Expanding and Reinforcing Public Health Care

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3. Roles of and Expansion Strategies for Public Hospitals
4. Expected Effects of Reinforced Public Health Care
1. Current State of Public Health Care

"The term "public health and medical services" means all activities of the State, local governments, and of public and medical institutions to ensure all citizens equal access to medical services and to protect and promote their health."

(Article 2, Public Health and Medical Services Act)

1. Current State and Problems of Public Health Care

Public health and medical institutions

- National university hospitals
- Red Cross hospitals
- Special hospitals (National Cancer Center [NCC] and National Medical Center)
- Veterans’ hospitals
- Local medical institutions
- NHS’s Ilsan Hospital
- Military and police hospitals
- Korea Workers’ Compensation and Welfare Service hospitals

Among all public hospitals (230), those providing general treatment amount to only 66 (28.7%).

- Dispersed among various ministries (Ministry of Health and Welfare [MOHW], Ministry of National Defense, Ministry of Employment and Labor, etc.)
- 63 university hospitals and local medical centers providing general treatment, which is insufficient
- Widening the gap in public hospital bed rate
<table>
<thead>
<tr>
<th>Category by function</th>
<th>No. of institutions (%)</th>
<th>No. of hospital beds (%)</th>
<th>Over metropolitan in scale</th>
<th>Single or multiple primary local government(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainly general treatment</td>
<td>66 (28.7%)</td>
<td>29,022 (45.8%)</td>
<td>National Medical Center (1) National university hospitals (11) National university hospitals' branch hospitals (5) NHIS's Ilsan Hospital (1)</td>
<td>Local medical centers (10) Branch centers of local medical centers (2) Red Cross hospitals (8) Municipal general hospitals and clinics (4) County general hospital (1)</td>
</tr>
<tr>
<td>Overall</td>
<td>230 (100.0%)</td>
<td>63,417 (100.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mainly special treatment</td>
<td>42 (18.2%)</td>
<td>9,667 (15.2%)</td>
<td></td>
<td>Police Hospital (1), veteran's Hospitals (1), military hospitals and clinics (21), industrial hazard medical centers (13)</td>
</tr>
<tr>
<td>Mainly special diseases</td>
<td>40 (17.4%)</td>
<td>10,055 (15.9%)</td>
<td>National university dental hospitals (6) National university specialized center (1) National university oriental medical hospital (1) National tuberculosis hospitals (2) NCC (1) National mental hospitals (5) Sorando National Hospital (1) Institute of Forensic Psychiatry Ministry of Justice (1) National Rehabilitation Center (1) National Transportation Rehabilitation Hospital (1) Korea Institute of Radiological and Medical Sciences (2) Provincial rehabilitation hospitals (4)</td>
<td>Seoul Dental Hospital for the Disabled (1) Seoul Metropolitan Seobuk Hospital (1) Seoul Metropolitan Children's Hospital (1) Municipal and provincial mental hospitals (11)</td>
</tr>
<tr>
<td>Hospitals for senior citizens</td>
<td>82 (35.7%)</td>
<td>14,673 (23.1%)</td>
<td>Municipal and provincial hospitals for senior citizens (37)</td>
<td>Municipal, county, and district hospitals for senior citizens (45)</td>
</tr>
<tr>
<td>Total</td>
<td>230 (100.0%)</td>
<td>63,417 (100.0%)</td>
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### 1. Current State of Public Health Care

- The public hospital bed rate in Korea is 10.3%, which is very low compared to the OECD average of 71.6% (international comparison as of 2018).

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Rate of public hospitals among all medical institutions (%)</td>
<td>Korea</td>
<td>-</td>
<td>-</td>
<td>6.7</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>OECD</td>
<td>48.0</td>
<td>49.4</td>
<td>52.6</td>
<td>52.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<tr>
<td>Rate of public hospitals among all medical institutions (%)</td>
<td>Korea</td>
<td>-</td>
<td>-</td>
<td>13.0</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>OECD</td>
<td>70.0</td>
<td>70.3</td>
<td>73.9</td>
<td>71.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source: 2020 OECD Health Data (as of 2018)</th>
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<tbody>
<tr>
<td>Footnote: Used data of Taiwan, Germany, and the United States as of 2017</td>
</tr>
</tbody>
</table>
1. Current State of Public Health Care

Many of the public hospitals are “mid and small hospitals” with weak treatment capabilities.
- As of the end of 2020, 76.5% of public hospitals nationwide had less than 300 hospital beds.
Even among the 66 public hospitals and clinics that provide mainly general treatment only, 59.1% have less than 300 hospital beds.

<table>
<thead>
<tr>
<th>Classification by Type</th>
<th>No. of Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary hospital</td>
<td>12</td>
</tr>
<tr>
<td>General hospital</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>32</td>
</tr>
<tr>
<td>Geriatric and mental hospital</td>
<td>7</td>
</tr>
<tr>
<td>Clinic</td>
<td>6</td>
</tr>
<tr>
<td>Dental hospital and Korean medical clinic</td>
<td>2</td>
</tr>
</tbody>
</table>

Public hospitals nationwide (230) by type and hospital beds scale

Source: Reprocessed data from National Medical Center (2021): Current Stage of Public Health and Medical Institutions Nationwide (as of the end of 2020)

2. Origin of Public Hospitals and Development History

- Birth of public hospitals: used as a tool to control and reinforce the Japanese domination system during its colonization of Korea
- Formation of a medical system mainly based on public hospitals
- Share of public hospital beds right after Korea’s liberation from Japanese colonization: 75.1%
- Share of public hospital beds before the introduction of medical insurance for all citizens (1970–1975): about 45%

Source: Kim Yongik (2007), National Medical Center (2018), et al.
Rapidly increasing demand for medical services: introduction of medical insurance (1977) and expansion to all citizens (1989)
- The government lacks the capacity to supply medical services and the efforts to expand public hospitals.
- A medical services supply system was formed based on profit-making private hospitals, and the public medicine’s residual role was limited to “areas where the market failed.”
- The central role of public healthcare is impossible in the private sector-led health care system.

Current weak role due to having left it to historical trends
- Share of hospitals opened before Korea’s liberation among the 139 public hospitals (clinic class and hospitals for senior citizens excluded): 33.1%
- Share of hospitals opened before Korea’s liberation among the 63 public hospitals providing mainly general treatment (clinic class excluded): about 60%

Current state of public hospitals (63) providing mainly general treatment as of the end of 2020
3. Role of Public Hospitals in the Current Korea Healthcare System

- Policy goal of public health and medicine: expansion mainly based on function and not agents
  - But still playing the limited role of supplementing the lack of medical services supply by the private sector
  - Responding to infectious diseases, areas that the private sector evades, public health and medicine for the vulnerable class, etc.
- Major institutions lacking the leading public role and capabilities within the public medical service delivery system
  - National Medical Center: lacks the space and workforce and plays a limited role as a central hospital and control tower
  - National university hospitals: support the local public medical ecosystem and lack interest in coexistence
  - Regional public hospitals: has poor facilities, lacks workforce, and provides low-class medical services, thereby lacking competitiveness as regional medical institutions
- Synergistic effect gained through connected and cooperative services is lacking between other public and private resources.

2 Importance of Public Health Care
Various Problems of the Korean Health Care System(1)

- Imbalance in the public medical service provision system
  - Gap in facilities and workforce: rising production cost and underutilized medical workforce
  - Unbalanced regional distribution
  - Worsening indexes such as poor medical service quality, patient safety, labor intensity, and medical accidents

Need Services Facilities Workforce

- Needs-based services, facilities, and a workforce supply system must be prepared, and the composition of the services and resources must be stratified.

Source: Kim Yong-ik, Need and Strategy for Expanding Public Medicine, Public medicine joint seminar of Wonju innovation city’s relevant institutions (June 21, 2021).

Various Problems of the Korean Health Care System(2)

- Imbalance between the demand and supply of hospital beds
  - Oversupply of 240,000 hospital beds in total (demand for 606,000 hospital beds vs. supply of 846,000 hospital beds) (estimates for 2023)
  - (Oversupply) 770,000 hospital beds among hospitals and clinics with less than 300 hospital beds and 204,000 hospital beds in geriatric hospitals (Deficiency) 23,000 hospital beds among general hospitals with 300 and more hospital beds and 18,000 hospital beds in rehabilitation hospitals

Unit: total hospital beds

<table>
<thead>
<tr>
<th></th>
<th>Demand (forecast)</th>
<th>Supply (forecast)</th>
<th>Total</th>
<th>Lack of 23,000 hospital beds</th>
<th>Oversupply of 77,000 hospital beds</th>
<th>Lack of 18,000 hospital beds</th>
<th>Oversupply of 204,000 hospital beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>General hospitals with 300 — and more hospital beds</td>
<td>119</td>
<td>212</td>
<td>606</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitals and clinics with less than 300 hospital beds</td>
<td>28</td>
<td>135</td>
<td>527</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Park Byung-Jae (2019). Demand and supply analyses by region and type, NHIF
Footnote: The values are the sum of the demand and supply by city and province and not nationwide, and the supply in 2017 and demand for 2023 have been used.
Various Problems of the Korean Health Care System(2)

- Crowded mid to small hospitals: problem of high cost and poor quality, an obstacle to securing a medical service delivery system

  ![Graph showing distribution of hospital beds by scale and type]

  ![Graph showing distribution of hospital beds by medical institution type and hospital bed scale]

  *Source* (2020) Preparing for the Future Based on the Past and Today of Health Insurance, presentation material for a public health and medicine policy talk concert

2. Fundamental Cause of Korea Health Care System Problems

- Lack of a publicness
  - Private hospitals in the West are mostly nonprofit (different from Korea).
  - In contrast, private hospitals in Korea lack a public role, and public hospitals are insufficient, negatively impacting the overall medical system.

- Exacerbating problems caused by the lack of a publicness
  - Lack of health care standards
    ① Lack of standards
    ② Weak influence on private hospitals (provision of over- and undertreatment)
  - Weak disease management
    ① Lack of hospitals with which public health centers, the NHIS, and others can cooperate
    ② Lack of capacity to respond to chronic diseases, new types of infectious diseases, and emergency medical situations
  - Lack of test beds to implement policies
    ① Insufficient workforce in the MOHW
    ② Increasing cost of and reduced speed in implementing policies
3 Roles of and Expansion Strategies for Public Hospitals

1. Roles of Public Hospitals

- **Standard care and model hospitals**
  - Providing not over- or undertreatment but standard care
  - Using standard care to calculate cost-based reasonable medical fees

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of public non-benefit medical expenses (%)</th>
<th>Rate of private non-benefit medical expenses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>11.3</td>
<td>16.0</td>
</tr>
<tr>
<td>2018</td>
<td>11.9</td>
<td>13.8</td>
</tr>
<tr>
<td>2019</td>
<td>8.4</td>
<td>12.0</td>
</tr>
</tbody>
</table>

- Public institutions have lower prices and scale of non-benefit treatment compared to private ones.
- Gap in the rate of non-benefit medical expenses between the public and private: 2.9% in 2017 → 4.4% in 2019

*Public of over general hospital class 8.4% vs private 12.0% (2019)*
1. Roles of Public Hospitals

1.1 Regional public hospitals
- Solving the gap among regions by distributing general hospitals of appropriate sizes by region in a balanced way

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1.2 Health promoting hospitals
- Spreading health management services, such as essential prevention and public health education, to prevent diseases and promote health
1. Roles of Public Hospitals

04. Medical institutions responding to infectious diseases and calamities
   - Providing general treatment at ordinary times
   - Effectively responding in the case of national calamities, disasters, and emergency situations

05. Means and test-bed for executing policies
   - Introducing new health insurance policies through a demonstration project
   - Supporting the revitalization of the Korean medical industry by functioning as a test bed for new Korean medical equipment and pharmaceuticals

Set function: public hospitals ≠ private hospitals

- Private hospitals focus on treatment (care).
- Public hospitals play the role of all kinds of “test beds” for treatment and disease management / health promotion.
2. Expansion Strategies for Public Hospitals

- Expanding public medical institutions [quantitative growth]
  - We must expand public hospitals to the extent of impacting private hospitals in each region.
  - (Short term) one and more with 300 and more hospital beds by city and province, (long term) one and more for mid-level treatment

<table>
<thead>
<tr>
<th>Perception change in cost structures</th>
<th>Exemption from preliminary feasibility studies</th>
<th>Differentiated provision of state subsidies rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost not large compared to the social overhead capital, stabilizing the profit-making structure</td>
<td>Difficulty of passing preliminary feasibility studies that focus on economics and efficiency, hence the need for exemption</td>
<td>Need for a greater state subsidy rate than the currently provided (10%) according to financial independance</td>
</tr>
</tbody>
</table>

- Public hospitals should be expanded by being newly established, additionally constructed, and purchased.
- We need to design the step-by-step costs and efforts to be made in 10~20 years.

Expanding Modern Public Hospitals Distributed Nationwide as a Prior Task

- 35 regional medical centers (branch centers excluded, as of the end of 2020) → need for an increase by about three times
- We need to expand public hospitals by newly establishing, additionally constructing, and purchasing them.
- We must plan for the next 10~20 years through a step-by-step calculation of costs and efforts.

What if regional medical centers provide new functions, are distributed nationwide, and are modernized?
2. Expansion Strategies for Public Hospitals

- Expanding public medical institutions [qualitative improvement]
  - The scale of regional medical centers should be about 500 hospital beds for cities and 300 for rural areas.
  - Investment in the currently lacking workforce, facilities, and equipment is important.
  ※ (Medical workforce per 100 hospital beds) about 62% doctors compared to private general hospitals and 74% nurses

<table>
<thead>
<tr>
<th>Improvement of the physical environment</th>
<th>Change in governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>Guaranteed autonomous business management</td>
</tr>
<tr>
<td>Workforce</td>
<td>Integrated management and support</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
</tr>
</tbody>
</table>

- Need for an organization to support the business management of regional medical centers and all kinds of public hospitals
  - Need to recommend doctors and nurses, conduct training on hospital business management, make joint purchases, etc.
  - To jointly pursue quarantine, community care, making hospitals smart, and the Fourth Industrial Revolution and provide technological support

4. Expected Effects of Reinforced Public Health Care
Expected Effects from Quantitative Expansion

- Building a regionally complete medicine and quarantine system
  - Providing diverse functions, including basic treatment, treatment for people with disabilities, obstetrics, quarantine, and rehabilitation medicine
  - Expanding with integrated community care, remote medicine, and the Fourth Industrial Revolution

- Groundbreaking reinforcement of means to execute policies of the Korean MOHW
  - Enlisting 100 public hospitals and 252 public health centers for the ministry to work with
  - Amending many unresolved problems

- Balanced regional development
  - Establishment of good hospitals in reverse discrimination for regions with little population: can draw people into the regions
  - People avoid moving outside the Seoul metropolitan area for education and medicine (hospitals).

1. Lead Private Hospitals (Balances out Private Health Care)

If public hospitals have more influence in the medical service market, they will positively impact private hospitals.

If public hospitals are expanded to a reasonable share and provide quantitatively and qualitatively satisfying standard medical services, healthy suppliers of medical services will increase.
2. Reduced Policy Transaction Costs and People’s Medical Expenses

- Once they are secured as a means for policy implementation, “conflict with medical institutions” and “public administrative costs” will drop.
- Standard treatment dropping unnecessary non-covered and treatment amounts → reduced total medical expenses

- Improved medical service delivery system
- Reinforced implementation of government policies
- Means to execute public health policies
- Improved medical service delivery system

- Reduced assessment costs
- Less conflict with private hospitals
- Less waste of the workforce and budget
- Reduced medical expenses
- Reduced social hospitalization

- Reduced treatment and non-benefit amounts ↓

3. Vitalization of Medical Industry and Information Communications Technology (ICT)

Will contribute to the strategic purchase of pharmaceuticals and treatment materials developed in Korea and vitalizing the Korean medical industry

- Will vitalize the medical machine industry with the Fourth Industrial Revolution
- Will improve efficiency, including the early diagnoses of diseases with the fusion of artificial intelligence (AI) technologies

- Will reinforce the development capacity and reliability of Korean medical machines
- Will lead the development of the Korean medical industry by playing the role of a test bed

- Will form reasonable market prices with the development and production of medical machines in Korea
- Will enable strategic purchases for insurers

- Will form reasonable market prices with the development and production of medical machines in Korea
- Will enable strategic purchases for insurers
Thank you