HIRA's Contribution to Universal Health Coverage

HIRA
HEALTH INSURANCE REVIEW & ASSESSMENT SERVICE

CONTENTS

01

Overview of UHC in Korea

Health Insurance Review & Assessment Service

Republic of Korea

Korea
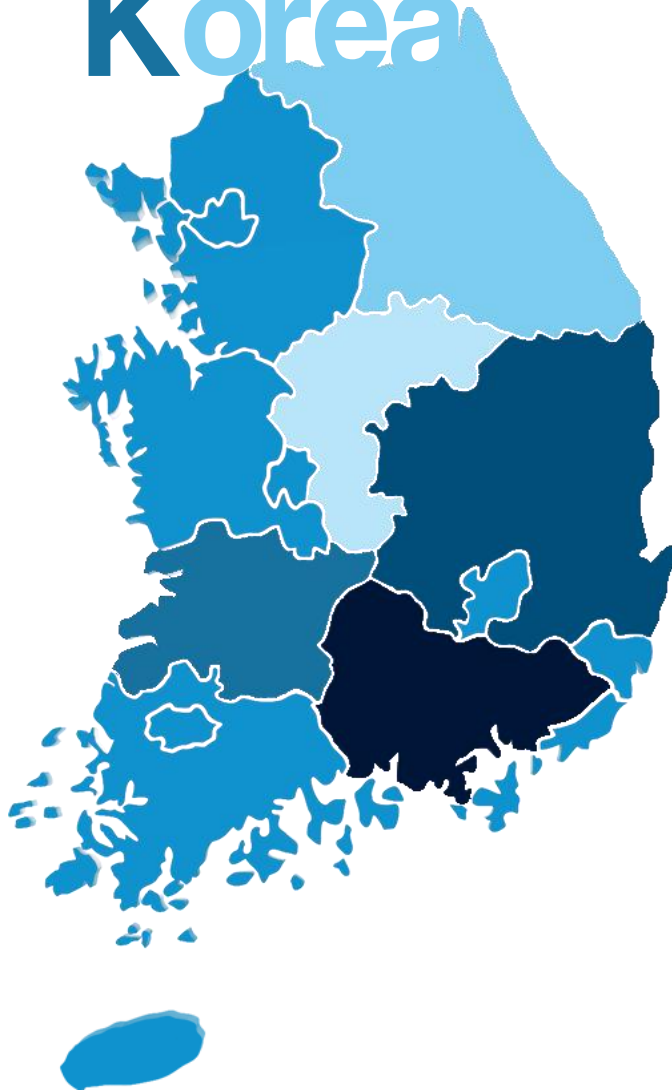
Population
51 million

Per capita GDP
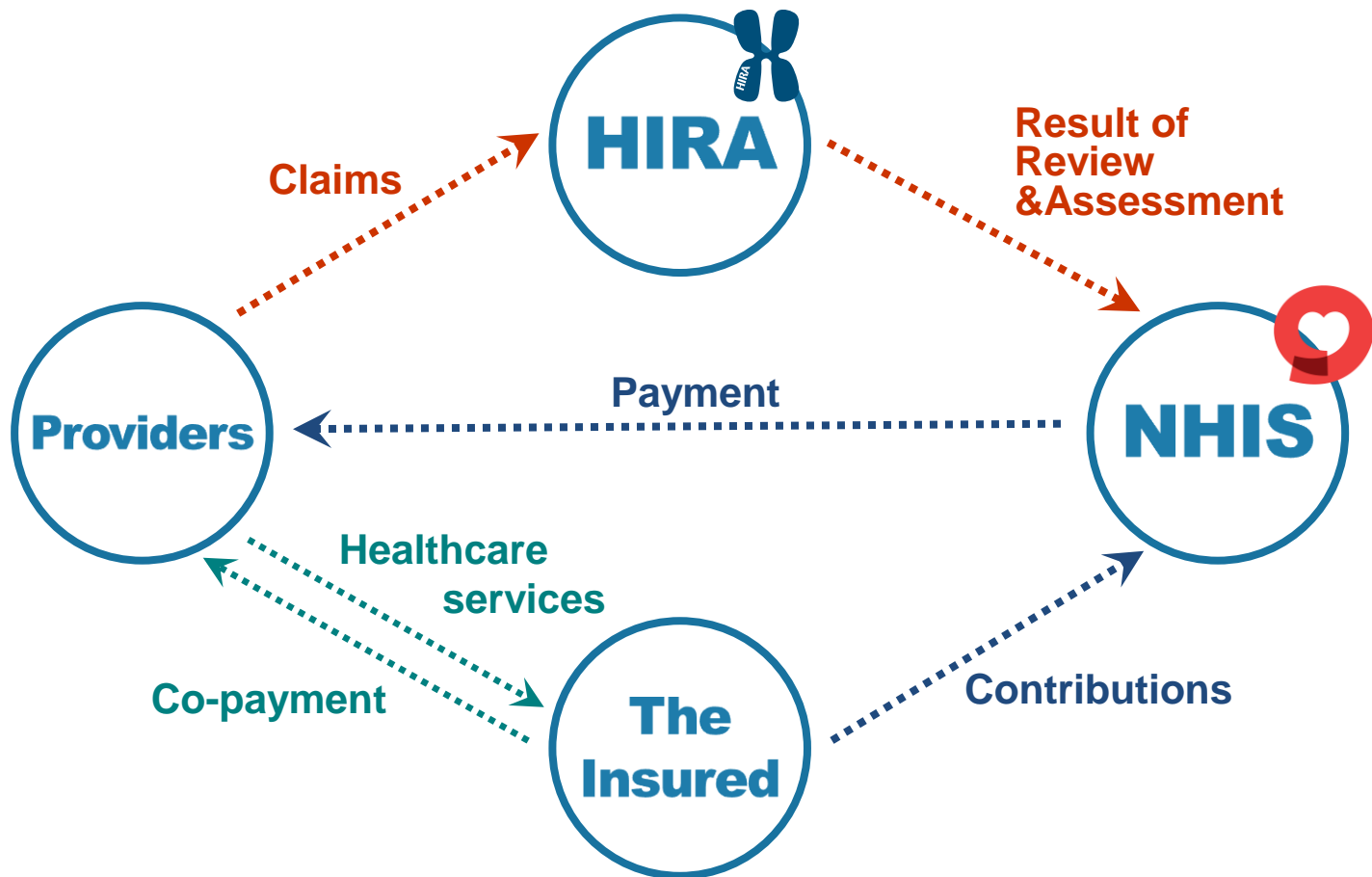## 26,205 USD

Pop. over 65
13%

NHE in GDP
7.2% (OECD average:8.9%)

as of 2016 IMF statistics, OECD statistics

MINISTRY OF HEALTH AND WELFARE
Legislation, NHI organization supervision

HIRA

NHIS

Providers

The Insured

Claims

Result of Review &Assessment

Payment

Healthcare services

Co-payment

Contributions

Governance of NHI of Korea

MINISTRY OF HEALTH AND WELFARE
Legislation, NHI organization supervision

NHIS

HIRA

National Health Insurance Service

Health Insurance Review & Assessment Service

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

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

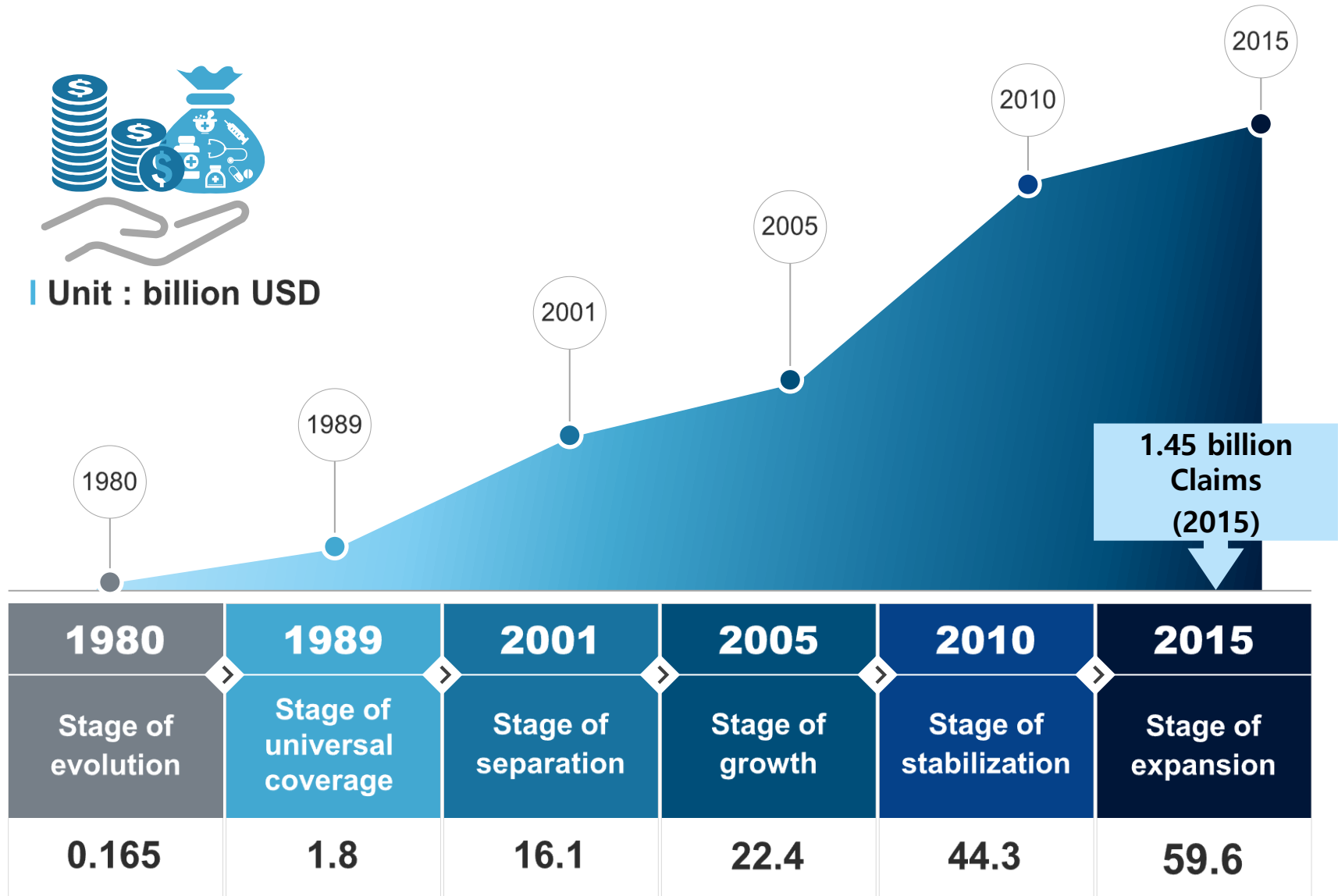**COLLECTING AND POOLING**

COMMISSIONING

Increase of Annual Commissioning of NHI

Unit : billion USD

1980
1989
2001
2005
2010
2015

1.45 billion Claims (2015)

1980	1989	2001	2005	2010	2015
Stage of evolution	Stage of universal coverage	Stage of separation	Stage of growth	Stage of stabilization	Stage of expansion
0.165	1.8	16.1	22.4	44.3	59.6

02

Introduction of HIRA

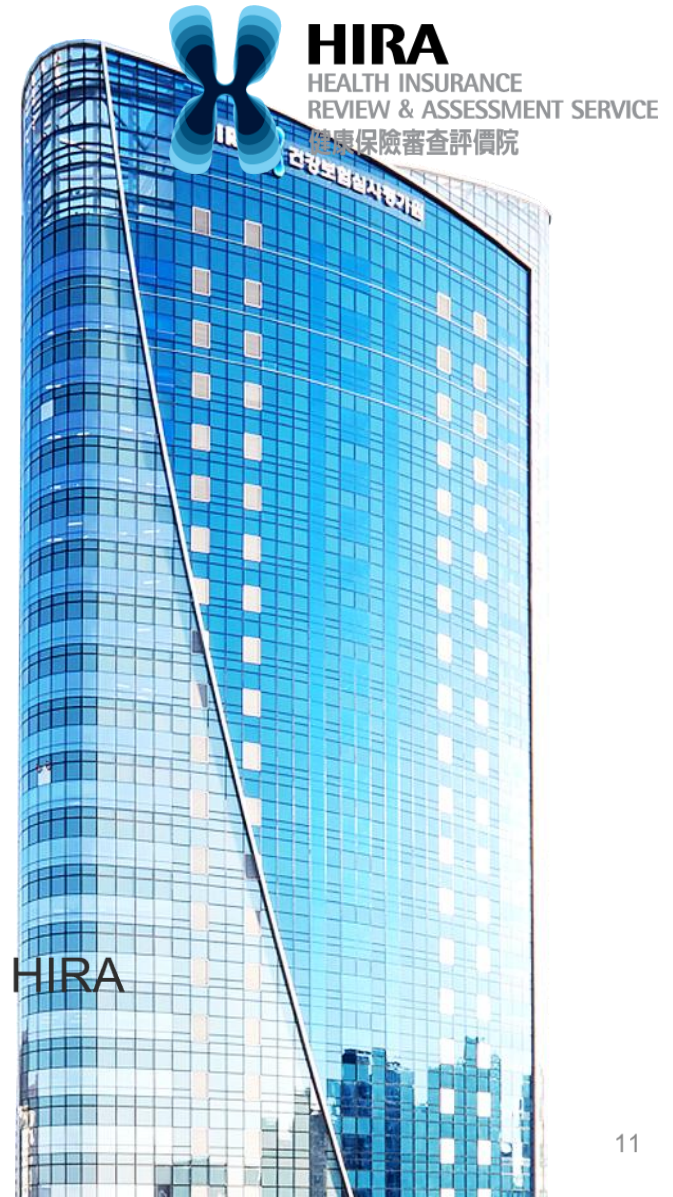Health Insurance Review & Assessment Service

History of HIRA

1979

- Each insurance company had its **own claim process and review system**

1988

- Multiple review systems were integrated into a **single agency**
  (National Federation of Medical Insurance)

2000

- **HIRA was established as an independent organization** according to NHI act
- **Quality assessment and benefit determination** were added as new tasks of HIRA

HIRA
HEALTH INSURANCE
REVIEW & ASSESSMENT SERVICE
健康保險審査評價院

HIRA Organization

Headquarters 1	Departments 27	Branch Offices 9	Research institute 1
Head quarters	Research institute **1** / Departments (93 divisions) **27** / Workers **1,969**		• Tertiary and general Hospitals claims review • Quality assessment • Guidelines development
Branch offices	Branch offices (20 divisions) **9** / Workers **581**		• Claims review for small hospitals, clinic and pharmacies

2,550 STAFFS ARE WORKING IN TOTAL (July, 2016)

- 65% are health care professionals
  such as doctors, pharmacists, nurses, physical therapist, medical record administrator
- 76% are female

Function of HIRA
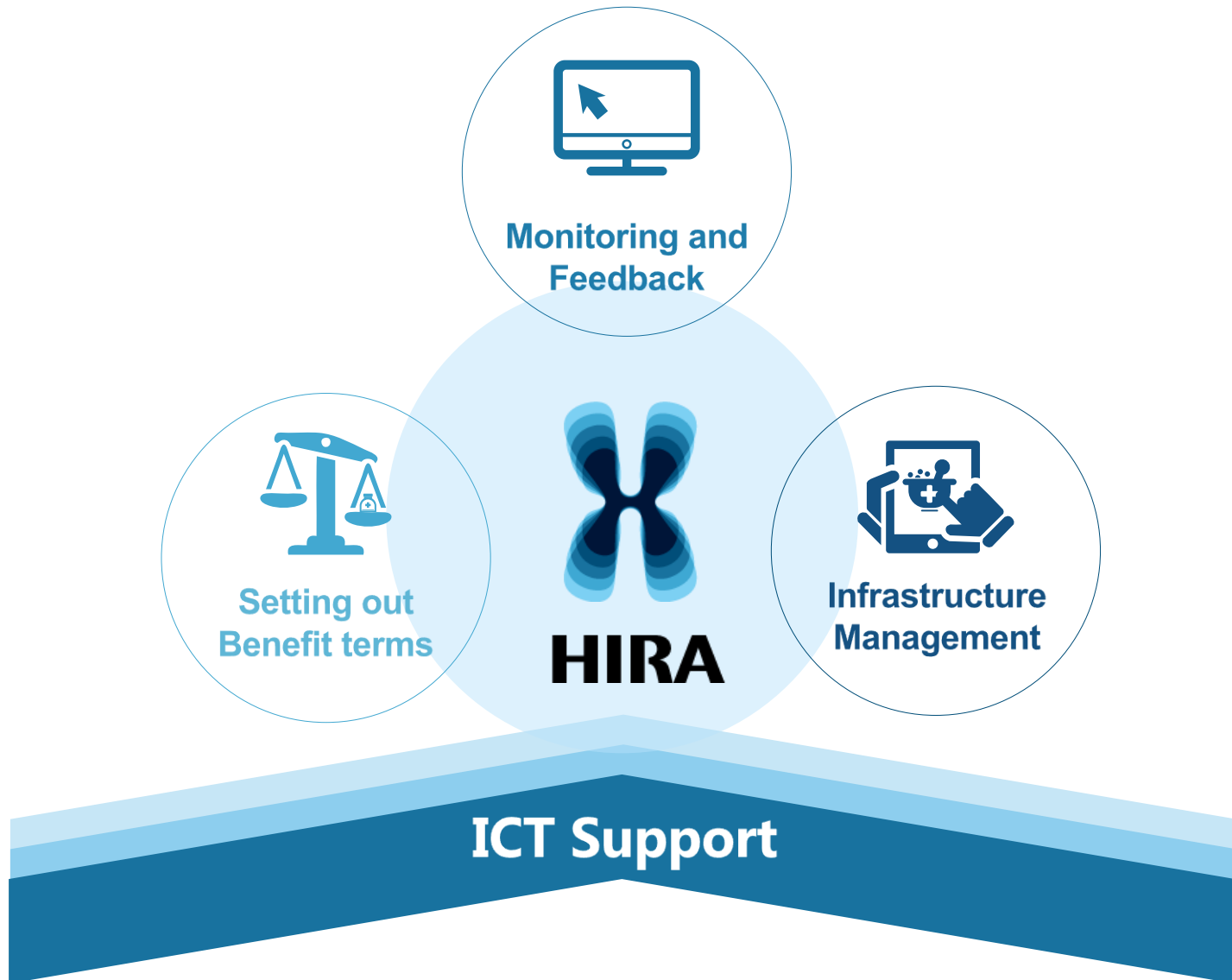
Monitoring and
Feedback

Setting out
Benefit terms

HIRA

Infrastructure
Management

ICT Support

HIRA's Health Care Activities

Setting out Benefit terms

- Listing
- Pricing
- Setting Standards
- Other benefit policy support

  ※ Medical procedure, Medical supply, Drug

Monitoring and Feedback

- Claims review
- Quality assessment
- On-site Investigation
- Drug Utilization Review (DUR)
- Medical fee verification service

Infrastructure Management

- Korea Pharmaceutical Information System (KPIS)
- Healthcare Resources management
- Big data analysis
- Development of patient classification & coding system, etc.

03

Detail of HIRA's Roles & Functions

Health Insurance Review & Assessment Service

HIRA's Health Care Activities

Setting out Benefit terms

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- **Pricing**
- **Setting Standards**
- Other benefit policy support

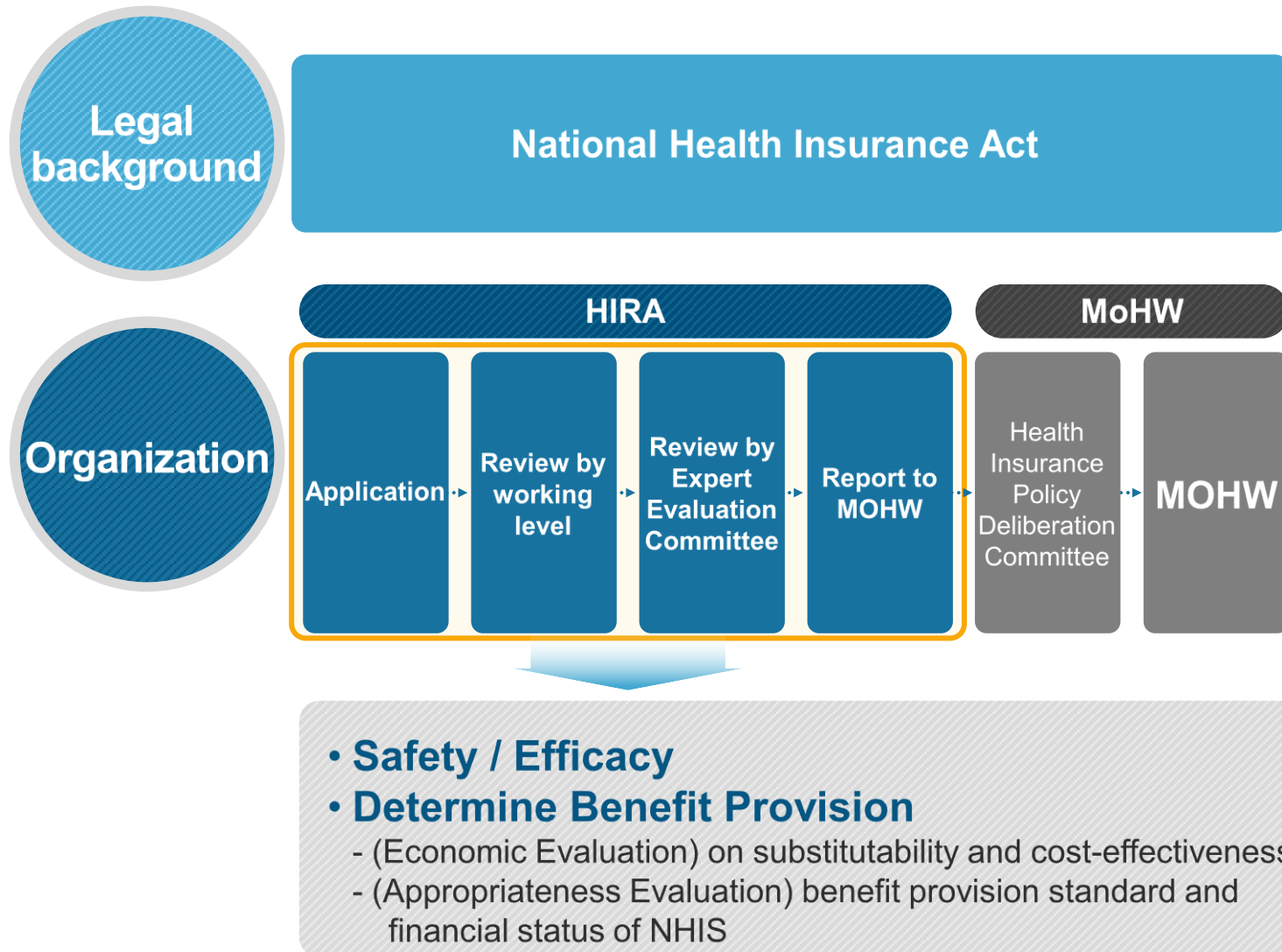※ Medical procedure, Medical supply, Drug

Monitoring and Feedback

- **Claims review**
- **Quality assessment**
- On-site Investigation
- **Drug Utilization Review (DUR)**
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Infrastructure Management

- **Korea Pharmaceutical Information System (KPIS)**
- **Healthcare Resources management**
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- Development of patient classification & coding system, etc.

1) Listing

Legal background

National Health Insurance Act

Organization

HIRA				MoHW	
Application	Review by working level	Review by Expert Evaluation Committee	Report to MOHW	Health Insurance Policy Deliberation Committee	MOHW

- **Safety / Efficacy**
- **Determine Benefit Provision**
  - (Economic Evaluation) on substitutability and cost-effectiveness
  - (Appropriateness Evaluation) benefit provision standard and financial status of NHIS

Negative list system since Nov. 2000

Medical Service Fee = RBRVS x Unit Price x Additional Charge

Institution Type	Calculation			Final Medical Fee
	RBRVs of Deep Heat Therapy	Unit Price	Additional Charge	
General Hospitals	13.98(point) ✕	71.0(KRW) ✕	1.25 =	KRW 1,240.725
Clinics	13.98(point) ✕	76.6(KRW) ✕	1.15 =	KRW 1,231.4982

**RBRVS
(Resource-Based
Relative Value
Scale)**

- Physician's workload, including time and effort
- Level of resource use, including human resource, facilities, and equipment
- Relative value presented in the form of score for each treatment, considering the risk level

Unit Price

- Decided by the agreement between NHIS & representatives of healthcare providers

**Additional Charge
for institutions**

- Tertiary hospitals 30%, general hospitals 25%, hospitals 20%, clinics 15%

▌(Drugs) Positive list system since Dec. 2006

Only clinically and economically valuable drugs are listed

Type	Pricing
New drugs	• **Negotiation between NHIS & manufacturers** - Evaluation is done by HIRA, and negotiation is done by NHIS
Generic drugs	• **Price calculation formula : 53.5% of original drug**

▌(Medical devices) Negative list system since Nov. 2000

○ **When the applying material is on the upper limit price list**

• The calculation standard is different depending on the **cost**, **efficacy** or **function**.

○ **When the applying material is not included in the upper limit price list**

• Price will be calculated based on **manufacturing cost**(FOB for imported material), **clinical efficacy and effectiveness**, and **economic value**

3) No. of Benefit Criteria & Benefit List

BENEFIT TYPE	NO OF CRITERIA	NO OF Benefit Package
Medical Procedure	807	8,306
Drug	545	23,053
Medical Devices	323	21,683
Total	1,675	53,042

Benefit Criteria Developed by HIRA (as of 2015)

HIRA's Health Care Activities

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Ensuring appropriate Health care

Review and check whether the costs & claim details have been duly submitted under the criteria

Preventing overuse or misuse of healthcare services

Improving Public Health and Welfare

1) Claims review - Flow

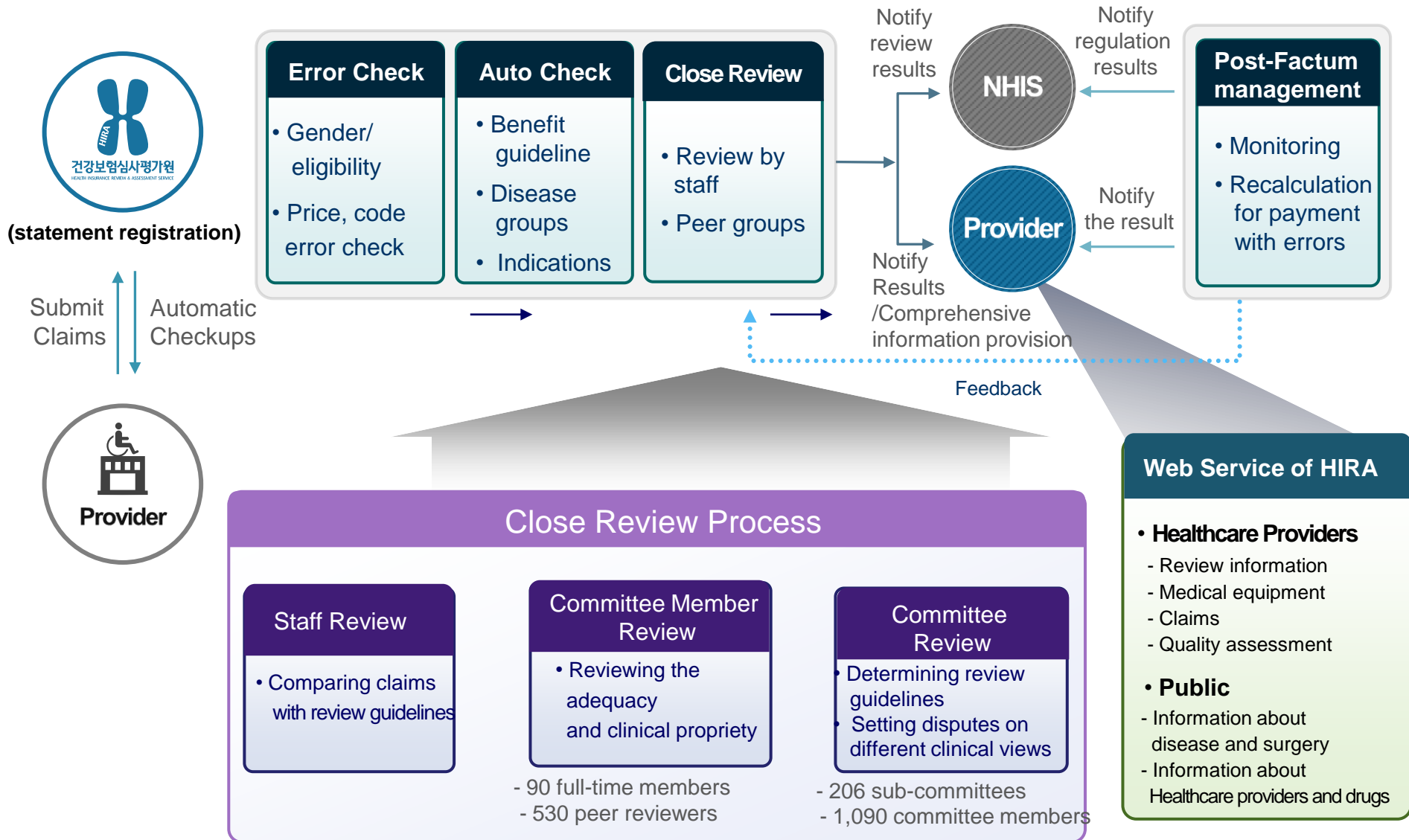**(statement registration)**

Submit Claims | Automatic Checkups

Provider

Error Check
- Gender/ eligibility
- Price, code error check

Auto Check
- Benefit guideline
- Disease groups
- Indications

Close Review
- Review by staff
- Peer groups

Notify review results

NHIS

Notify regulation results

Provider

Notify the result

Notify Results /Comprehensive information provision

Feedback

Post-Factum management
- Monitoring
- Recalculation for payment with errors

Close Review Process

Staff Review
- Comparing claims with review guidelines

Committee Member Review
- Reviewing the adequacy and clinical propriety

- 90 full-time members
- 530 peer reviewers

Committee Review
- Determining review guidelines
- Setting disputes on different clinical views

- 206 sub-committees
- 1,090 committee members

Web Service of HIRA

- **Healthcare Providers**
  - Review information
  - Medical equipment
  - Claims
  - Quality assessment

- **Public**
  - Information about disease and surgery
  - Information about Healthcare providers and drugs

- 99.5 % of claims are electronically processed
- 87 % of claims are finalized after electronic checkup and automated review

Definition

To evaluate overall covered services to make sure the appropriateness of **medical and pharmaceutical aspects** and **cost-effectiveness**
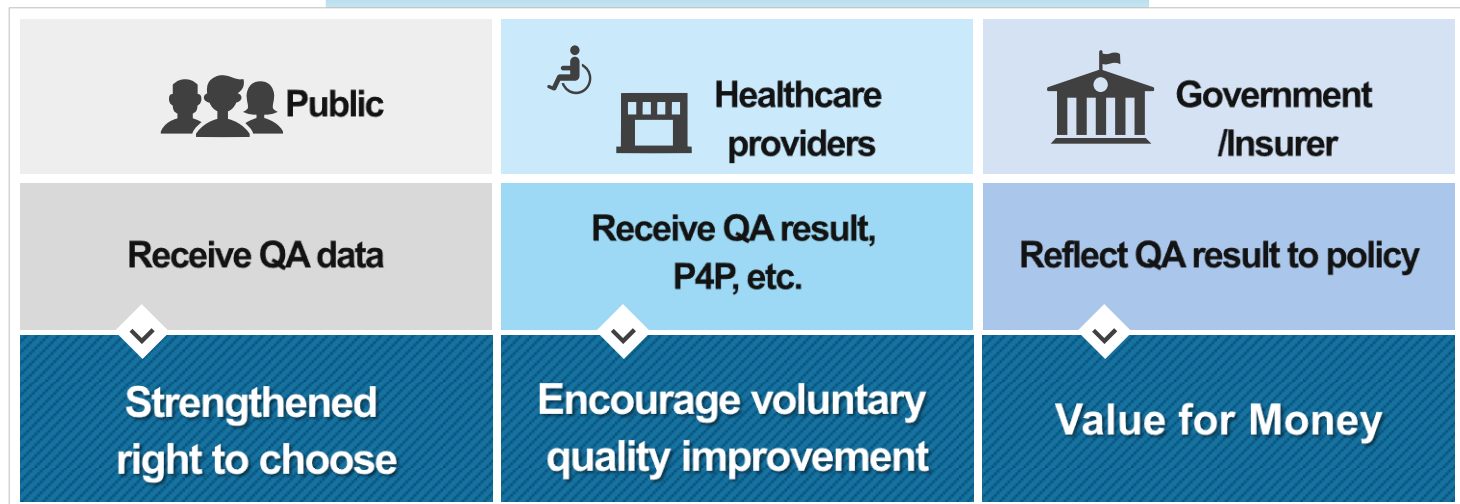
Need

- To prevent service over-use
- To prevent service under-use
- To prevent mis-use
- To reduce service quality gap

Objective

Improve medical service quality and optimize cost level

Public	Healthcare providers	Government /Insurer
Receive QA data	Receive QA result, P4P, etc.	Reflect QA result to policy
Strengthened right to choose	Encourage voluntary quality improvement	Value for Money

2) Quality Assessment – Items in 2016

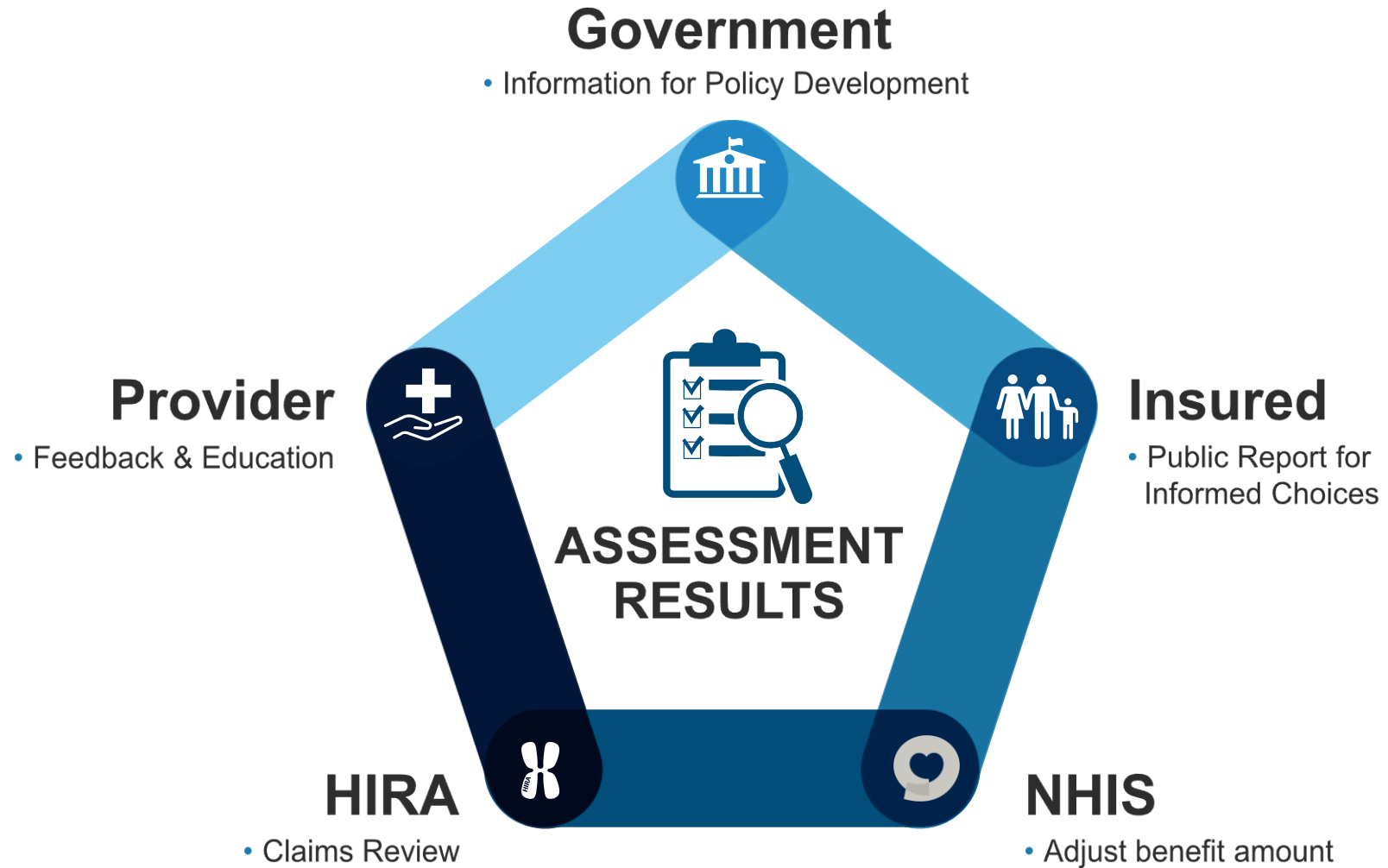| Area		Quality Assessment Items
Inpatient	**Acute Diseases**	• Acute myocardial infarction (AMI) • Acute Stroke • Coronary artery bypass graft (CABG) • Ischemic Heart Disease
	Cancer Diseases	• Colorectal cancer • Breast cancer • Mortality of surgery for cancer
	Major Surgery	• Prophylactic antibiotics for surgery • Caesarian section • Surgical volume
Outpatient	**Chronic Diseases**	• Hypertension • Diabetes, Asthma
	Pharmacy Benefits	• Prescribing rate of injection • Prescribing rate of antibiotic • The number of drug per prescription • Prescribing rate of expensive drugs • Medication cost per day of administration • Duplicate prescription rate for NSAIDs (osteo-arthritis) • Prescribing rate of antibiotic (Acute otitis-media)
Total Institutional Level		• Long-term care hospital • Psychiatric disease (Medicaid) • Hemo-dialysis

ǀ **Adopting 37 categories in total**
 * From 2016, 'Patient's experience' was added as a new assessment item

Government
• Information for Policy Development

Provider
• Feedback & Education

Insured
• Public Report for Informed Choices

ASSESSMENT RESULTS

HIRA
• Claims Review

NHIS
• Adjust benefit amount

HIRA's Health Care Activities

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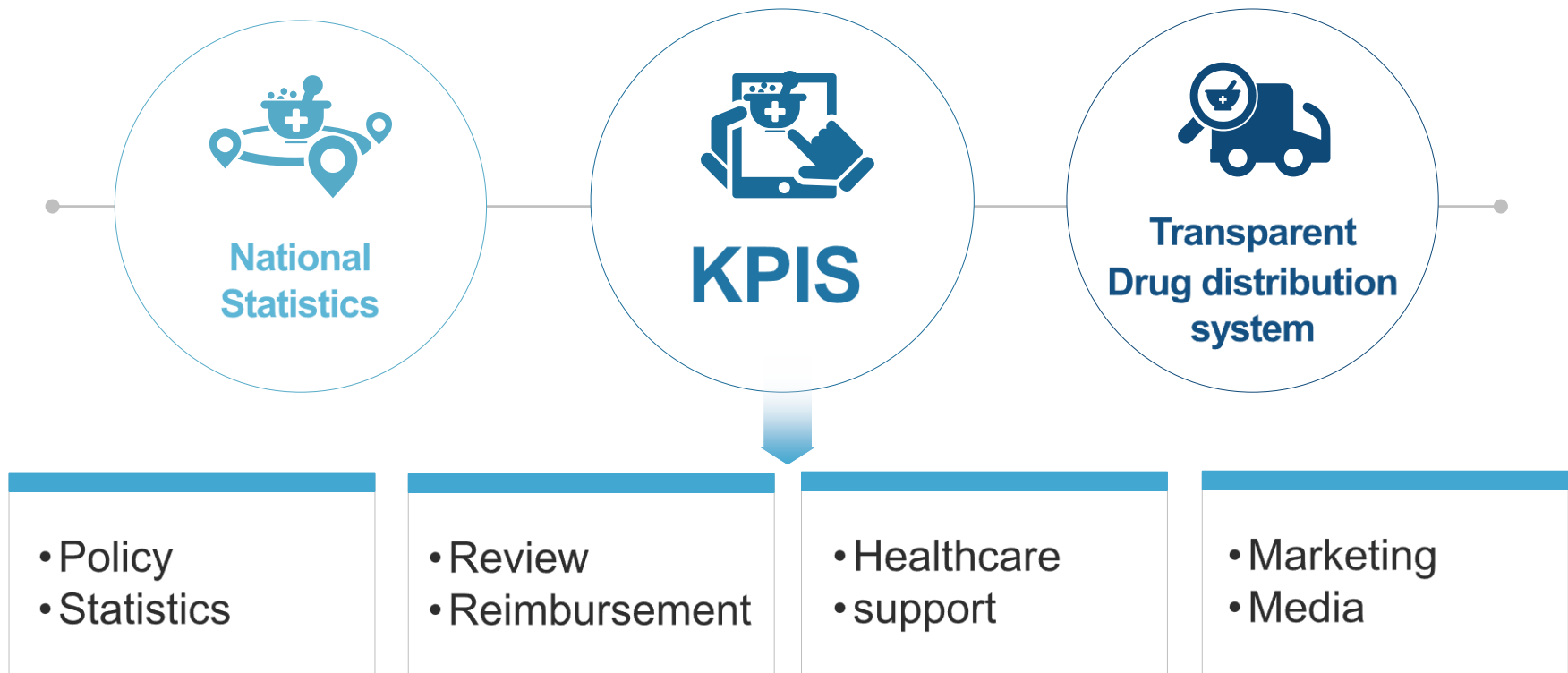- Medical fee verification service

Infrastructure Management

- **Korea Pharmaceutical Information System (KPIS)**
- **Healthcare Resources management**
- Big data analysis
- Development of patient classification & coding system, etc.

1) KPIS

KPIS(Korea Pharmaceutical Information Service) was established in order to collect, research and provide drug distribution data which encompasses production, import, and consumption of drugs

National Statistics

KPIS

Transparent Drug distribution system

- Policy
- Statistics

- Review
- Reimbursement

- Healthcare
- support

- Marketing
- Media

2) Healthcare Resources Management

▶ Bed / Room numbers and types

▶ License number, type, date of hire and resignation of doctors, nurses, pharmacists

▶ Name, lot number, price, certification information

FACILITY

HUMAN RESOURCE

EQUIPMENT

| Healthcare organization | **88,163 providers** (Medical institution, pharmacy, Public health center, etc.) |

| Healthcare personnel | **580,000 persons** (Physician, nurses, pharmacist, etc.) |

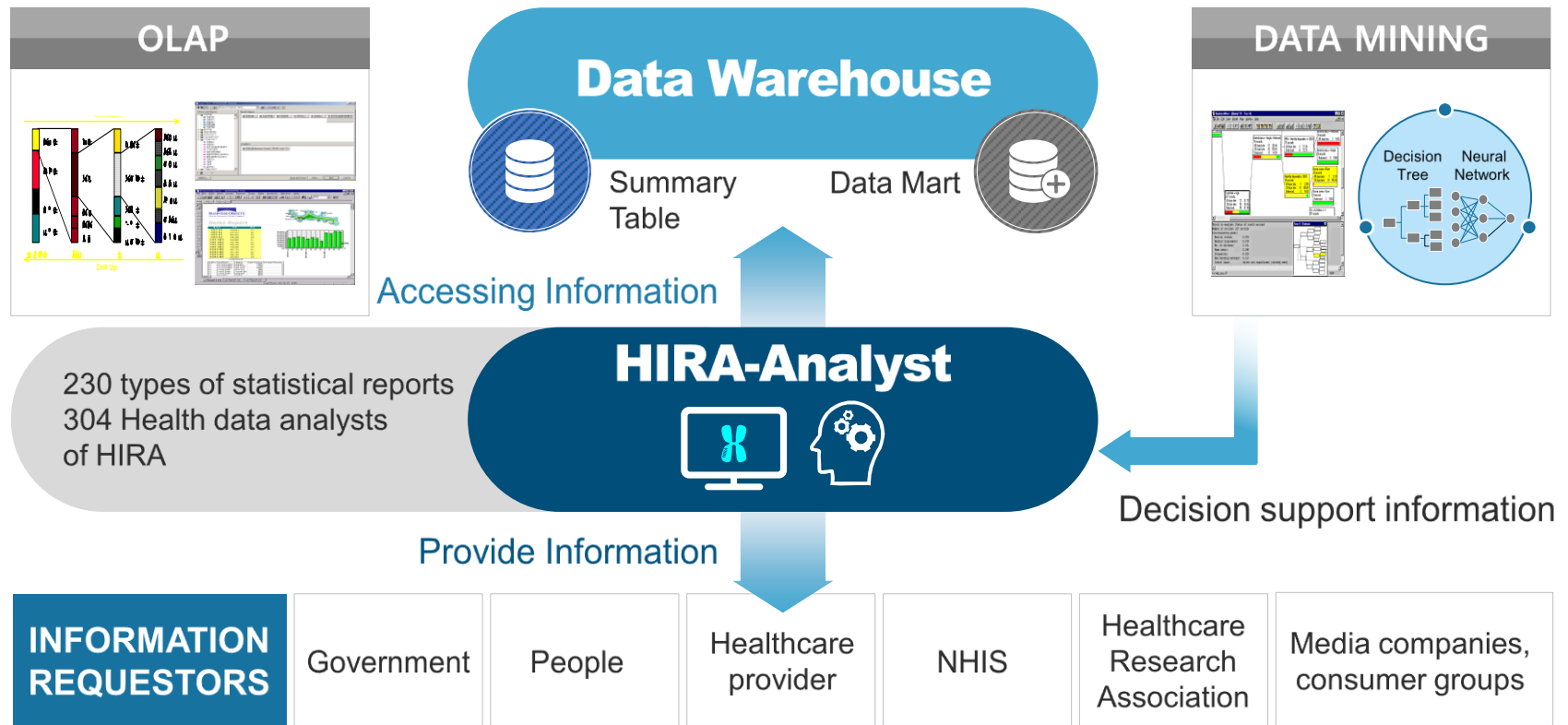| Facility | **860,000 beds** (Inpatient ward, Intensive Care Unit, etc.) |

| Equipment | **770,040 items** (MRI, CT, PET, Mommo, etc.) |

3) Data Warehouse (DW) system

Reviewed claims are stored in Data Warehouse
HIRA-Analyst can access DW anywhere in HIRA to produce designed statistics for policy development

OLAP

Data Warehouse

Summary Table

Data Mart

DATA MINING

Decision Tree

Neural Network

Accessing Information

HIRA-Analyst

230 types of statistical reports
304 Health data analysts
of HIRA

Decision support information

Provide Information

INFORMATION REQUESTORS	Government	People	Healthcare provider	NHIS	Healthcare Research Association	Media companies, consumer groups

- Currently the accumulated data volume are 360 Terabyte (As of 2015)
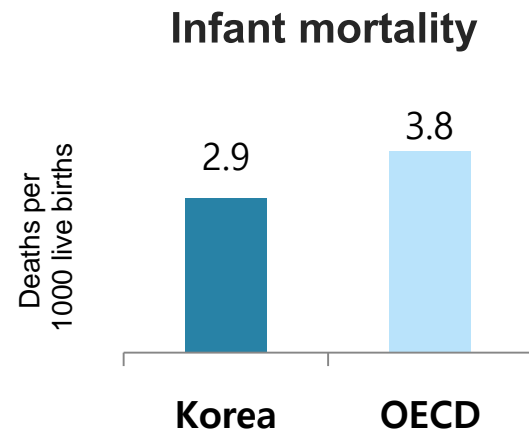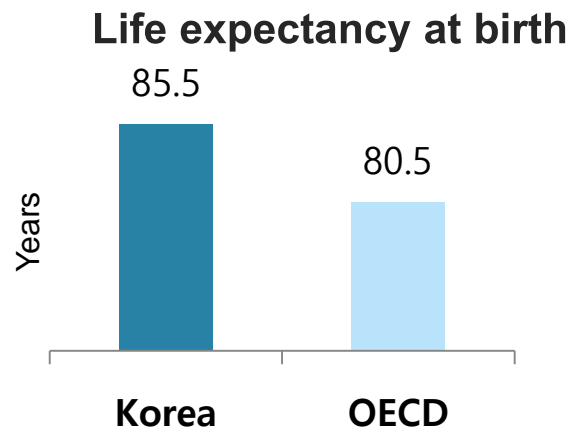- OLAP : On-Line Analytical Processing

04

Achievements

Health Insurance Review & Assessment Service

Achievements

Low healthcare spending
Efficient Cost Monitoring & Quality management system

∨ Low national health expenditure to GDP

  (Korea: 7.2% / OECD: 9%)

∨ Relatively low per capita healthcare expenditure

  (Korea: USD 2,275 / OECD: USD 3,453)

Improved Health Outcomes

Life expectancy at birth

85.5

80.5

Years

Korea   OECD

Infant mortality

2.9

3.8

Deaths per 1000 live births

Korea   OECD

as of 2013, in OECD Health Statistics

Total Number of Visitors Per Continent (2011-2015)

Total
1,058

International Organization(UN, WHO etc) : 45

105	497	102	192	14	101	2
Europe	Asia	Africa	Middle East	North America	South America	Oceania

We are committed to **cooperating**
with you in **achieving UHC**!

HIRA
HEALTH INSURANCE REVIEW & ASSESSMENT SERVICE

THANK YOU