
Smart Healthcare

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01.

Introduction

Background and Study Purpose

- **Developing countries** with lower health status and resources **may benefit from smart healthcare** to improve their health care systems.
- The purpose of this presentation is to examine the current status and infrastructure of smart healthcare of the countries, and to establish detailed measures **to share knowledge and experiences of smart healthcare** of Korea and other economically developed countries.

The presentation consists of **the following contents**:

- i) definition and scope of smart healthcare;
- ii) identification and diagnosis of development constraint factors in developing countries, and key examples;
- iii) a few exemplary projects in low and middle income countries;
- iv) suggestions and implications for knowledge sharing/development cooperation based on development experience in Korea.

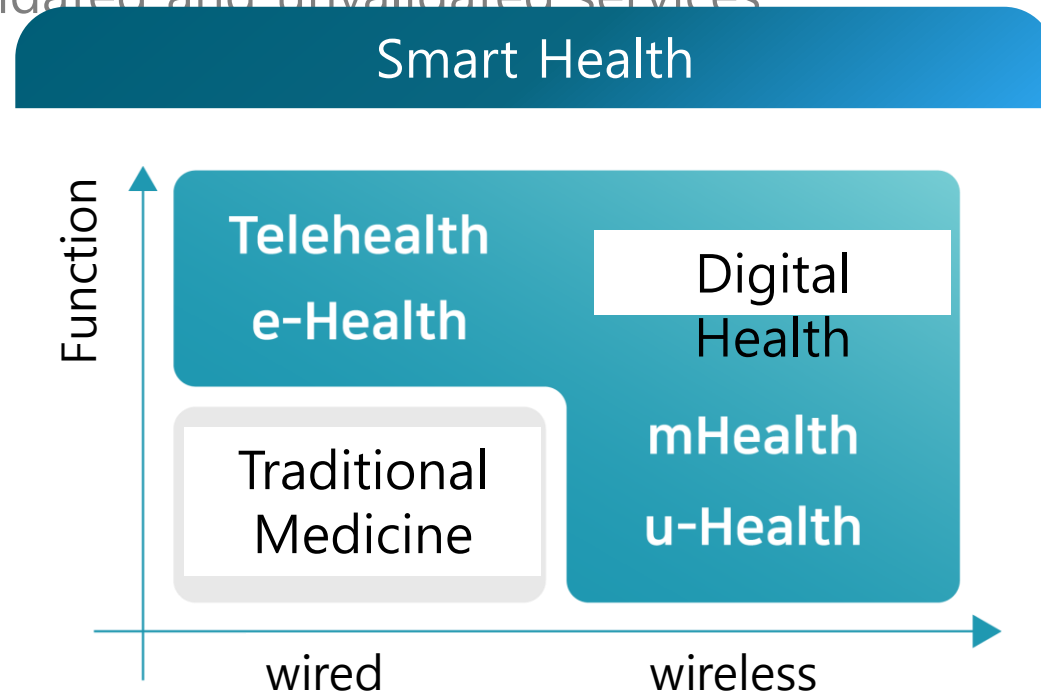


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Smart Healthcare

Definition of Smart Healthcare

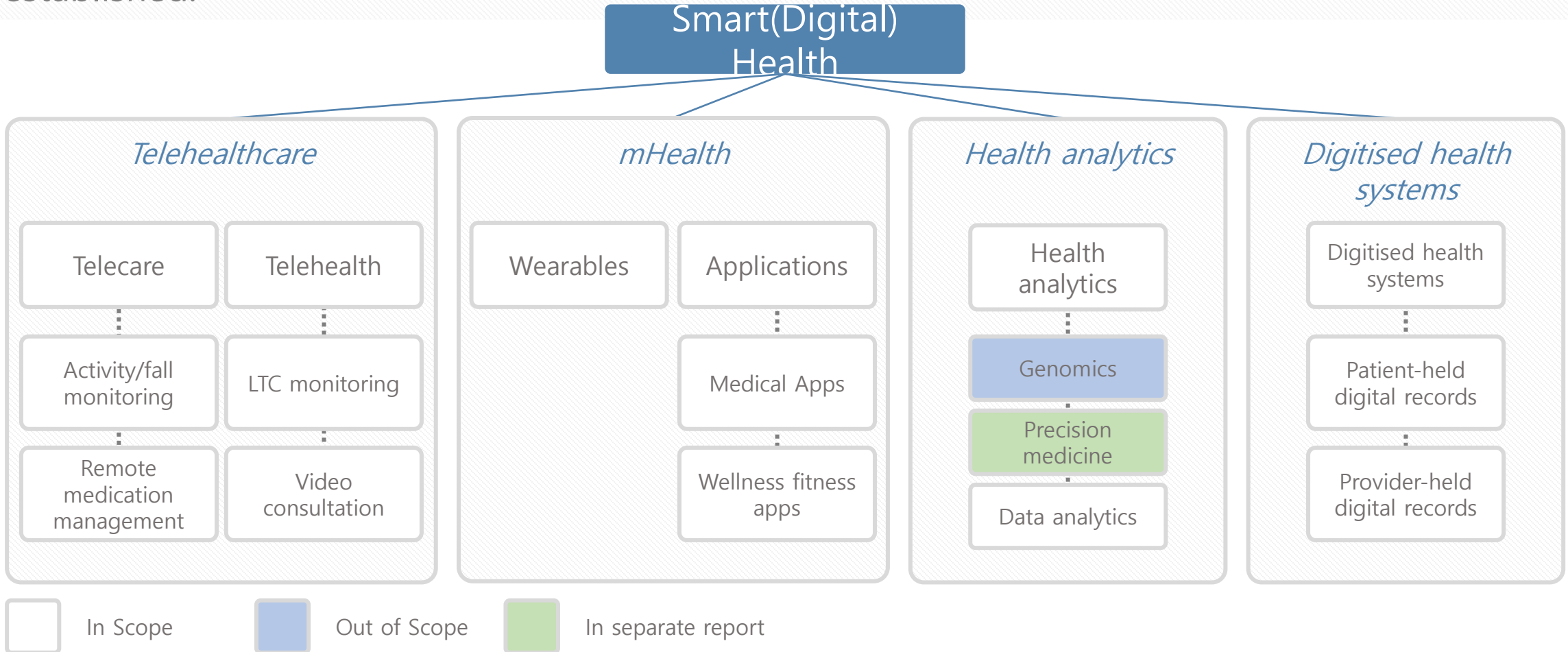
- A broad concept that converges information and communication technology (ICT) and healthcare
 - ▲ Personalization of healthcare services
 - ▲ Reduction of inefficiency
 - ▲ Improving patient access
 - ▲ Reducing costs
 - ▲ Pursuing quality improvement
- Includes both clinically validated and unvalidated services



Source: Korea Creative Economy Research Network (KCERN)

Scope of Smart Healthcare

- Smart health is in the stage of forming a consensus among experts in related fields on terms and categories as the definition and detailed types are not clearly established.



* Source : Standing M, Hampson E. Digital health in the UK: an industry study for the office of life sciences. Monitor Deloitte. 2015. Figure 2.

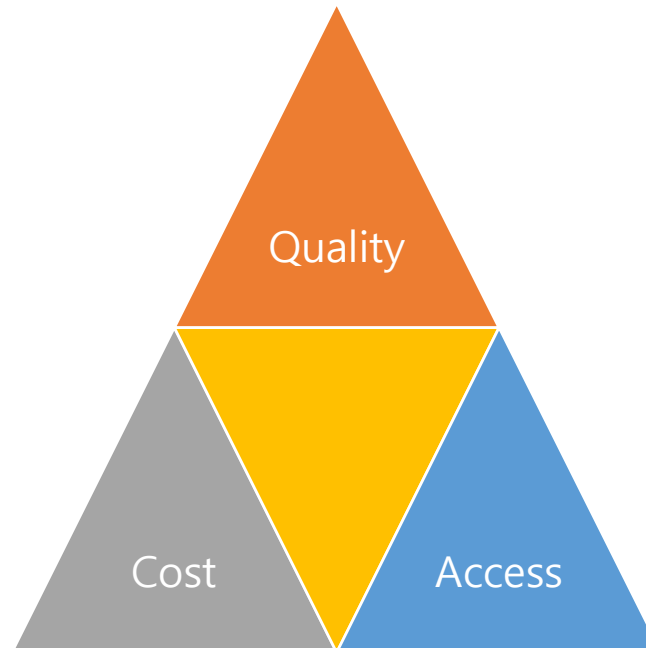
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Major Issues of Healthcare in Developing Countries

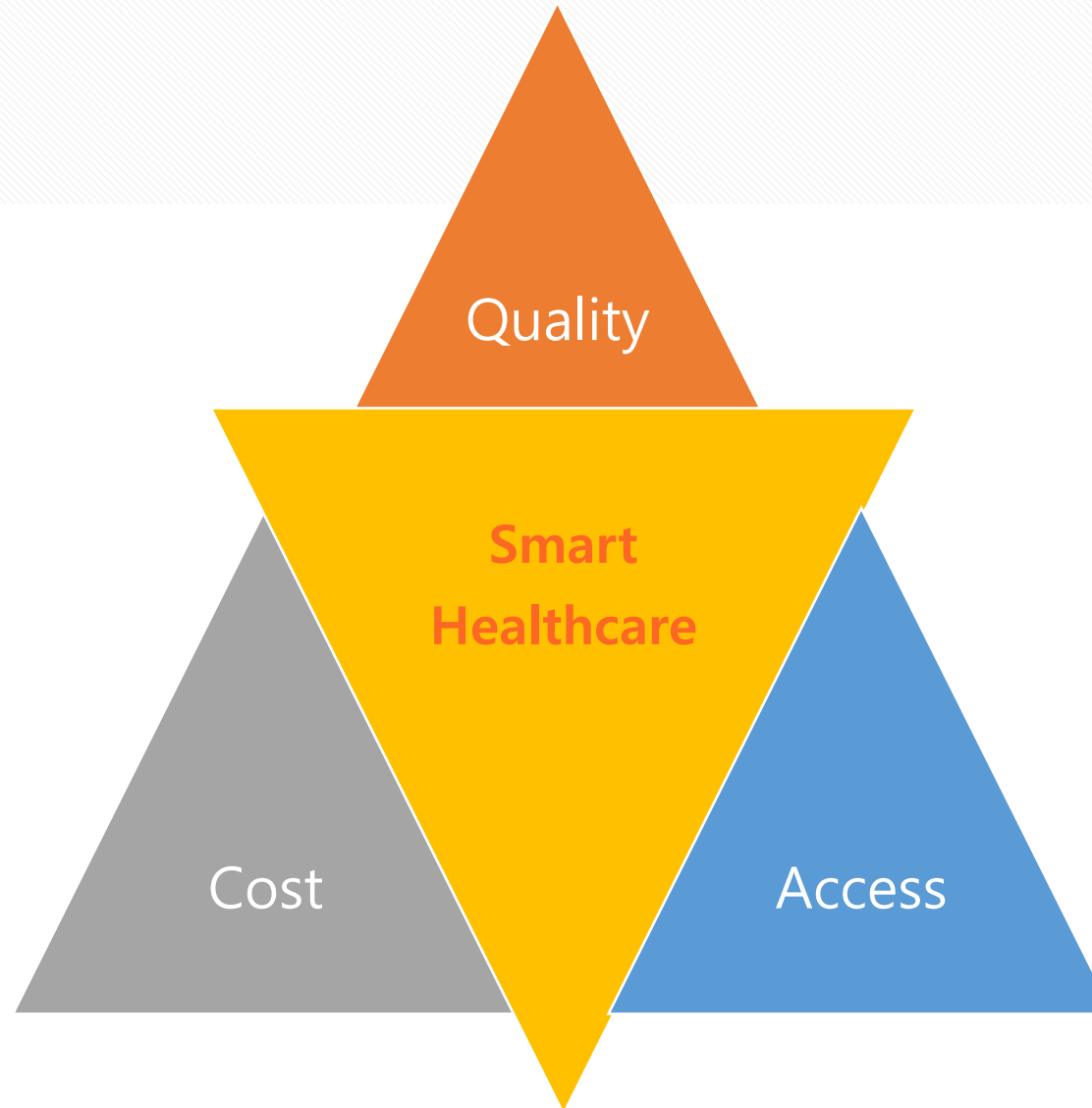
Key Issues of Healthcare in Developing Countries

- The current status and problems of health care of low and middle income countries were identified through the **Global Health Security Index (GHSI)** analysis.
 - Those countries were vulnerable in **prevention and health systems**.
- They also typically have various issues in **the Iron Triangle in Healthcare**.



Breaking the Iron Cage?

- Real Transformation
- Artificial Intelligence (AI)
- Virtual Interaction
- Big Data





04.

Cases of Knowledge Sharing/Development Cooperation of International Organizations and Major Donors

International Organizations

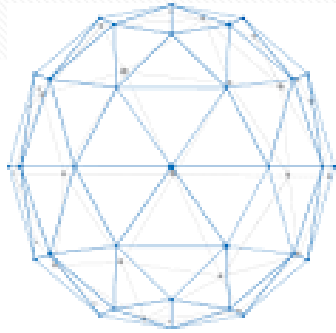
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Examples of Development Cooperation

Organization	Contents	Countries
UN	<ul style="list-style-type: none">• Smart Quarantine Robot• Medical Staff Digital E-learning Platform• Telemedicine E-clinic Network	<ul style="list-style-type: none">• Rwanda, Kenya• Azerbaijan• Pakistan
UNICEF	<ul style="list-style-type: none">• Maternal And Child Health Point-of-care Examination	<ul style="list-style-type: none">• Sub-Saharan Africa
WHO	<ul style="list-style-type: none">• Remote Counseling Center	<ul style="list-style-type: none">• Nepal
World Vision	<ul style="list-style-type: none">• Mobile Management Project For Malaria Control• Obstetric Management And Mobile Health Checkup Kit	<ul style="list-style-type: none">• Angola• Ethiopia

Implementing Partnerships

Smart Healthcare



GLOBAL DIGITAL HEALTH PARTNERSHIP

- 33 Nations & 3 International Organizations
 - Cyber Security
 - Interoperability
 - Evidence & Evaluation
 - Clinical & Consumer Engagement
 - Policy Environments

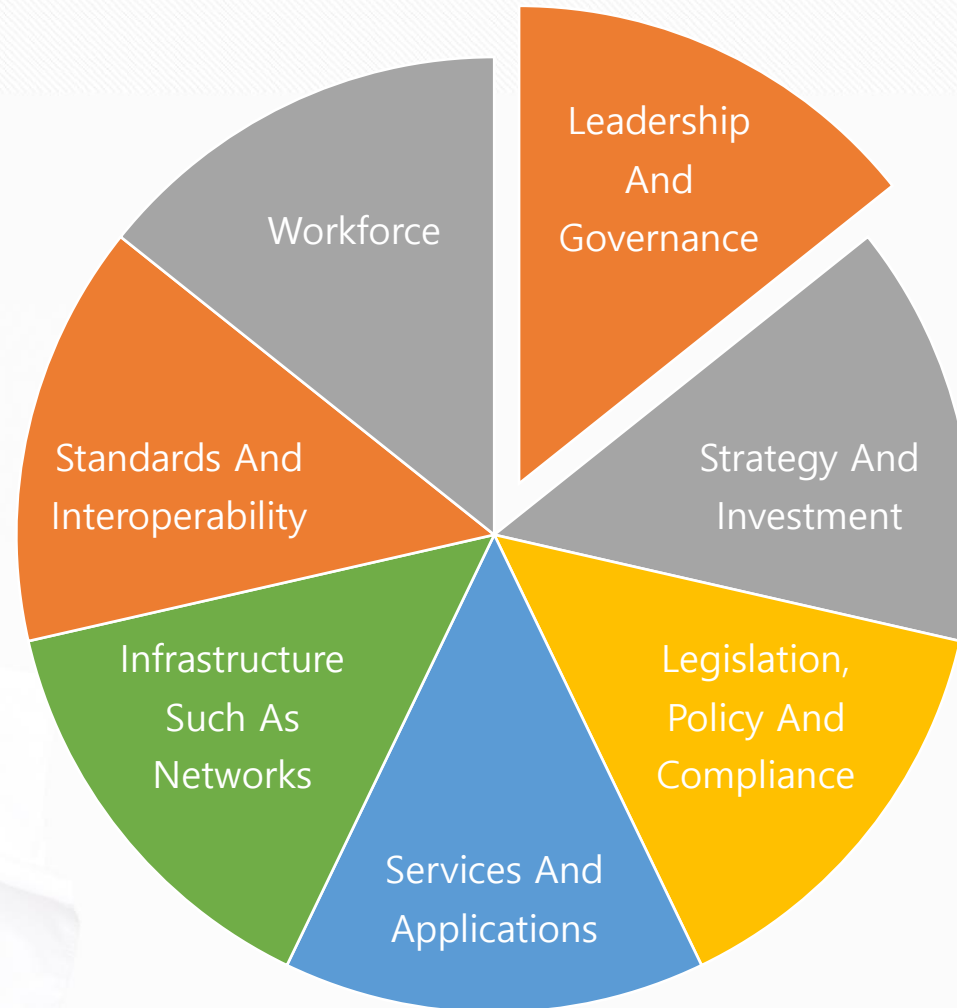
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Korea's Experiences



Facilitators for Smart Healthcare

7 Factors



Trend of Smart Healthcare Projects

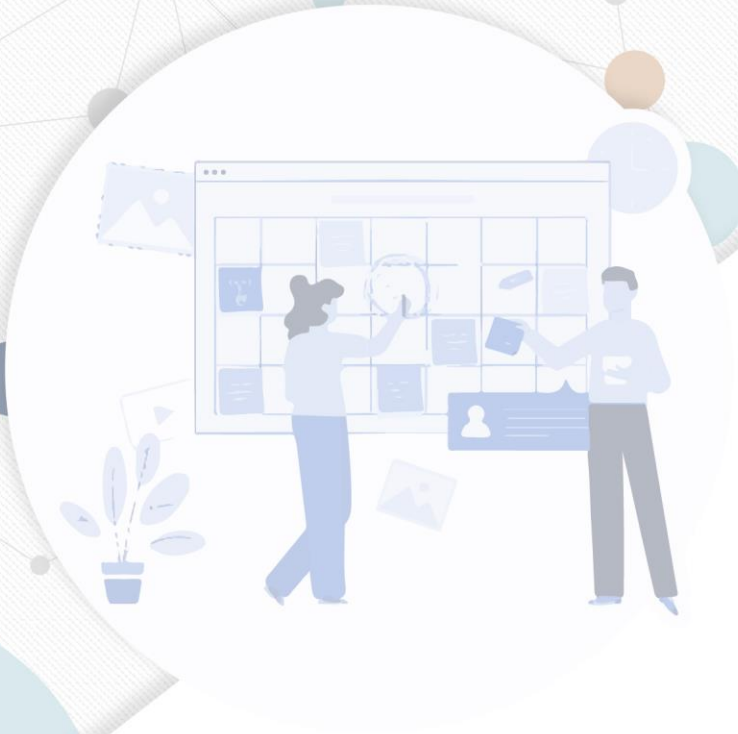
Domestic vs. International Projects

Smart Healthcare Services

	Contents	
Domestic Projects	<ul style="list-style-type: none">• Remote Health Care System Establishment In Island Areas• Mobile Health Care Business In Public Health Centers• Chronic Disease Management Pilot Project In Primary Care	
International Cooperation Projects	<ul style="list-style-type: none">• Soonchunhyang University Local Hospital Telemedicine System Establishment• KT Global Infectious Disease Spread Prevention Platform (GEPP) Launch• Jeyun Medical's Smart Medication Monitoring Service	<ul style="list-style-type: none">• Cambodia• Morocco

06.

Conclusions



Implications and **Suggestions**

In order to introduce smart healthcare to developing countries, it is necessary to prepare a cooperative plan that meets the constraints such as each country's infrastructure, manpower, and government regulations.

01

Patient-physician telemedicine service

- Enables non-face-to-face medical consultation and treatment.
- In addition to special infectious diseases such as COVID-19, counseling, treatment, and prescription for major diseases with high incidence by country can be considered.
- Depending on the smartphone penetration rate in each region, remote treatment with partner hospitals and treatment at the village level are possible.

02

Medical service and big data management through mobile app

- Regularly managing major diseases by country (prematurity, HIV, malaria, tuberculosis, etc.) using the mobile app.
- Using big data to create a model for predicting the occurrence and prognosis of future diseases.

03

Patient and medical staff education

- Need for IT technology education for the active introduction of smart health care.
- In addition to building infrastructure and equipment, patients and medical staff need training on how to use the software, and the training itself can be provided online.

Thank you!

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