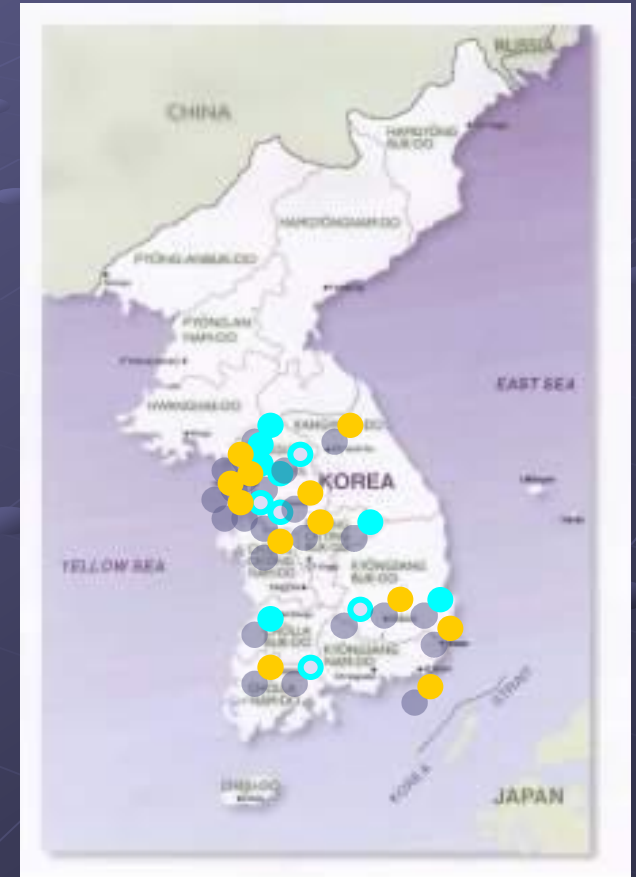
## Korean CDC Cohort

Began in Nov. 2004 (~2010)

90,000 from community-based model  
160,000 from institution-based model  
( 250,000 Health Examinee)

- 12 geographic sites for model I
  - 12 medical institutions for model II
- ➔ 130,000 persons enrolled (as of Dec. 2007)

- interviewer-administered questionnaire
- bio-repository: central / backup
- repeated measurements every 2 or 5 years
- Asia Cohort Consortium (ACC) protocol



Source : Yoo et al. 2005





# National Cancer Center – Korea

## Korean NCC Cohort

### Cancer Screenee Cohort

### National Center for Cancer Prevention and Early Detection



questionnaire

blood / urine

tumor bank

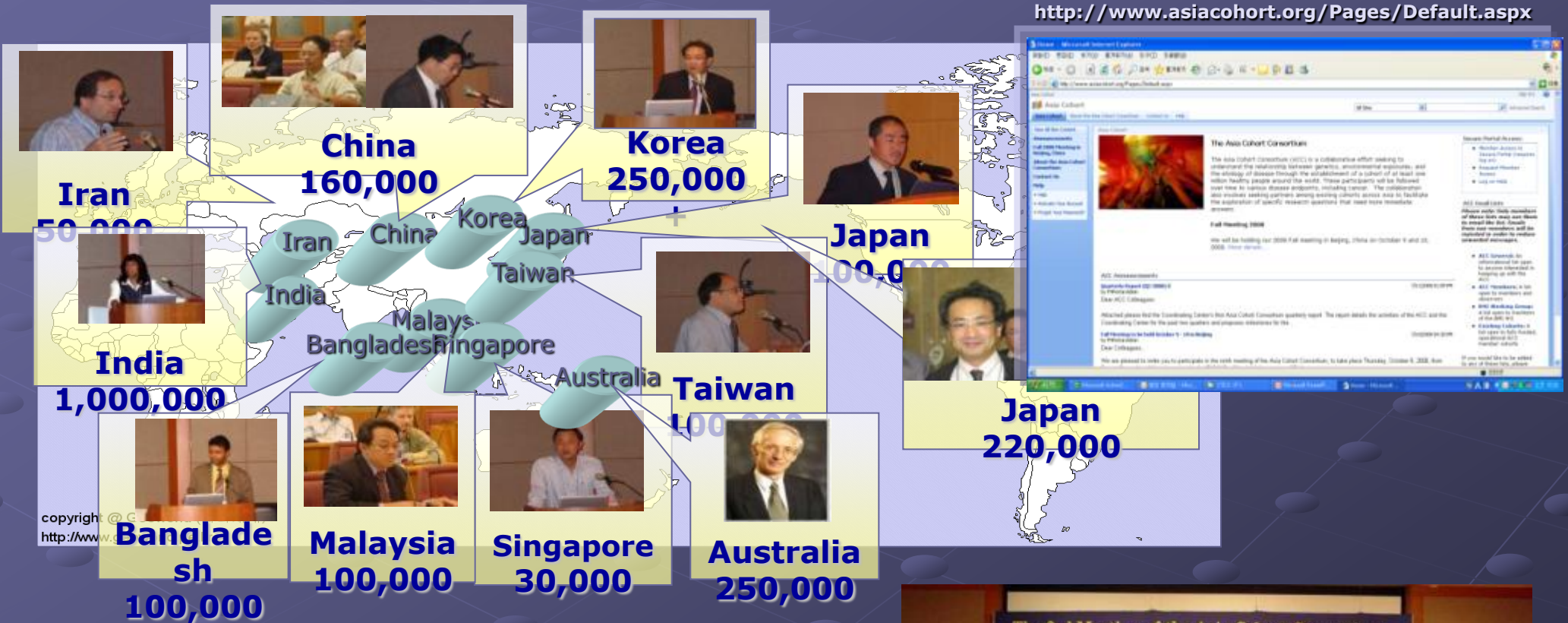
30,000 men & women (~2007)

**target: 100,000** (5,000/yr)



# Asia Cohort Consortium

Asia Cohort Consortium Portal  
<http://www.asiacohort.org/Pages/Default.aspx>



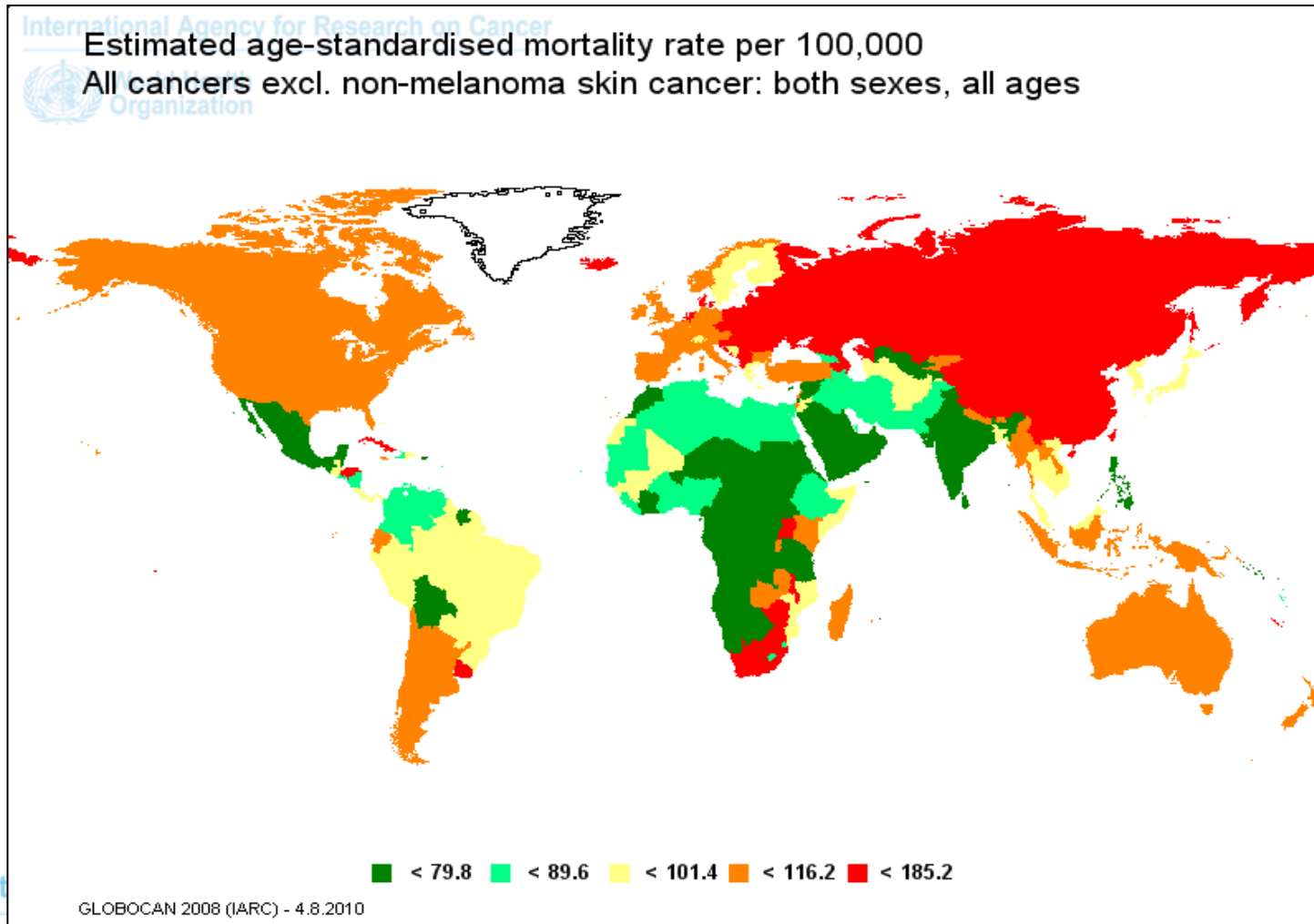
Executive Committee  
 Steering Committee  
 Working Groups (9)  
 Coordinating Center at FHCRC

**The 1<sup>st</sup> Term of 10-Year National Cancer Control Plan**

# **Early Detection by National Cancer Screening Program**

# Global Distribution of Cancer Mortality

ASIR, all cancers, both sexes, all ages

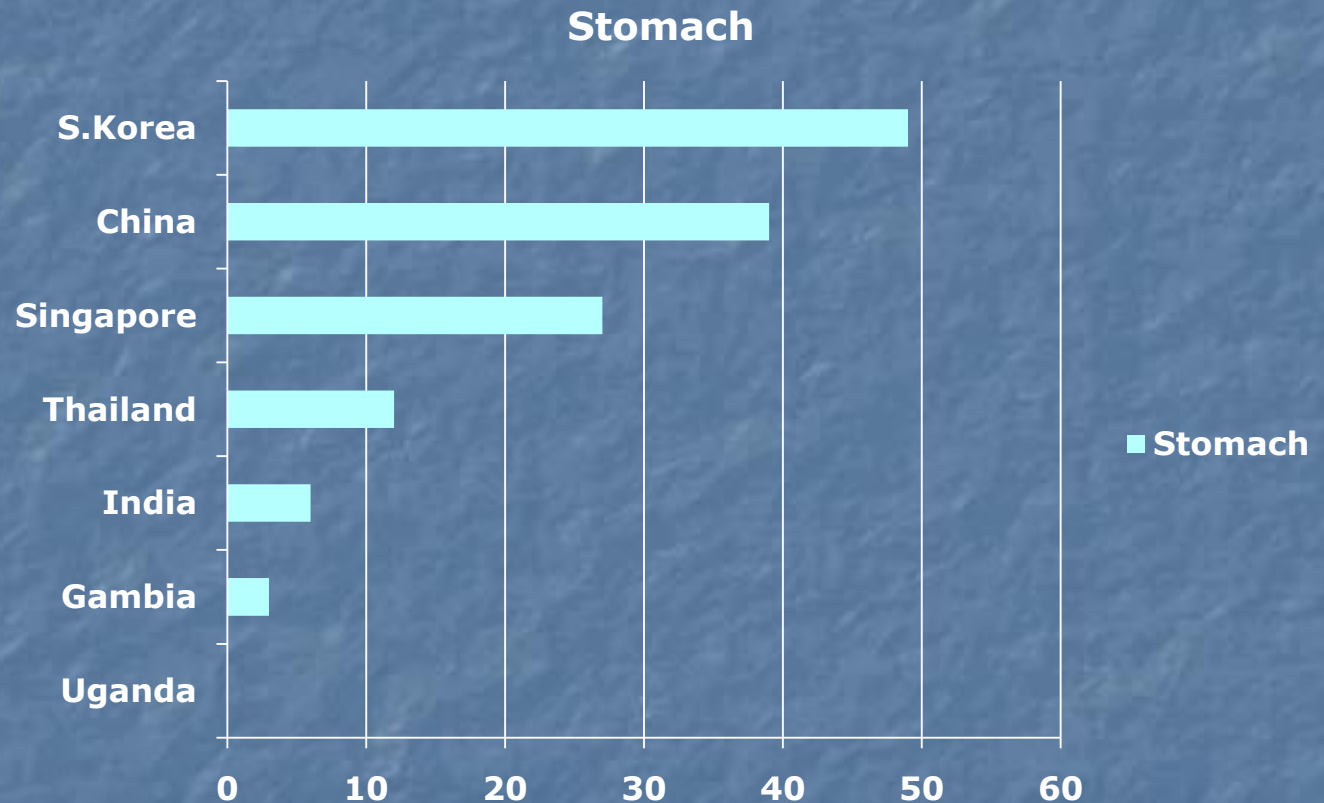


Asian shows  
similar to higher  
mortality  
than the Western.

# Cancer Survival in Asia

## population-based study

Survival	Stomach
S.Korea	49
China	39
Singapore	27
Thailand	12
India	6
Gambia	3
Uganda	0
Costa Rica	.
Pakistan	.
Philippines	.
Saudi Arabia	.
Turkey	.





# Cancer Survivorship in Asia

## Breast Cancer

### Breast Female

Korea	5,537	1999-1999	98.8	83.7	0.5
Miyagi	2,029	1997-1999		88.1	0.9
Yamagata	939	1997-1999	98.0	86.3	1.4
Niigata	1,708	1997-1999		86.4	1.0
Fukui	606	1997-1999	93.7	88.2	1.7
Osaka	5,816	1997-1999	97.5	83.6	0.6
Nagasaki	1,236	1997-1999		86.6	1.2
Manila & Rizal	1,615	1993-2002		58.6	4.1
Taiwan	11,723	1997-1999	99.9	79.7	0.4

**Tianjin**  
48-79% (F)

**Korea**  
84% (F)

**Osaka**  
84% (F)

**Taiwan**  
80% (F)

**Manila**  
58% (F)

**Indonesia**  
49% (F)

# Initiation of National Cancer Screening Program

## NCSP in Korea

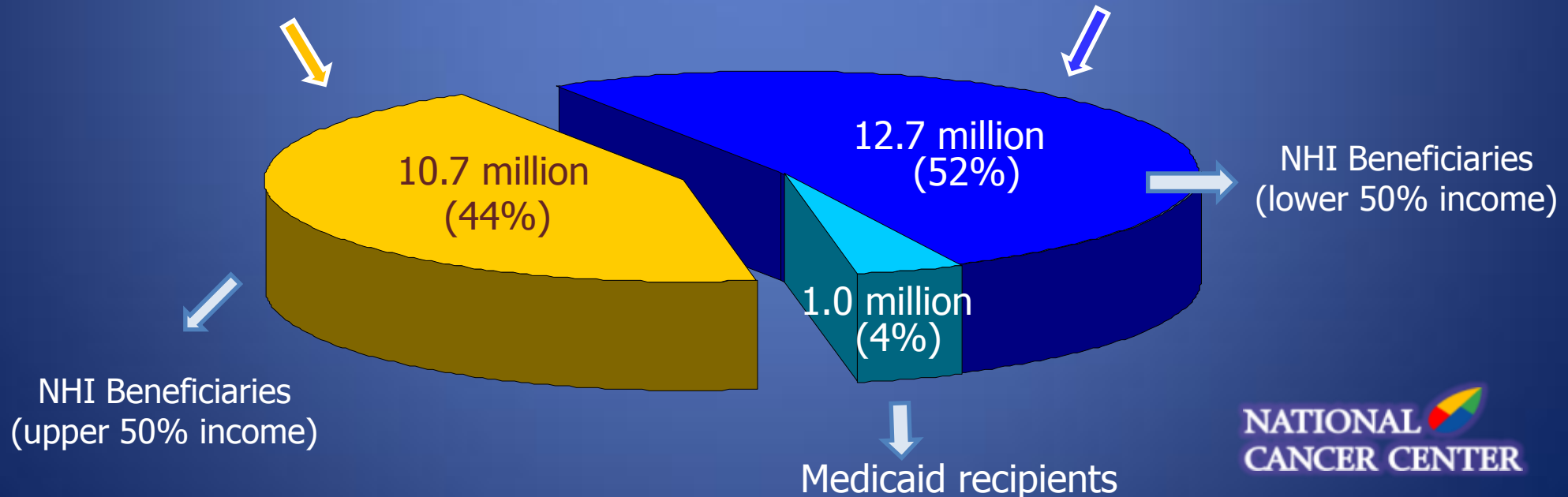
- ❖ NCSP program was needed for the low SES group to improve their usage of medical resources.
- ❖ Aim of the NCSP
  - Providing structured guideline with academic societies
  - Providing screening services to low SES people
- ❖ Implemented in 1999 and expanded target population and cancers through 2007
- ❖ Development of the national guideline protocols
  - Ministry of Health and Welfare
  - Supporting Committee for Cancer Screening Program in NCC
  - collaboration with the related academic societies

# National Coverage for Cancer Screening in Korea






source population for cancer screening: 24.4 million  
( women  $\geq$  30 yrs and men  $\geq$  40 yrs )

No. covered by NHI

No. covered by NCSP



# Screening Guideline of NCSP

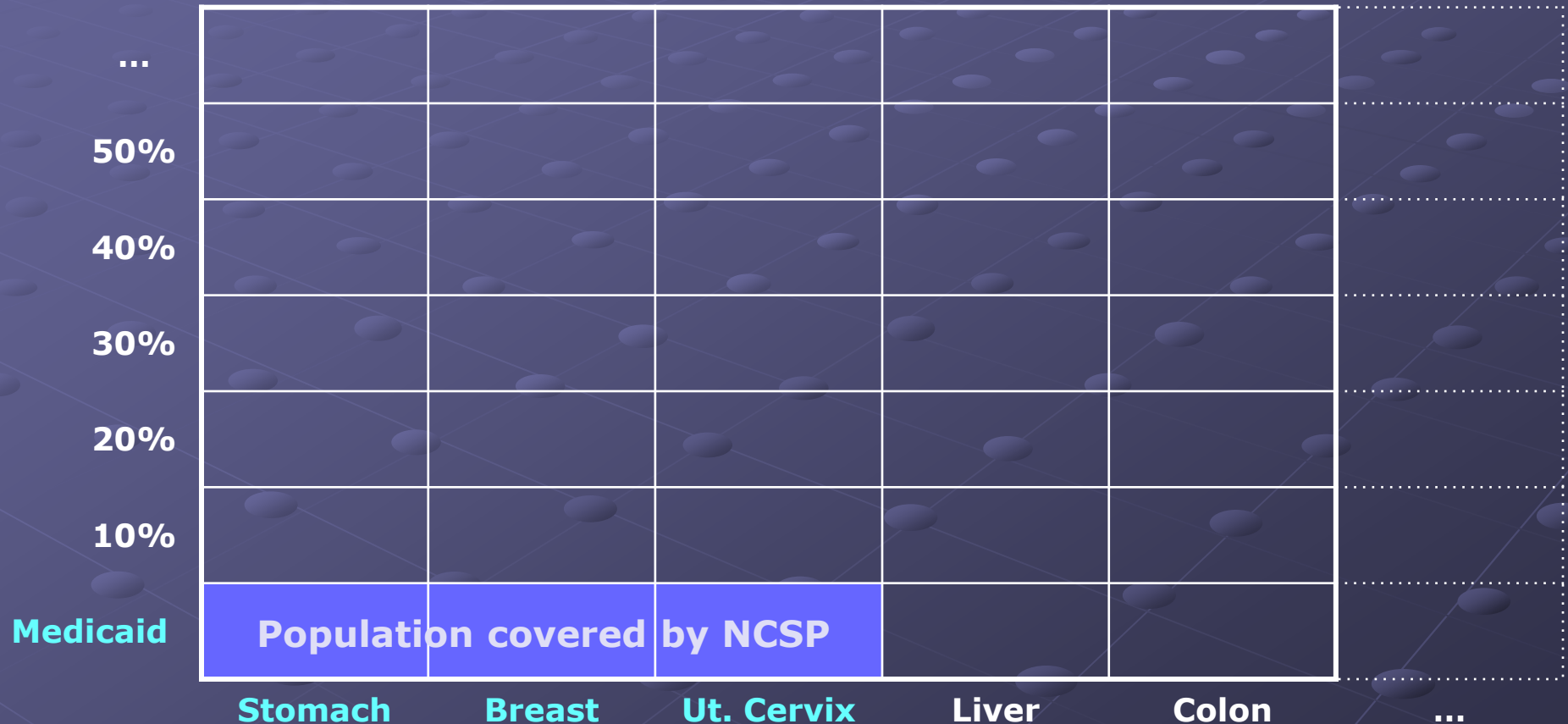
Cancer	Eligible	Frequency	Test / Procedure
 Stomach	40 & over adults	every 2 yrs	endoscopy or UGI
 Breast	40 & over women	every 2 yrs	mammography & CBE
 Cervix	30 & over women	every 2 yrs	Pap smear
 Liver	40 & over high risk group*	every 6 mo	sonography & AFP
 Colorectal	50 & over adults	every 1 yr	FOBT → colonoscopy or barium enema

\* 40 & over with HBsAg positive or anti-HCV positive or liver cirrhosis



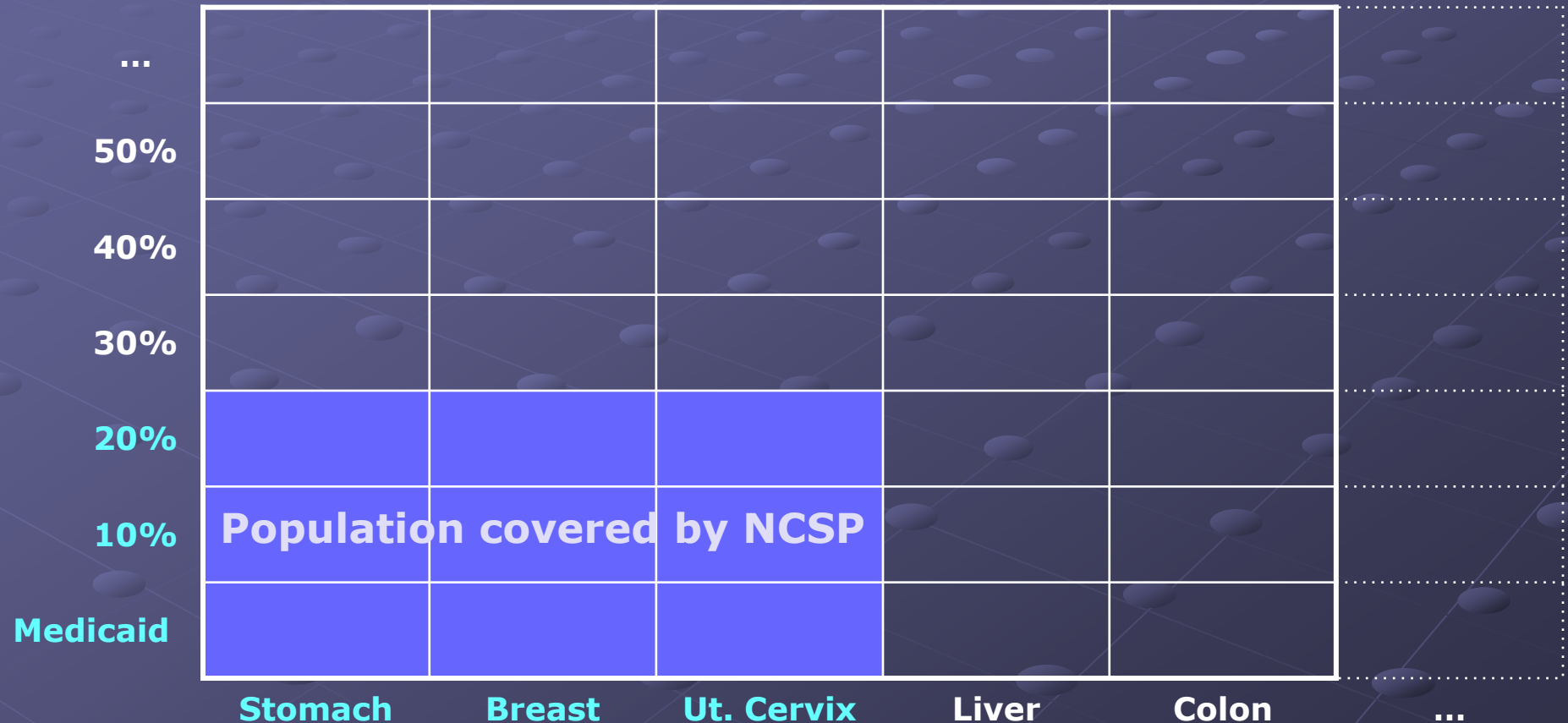
# National Cancer Screening Program (1999)

Income levels of  
NHI Beneficiaries



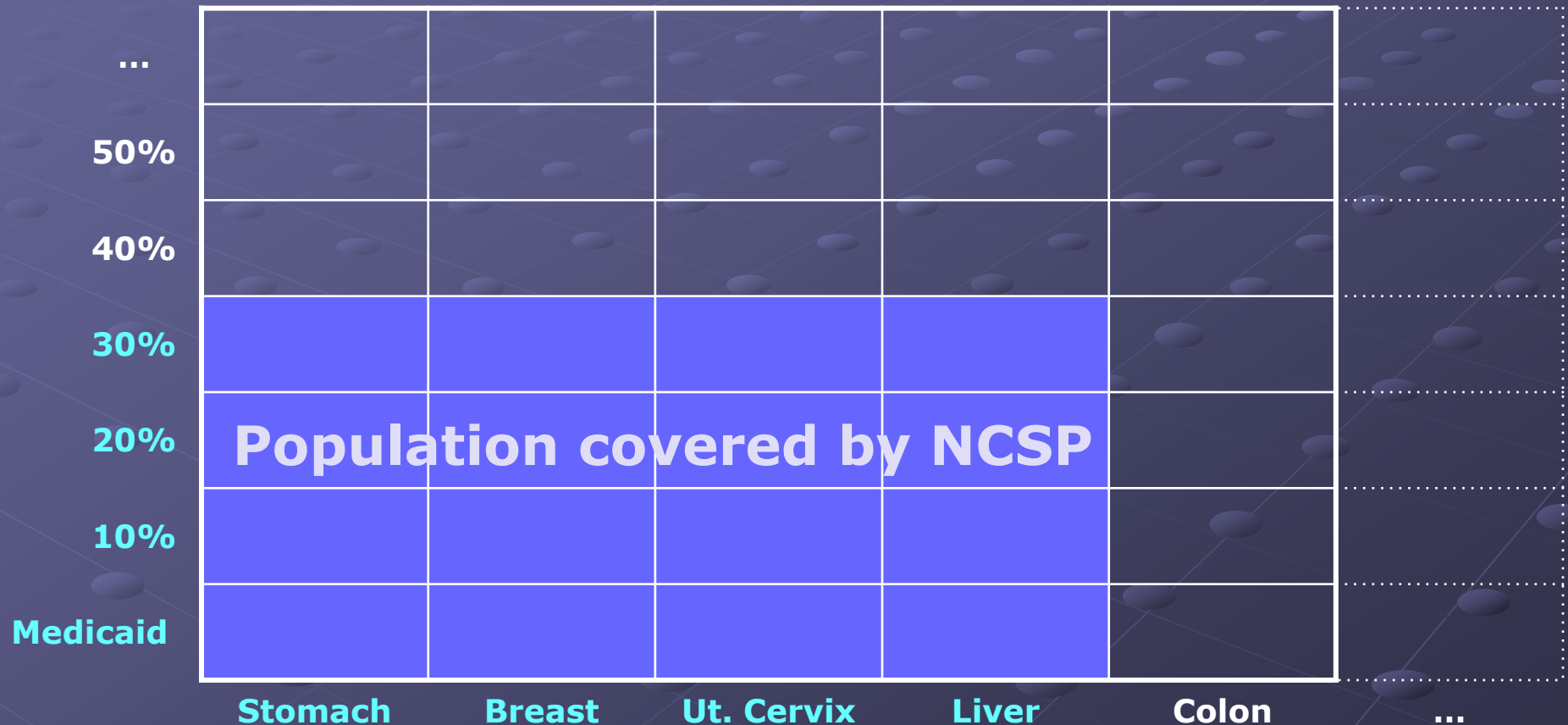
# National Cancer Screening Program (2002)

Income levels of  
NHI Beneficiaries



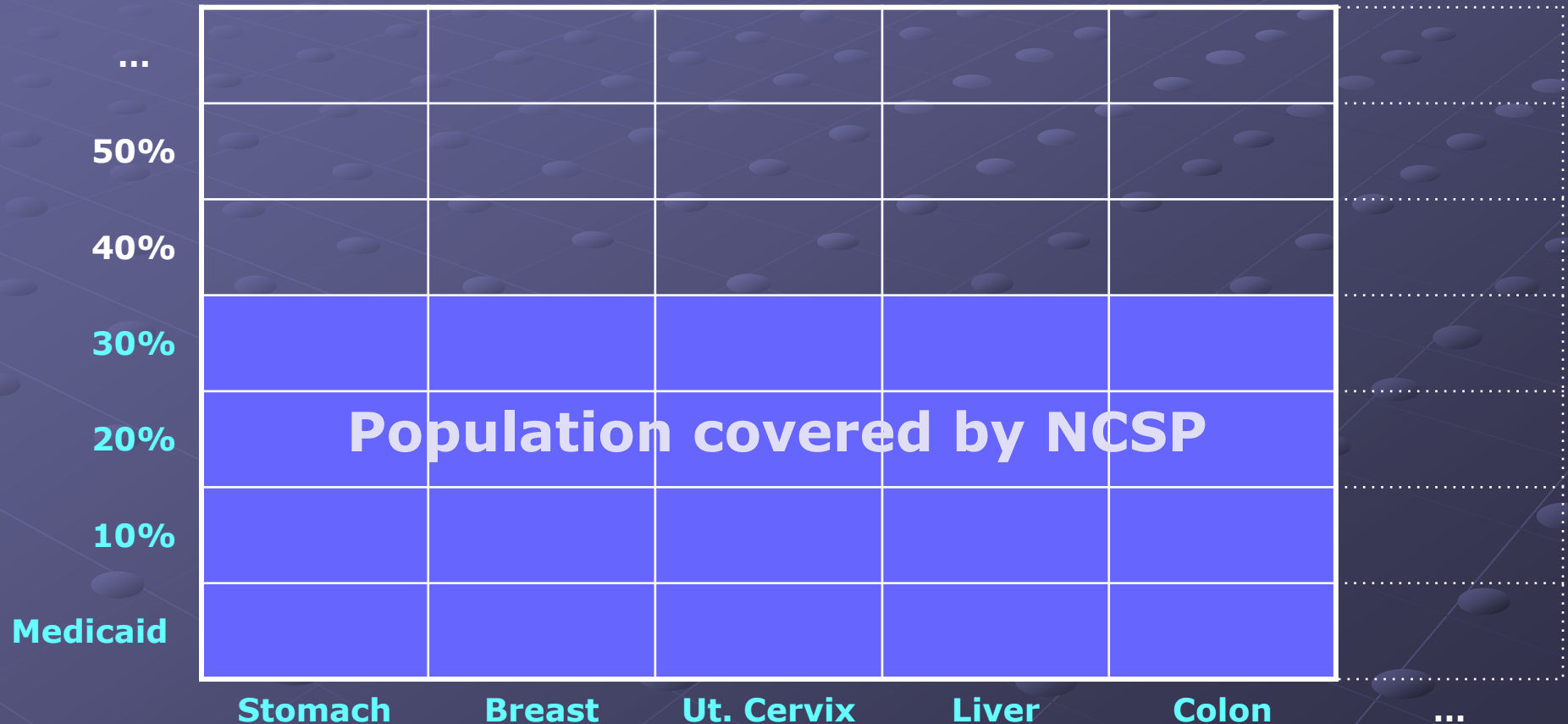
# National Cancer Screening Program (2003)

Income levels of  
NHI Beneficiaries



# National Cancer Screening Program (2004)

Income levels of  
NHI Beneficiaries





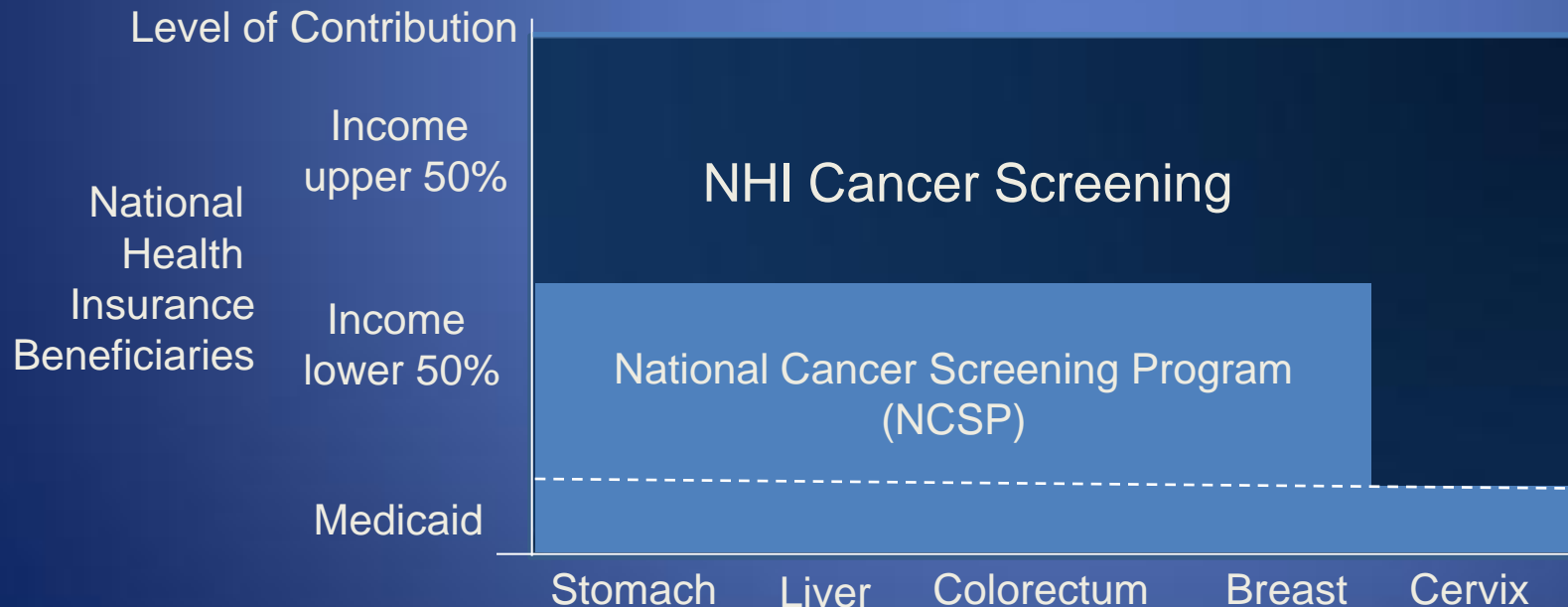
# National Cancer Screening Program (2005)

Income levels of  
NHI Beneficiaries



# Organized Cancer Screening in Korea

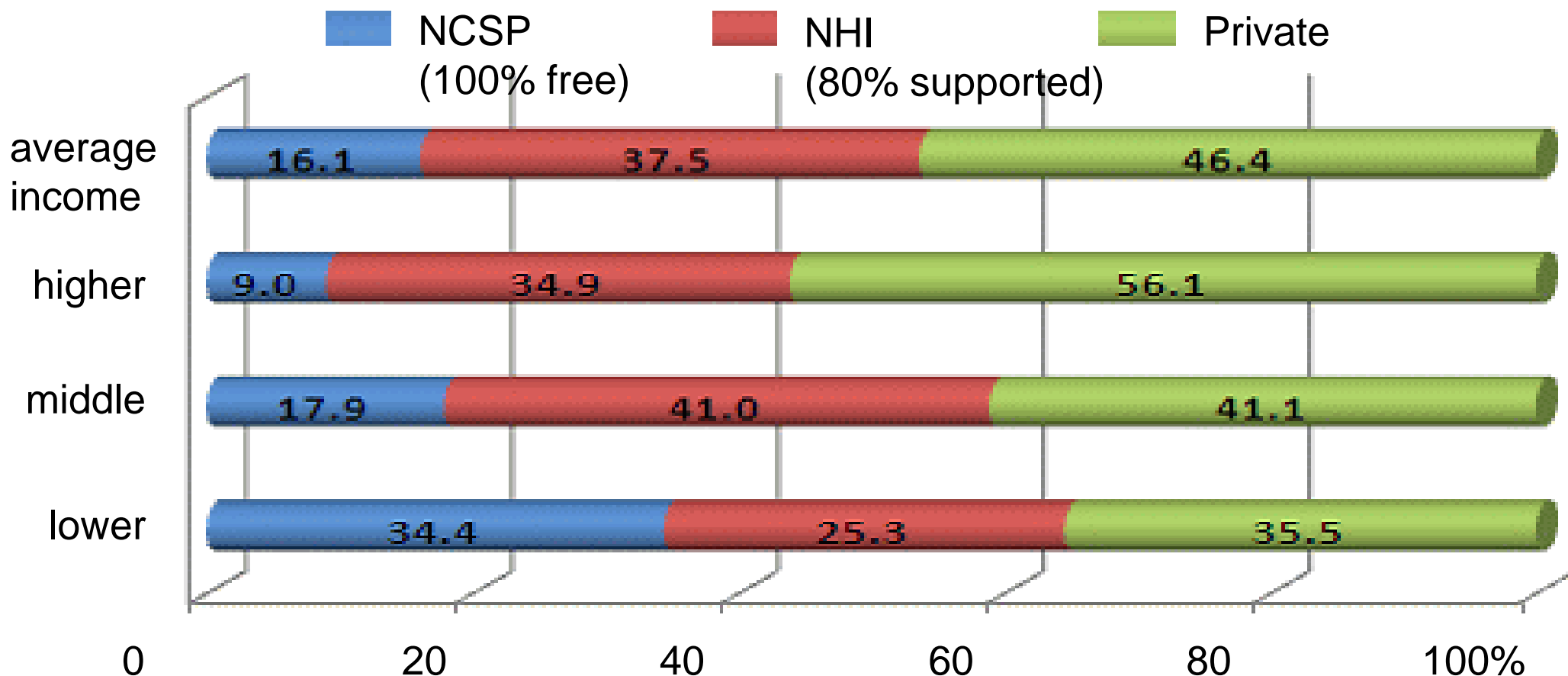
- Nationwide organized cancer screening program
- Managed by two systems
  - Upper 50% contributors: National Health Insurance Screening Program
  - Lower 50% contributors & Medicaid: National Cancer Screening Program



# Performance of NCSP by Cancer Type

	No. of participants (1,000)			No. of cancer detected (detection rate, %)		
	2005	2006	2007	2005	2006	2007
Stomach	1,150	1,525	1,724	1,383 (0.12)	1,717 (0.11)	1,784 (0.10)
Breast	729	946	1,064	112 (0.02)	124 (0.01)	104 (0.01)
Cervix	73	70	80	28 (0.04)	27 (0.04)	28 (0.03)
Liver	100	117	111	145 (0.15)	152 (0.13)	122 (0.11)
Colorectum	537	692	783	207 (0.04)	289 (0.04)	350 (0.04)
Total	2,589	3,350	3,750	1,875 (0.07)	2,309 (0.07)	2,388 (0.06)

# Payment System and Proportion for Usage of Cancer Screening Program in Korea



Source: Korea National Cancer Screening Survey 2007



# Screening rates, All Combined, Korea

unit: %

Cancers	2004	2005	2006	2007	2008
Stomach	39.2	39.4	43.3	45.6	53.5
Liver	20.0	16.3	16.5	22.7	19.7
Colon	19.9	25.4	29.4	34.1	39.7
Breast	33.2	38.4	40.6	45.8	49.3
U. cervix	58.3	38.4	54.9	57.0	59.9

Source: National Cancer Center. Nationwide Survey for Health Screening Performance Rate, 2004~2007

Note: Cancer screening performance rate by any programs in a given year under the screening guideline recommended by the National Cancer Center and the Ministry of Health & Welfare

# 韓国のがん対策

## 予算倍増、検診率50%

年	全体的検診率 (%)	高リスク群 (%)	平均リスク群 (%)	低リスク群 (%)
1994	35	45	30	25
1995	38	48	32	27
1996	40	50	34	29
1997	42	52	36	31
1998	45	55	38	33
1999	48	58	40	35
2000	50	60	42	37
2001	52	62	44	39
2002	54	64	46	41
2003	56	66	48	43
2004	58	68	50	45

韓国の公的がん検診で、保健所から個人家庭に届く「市内パンフレット」が、乳がん検診「し」や大腸がん検診「す」の宣伝がわかりやすく展開されている。

韓国のがん対策は、自己検診、検診、手術、化学療法、放射線療法など、がん治療の全過程にわたって、国家が主導する。がん検診は、がん予防の第一歩として、国家が主導する。がん検診は、がん予防の第一歩として、国家が主導する。

# 無料対象者が半数に拡大

がん検診の無料対象者が、2010年10月1日より、乳がん検診の無料対象者が半数に拡大された。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

## ① ネット検索 ② 診療ガイドラインを知るのも重要

がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

中山健夫 医師  
がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

## キーワード 国家がん対策プログラム

国家がん対策プログラム (NCCP) は、がん対策の国家戦略として、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。これは、がん検診の無料対象者を、乳がん検診の無料対象者に拡大した。

# Schematic Procedure for NCSP

**Ministry of Health, Welfare and Family Affairs**

**The supporting and Evaluation  
Board of NCSP, NCC**

① Planning and funding  
the program

- Provides national guidance on screening
- Training for health professional
- Public education and promotion
- Evaluation and monitoring of the program

**Monitor &  
Encourage**

**Public Health Centers  
n=248**

**National Health  
Insurance Corporation**

② Select the target population  
and send invitation letter

**Target population**

③ Visit and take screening

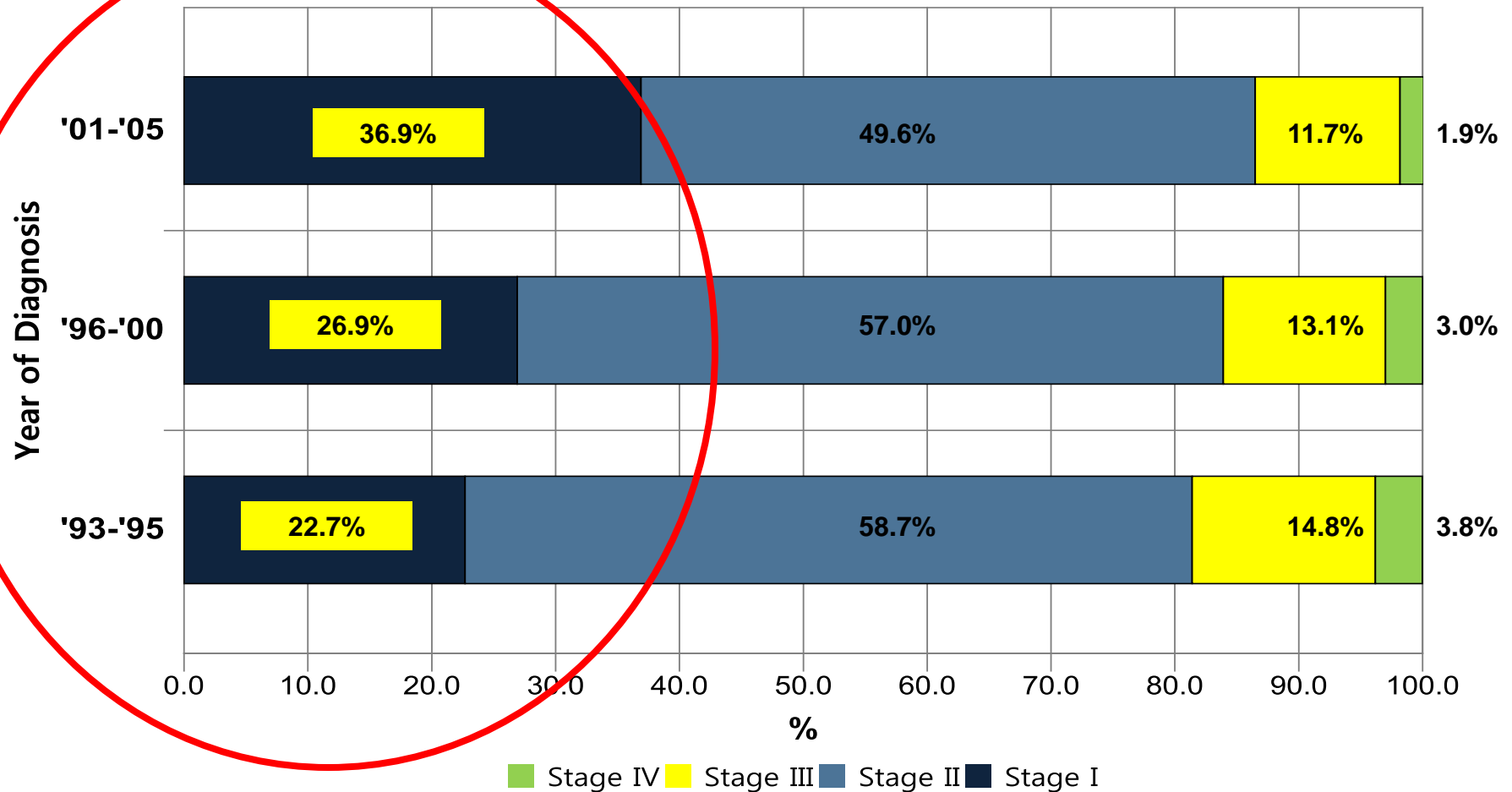
④ Send the results

⑥ Pay for the bill

⑤ Send the results  
and claim the bill

**Screening Unit  
in hospital or clinic**

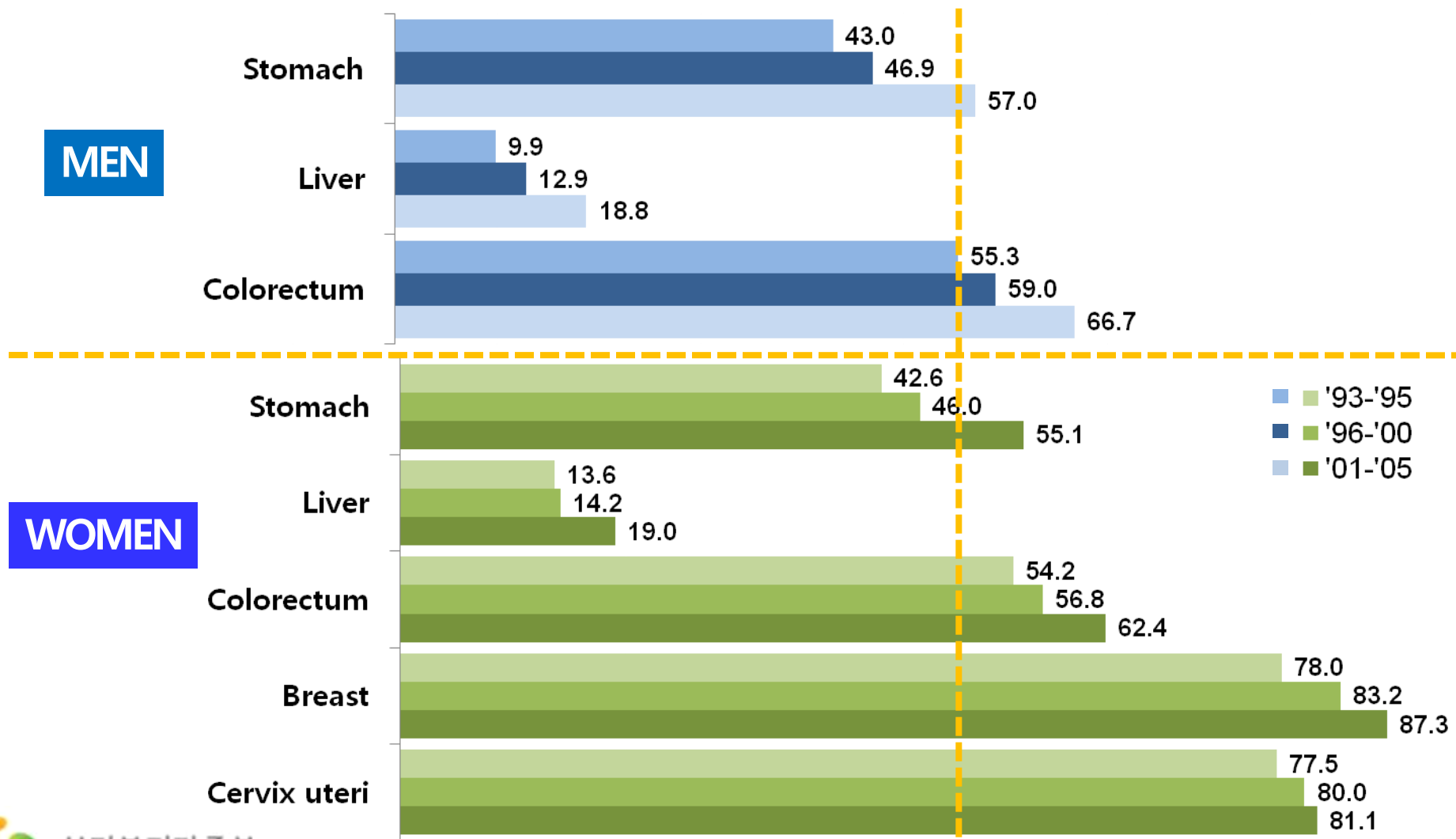
# Stage Frequency of Breast Cancer



Source: Korea Central Cancer Registry,  
Korean Breast Cancer Society



# Five Year Survival of Cancer Sites of National Screening Program



# International Comparison of Five Year Relative survival

(Unit: %)

	Korea (‘01-‘05)	USA <sup>1)</sup> (‘96-‘04)	Japan <sup>2)</sup> (‘97-‘99)	Eurocare <sup>2)</sup> (‘95-‘99)
Stomach	56.4	24.7	62.1	24.1
Lung	15.5	15.2	25.6	12.6
Colorectum	64.8	64.4	65.2	53.5
Liver	18.9	11.7	23.1	8.6
Thyroid	98.1	96.9	92.4	86.5
Breast	87.3	88.7	85.5	81.1
Cervix uteri	81.1	71.2	71.5	66.5
Prostate	76.9	98.9	75.5	77.0
All Cancers	52.2	65.3	54.3	51.9

1) Ries LAG, et al (eds). SEER Cancer Statistics Review, 1975-2005, National Cancer Institute, 2008

2) National Cancer Center in Japan. Cancer Statistics in Japan, 2008

# Challenging Issues in NCSP of Korea

- improving quality of screening
- increasing participation rate in NCSP
- assessment of effectiveness
- providing cost-effective program

# National Cancer Act, 2003

## 癌管理法 (2003)

- Central and regional government must establish cancer control plan in every 5 years
- National Cancer Control Committee
- R&D for cancer research
- Cancer Registration
- National Cancer Screening Program
- National Hospice-Palliative Care Program

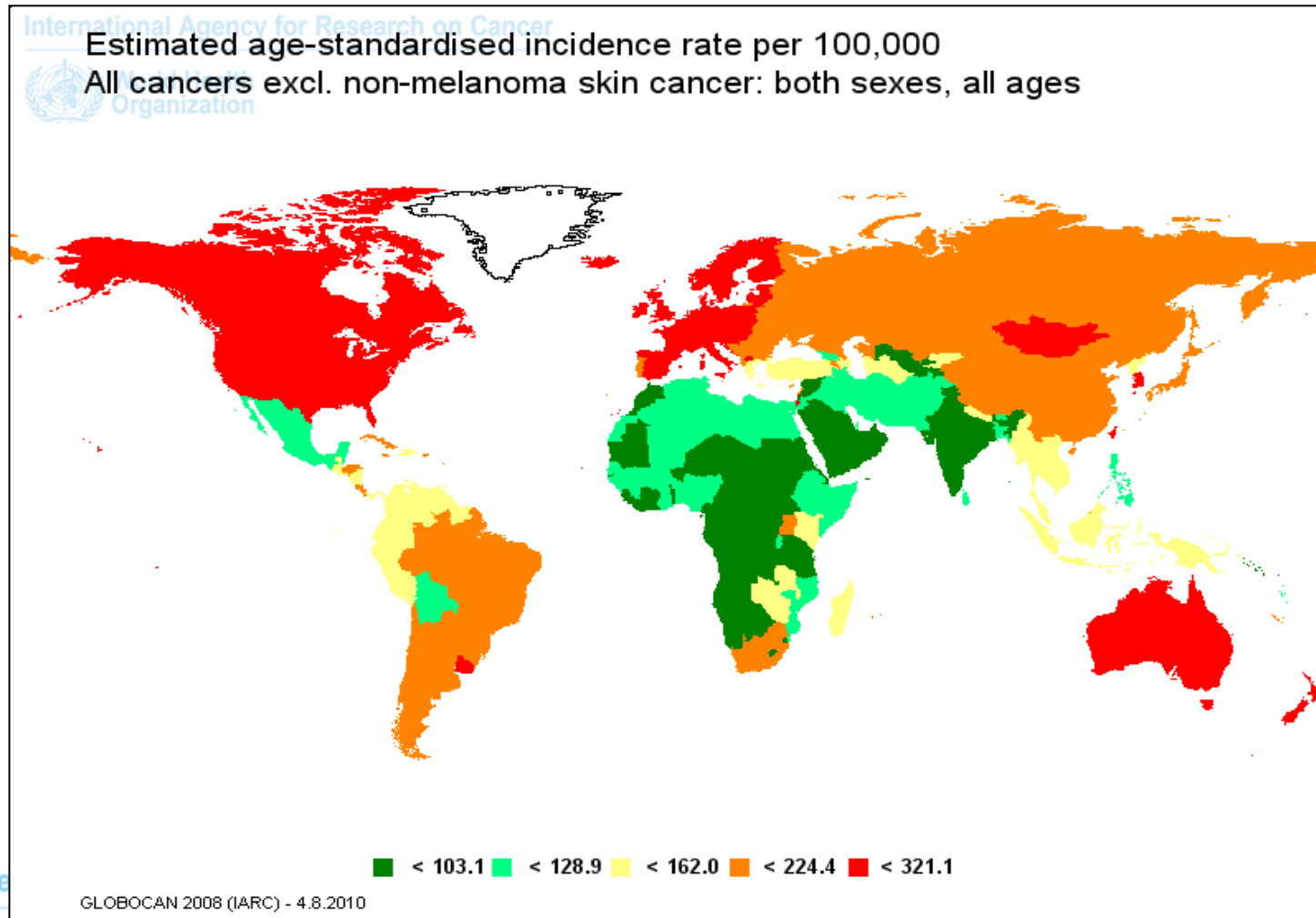


**The 2<sup>nd</sup> Term of 10-Year National Cancer Control Plan**

# **Cancer Prevention**

# Global Distribution of Cancer Incidence

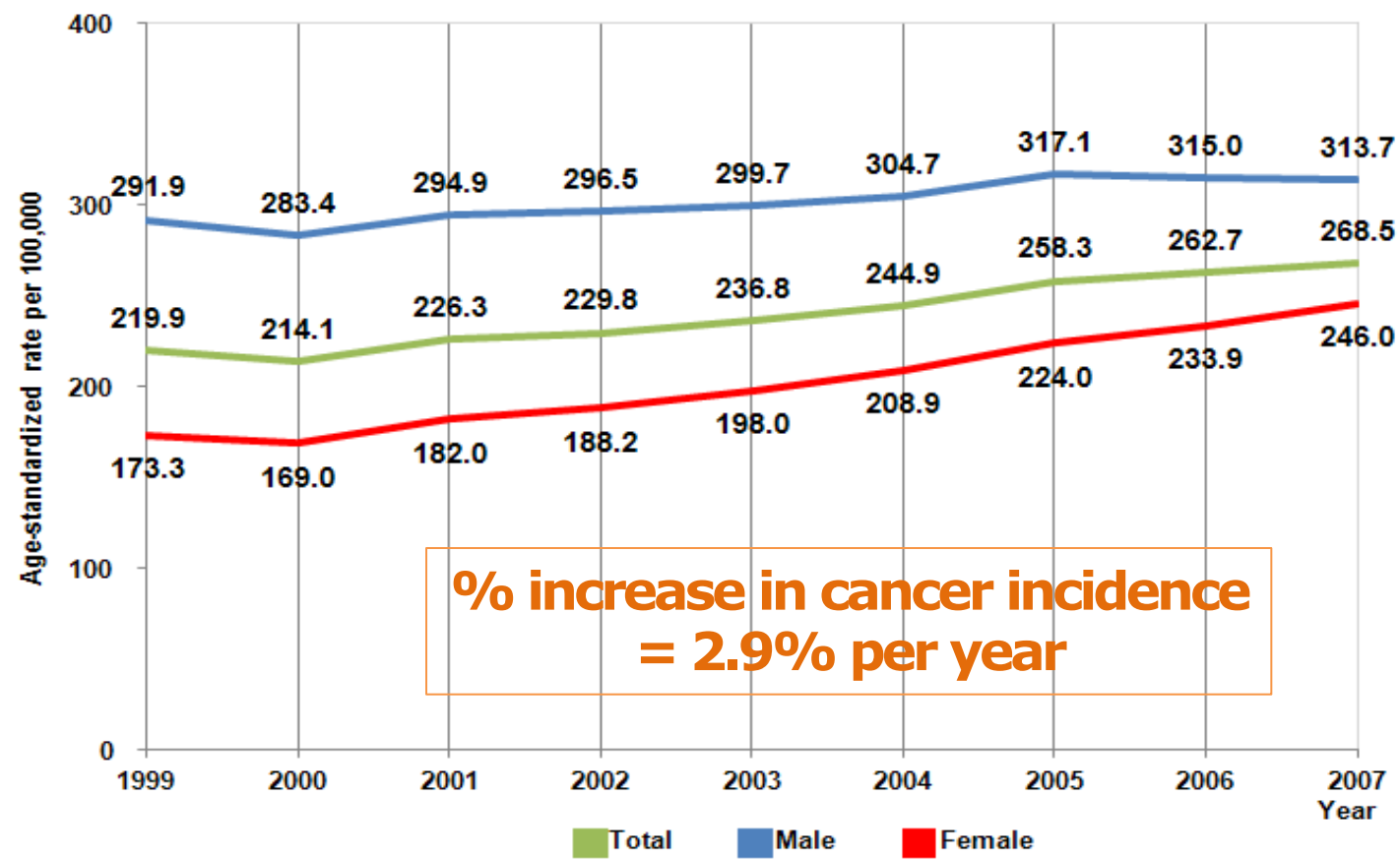
## ASIR, all cancers, both sexes, all ages



**Asian shows  
moderate to lower  
incidence  
than the Western.**

# Trend in Age-standardized Incidence Rates of Cancer

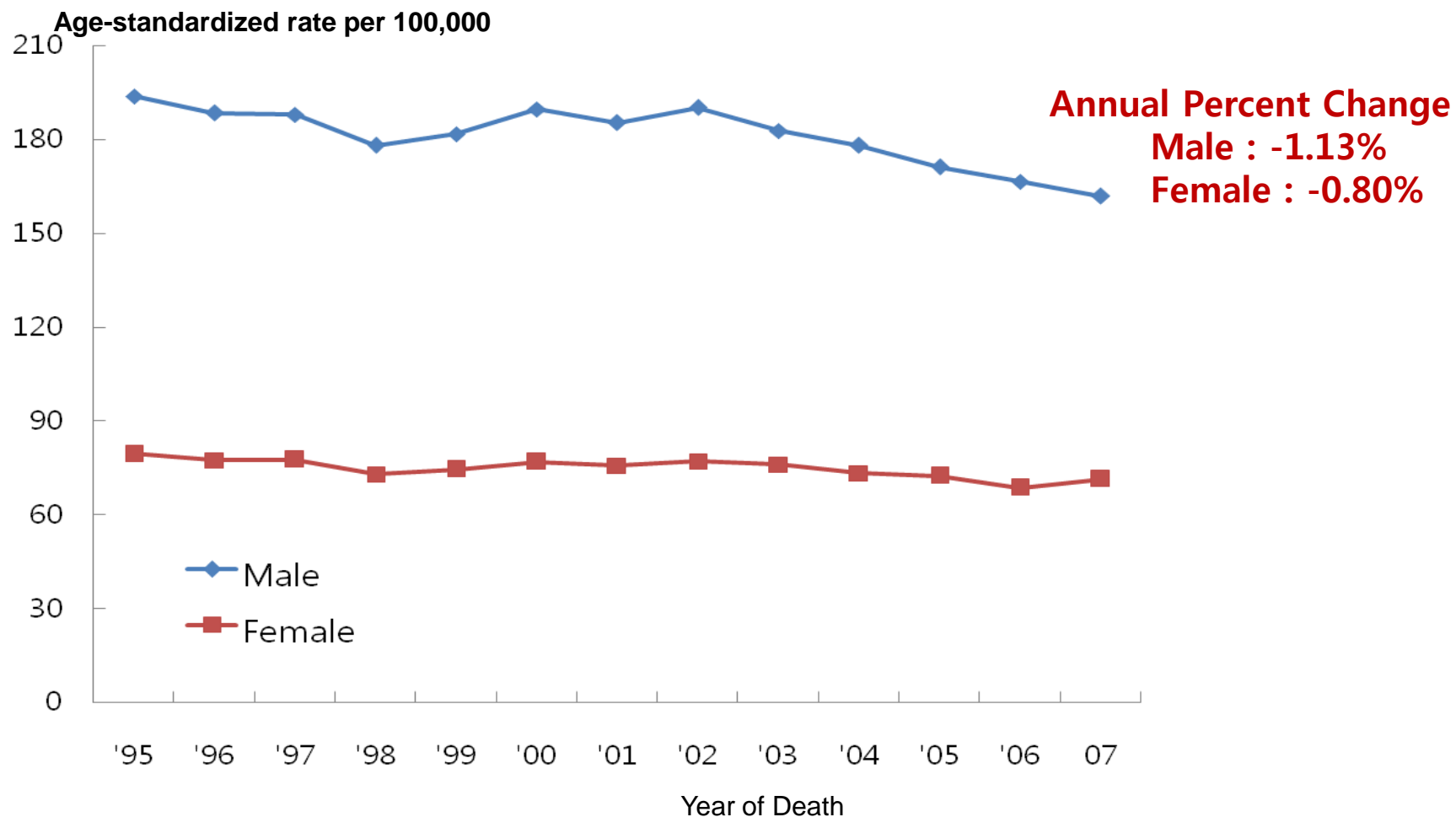
Korea Central Cancer Registry, 1999-2007



Sex	Annual Percent Change (%)
Total	2.9 *
Male	1.3 *
Female	4.9 *

\* P < .05

# Trend in Cancer Mortality Rates



Date Source: Annual Report of Causes of Death, Korea National Statistical Office  
Age-standardized rates on the 2000 Korea registration population

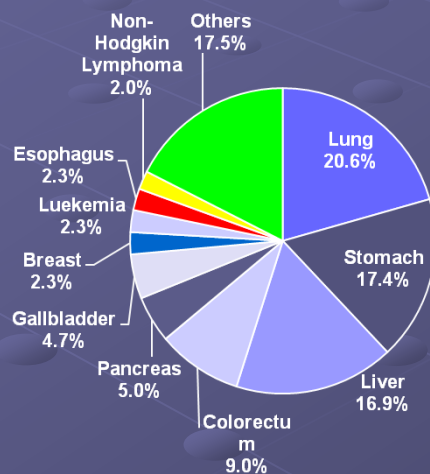


# Increase in Cancer Survival *ultimately induces* Increase in Cancer Prevalence

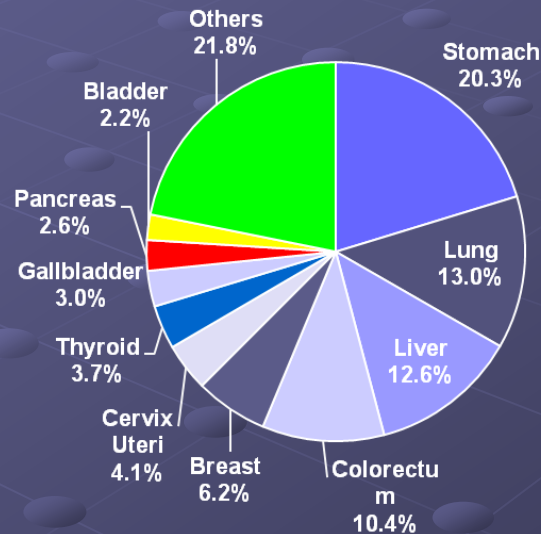
## Prevalence (2007)

## Incidence (2007)

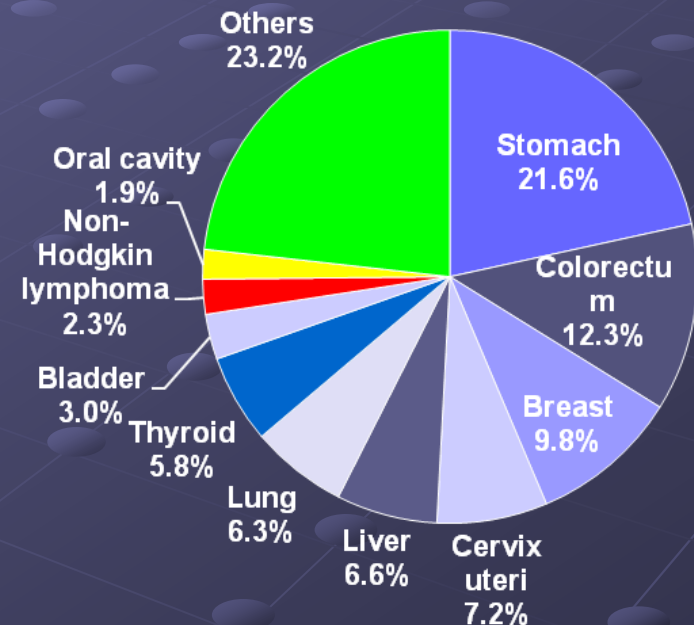
## Mortality (2007)



67,559 deaths

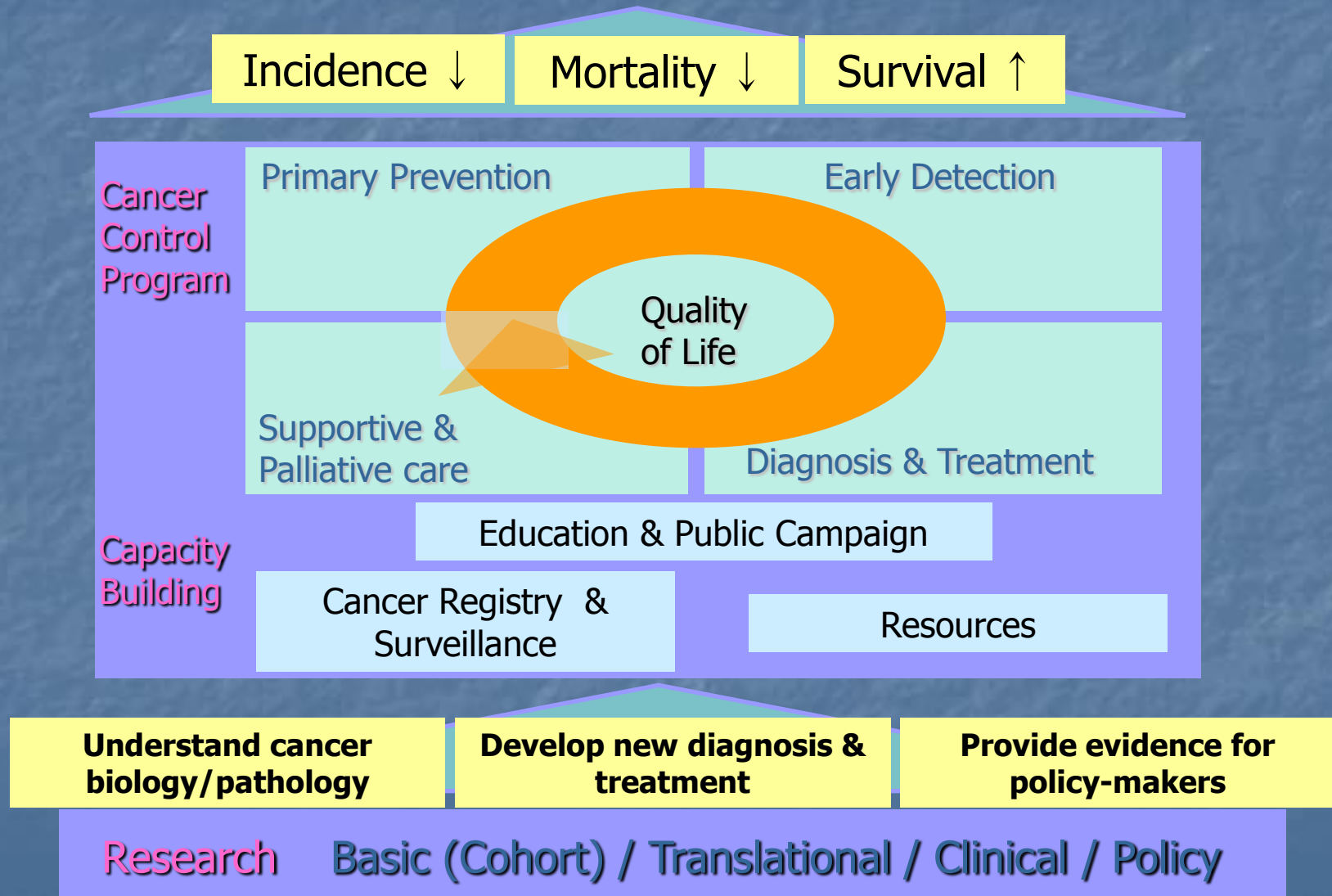


161,920 cases



606,804 persons

# 2<sup>nd</sup> Term Ten-year Plan for National Cancer Control (2006-2015)



# National Cancer Act, revised in 2006

- central and regional government must establish the plan for cancer control every 5 years
- establish National Cancer Control Committee
- support cancer research
- establish cancer registry & National Cancer Screening Program
- amend cancer registration law based on “Statistics Law”
- establish National Cancer Prevention Day – March 21th (3-2-1)
- activate cohort study, regional cancer center
- quality assessment of cancer screening program
- start National Hospice-Palliative Care Program
- financial support for cancer patients

# 2007 - Year of Cancer Prevention



Inauguration Ceremony (2007. 6. 19)



Message from President of Korea



# Main Activities for Cancer Prevention

- **Cancer Prevention Day** for public awareness  
(celebration, event, campaign, seminar, etc.)
- **10 codes and practical guidelines** for cancer risk reduction
- standardized information on cancer prevention, i.e., **dietary factors**
- **education and campaign**
- policies and program for **tobacco control**
- strategic plan for prevention of cancer caused by **infection**
- surveillance system for **occupational exposure** on carcinogens



# 2007 Cancer Prevention Day





# 2008 Cancer Prevention Day



# Codes of Conduct for Cancer Prevention



Don't smoke and avoid smoke-filled environments



Consume sufficient amounts of fruits and vegetables and balance your diet with a wide range of healthy foods



Limit your salt intake from all sources, and avoid burnt or charred foods



Limit your consumption of alcoholic beverages to one or two drinks per day



Engage in at least 30 minutes of regular, moderate-intensity physical activity on most days of the week



Maintain your body weight within a healthy range



Ensure vaccination against Hepatitis B virus following the HBV vaccination schedule



Engage in safe sexual behavior to avoid sexually transmitted diseases



Follow all health and safety instructions at work places aimed at preventing exposure to known cancer-causing agents



Undergo routine check-ups following the cancer screening programs

國民癌豫防守則

**Cancer is Preventable  
& Avoidable!!**





# 10 Action Codes of Cancer Prevention



암예방의 첫걸음은 국민 암 예방 수칙의 실천

**“암”** 건강 생활 실천과 조기 검진으로 예방할 수 있습니다!!

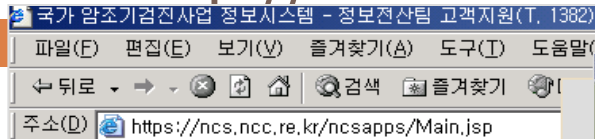
**국민암 예방수칙**

- 담배를 피우지 말고, 남이 피우는 담배 연기도 피하기
- 채소와 과일을 충분히 먹고, 다채로운 식단으로 균형 잡힌 **식사**하기
- 음식을 짜지 않게 먹고, 탄 음식을 먹지 않기
- 술은 하루 두 잔 이내로만 마시기
- 주 5회 이상, 하루 30분 이상, 땀이 날 정도로 걷거나 **운동**하기
- 자신의 체격에 맞는 건강 **체중** 유지하기
- 예방접종 지침에 따라 B형 간염 **예방접종** 받기
- 성 매개 감염병에 걸리지 않도록 안전한 **성생활** 하기
- 발암성 물질에 노출되지 않도록 작업장에서 안전 보건 수칙 지키기
- 암 초기 검진 지침에 따라 **검진**을 빠짐없이 받기

보건복지부  
www.mohw.go.kr

국립암센터  
NATIONAL CANCER CENTER  
www.ncc.or.kr

http://ncs.ncc.re.kr



**국립암센터**  
NATIONAL CANCER CENTER

검진대상자관리    검진기관관리    검진결과관리

사 용 자 : 최귀선  
보 건 소 : S00000000

로그아웃    회원정보수정

2005 국가암관리사업  
평가대역

**검진대상자관리**

의료급여수급자

- 검진대상자 조회
- 검진대상자 명단

건강보험가입자

- 검진대상자 조회
- 검진대상자 명단

411-769 경기도 고양시 일산구 마두1동  
대표전화 : 15888-110(전국공용), 03-809 Madu1-dong, Ilisan-gu, Goyang  
Copyright 2000-2003 NATIONAL CANCER CENTER

## 국가 암 조기 검진이란?

보건복지부는 암을 초기에 발견함으로써 암 치료율을 높이고 급격히 증가하는 암발생과 사망을 감소시키기 위해 국가암 조기검진사업을 실시하고 있습니다. 의료급여 수급자와 건강보험 가입자 하위 50%(보험료 부과기준)에 해당하는 국민은 국가암 조기검진사업을 통해 5대암 검진을 받을 수 있으며, 검진비용은 전액 국가(중앙 및 지방정부, 국민건강보험공단)에서 부담합니다. 국가암 조기 검진으로 암이 발견되면 치료비도 지원합니다.

## 국가 암조기검진 프로그램

2001년 보건복지부는 우리나라의 표준이 될 수 있는 암검진 권고안을 국립암센터 및 관련전문학회와 공동으로 개발하였습니다.

대상암	검진대상	검진주기	검진방법
위 암	만 40세 이상 남녀	2년	위장조영촬영 또는 상부소화관 내시경검사
간 암	만 40세 이상 남녀로 간경변증이나 B형간염 바이러스항원 또는 C형 간염바이러스 항체 양성으로 확인된 자	6개월	간초음파검사 + 알파피로 프로테인
대장암	만 50세 이상 남녀	1년	분변잠혈반응검사 : 이상 소견시 내시경검사 또는 결장이중조영촬영

## 암검진 절차

2006년도 국가 암 조기검진 대상자 조회

검진기관 조회

보건소 조회





# National Cancer Information Center at NCC

**<http://www.cancer.go.kr/>**

[illegible]

NCIC provides a comprehensive cancer information services through website, telephone, and on-site education.

NCIC provides some booklets and leaflets on various aspect of cancer.

NCIC have supported health professionals with information on cancer research relates and have developed educational booklets and leaflets on most aspects of cancer.

# Primary Cancer Prevention

Smoking cessation

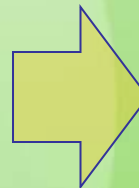


Vaccination

HBV  
HPV



Dietary change



# Anti-Smoking Program of Korea

- **increase in tax on cigarettes**
- **ban on smoking in public places, health education, etc.**
- **limit cigarette advertising**
- **prohibit promoting the sale of tobacco**
- **warning on cigarette packets**
- **expand public anti-smoking campaign & education**
- **limit sales to minors**

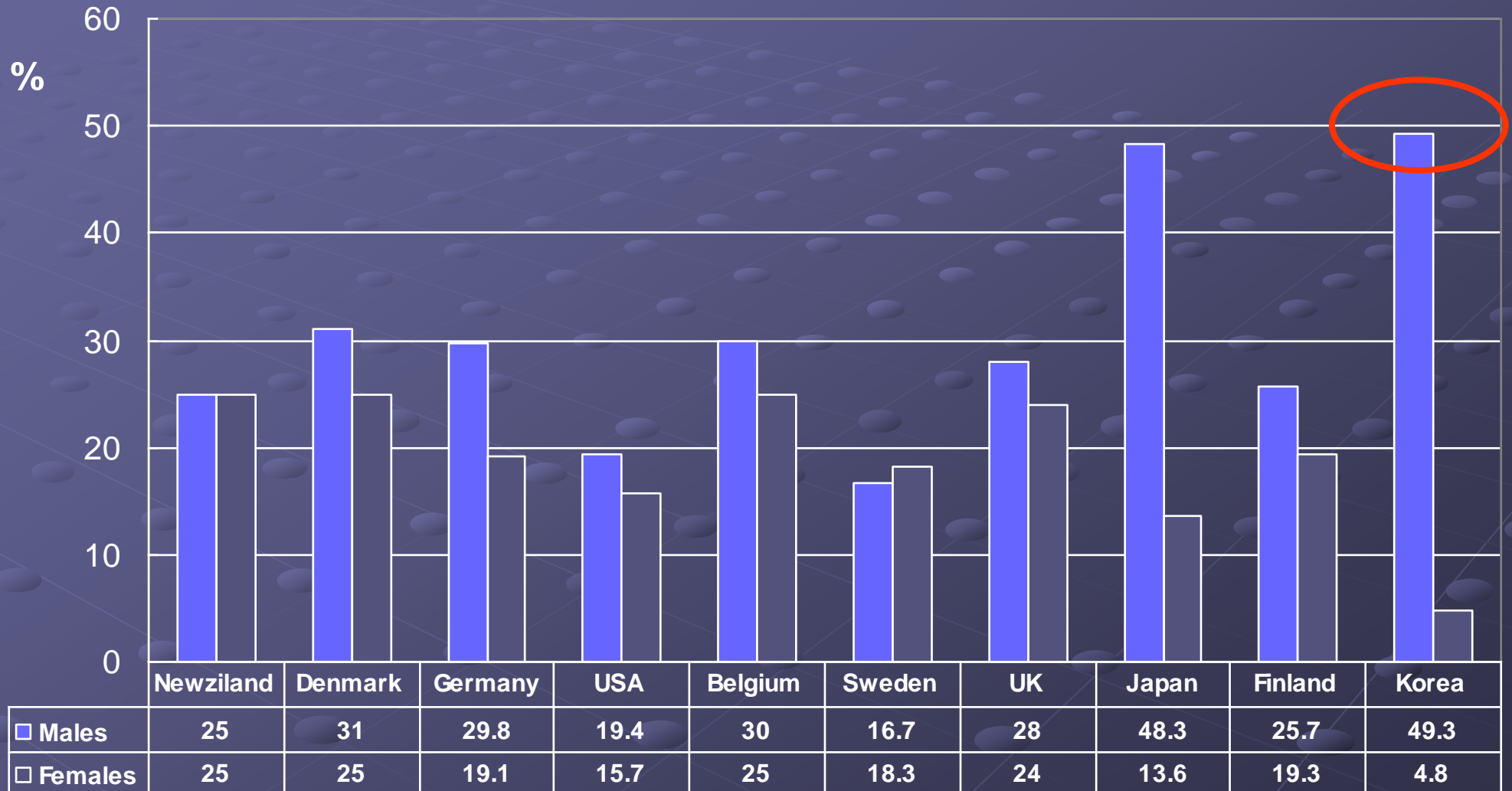
# 癌! 바로 알기



코미디언 이주일 2002년 타계 (62세)

**“담배 맛있습니까? 그거 독약입니다!”**

# Smoking Rate in OECD Countries



Source: OECD health data, 2005



# Initiatives to Reduce the Tobacco Use

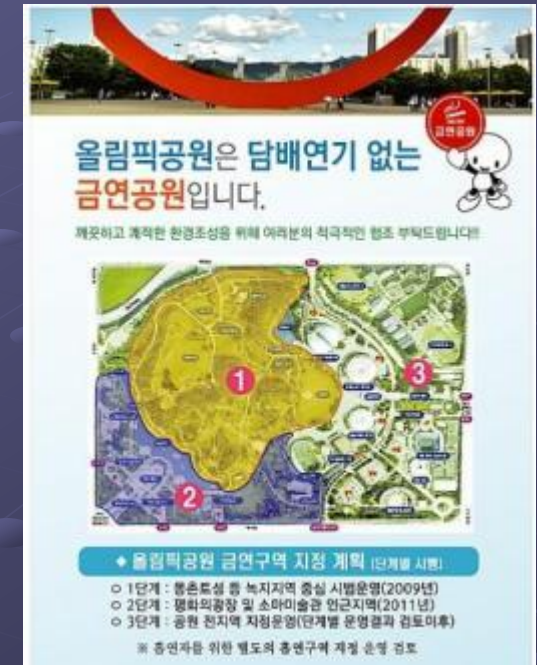
- Major TVs, Newspapers Banish Tobacco 2002-2004

KBS  
SBS  
MBC



- Increase in Tax on Cigarettes
- Ban on smoking in public places, health education, etc.
- Ban by legislation on the manufacture and sale of tobacco products (Tobacco Free World Alliance: ToFWA)

# Smoke-free Zone based on Health Promotion Act





# Quitline Service for Smoking Cessation at NCC

since April 2006 by telephone & website  
providing smoking cessation coaching  
releasing knowledge on hazards of smoking  
collaboration with 248 Health Centers

for pharmacotherapy : NRT and bupropion  
by all the health centers charge free

quitline.hq.go.kr

# 금연상담전화

## 우리 아빠가 달라졌어요

금연 콜센터에 전화주시면 모든 흡연자가 달라집니다.

가족의 건강이 중요하시죠?

가족들도 당신의 금연을 기다리고 있습니다.

지금 금연콜센터에 전화하세요.

**전문 금연상담사가** 당신의 금연습관에 맞는 금연상담 서비스를 무료로 제공합니다.

당신의 달라지면 가족의 삶도 달라집니다.

금연 콜센터 ☎

금 연 상 화

# 1544-9030

상담시간 | 월 ~ 금요일 : 오전8시 ~ 오후10시  
토요일 : 오전8시 ~ 낮12시

8금연콜선

보건복지부 국민행복본부



# 금연콜센터

## 1544-9030

금 연 성 공



### 지금 전화주세요!

한통 전화만 걸어도 1544-9030 콜센터로 연결됩니다.  
금연 상담에 필요한 정보와 도움을 받으실 수 있습니다.



CLICK! 원하시는 서비스를 선택하세요

#### 금연 위한 올바른 행동습관

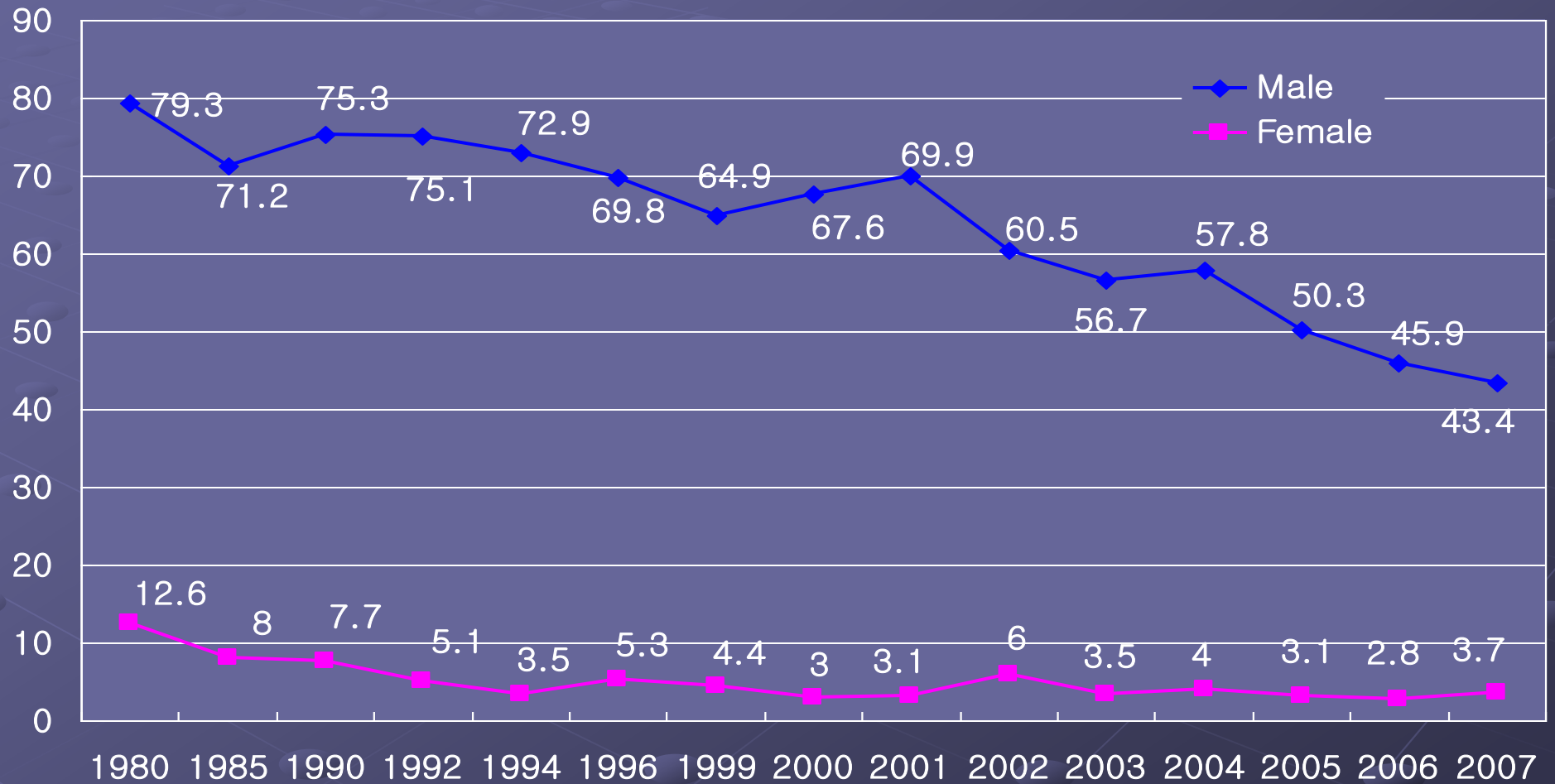
- 흡연 습관 파악하기 (자기검토)
- 흡연 시작 후 14일 이내로 금연을 선택하기, 흡연자 10명에게
- 흡연자 7구가 금연을 하게 한다면, 세로, 세로세로
- 금연을 지지하는 친구와 가족에게 전화하기
- 담배를 피우지 않는 친구와 가족을 만났을 때
- 구체적인 운동법 찾기
- 흡연을 계속 피우려는 흡연자나, 그처럼 흡연 습관을 바꾸기
- 가족과 생활 계획하기
- 담배 (상표)만 피우지 않는 것, 금연 운동 휴대하기
- 흡연을 할 수 있는 도구를 휴대하기

#### 금연에 대한 잘못된 생각을 바꾸자!

- 1. 담배를 피우지 않는다고 기분이 좋아진다
- 2. 담배를 끊으면 건강이 계속 나빠진다. 흡혈제나 다른 흡혈제까지
- 3. 나중에는 피우게 될 것이다
- 4. 흡연 습관을 버리면 건강이 나빠진다
- 5. 금연은 오래 걸린다
- 6. 금연을 하면 몸이 무거워진다
- 7. 더 많이 담배를 피우게 되어 도둑이 되지 않는다
- 8. 금연을 하면 몸이 무거워진다
- 9. 금연이 건강을 해친다
- 10. 금연이 건강을 해친다
- 11. 금연이 건강을 해친다
- 12. 금연이 건강을 해친다
- 13. 금연이 건강을 해친다
- 14. 금연이 건강을 해친다
- 15. 금연이 건강을 해친다
- 16. 금연이 건강을 해친다
- 17. 금연이 건강을 해친다
- 18. 금연이 건강을 해친다
- 19. 금연이 건강을 해친다
- 20. 금연이 건강을 해친다



# Smoking Prevalence : Adults



Source: Ministry of Health & Welfare, Korean Association of Smoking & Health

# HBV Vaccination

Vaccination

HBV  
HPV



National Vaccination against HB  
has been implemented in

Taiwan (1984)

Thailand

Malaysia (1989)

Singapore

Korea (1985)

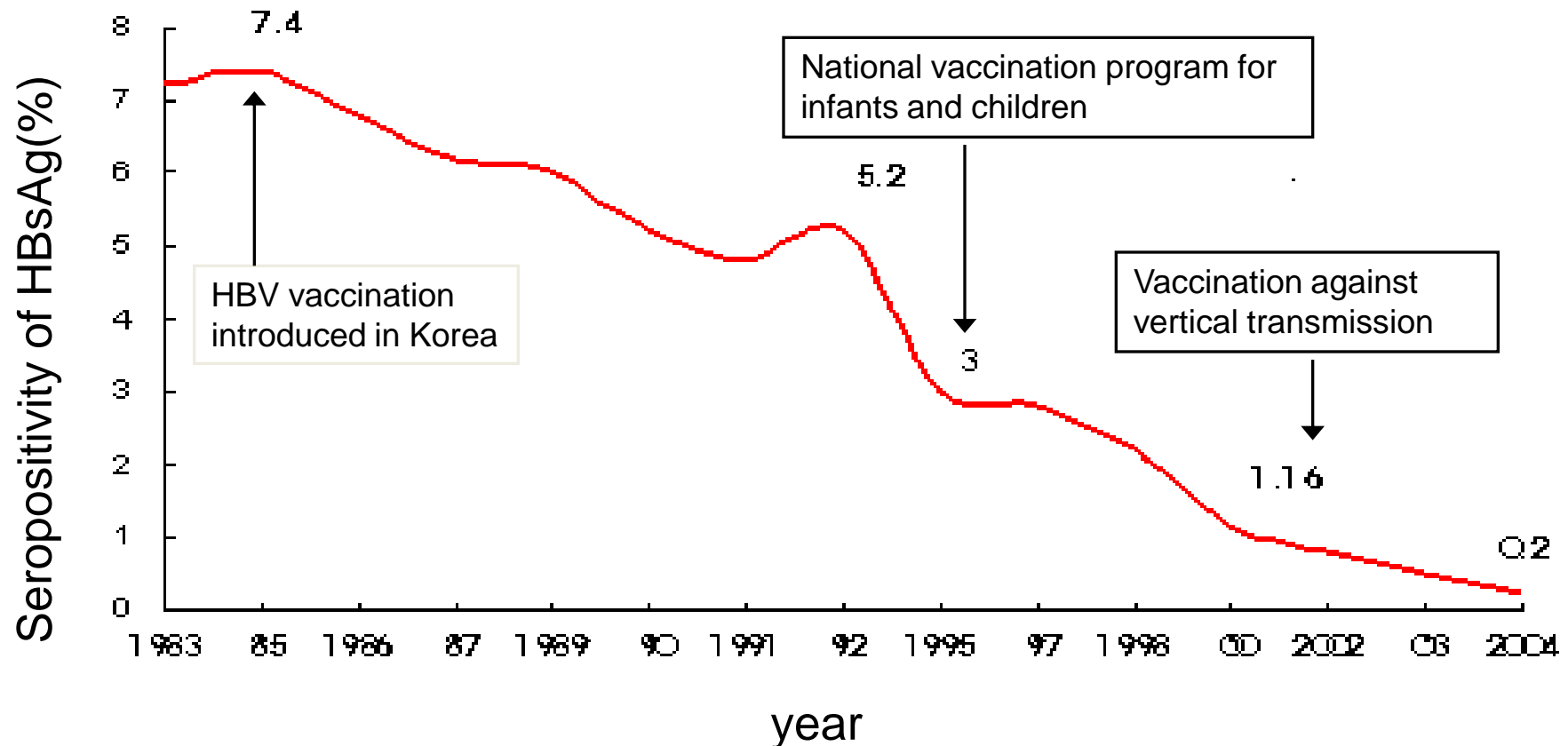
China

Mongolia (1991)

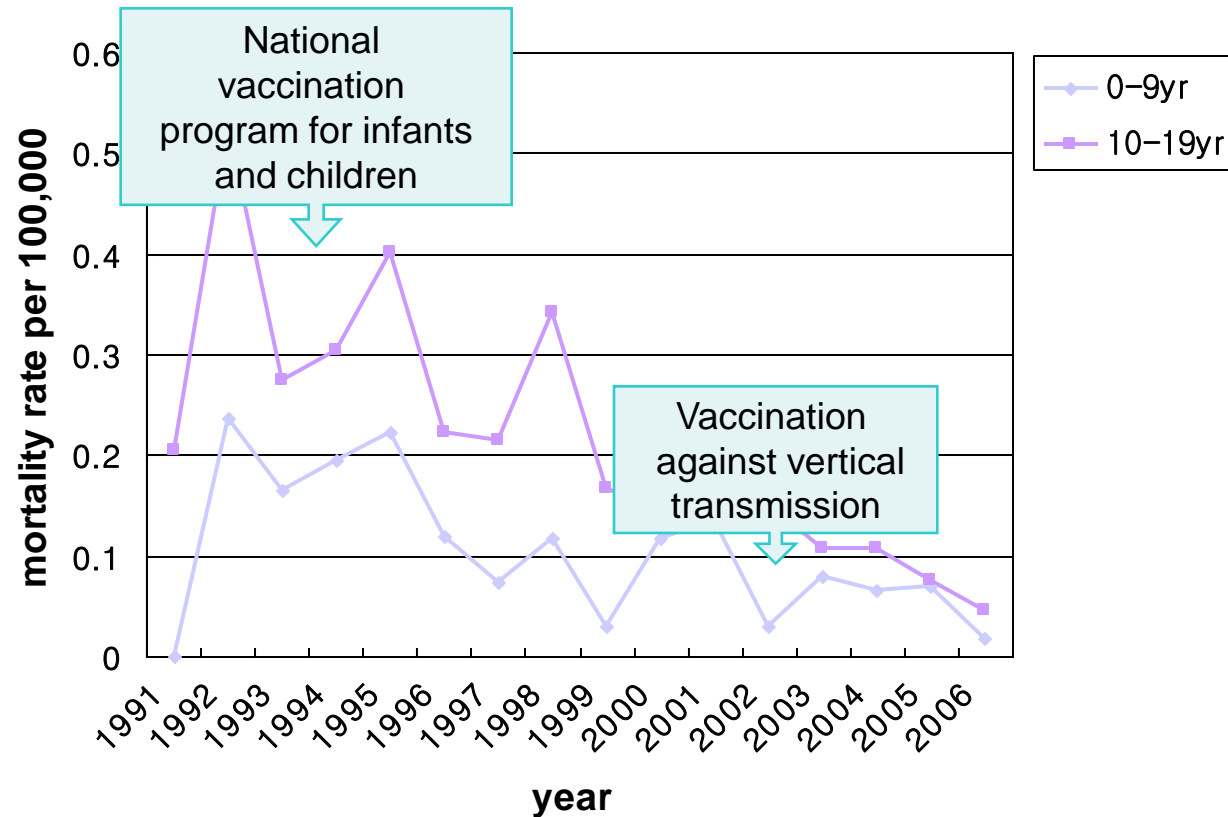


# HBsAg seropositivity

<HBsAg seropositivity among blood donors>

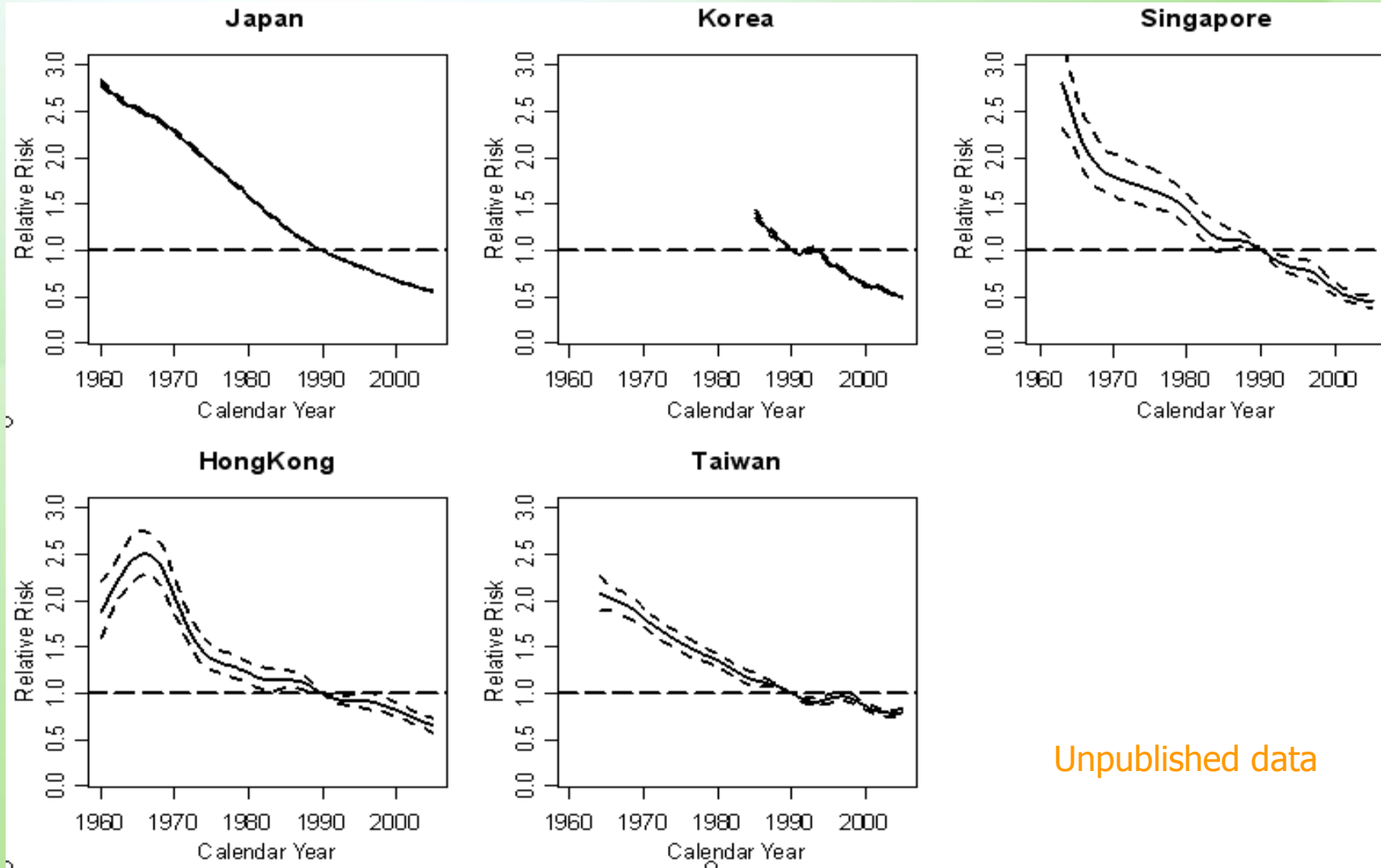


# Liver Cancer Mortality Rates in Young Koreans



# Decline in Gastric Cancer - An Unplanned Triumph

(Howson et al. 1986)



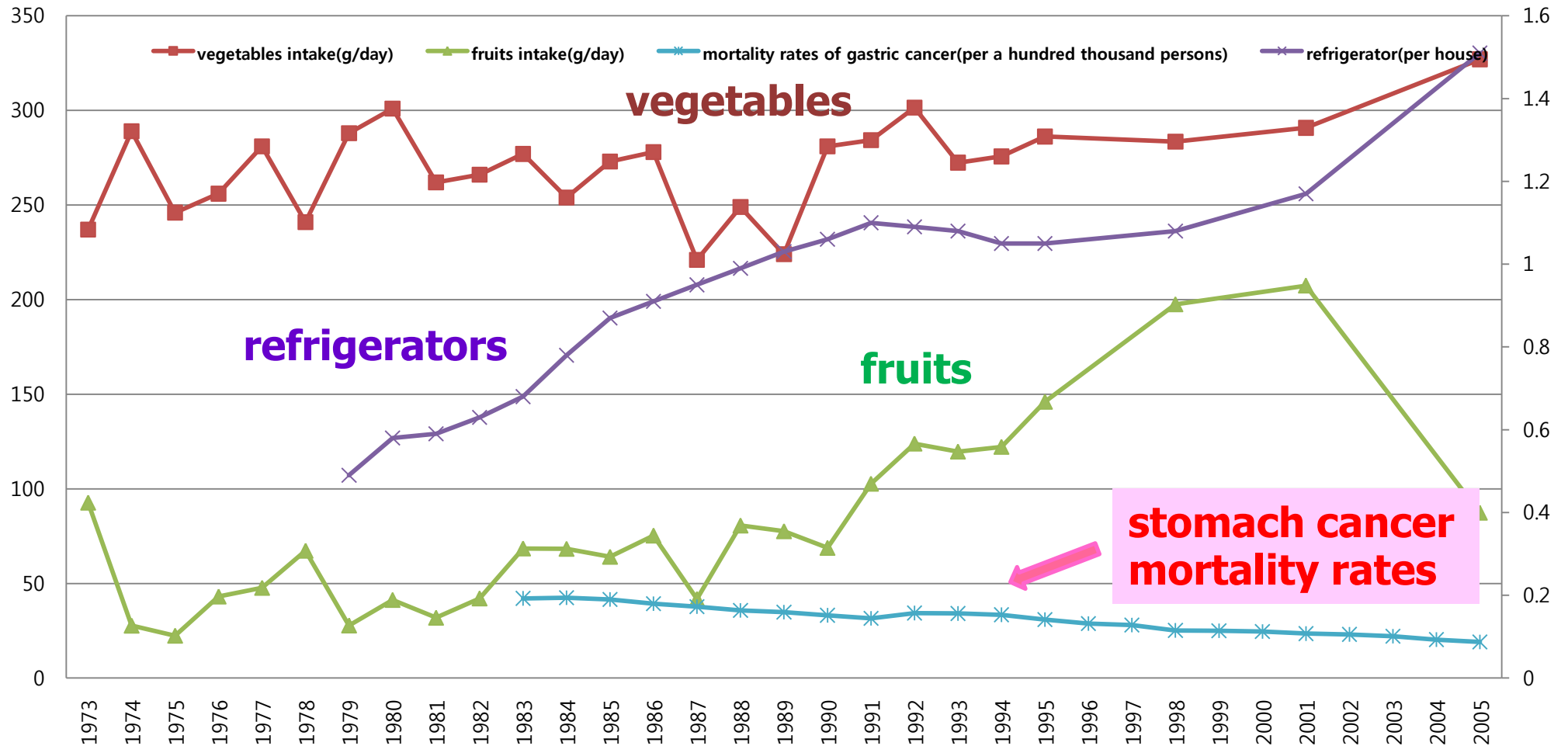
Unpublished data

# Reducing Salt Intakes





# Intake of Vegetables/Fruits, Use of Refrigerator and Stomach Cancer Mortality in Korea, 1973-2005



(Mortality) Korea National Statistical Office. Annual Report of Causes of Death.  
 (Nutrition) Ministry for Health, Welfare and Family Affairs. The Third Korea National Health and Nutrition Examination Survey  
 (Refrigerator) Korea Power Exchange. The number of refrigerators in use in Korea.

# Lifestyle Changes in Korea

- mean age at first marriage
  - 24.9 (1990) → 27.3 (2003) → 28.1 (2007)
- total fertility rate
  - 2.0 (1980) → 1.19 (2003) → 1.26 (2007)
- age at menarche\*
  - 13.5 (1988) → 12.7 (1998)
- total calorie supply (per capita per day)
  - 2,622 (1983) → 2,927 Kcal (2006)

Source: *National Statistical Office. 2007*

\* Cho et al. 1999

# 2007 Pink Ribbon Love Marathon

## Seoul World Cup Park, Oct. 2007



The Public Relations Officer



# Surgeon's Concert for Breast Cancer Survivors

<http://www.kbcs.or.kr/>



**2008 핑크리본 유방암 대국민 건강강좌**

- 행사명 유방암 재발방지를 위한 핑크리본
- 주최 한국유방건강재단
- 후원 보건복지가족부, 여성부, 한국유방
- 초청강사 해당지역 한국유방임학회 전문의
- 대상지역 전국 40개 공공장소
- 기간 2008년 9월말 ~ 10월(주관 병원)
- 장소 병원 강당 또는 지정 장소(협의)
- 기타
  - 유방암 환자들의 사후관리와 재발
  - Q&A형식 진행
  - 유방암예방홍보강사가 진행하는 유방
  - 웃음강사, 노래강사 등 오락적 요소
  - 보건복지가족부 후원과 양 정부서

Open Lecture



希望愛樂 Pink Tie Concert



Pink Letter



# Korean Breast Cancer Patients Society

## 韓國乳房癌患友聯合會



### Foundation

- Aug 22. 2006
- Alliance of survival groups from 20 hospitals
- Members: 1,158
- Staff
  - President
  - 2 vice-president
  - Manager



# **Supportive & Palliative Care**

# Hospice-palliative Care Program

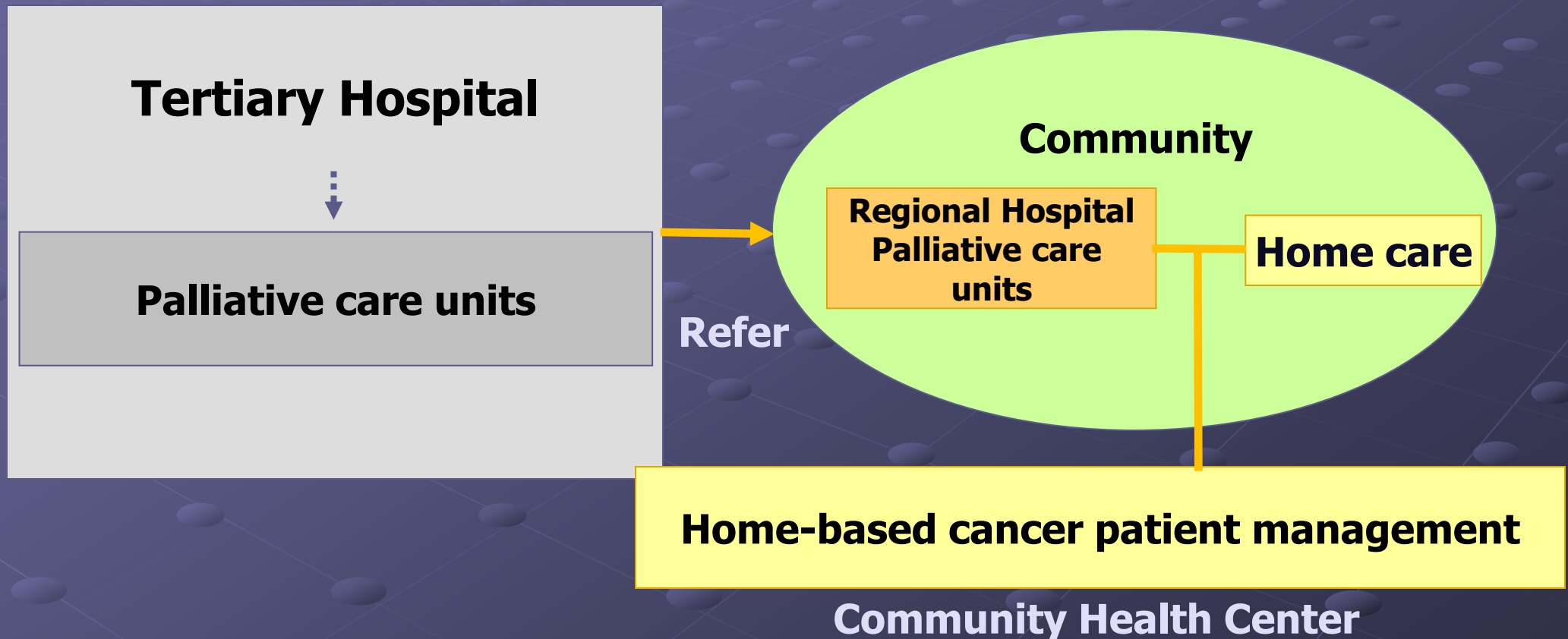
- support **palliative care units** in hospital
- provide **home-based** cancer patient management  
program through public health center
- provide **education** program to the health care providers
- publish cancer **pain control guideline**

# Designation of 23 Hospice Organization & Financial Support (2007)



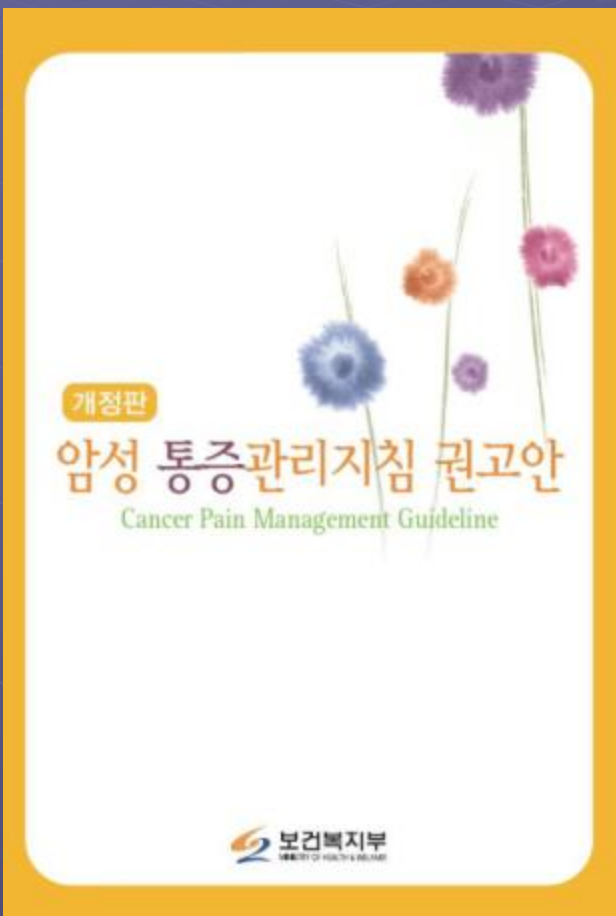


# Terminal Cancer Patient Management Plan

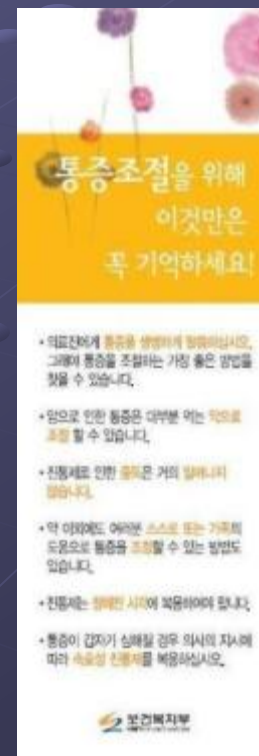


# Cancer Pain Control Guideline (2nd edition, 2007)

for Health Care Providers



for Patients



# Cancer Patient Financial Aid Program

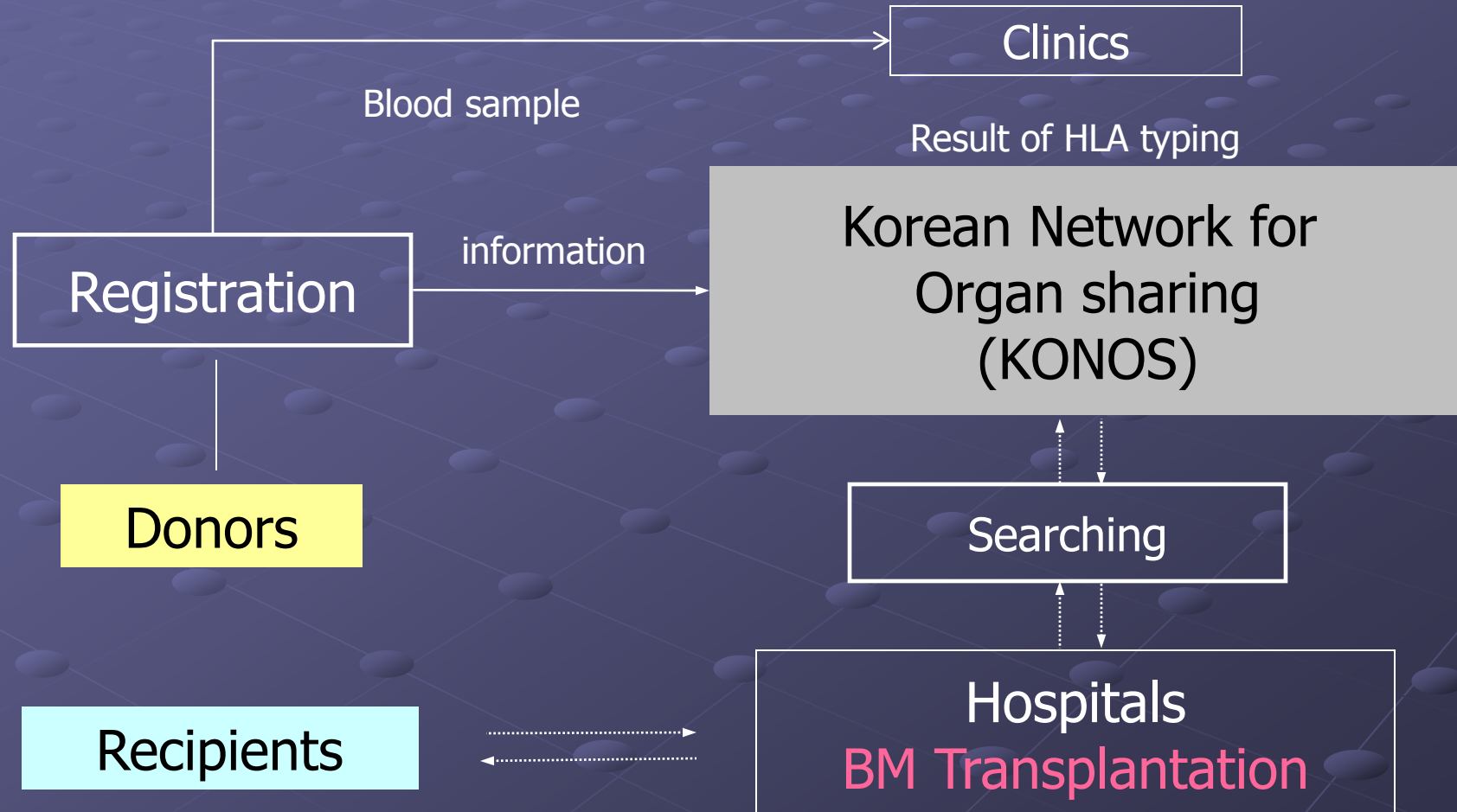
population	Inclusion criteria	Type of cancer	Financial aid/ out of pocket medical expenditure (%)	Starting Year
Adults	Beneficiaries <sup>1</sup> Who participated NCSP <sup>2</sup>	Stomach Breast Cervix Liver Colorectal	27-32%	2005
	Medicaid	All cancer	35-65%	2005
	Beneficiaries <sup>1</sup> & Medicaid	Lung cancer	20-30%	2005
Under 18 years olds	Beneficiaries <sup>1</sup> & Medicaid	All cancer <sup>3</sup>	Leukemia: 75% Other cancer: 73-83%	2002

1. Lower 50 % of premium of National Health Insurance

2. National Cancer Screening Programs

3. 2002-2004: Only for Leukemia

# Financial Aid Program for Bone Marrow Transplantation





## **The 2<sup>nd</sup> Term of 10-Year National Cancer Control Plan**

# **Goals of the 2<sup>nd</sup> NCCCP**

# 2<sup>nd</sup> Term Ten-year Plan for National Cancer Control (2006-15)

**Total budget : 5.81 billion USD**

**National budget : 3.48 billion USD**

**Health promotion fund : 2.33 billion USD**

USD, million

800

600

400

200

0

- Primary Prevention
- Research
- Cancer registry&Surveillance
- Resources
- Education&Public campaign
- Supportive&Palliative care
- Diagnosis&Treatment
- Early detection

2006

2007

2008

2009

2010

2011

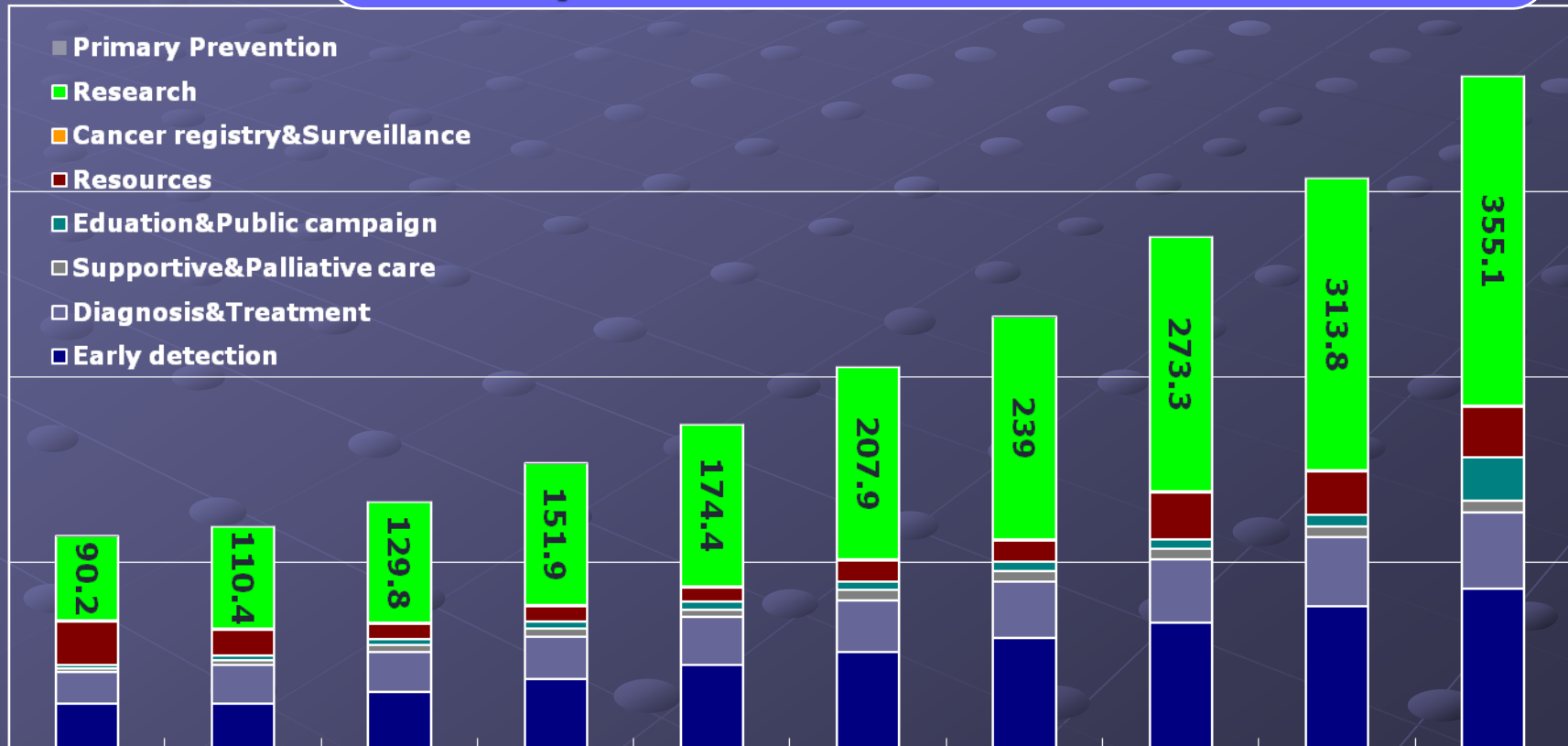
2012

2013

2014

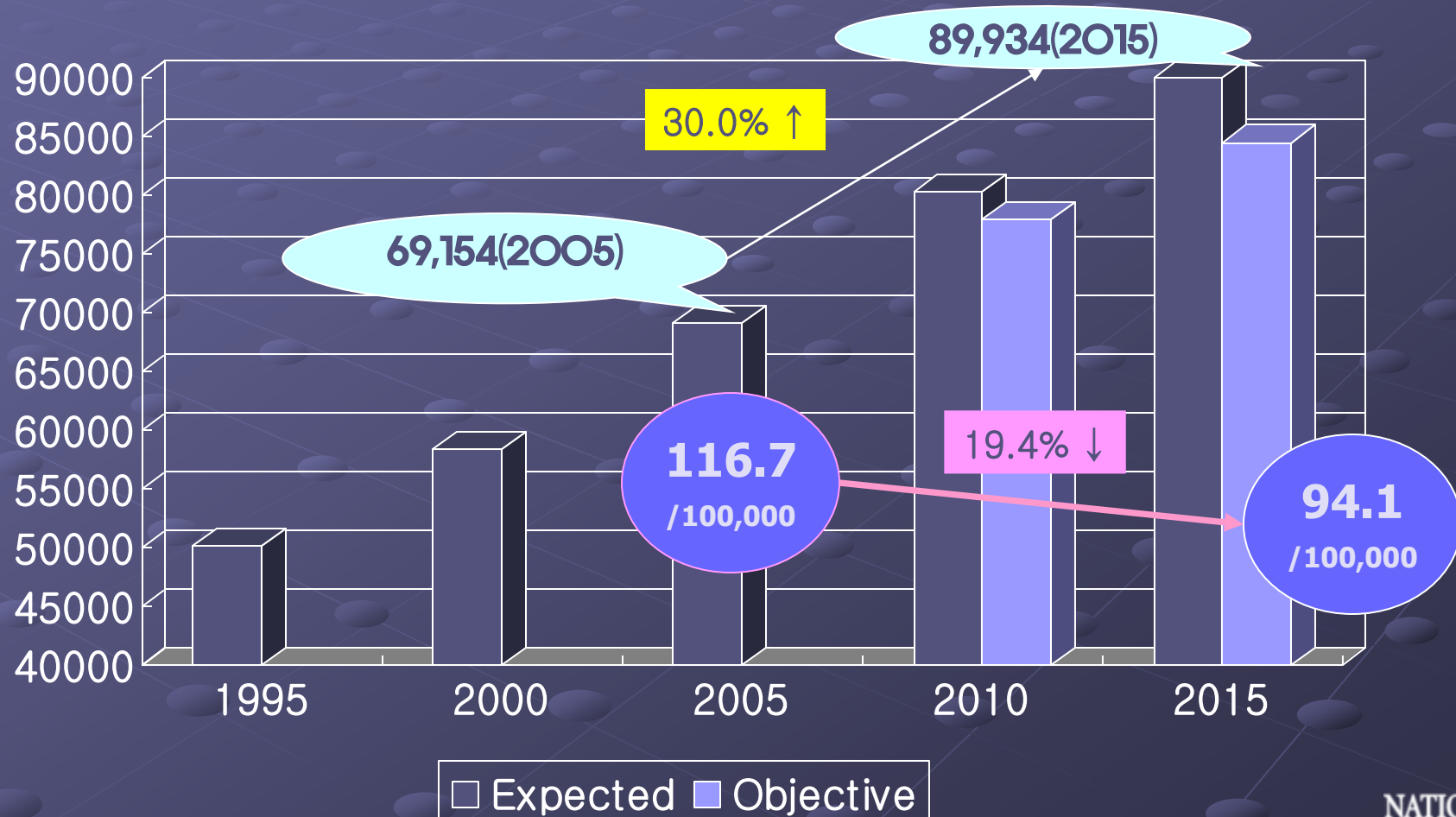
2015

Year



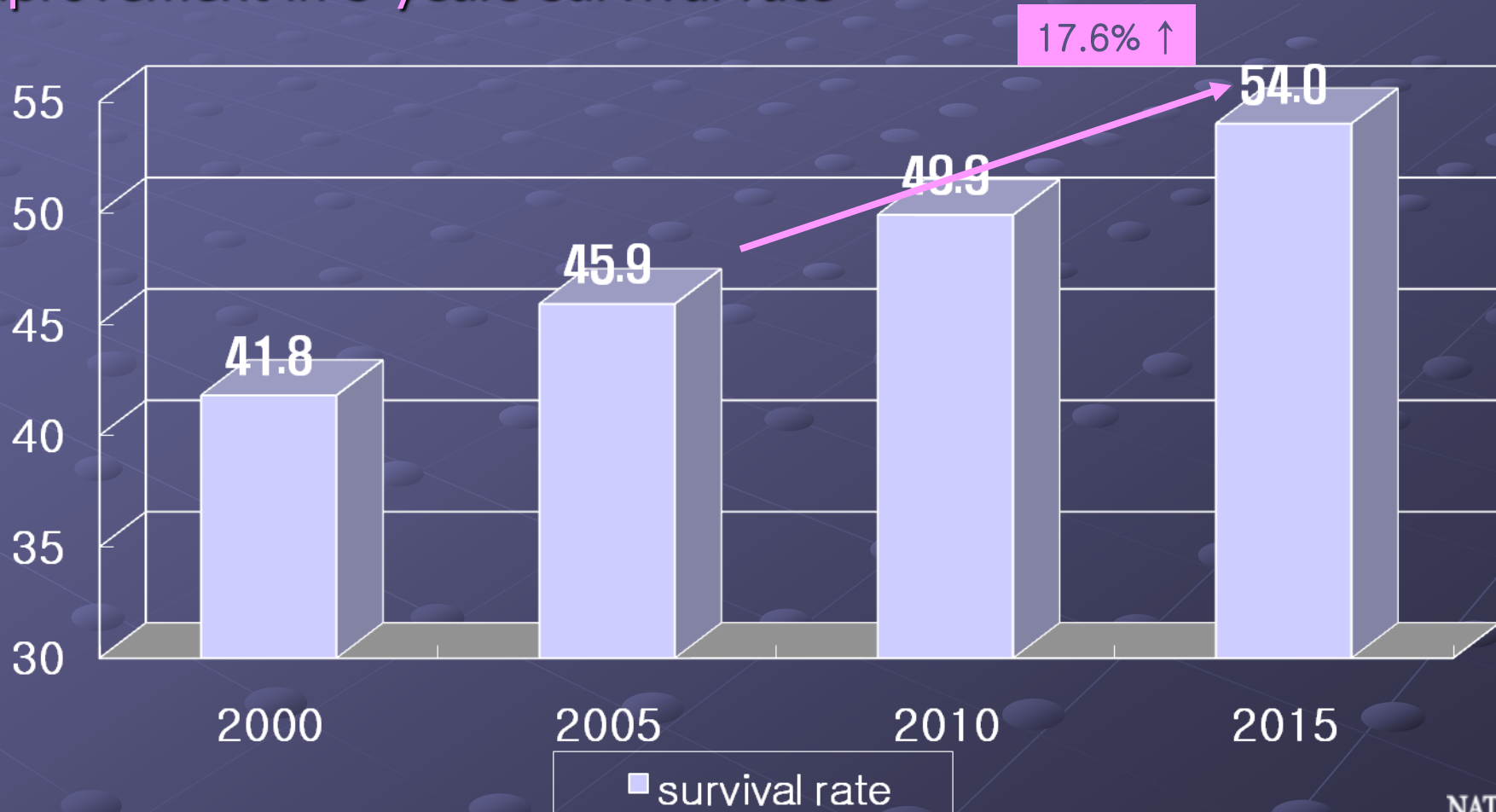
# 2nd 10-Year Plan for Cancer Control Korea, 2006-2015

## Cancer mortality reduction



# 2nd 10-Year Plan for Cancer Control Korea, 2006-2015

Improvement in 5-years survival rate



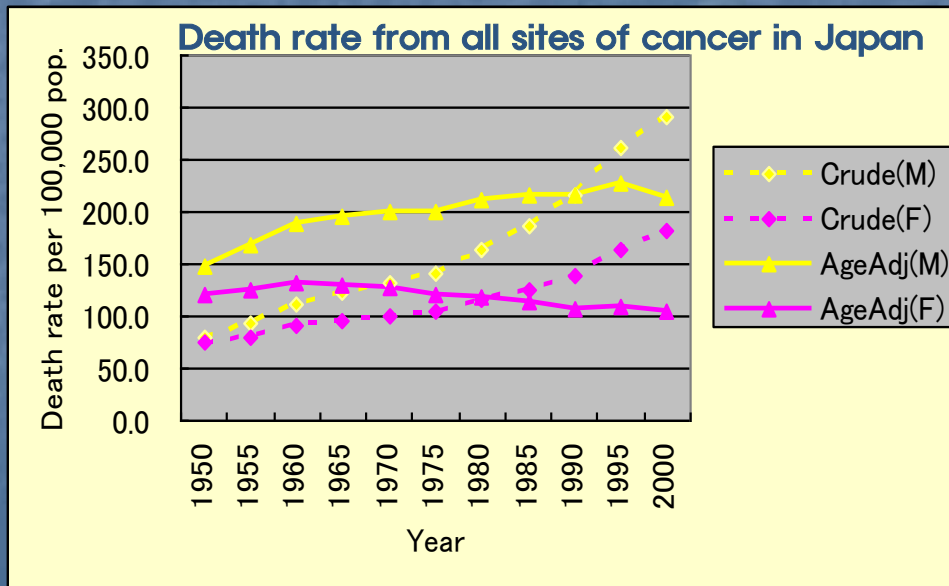


# Cancer Facts in Korea, Today

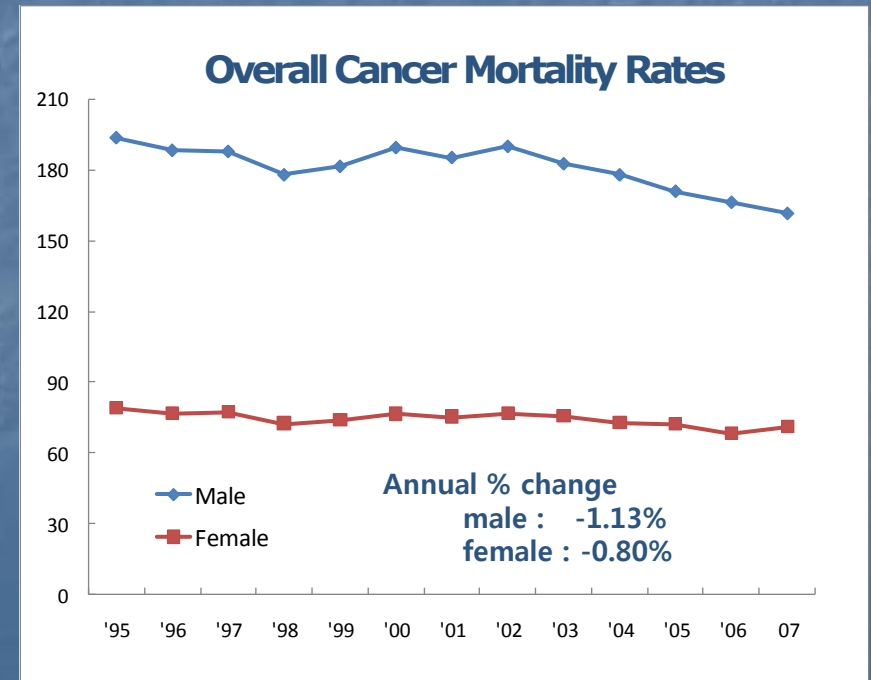
**United States**  
**War against Cancer, 1971**  
**Decline in cancer mortality, 1991**

**Japan**  
**NCC, 1962**  
**NCCP, 1965**  
**NCSP, 1966(stomach)-92(colon)**

**Korea**  
**NCC, 2001**  
**1<sup>st</sup> NCCP, 1996**  
**NCSP, 1999(stomach)-04(colon)**



Data: Vital Statistics of Japan (1950-2000)



# International Cooperation

- Agreements of cooperation for joint research, exchange of personnel and information, and etc
  - **National Cancer Institute**, U.S.A. in 2001
  - **National Cancer Center**, Japan in 2001
- Cooperative activities
  - International Union Against Cancer (**UICC / UICCARO**)
  - World Health Organization (**WHO / WPRO**)
  - Tobacco Free World Alliance: **ToFWA**
  - WHO collaborating center for cancer registration, prevention and early detection
  - Asian National Cancer Center Alliance (**ANCCA**)
  - International Agency for Research on Cancer (**IARC**)
  - Asian Pacific Organization for Cancer Prevention (**APOCP**)





# Asia, Today & Tomorrow



DREAM on CANCER CONTROL  
is **NO WHERE** in ASIA!

DREAM on CANCER CONTROL  
is **NO WHERE** in ASIA!





**Welcome to Korea!**  
**Dynamic Korea**

**See you in 2011**