



Development, Policies and Visions for Emerging Industries

Topic 2: Health Care Presentation: Platinum Programs of Health Care Upgrade Initiative



Department of Health, Executive Yuan

Outlines

- I. The Inception of Platinum Programs of Health Care Upgrade Initiative**
- II. Trends in Global Healthcare Services**
- III. Discovering New Opportunities in Health Care Industry**
- IV. New Thinking for the Health Care Industry**
- V. Visions for the Health Care Industry**

I. The Inception of Platinum Health Care Upgrade Initiative

- Time:** The evolvment towards an information society prompts the world health care industry to undergo transformation.
- Location:** The location as the hub of Asia offers excellent opportunity for diverse development .
- People:** Taiwan excels in health care information technologies and has a well-established, high-quality healthcare system in place.

In pursuit of new thinking and changes,
the government is promoting the development of six
emerging industries with the aims to enhance the quality of life, and
build up an environment conducive to the development of health
related industries

II. Trends in Global Healthcare Services-1

◆ Population and Social Structure

- ◆ The increase of the elderly population has called for the equal emphasis on both treatment and care. [Note: the over-65 elderly population in Taiwan has accounted for 10.43% of the total population at the end of 2008.]
- The purchasing power of medical and health care services has increased with the maturing of the economy.
- Cross-border health care services have become recent trend.

◆ Present Health Care Industry Condition

- The labor division in health care service delivery has caused the shortage of human resources at the workplace.
- The scope of health care service delivery has shifted from hospital-based to other sorts, forming emerging businesses with considerable market and revenue in recent years.

Trends in Global Health Care Services-2

◆ Technological Innovation

- Advancement in medical technologies along with the instruments has improved the capacity of the health care system; yet leading to the increase in medical expenses.
- Impact from IT (i.e. electronic, digital, and paperless technologies) have influenced the traditional health care service in many ways.

◆ Growth in Medical Spending and Emergence of Managed Care

- The raising elderly population and the dropping of the birth-rate have increased the financial burden of general medical spending.
- Health insurance providers are determinate to promote policies that would reduce medical expenses.
- The health care market share as well as the profits are protected by the medical service providers through efficiency.
- Chronic disease management and the prevention medicine have emerged.



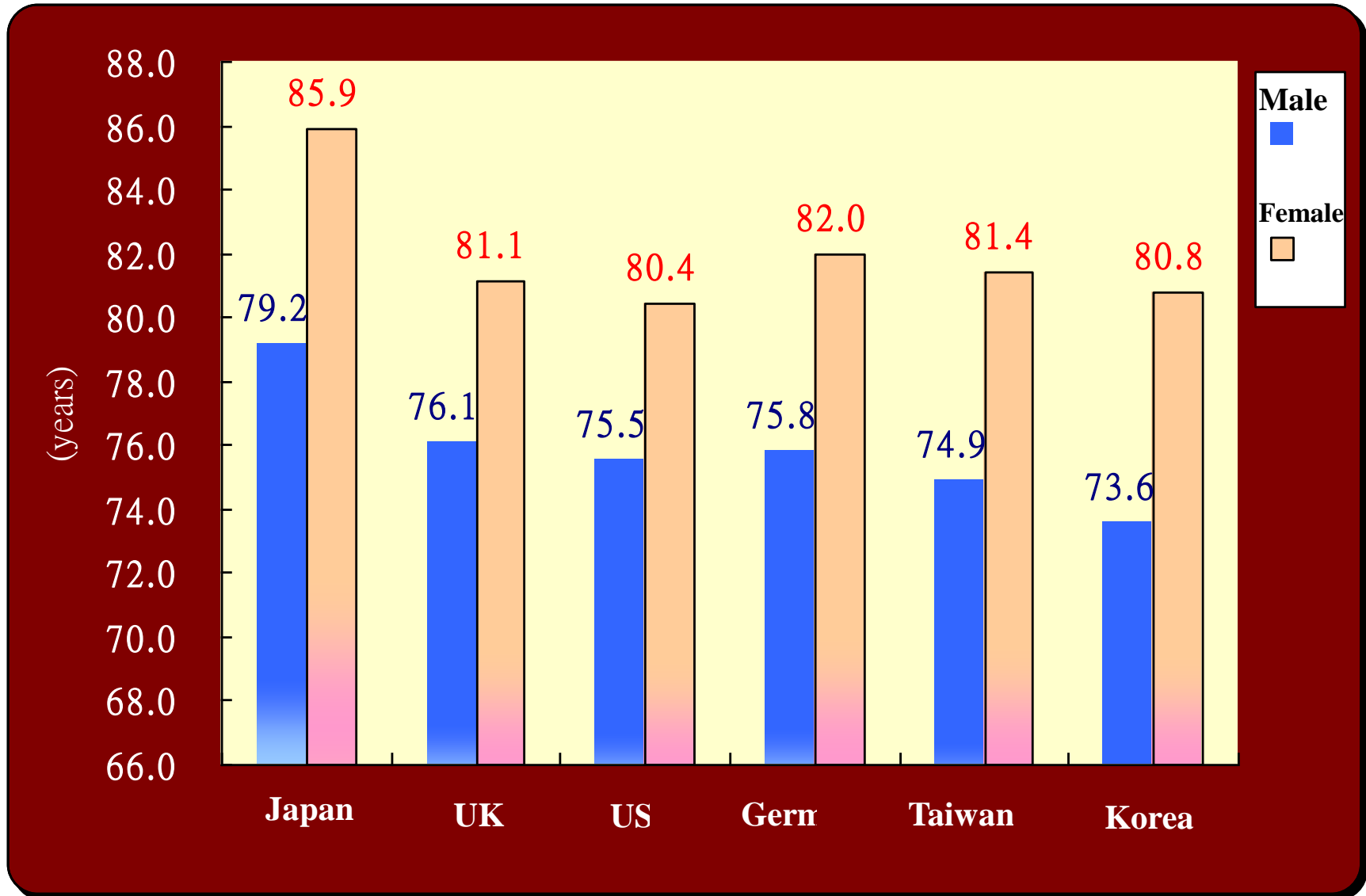
III. Discovering New Opportunities



1. Well-established Medical Delivery System

- ◆ Taiwan has implemented the medical network, the psychiatric-care network, and the emergent-care network since 1985, in order to balance the medical resource distribution and to improve the accessibility of health care.
- ◆ 99% of Taiwanese citizens have been enrolled in the National Health Insurance system since the policy was implemented, 1995; the economic barriers to medical service have been dramatically decreased since then.
- ◆ According to the 2007 World Competitiveness Yearbook published by International Institute for Management Development, Lausanne, the health care system infrastructure in Taiwan was ranked as the 13th in the world (out of 55 countries in total being appraised at the same time).
- ◆ “Worldwide Health Rankings” published by the Economist in 2000 has stated that Taiwan was ranked as No. 2 in the world while the first was Sweden.

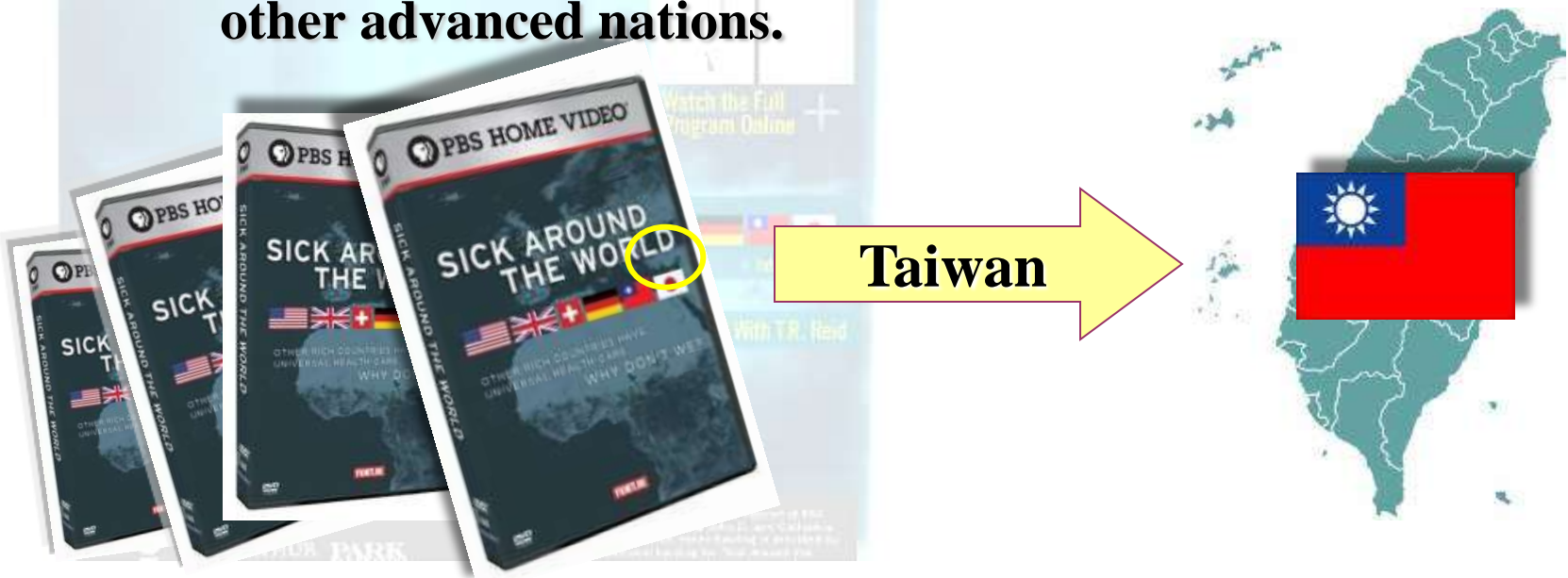
2006 Life Expectancy as Compared to Advanced Nations



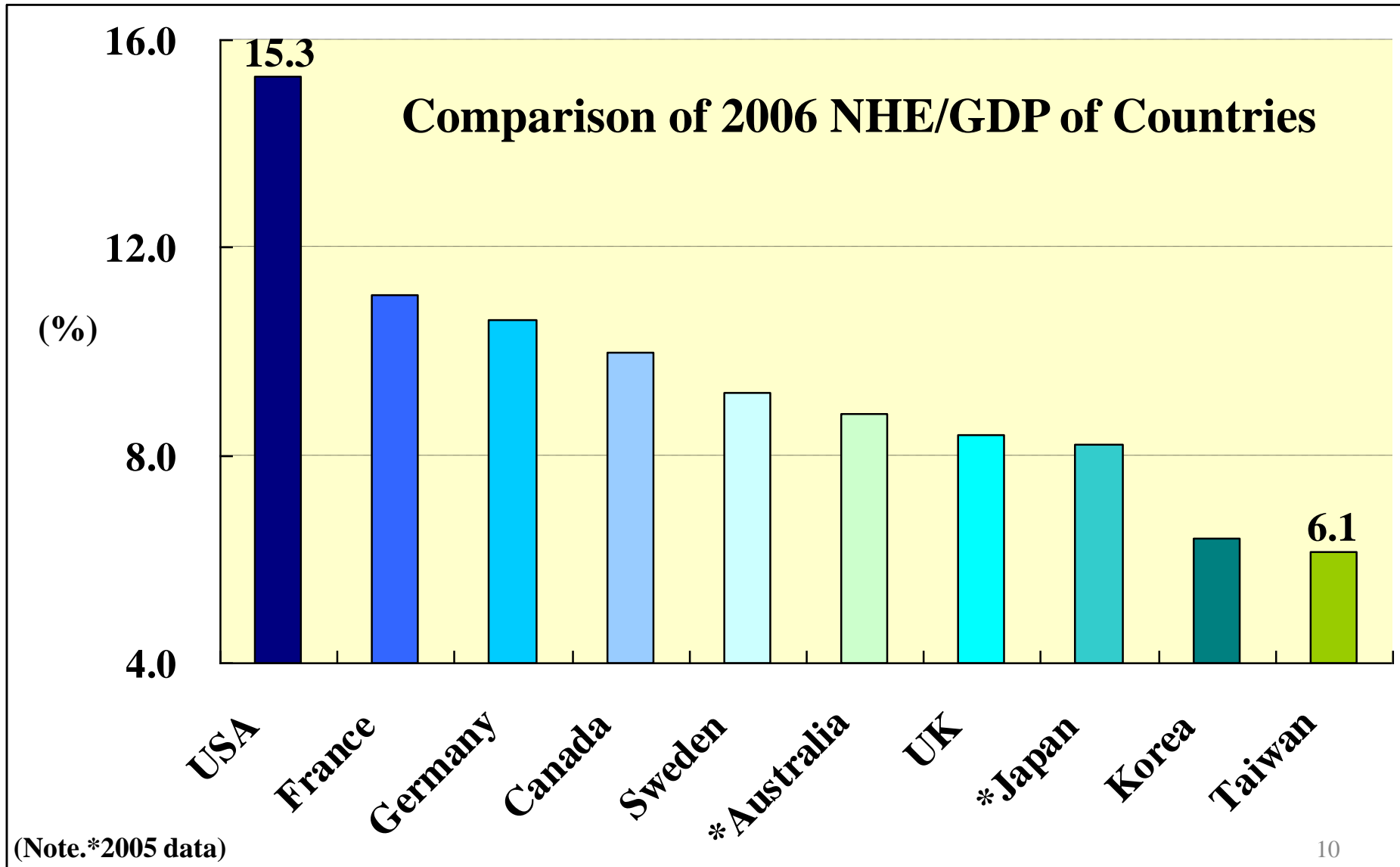
Sick Around the World

—Can the U.S. Learn Anything From the Rest of the World on How to Run A Health Care System?

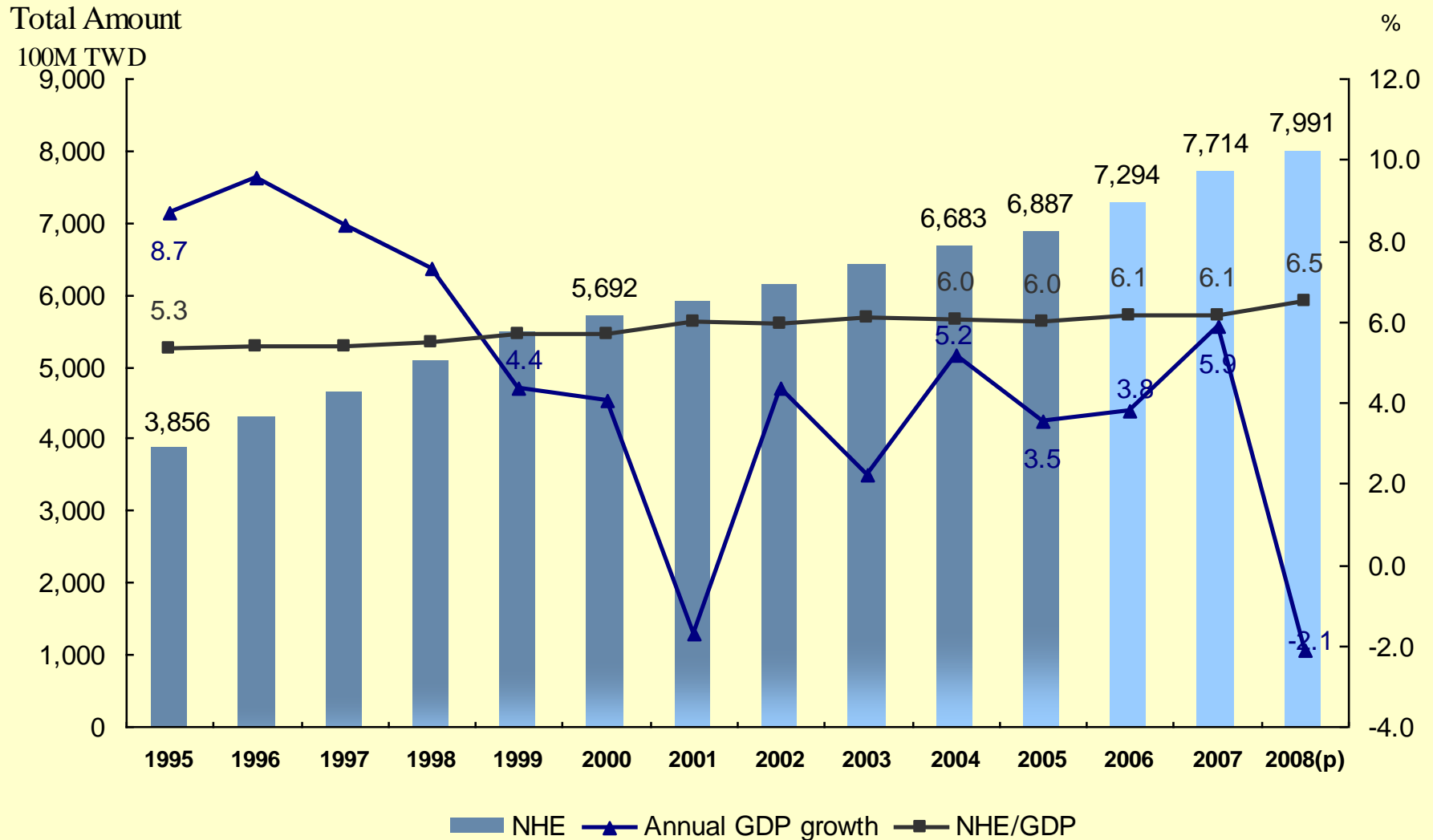
- ◆ April 6, 2008, the U.S. Public Broadcasting Service (PBS) directed a program entitled “Sick Around the World”, comparing the health care system of the States with other countries such as Britain, Germany, Switzerland, Japan, **Taiwan** and so on; the design of the program further pointed out that **the health care system of Taiwan is internationally recognized alongside other advanced nations.**



Taiwan's National Health Expenditure (NHE) Is Lower Than That of Other Countries, and the Health Care Industry Has Great Development Potential



Taiwan's NHE Growth



Reasonable Medical Expenses and Quality Medical Services

(In USD)

	Taiwan	USA	Korea	Singapore	China*
Coronary bypass	\$15,918	\$70,000-133,000	\$31,750	\$19,246	\$2860-5720
Total knee replacement	\$5,623	\$30,000-53,000	\$11,800	\$9,600	\$3000-6000
Prostate operation	\$1,694	\$10,000-16,000	\$3,150	\$5,300	\$1500-3000
Gastric bypass	\$10,200	\$35,000-52,000	\$9,300	\$16,500	\$5850-7350

Note 1. The figures represent package cost, including examination, operation and doctor's fees, but excluding special materials

Note 2. Source of data: Compiled by Taiwan Task Force on Medical Travel (TTFMT)

5-Year Cancer Survival Rate

(Unit: %)

Country (Year)	Lung cancer		Colorectal cancer		Breast cancer
	male	femal	male	femal	femal
Taiwan(2002-2006)	11	15	58	59	84
USA(1996-2004)	13	18	65	64	89
Australia(1998-2004)	11	14	61	62	88

Taiwan's Liver and Kidney Transplantation Success Rates and Cancer Treatment Quality Are of International Caliber!

Organ Transplantation of 3-year Survival Rate

Organ	Taiwan	USA
Kidney	92	88-94
Heart	66	79
Liver	84	78-79
Lung	19	62
Heart + kidney	71	78

Note: 2001-2004 data

(Unit : %)

Potentials of Taiwan's Medical Information Development

- ◆ The Economist Intelligence Unit (EIU) ranked Taiwan as No. 2 out of 66 countries in IT industry competitiveness in 2008, and the top 5 are listed as below:



- ◆ Taiwan has become an major international supplier of medical devices, such as digital blood pressure monitors, medical electric scooters, thermometers and blood glucose meters and so on. Particularly, the export number of digital blood pressure monitors from Taiwan was the second largest in the world in the year 2005.

II. Health Care Industry Competitiveness Analysis

Advantages

Well-established health care system, convenient medical care access, and high medical efficiency

High standard health care; cost lower than Europe, USA and Japan

Well-developed IT industry; prevalence of IT products (i.e. computers, mobile phones... etc.)

Opportunities

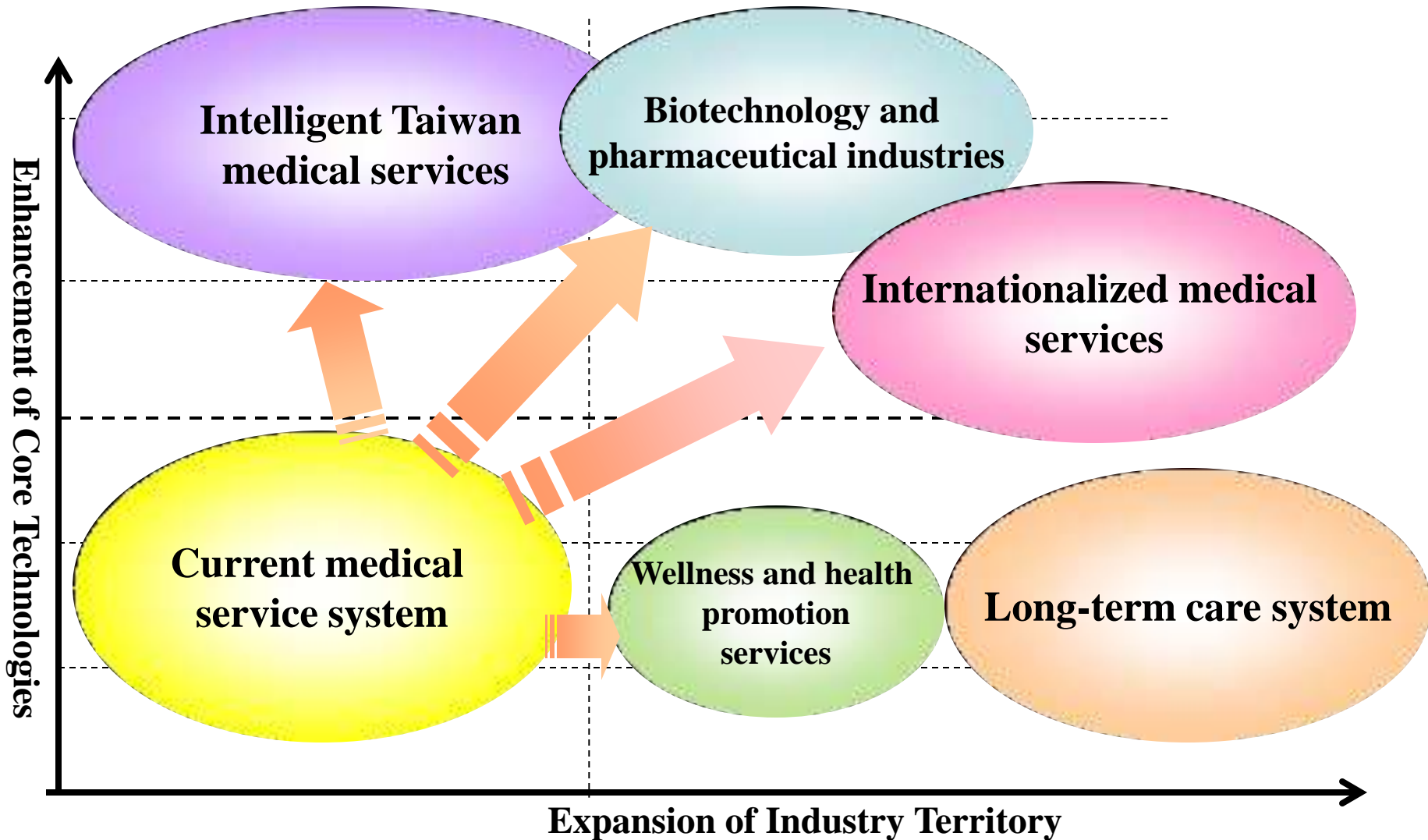
- **The increasing medical demand due to the aging population structure.**
- **Increasing popularity of cross-border medical services and medical tourism.**
- **Combination of medical equipment industries and medical information technologies in Taiwan.**



IV. New Thinking for the Health Care Industry



1. Service Scope of Health Care Industry



Current Theme Projects

Goals

Medical service system

Improve the quality of medical care and emergency care capability in remote areas, enhance the health and patient safety of the handicapped and the disadvantaged

Long-term care system

Enhance the development and deployment of long-term care resources, step up the cultivation of long-term care manpower, and improve the healthcare services and medical delivery to handicapped and disadvantaged people

Health promotion services

Create the community healthy living environment, reduce the costs and expenses of caring for chronically ill, improve survival rates of cancer patients, encourage healthy diet and behavior among the general public, and increase life expectancy

Intelligent Taiwan medical services

Promote e-record exchange and integration among hospitals to build the infrastructure for e-medical records, narrow the digital divide between urban and rural living to achieve the ideals of diverse, continuous and total patient care and aging in place

Medical services internationalization

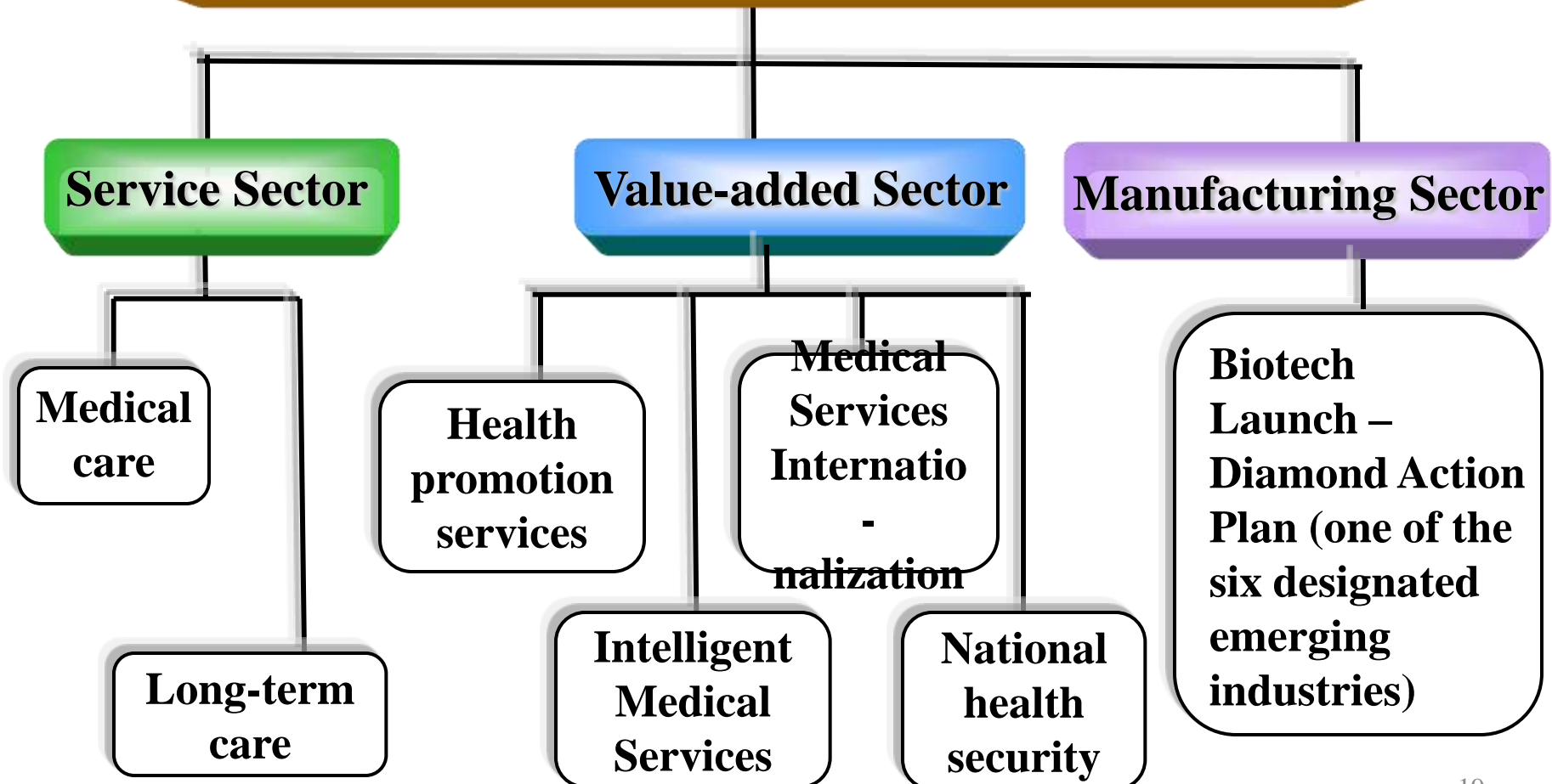
Energize health care industry through cross-industry alliance and cooperation, build the international brand of quality healthcare, and provide medical services to residents of Kinmen and Xiamen, and Taiwan businessmen in China

National health security

Enhance the level of preventive medicine, develop domestic blood products industry, promote the R&D of blood product safety, and encourage private participation in R&D and manufacturing

2.. Key Sectors and Programs for the Development of Health Care Industry

Platinum Health Care Upgrade Initiative



(1) Improve Medical Care System

Background

1. **The planning of a medical delivery network has already improved general public's accessibility to medical services, but urban-rural gap remains.**
2. **The government has identified the goals of setting the foundation for the development of health care industry, eliminating health inequality, and providing the public with suitable, accessible and continuous medical services.**

Goals

Enhance the quality of medical services and patient safety through incentive programs, including “pay for performance” and quality assurance program..

Strengthen the quality and accessibility of medical care, and emergency care capability in remote areas.

Enhance the health and quality of medical services for handicapped and disadvantaged groups.

Specific Measures

1. Healthcare performance enhancement program.
2. Remote area medical service quality enhancement program
3. Remote area healthcare service enhancement program
4. Medical delivery to Vulnerable eople
 - ① Special outpatient dental care services pilot project.
 - ② Pilot project of integrative oral care for patients with special needs
 - ③ Correctional facility medical care improvement pilot project

(2) Promote Long-term Care System

Background

1. In light of the trends of aging population and demands for care of the chronically ill, the government has been fostering the manpower for long-term care and encouraging the development and import of long-term care knowhow.
2. The government is planning long-term care insurance in the hope to bring in private resources, invigorate peripheral industries, and orchestrate another wave of health care industry development.

Goals

Attract private participation, strengthen the development and deployment of long-term care resources, and foster related manpower.

Build the long-term care system to facilitate the introduction of long-term care insurance.

Join the forces of private sectors by establishing social insurance to perfect the long-term care system and reduce the burden on individual families.

Specific Measures

**Long-term Care
10-Year plan**

**Push for the
legislation of long-
term care insurance**

(3) Health Promotion Industry

Background

1. The core concept of health care has been switched from care of disease to health promotion, and the general public is accustomed to resorting to auxiliary and alternative medicine for wellness and care.
2. There is the trend of medical care institutions joining private organizations to promote community health services, raise public awareness to health management, and induce demands for wellness and health promotion products.

Goals

Foster the community healthy living environment to reduce the costs and expenses of caring for the chronically ill.

Enhance the survival rate of cancer patients by early detection and early treatment.

Foster a healthy dietary environment, encourage healthy diet and behavior among the general public, and increase life expectancy.

Specific Measures

Health promotion program

Cancer screening program: screening of cervical cancer, breast cancer, colorectal cancer and oral cancer

National nutrition survey, monitoring and improvement program

(4) Develop Taiwan Medical Services

Background

1. The government plans to take advantage of Taiwan's robust IT industry by applying IT technology to medical record digitalization and put in place comprehensive laws and regulations, and technical standards.
2. The government will fund demonstration projects and incentive programs to drive the development of the industry.

Goals

Promote e-record exchange and integration among hospitals and enhance the efficiency of medical resources utilization.

Build the e-medical care infrastructure to narrow the urban-rural digital divide.

Build community, home and institutional care service models to achieve the ideals of diverse and continuous total patient care and aging in place.

Enhance the quality of health information and improve data content for future development and long-term planning.

Specific Measures

1. **E-medical records promotion program**
2. **Digital medical imaging and imaging transmission program**
3. **Mountainous and offshore island areas remote medical service program**
4. **Hospital safety RFID program**
5. **Health database value-added application program**

Intelligent Medical Services Flagship Program

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- IT-based Intelligent Care Model to Enhance the Quality and Efficiency of Medical Care

Enhance Quality of Care and Efficiency of the Use of Medical Resources

Medical
Diagnostic
Image
Interpreta
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Health
Mana
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Follow-Up Care

EMR and PACS

1. All medical care institutions adopt EMR to achieve free flow of information.
2. Establish image exchange center to achieve long-range medical care.

Value-added Application of Health Database

1. Continue to update public health data and measures.
2. Develop value-added application platform.

Hospital RFID Project

1. Introduce RFID through network communication and IT technology.
2. Develop applications and establish long-term commercial application model.

Telecare

Combine health care and information communication technology to develop community, home and institutional care service models.

Prompt Investment by Medical Care Institutions and IT and Communication Service Providers to Drive the Development of Medical Information Services

(5) International and cross-strait Medical Services

Background

1. In light of the globalization, specialization and diversification of the health care industry, the trend of seeking medical treatment abroad has caught the attention of international medical communities.
2. Taiwan's healthcare services feature high quality, high technology and cost efficiency. The government plans to promote "served by Taiwan" and the development of related industries.
3. In light of the opening of "Mini Three Links" with China, sharp increase in travelers through these routes has boosted the demands for medical care.

Goals

1. Build the industrial environment by establishing cross-industry alliance and cooperation models.
2. Build the brand of Taiwan medical services.
3. Continue to enhance healthcare service technology and quality and encourage medical care institutions to go international.

In line with the changes of healthcare environment in Kinmen and Xiamen, make medical services more readily available and accessible to residents of Kinmen and Xiamen and Taiwan businessmen in cross-strait.

Specific Measures

1. **Medical Services Internationalization Program**
2. **Internationalized Medical Services Integrated Marketing Program**
3. **Inter-agency Division of Labor and Cooperation**

Kinmen Hospital Construction Project

Medical Services Internationalization Flagship Program

- Promote national image and drive the progress of related industries

1. Continue the quality monitoring and improvement.
2. Enhance the image of medical services in Taiwan.
3. Balance the development of health care industry and social justice.

**Inter-
national
marketin
g**

1. Form the image of Taiwan.
2. Increase the exposing chances of Taiwan
3. Promote the industry and establish new business channels.

**Quality
of
medical
services**

**Integration
of tourism
resources**

**Medical
Services
Industry**

1. Facilitate the process for foreigners to enter to Taiwan.
2. Develop overseas Chinese and mainland China markets.
3. Rationally release the restrictions of development of health care industry.

1. Strengthen the cooperation between tourism industry and health care industry.
2. Consolidate the tourist infrastructure, and improve the quality of tourism .

1. Building up an environment to develop health care industry
2. Promoting cross-enterprise alliance
3. Building a internationalized health care model.

**Policy
support**

**Cross-
enterprise
alliance**

(6) Strength National Health Security

Background

1. The trends of globalization have turned new infectious diseases a great challenge to national security. Disease control and pharmaceutical industry have become an essential part of national healthcare scheme.
2. Under the foremost guiding principle of upholding national health security, the government is taking actions to ensure the safety, quality and stable supply of home-made vaccine and blood products, and gradually increase the local content rate of controlled drugs.

Goals

1. Effectively enhance the level of disease prevention.
2. Transfer manufacturing technology to private sectors to increase the value of the industry.

Develop the domestic blood products industry and promote the R&D of safe blood product technologies.

Expand private participation in R&D and manufacturing strategies to save cost, boost efficiency and increase the local content rate of controlled drugs.

Specific Measures

Vaccine Production Project

Blood Products Development Program

Controlled Drug Production Project

V. Visions for the Health Care Industry

Improving life quality



1. To refine health care services
2. Promoting health care efficiency and quality

Building up an environment



Investing NT\$ 59.59 billion in total in 4 years from the government



Invigorating industries



Growing NT\$95.29billion expected overall profits by 2012

Creating job opportunities



Creating 27,000 job opportunities

Government Spending

(In NT\$100 million)

	2009	2010	2011	2012	Total
Improve Healthcare System	8.89	20.06	22.37	23.67	74.99
Promote Long-term Care System	25.88	26.27	28.98	249.92	331.05
Develop Health Promotion Industry	10.99	17.57	21.52	21.52	71.57
Develop Intelligent Medical Services	6.22	8.54	28.04	27.96	70.76
Develop International and China Markets	0.20	0.82	5.87	6.30	13.10
Strengthen National Health Security	10.60	12.48	5.65	5.39	34.12
Total	62.78	85.71	112.34	334.76	595.59

Notes:

Promote Long-term Care System 2011-2012: 2011-administrative expenses in the year before the implementation of long-term care insurance; 2012 – administrative expenses + government subsidy.

Develop Intelligent Medical Services 2010-2011: e-medical records (special budget) – subsidize hospitals for accelerated implementation of e-medical records.