Hospital Performance Assessment in Korea’s National Health Insurance System
Governance of NHI of Korea

Ministry of Health and Welfare

Legislation, NHI organization supervision

NHIS
(National Health Insurance Service)

- Collect contribution
- Negotiate with providers for fee level
- Promote health and prevent disease

HIRA
(Health Insurance Review & Assessment Service)

- Make rules for benefit
  - List, price, coverage
- Monitor
  - Cost and quality
- Manage health system infrastructure

Resources generation

Purchasing
HIRA's health care purchasing activities

**Rule making for benefit**
- Payment system designing
- Classification system for benefit
- Healthcare resources management
- Benefit package listing
- Benefit criteria development
- Setting fee schedule
- Pricing & post-factum management
- Designation of tertiary hospitals & specialized hospitals
- Sliding fee scale according to the staffing level

**Monitoring**
- Billing claims
- Claims review
- Comprehensive management for appropriate medical services
- Quality assessment
- Drug Utilization Review (DUR)
- Onsite investigation
- Appeal management
- Verification of health care benefit coverage
- Public reporting
- P4P
- Quality Improvement Support

**Infrastructure management**
- Healthcare Resources management
- Korea Pharmaceutical Information System (KPIS)
- Healthcare data analysis
- Monitoring trends in healthcare utilization
Characteristics of

Quality strategies of Korea’s NHI

- Mandatory assessment for all the providers within National Health Insurance
- Legal background by the NHI act
- Quality score calculated by the provider level
- Public report of the quality result
- Pay for performances by the quality score
- Partnership with the providers
- Parallel with Hospital Accreditation
### Number of healthcare providers

<table>
<thead>
<tr>
<th>Type</th>
<th>Healthcare Providers</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>85,427</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>64,456</td>
</tr>
<tr>
<td>Tertiary</td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>General</td>
<td></td>
<td>284</td>
</tr>
<tr>
<td>Hospitals (including Dental and Oriental)</td>
<td></td>
<td>1,862</td>
</tr>
<tr>
<td>Long-term care hospitals</td>
<td></td>
<td>1,276</td>
</tr>
<tr>
<td><strong>Clinics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
<td>28,484</td>
</tr>
<tr>
<td>Dental clinics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oriental medicine clinics etc</td>
<td></td>
<td>32,507</td>
</tr>
<tr>
<td><strong>Pharmacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20,971</td>
</tr>
</tbody>
</table>

- Private hospitals: 93.5% / Public hospitals: 6.5%
## Quality Assessment Items in 2013

<table>
<thead>
<tr>
<th>Area</th>
<th>Quality Assessment Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In-patient</strong></td>
<td></td>
</tr>
<tr>
<td>Acute Diseases</td>
<td>✷ Acute myocardial infarction (AMI)</td>
</tr>
<tr>
<td></td>
<td>✷ Coronary artery bypass graft (CABG)</td>
</tr>
<tr>
<td></td>
<td>✷ Ischemic heart disease</td>
</tr>
<tr>
<td></td>
<td>✷ Acute stroke</td>
</tr>
<tr>
<td>Cancer Diseases</td>
<td>✷ Colorectal cancer</td>
</tr>
<tr>
<td></td>
<td>✷ Breast cancer</td>
</tr>
<tr>
<td></td>
<td>✷ Lung cancer</td>
</tr>
<tr>
<td>Major Surgery</td>
<td>✷ Prophylactic antibiotics for surgery</td>
</tr>
<tr>
<td></td>
<td>✷ Caesarian section</td>
</tr>
<tr>
<td></td>
<td>✷ Surgical volume</td>
</tr>
<tr>
<td><strong>Out-patient</strong></td>
<td></td>
</tr>
<tr>
<td>Chronic Diseases</td>
<td>✷ Hypertension</td>
</tr>
<tr>
<td></td>
<td>✷ Diabetes</td>
</tr>
<tr>
<td></td>
<td>✷ Asthma</td>
</tr>
<tr>
<td>Prescription</td>
<td>✷ Pharmaceutical benefits</td>
</tr>
<tr>
<td></td>
<td>✷ Antibiotics for otitis media in infants and children</td>
</tr>
<tr>
<td></td>
<td>✷ Outpatient prescription incentive program</td>
</tr>
<tr>
<td><strong>DRG</strong></td>
<td>✷ 7 disease groups of DRGs (hospital and clinics)</td>
</tr>
<tr>
<td><strong>Total Institutional Level</strong></td>
<td>✷ Long-term care hospital</td>
</tr>
<tr>
<td></td>
<td>✷ Psychiatric disease (Medicaid)</td>
</tr>
<tr>
<td></td>
<td>✷ Hemo-dialysis</td>
</tr>
</tbody>
</table>

Adopting 329 quality indicators in total
## Number of indicators

<table>
<thead>
<tr>
<th>By indicator type</th>
<th>Number</th>
<th>By service area</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>55</td>
<td>Inpatient</td>
<td>183</td>
</tr>
<tr>
<td>Process</td>
<td>188</td>
<td>Outpatient</td>
<td>46</td>
</tr>
<tr>
<td>Outcome</td>
<td>86</td>
<td>DRG</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facility level</td>
<td>82</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>329</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Examples of AMI Quality Indicators

- **Number of AMI inpatient cases**
- **Thrombolytic drug administration rate within 60 minutes of arrival at hospital**
- **Primary PCI performance rate within 120 minutes of arrival at hospital**
- **Aspirin administration rate at hospital arrival**
- **Aspirin prescription rate at discharge**
- **Beta-blocker prescription rate at discharge**
- **30-day case**
- **Risk adjusted 30 day case fatality rate**
Information flow for Quality Assessment

Providers

Hospital Profile

EHR system

Health care Organization Profile

EDI system for claims review

Quality Data Acquisition System

Fee setting

Claims Review

Quality Assessment

Data Warehouse

Death Certification System

Ministry of Public Administration and Security
Analysis of quality scores

- Risk adjustment according to the patient status
- Production of quality scores by the facility level
- Composition of quality indicators by assessment items
- Categorization of hospitals into five groups (or less)
- Final assessment at the Central Quality Assessment Committee
Utilizing Quality Assessment results

- **Government**
  - Information for Policy Development

- **Provider**
  - Feedback & Education

- **HIRA**
  - Claims Review

- **Insured**
  - Public Report for Informed Choices

- **NHIS**
  - Adjust benefit amount
  - Assessment result
Public report of the Quality Assessment Result of health care providers

## Hospital Evaluation Information

Hospital evaluation based on detailed scores, focusing on key evaluation results.

- **Hospital Evaluation**
  - Hospital: Georgetown
  - Location: Georgetown
  - Grade: 2nd

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Location</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgetown Hospital</td>
<td>Georgetown</td>
<td>2nd</td>
</tr>
</tbody>
</table>

More information can be viewed on the website.
History of HIRA Value Incentive Program

- **2007~2010**
  - Demonstration VIP for C-sec and AMI for tertiary hospitals

- **Oct. 2010~**
  - Outpatient prescription incentive program

- **2011~**
  - Extended VIP to general hospitals and acute stroke

- **2011~**
  - Started Long term care hospitals P4P

- **Jul. 2012**
  - Started Chronic disease management incentive for doctor’s clinic

- **2013**
  - Started P4P for Prescription quality assessment for doctor’s clinic
Model of Value Incentive Program (VIP) for acute hospitals

- **1st grade**
- **2nd grade**
- **3rd grade**
- **4th grade**
- **5th grade**
- **6th grade**
- **7th grade**
- **8th grade**
- **9th grade**

- **1% Incentive**
- **2% Incentive**
- **Thresholds**
  - **-1% penalty**
  - **-2% penalty**

**Application**

- Disclosure of threshold/provision of incentive
  - Incentive/penalty
  - Incentive/penalty
Decrease of antibiotics prescription rate for ARI patient
Decrease of variation of Acute Myocardial Infarction quality score
Strengths of Korea in quality strategies

- Nation wide single purchasing organization which conducts claims review and quality assessment
- Far advanced ICT
- Pre-existing Unique Patient Identifier
But, confronted with the resistance from the Medical societies, we need

- More solid legal background for quality report
- Financial support (pay for reporting)
- Sound partnership with private providers
We are committed to cooperate with you!

Kimsunmin.sarah@gmail.com