WHY IS KOREA CONSIDERED THE COVID-19 "WORLD ROLE MODEL"?

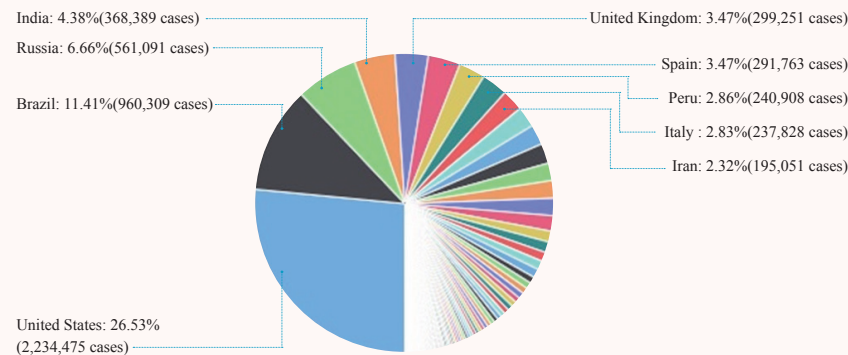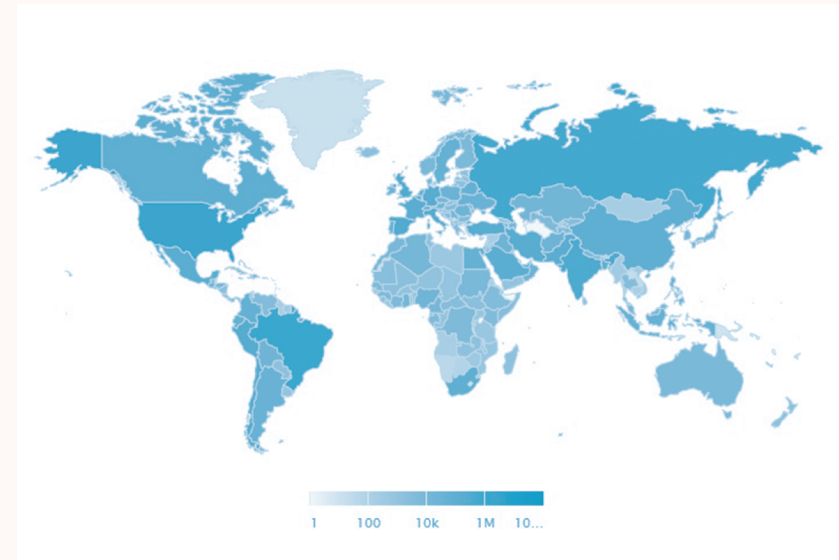## BEST PRACTICES AND RESILIENCE AGAINST COVID-19

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WHY IS KOREA
CONSIDERED THE
COVID-19
"WORLD ROLE MODEL"?

Best Practices and Resilience to COVID-19

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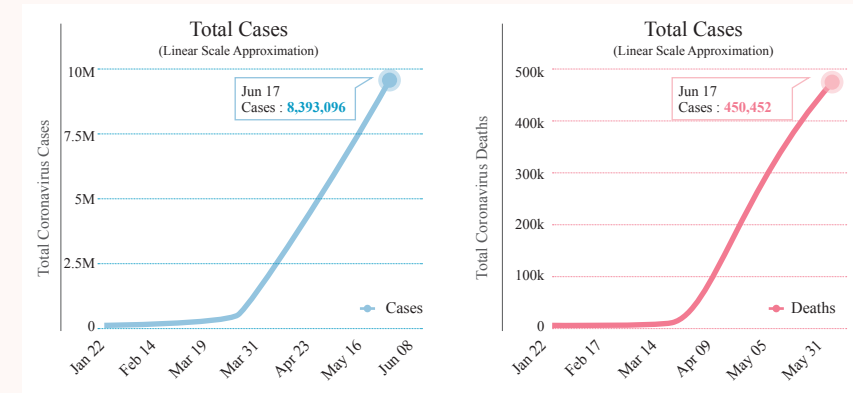## COVID-19 Coronavirus Pandemic

1 100 10k 1M 10...

India: 4.38%(368,389 cases)

Russia: 6.66%(561,091 cases)

Brazil: 11.41%(960,309 cases)

United Kingdom: 3.47%(299,251 cases)

Spain: 3.47%(291,763 cases)

Peru: 2.86%(240,908 cases)

Italy : 2.83%(237,828 cases)

Iran: 2.32%(195,051 cases)

United States: 26.53%
(2,234,475 cases)

02

Daily New Cases Worldwide

Total Cases
(Linear Scale Approximation)

Jun 17
Cases : **8,393,096**

Total Coronavirus Cases

10M
7.5M
5M
2.5M
0

Jan 22 Feb 14 Mar 19 Mar 31 Apr 23 May 16 Jun 08

Cases

Total Cases
(Linear Scale Approximation)

Jun 17
Cases : **450,452**

Total Coronavirus Deaths

500k
400k
300k
200k
100k
0

Jan 22 Feb 17 Mar 14 Apr 09 May 05 May 31

Deaths

03

Cases in Korea

Confirmed Cases	Released from Isolation	Deceased	Rate of Fatality
12,257	10,800	280	2.28%

1000
750
500
250
0

Daily Cases 3-day Moving Average

Feb 15 Feb 20 Feb 25 Mar 01 Mar 06 Mar 11 Mar 16 Mar 21 Mar 26 Mar 31 Apr 05 Apr 10 Apr 15 Apr 20 Apr 25 Apr 30 May 05 May 10 May 15 May 20 May 25 May 30 Jun 04 Jun 09 Jun 14
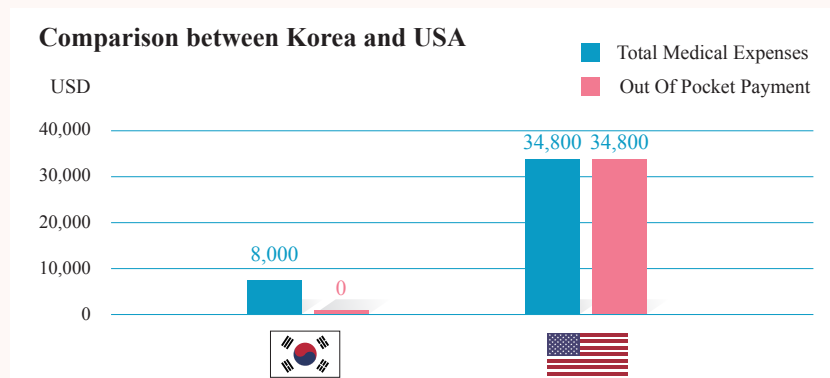
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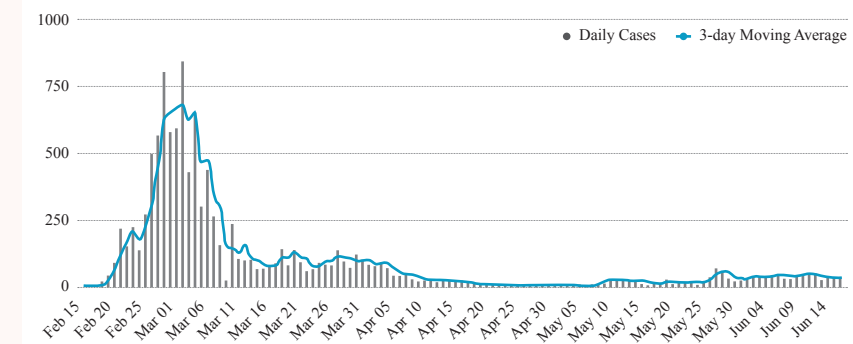
01

"Zero" Out-of-Pocket Payment

→ Average cost of COVID-19 treatment is approximately 8,000 USD in Korea. But the cost is "0" for patients. When a suspicious case or a case recommended for medical examination is found in Korea, National Health Insurance covers 80% and the Government covers 20%.

→ Average cost of COVID-19 treatment is approximately 34,800 USD in USA. The patients have to pay all expenses if they are not covered by private insurance.

NHIS		Government		OOP Payment
80%	**+**	20%	**=**	0

Comparison between Korea and USA

■ Total Medical Expenses
■ Out Of Pocket Payment

USD

40,000
30,000
20,000
10,000
0

34,800 34,800

8,000   0

→ No burden for COVID-19 examination and treatment is one of the important reasons for successful resilience in Korea.

→ This expense support along with a fast and reliable COVID-19 test kit has made it possible to examine about 15,000 people per day. A total of 852,000 people were examined until May 27th.

02

Low Contribution Rate

→ Rate of contribution to heath insurance is relatively low in Korea compared to other countries. In 2019, the rate was as follows: Germany (14.6%), Japan (10%), Belgium (7.35%), Austria (7.65%), and Korea (6.46%) (The employee insured cases).

03

High Accessibility

→ Korea's accessibility to health care facilities is considerably higher than that of the other countries. In 2017, the OECD countries average for outpatient visits were 6.8 times, compared to 16.6 times in Korea. Furthermore, the average number of inpatient days is 8.1 in the OECD countries, compared to 18.5 days in Korea.

04

The Best Use of ICT

→ ICT has played a vital role in fighting against COVID-19 in Korea. Mobile devices were used to support early testing and contact tracing. Advanced ICT was particularly useful in disseminating key emergency information on virus and helping to maintain extensive 'social distancing'. The test results and latest information on COVID-19 were made available via national and local government websites, as well. The government provided free smartphone apps and flagged infection areas with text alerts for testing and local cases.

01

Supporting Government Reponses based on Big Data

Settling criteria for classification of the patients

→ NHIS provides quarantine authorities with information regarding the possibility of underlying health conditions for patients infected with COVID-19 to enable efficient treatment. If COVID-19 is confirmed, patients are classified and treated based on severity of symptoms and presence of underlying diseases. At this time, patients are classified based on the underlying disease condition identified from NHIS Big Data. Based on the classification, patients with low risk/moderate symptoms are placed in the life care center whereby patients with high risk/severe symptoms are placed in the medical facility with negative pressure rooms so that treatment can be focused on patients who need urgent care.

Supporting the decision making process regarding financial aids

→ NHIS provided relevant data to the government when reviewing the emergency disaster fund plan based on the insurance contribution of people.

Analyzing the degree of risk of COVID-19 through linking the data with KCDC and supporting the epidemiological investigation

● KCDC(Korea Centers for Disease Control & Prevention)

Preparing release of the data for active COVID-19 research

→ NHIS is preparing for release of data to support research activities regarding infection risk forecast and identification of death risk factors, by linking confirmed case information from of KCDC and NHIS claim data.

ICT-based K-quarantine international training course

→ NHIS provides educational programs for developing countries and government officials to support development of infectious disease control capacities and to share relevant knowledge.

02

Supporting the National Healthcare System

→ COVID-19 is causing a sharp decline in the number of patients in medical facilities. If hospitals are unable to function properly due to financial difficulties, it may cause the loss of healthcare infrastructure to cope with the prolonged crisis created by COVID-19.

→ In response, NHIS is providing medical facilities with early health insurance benefits to support their financial stability. 90% of the benefits claimed by the medical facilities to NHIS is paid within 10 days. Normally, the payment is made about 22 days after submitting the claim.

→ In addition, medical facilities that need an emergency fund are provided with a certain level of benefits before starting the treatment to help hospitals function in normal condition.

03

Reduction of Contribution to Ease the Financial Burden

→ NHIS is offering a 50% reduction in health insurance contributions for the bottom 50% insurance payment profile based on the amount of contribution paid in the special disaster areas (e.g., Daegu, etc.) or for the bottom 20% insurance payment profile based on the amount of health insurance contributions paid in other regions for three months.

→ Insured people who belong to the bottom 20~40% bracket of insurance contributions will receive a 30% reduction of contribution payment for three months.

→ A total of 11.6 million people will receive a reduction of about 7 hundred million USD for three months.

04

Proactive Approaches to Fight against COVID-19

→ NHIS provided action guidelines and situation-based scenarios for preventing the spread of COVID-19 and offered the information to small businesses and public institutions. Based on these guidelines, 178 branch offices of NHIS implemented 'Separate Consultation Room' for suspected cases with respiratory symptoms and 'Acrylic Screening' at the consultation desk to prevent the spread by droplet infection.

→ Through the 'Insurance Enrollment Verification System', NHIS provides real-time information of both 'close contacts' and 'international travelers' from COVID-19 occurred countries to medical facilities. This helps to prevent the spread of COVID-19 by checking information on confirmed cases at the registration stage.

Complete enumeration of COVID-19 management of long-term care facilities

→ To enhance precautionary prevention management and minimize infection through a complete enumeration of seniors and workers in long-term care facilities, NHIS investigated those workers who are foreign nationals or had a history of immigration.

→ NHIS conducted a survey of actual conditions for seniors and workers in long-term care facilities and examined the present condition of preventative cohort isolation at geriatric facilities.

Emergency support of free face masks for long-term care facilities

→ Face mask is a must-have item for the employees at the long-term care facilities because they are in charge of vulnerable seniors of high risk group. Nevertheless, there is a severe shortage of face masks at the long-term care facilities.

→ NHIS provided for 380,000 face masks to long-term care facilities (nursing home facilities, group homes, short stay facilities) for the safety and protection.

04

Proactive Approaches to Fight against COVID-19

Producing face masks for vulnerable social groups

→ NHIS participated in the mask production to contribute to social values for vulnerable social groups who have difficulties in the purchase.

→ NHIS employees provided cotton face masks for vulnerable groups and distribute them to onsite workers to prevent the spread of the COVID-19.

Implementation of direct transactions to promote and stimulate the consumption of local agricultural products (Potato Alliance Project with Gangwon province)

→ To build a collaborative system to revitalize the local economy stagnated by COVID-19, NHIS signed MOU with Gangwon province to promote the consumption of agricultural products.

→ Based on the agreement, NHIS purchased 10,000 boxes(100 tons) of potatoes placed in inventory due to the delayed start of the school year. Furthermore, to support the vulnerable groups, NHIS started a sales by opening direct transaction markets within NHIS.

05

Augmenting Social Responsibility as a Public Agency

→ NHIS Human Resources Development Institute was temporally used as a residential treatment center for patients with mild symptoms in Daegu. Medical staffs from Ilsan Hospital(the insurer hospital) are sent for the treatment of patients.

→ NHIS organized a support group for the residential treatment center in Daegu, Gyeongsangbuk-do and Chungcheongbuk-do provinces in Korea. NHIS is consulting with patients in the process of admission and discharge from the center and supporting other tasks such as patient care and hospital transport, as well as monitoring the criteria for medical care benefits and medical guidelines.

→ 20,000 face masks and hand sanitizers were donated to vulnerable groups in Wonju city and in other areas where confirmed cases were reported. NHIS provided lunch boxes and preventive supplies to vulnerable groups in Wonju city to prevent starvation since free food distribution was suspended to contain the spread of virus.

→ NHIS handled 627,092 calls(as of April 2) from the KCDC Scall center by temporarily providing 600 customer call center counselors.

IV

NHIS-Ilsan Hospital
Preparedness against COVID-19

WHY IS KOREA
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COVID-19
"WORLD ROLE MODEL"?

01

Background

National Health Insurance Service-Iisan Hospital

→ The Ilsan Hospital meets the healthcare demand of the local community as the only insurer hospital in Korea. The hospital was founded for the purpose of enhancing the level of healthcare for the people and developing the medical and health insurance system.

→ The Ilsan Hospital is a general hosptial that operates 824 sickbeds and is located in Goyang, Gyeonggi-do.

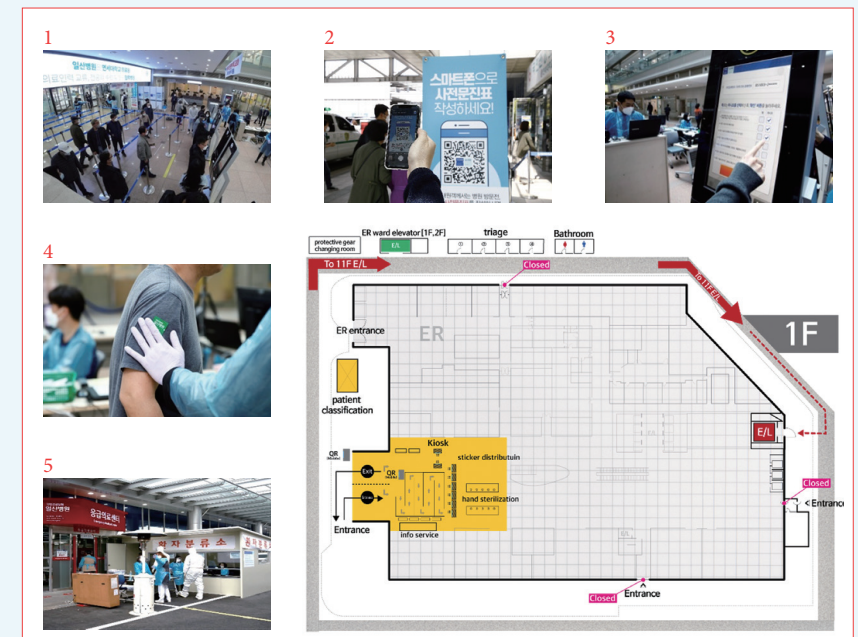**From responding to COVID-19 to showing the disease standards of medical institutions among K-quarantine.**

02
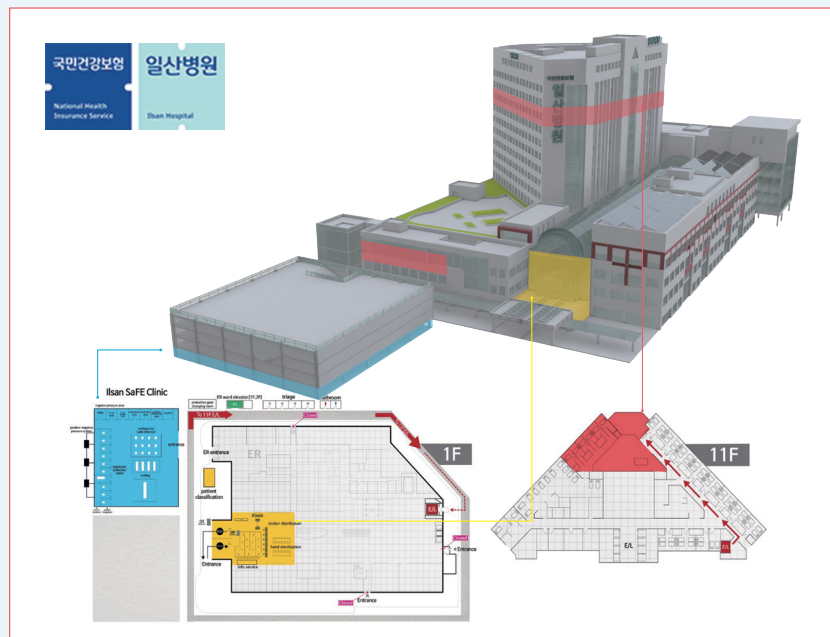
Preventive Approaches against COVID-19

1) Acess Control

→ Patients and contacted people that have respiratory symptoms or a fever or other people with a high risk of infection are sent outside to triage. All other patients are brought into the main hospital.

→ The classification of those entering the hospital includes a survey about symptoms. An information system was developed that confirms International Travel System (ITS) inquiries and the status of contact with confirmed cases. The information system either issues an QR code using a mobile app, or uses the kiosk installed at the main entrance.

→ Allowed hospital visitors are classified with a daily different color sticker to distinguish themselves.

IV NHIS-Ilsan Hospital
Preparedness against COVID-19

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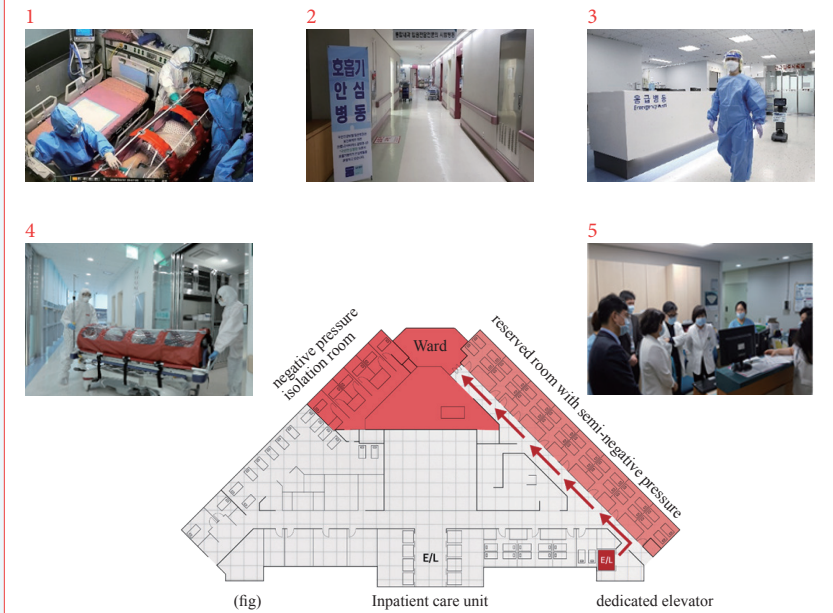
02

Preventive Approaches against COVID-19

2) Ilsan SaFE(Safe & Fast for Everybody) Clinic for outpatients

→ Patients with respiratory symptoms, and/or with high-risk factors of COVID-19 infection are treated in the Ilsan SaFE clinic which was temporarily built outside of the main hospital building.

→ The SaFE clinic is comprised of a respiratory clinic, pediatric respiratory clinic, specimen collection room, X-ray room, reception, and a waiting area.

→ All rooms are negative pressurized and the specimen collection room has a walk-through area with completely separate channels of movement that consists of a positive pressure area for doctors and a negative pressure area for patients that enables fast and safe specimen collection without protective clothing.
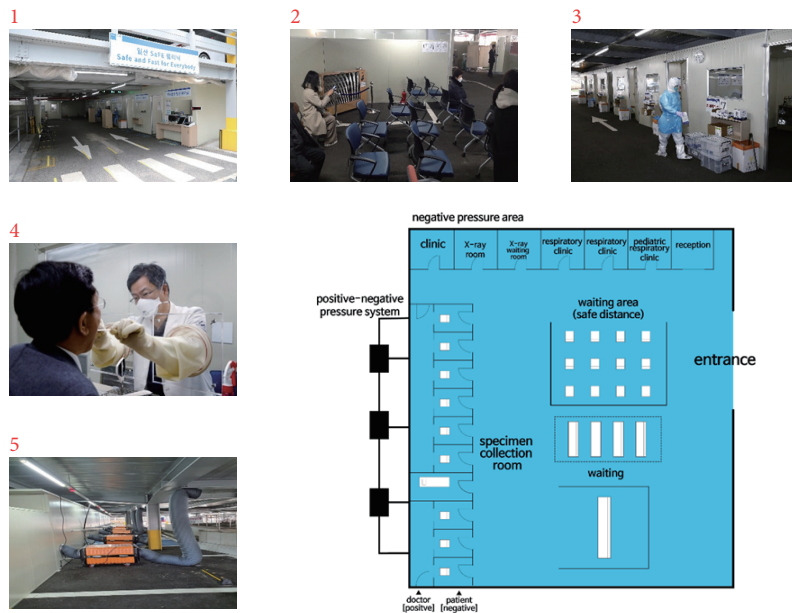
3) Inpatient care for COVID-19 cases

→ All COVID-19 patients or those who are symptomatic are transferred through designated routes segregated from other patients.

→ Critical situation COVID-19 patients are placed in negative-pressurized rooms at an isolated unit which could provide intensive care.

→ Suspected COVID-19 patients are treated in negative pressure isolation wards. (fig)

→ COVID-19 negative pneumonia patients are treated in a dedicated cohort ward.

IV — NHIS-Ilsan Hospital
Preparedness against COVID-19

V — NHIS Global
Cooperation

WHY IS KOREA
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03

The Role of National Health Insurer's Hospital

→ The Ilsan Hospital published a clinical manual that has become the standard of practice from the experience of operating the Community Treatment Center(CTC).

→ Issuing medical certifications for business people to travel outside the country is processed at the hospital.

→ The only insurer's hospital implementing COVID-19 research activity
  1) Research using National Health Insurance Service Big Data.
     - Machine learning prediction for mortality
     - Diabetes as the risk factor
     - Smoking as the risk factor
     - Clinical Characteristics of Asymptomatic Patients

  2) Research using Health Insurance Review & Assessment Service Data
     - Interaction of COVID-19 and type 2 diabetes

  3) Other clinical research
     - Medical experience in the CTC
     - Immune response and treatment environment
     - Effect of Ciclesonide in mild cases

- NHIS is sharing the health insurance management experience of Korea with other countries and is implementing collaborative projects with partner countries under the collaboration agenda known as "K-National Health Insurance"

- "K-National Health Insurance" shares the knowledge and experience accumulated over the past 43 years that pertains to all types of international collaboration to achieve the Universal Health Coverage(UHC).

- Korea achieved UHC in just 12 years and is considered by other countries as a role model case for successful insurer integration.

- NHIS provided health insurance policy consulting for countries such as Vietnam, Oman, Ghana, Peru and Colombia and completed the knowledge sharing project.

- Moving a way forward, by working with other countries in pilot projects, capacity building projects, ICT projects, etc. NHIS plans to share best practices.

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NHIS Dept. of Global Cooperation
E-mail: intl@nhis.or.kr

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