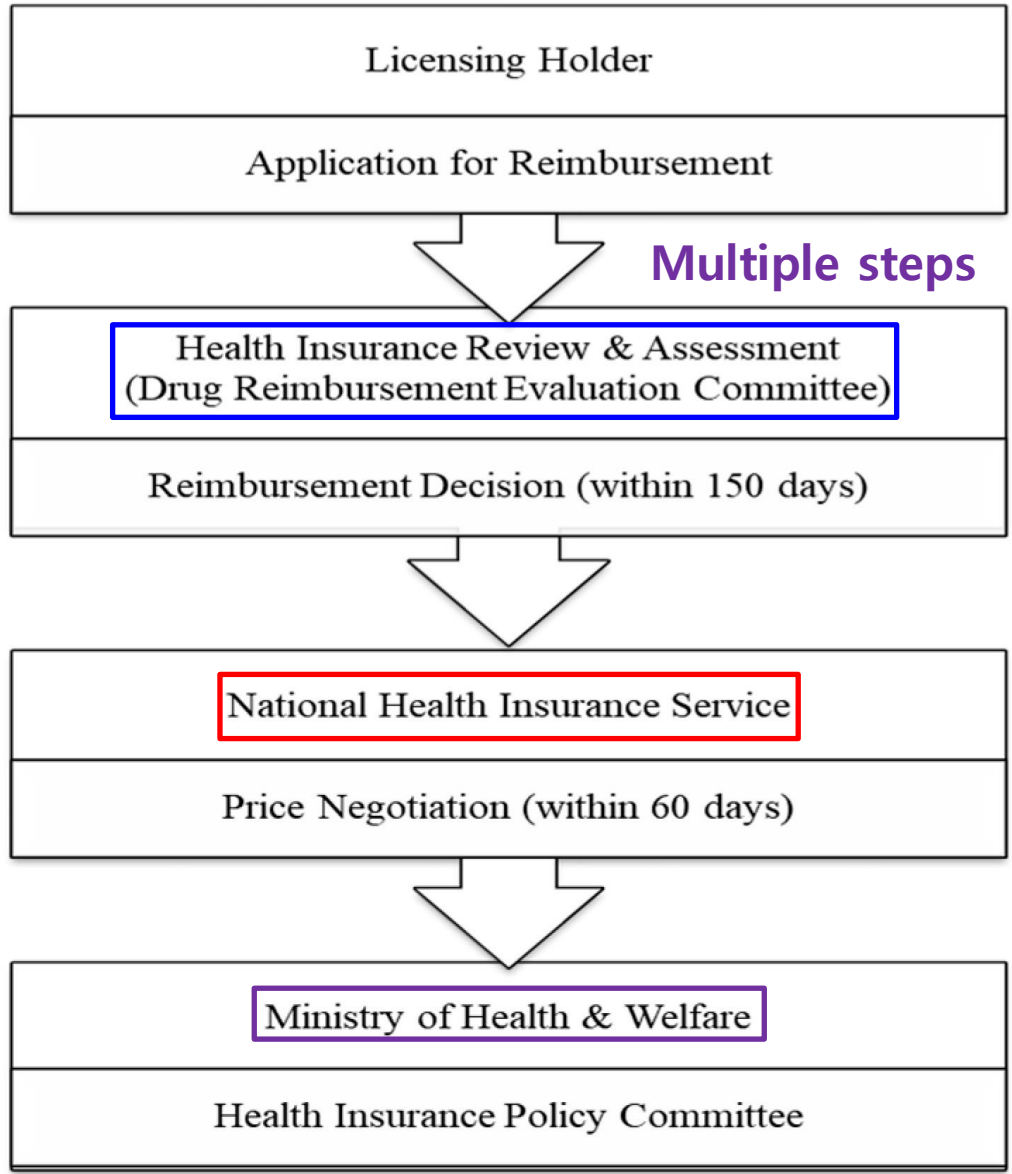


New Drug Expenditure by Therapeutic Area in South Korea

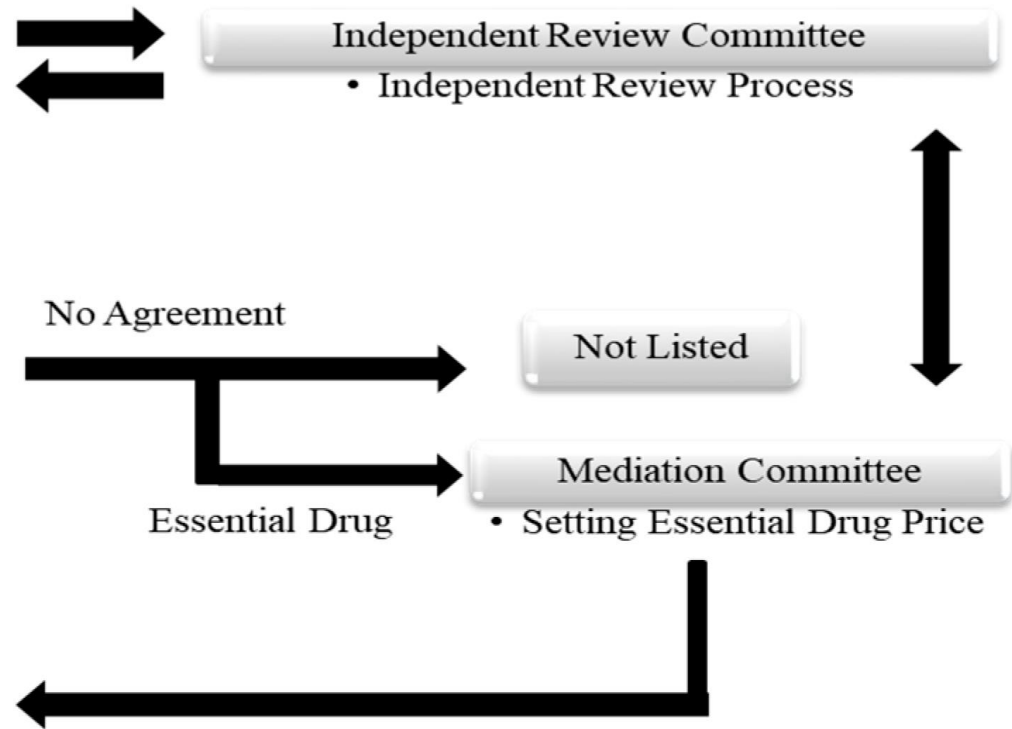
International Comparison and Policy Implications

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College of Pharmacy, Dongduk Women's University**

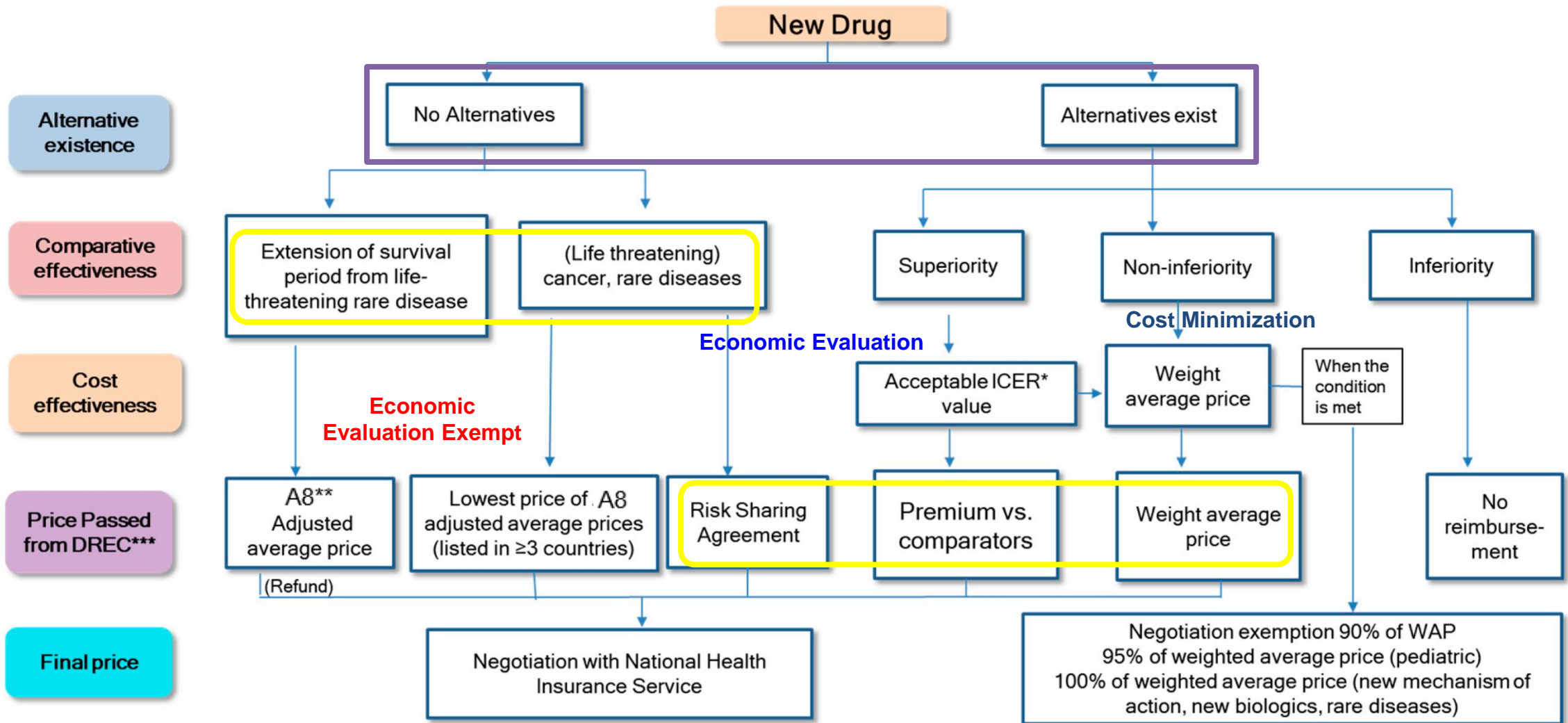
Listing Procedure for New Drugs in NHI



- ❖ Drug Expenditure Rationalization Plan (2007)
- HIRA: Clinical & Economic assessment (Value evaluation)
- NHIS: Price negotiation & agreement (NHI listing contract)



Evaluation Process for New Drug



* Incremental Cost Effectiveness Ratio

** USA, Japan, UK, Germany, France, Swiss, Italy, Canada

*** Drug Reimbursement Evaluation Committee of HIRA

Research Background and Objectives



❖ Current Challenges

- ✓ **Since 2007**, Korea has managed **total drug spending at 24% of total medical costs**.
- ✓ But there is **no clear strategy** for **allocating new drug spending** within this budget.



➤ Key Objectives

- ✓ **Compare New Drug Spending**: how **Korea's** new drug spending **compares to other countries**.
- ✓ **Analyze Therapeutic Focus**: how drug spending **aligns with disease burdens** worldwide.
- ✓ **Evaluate Policy Impact**: how **patient access policies affect** new drug **availability**.

- Focus on **New Chemical Entities (NCEs)** impacting patient access and costs.
- Collect **New Drug Listings worldwide since 2007** (Korea's positive list system launch year)
- Analyze **spending (2017–2022) using ATC Level 1**, and compare NCE distribution at ATC 2 & 3.

ATC (Anatomical Therapeutic Chemical Classification System)

Level	Classification	ATC Classification Example	
1 st	Anatomical main group	A	Alimentary tract and metabolism
2 nd	Therapeutic subgroup	A10	Drugs used in diabetes
3 rd	Pharmacological subgroup	A10B	Blood glucose lowering drugs, excl. insulins
4 th	Chemical subgroup	A10BA	Biguanides
5 th	Chemical substance	A10BA02	Metformin

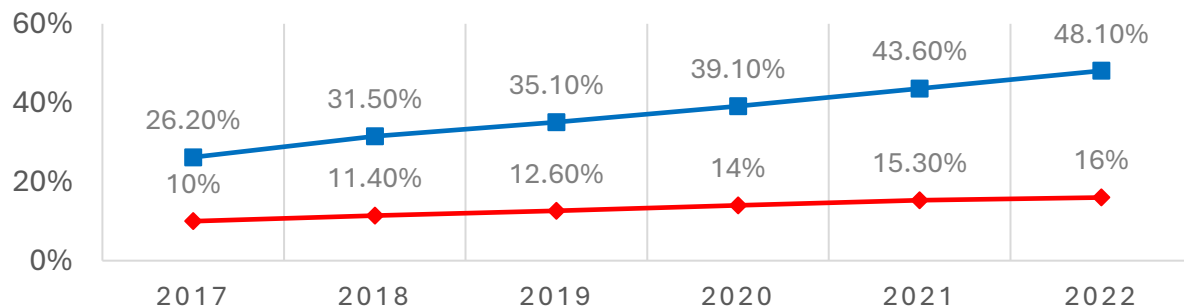
Research Overview

- **Comparison Countries:** Korea, A8* and OECD countries**
 * **A8 countries:** USA, Japan, UK, Germany, France, Swiss, Italy, Canada
 ** **OECD:** A total of **26 countries** with comparable drug cost data.
- **Analysis Period:** 2017-2022 (the total of recent 6 years)
- **Targets:** New drugs(NCE)*** listed between 2007 2022
 *** NCE refers to New Chemical Entities based on active ingredients
 ✧ *Main Source of Analysis Data*
 : National Health Insurance Medical Expenses/Drug Expenditures (e.g., Reimbursed Drug Claims Data)
 : IQVIA MIDAS® Quarterly Sales Value data, 2017-2022,
 : WHO ATC Index (e.g., Reimbursed Drug ATC Matching File)

International Comparison of New Drug Expenditure Share

Trends in the proportion of new drug expenditure in Korea and A8

* Share of new drug expenditure in total drug spending — Korea — A8 Average



[Korea] Number of listed new drugs from 2007 (after the introduction of Drug Expenditure Rationalization Plan) to 2022: **276**

[OECD] Number of new drugs approved by FDA, EMA, PMDA and introduced in OECD countries between 2007 and 2022: **639**

❖ **New Drug Expenditure Proportion (from 2017 to 2022, average)**

: (A8 Countries Average) 38.0% ↔ (Korea) 13.5%

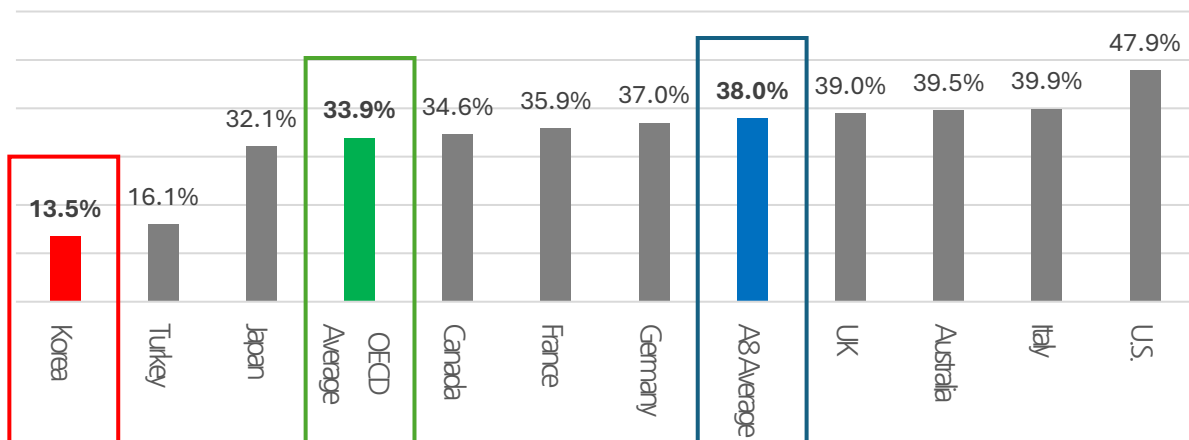
※ Compound Annual Growth Rate(CAGR) of new drug expenditure share : A8 Countries Average 13.0% ↔ Korea 9.8%

❖ **The Most Recent Year(2022) New Drug Expenditure Proportion**

: (A8 Countries Average) 48.1% ↔ (Korea) 16.0%

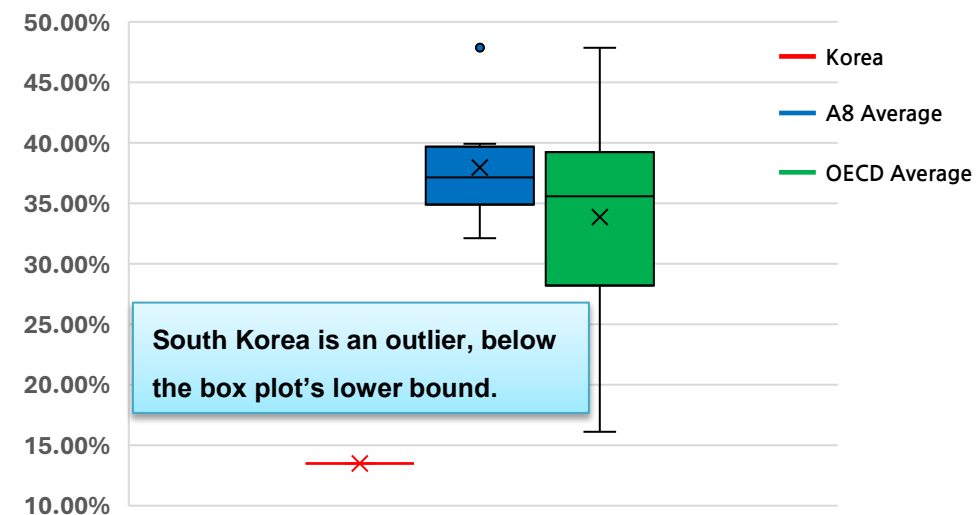
Proportion of new drug expenditure in Korea, A8, and OECD

* share of new drug expenditure in total drug spending



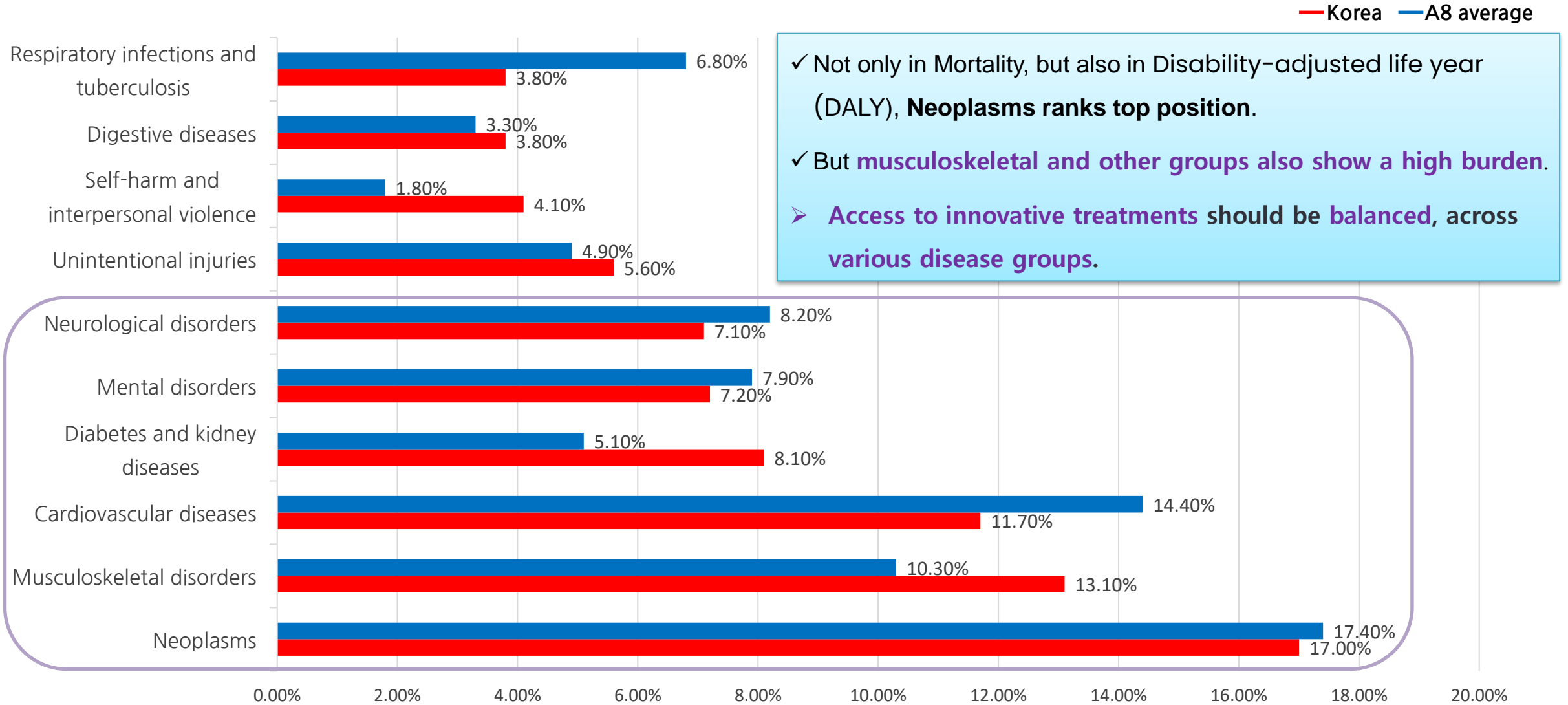
※ Cumulative from 2017-2022

Box plot of new drug expenditure share in Korea, A8, and OECD



※ Cumulative from 2017-2022

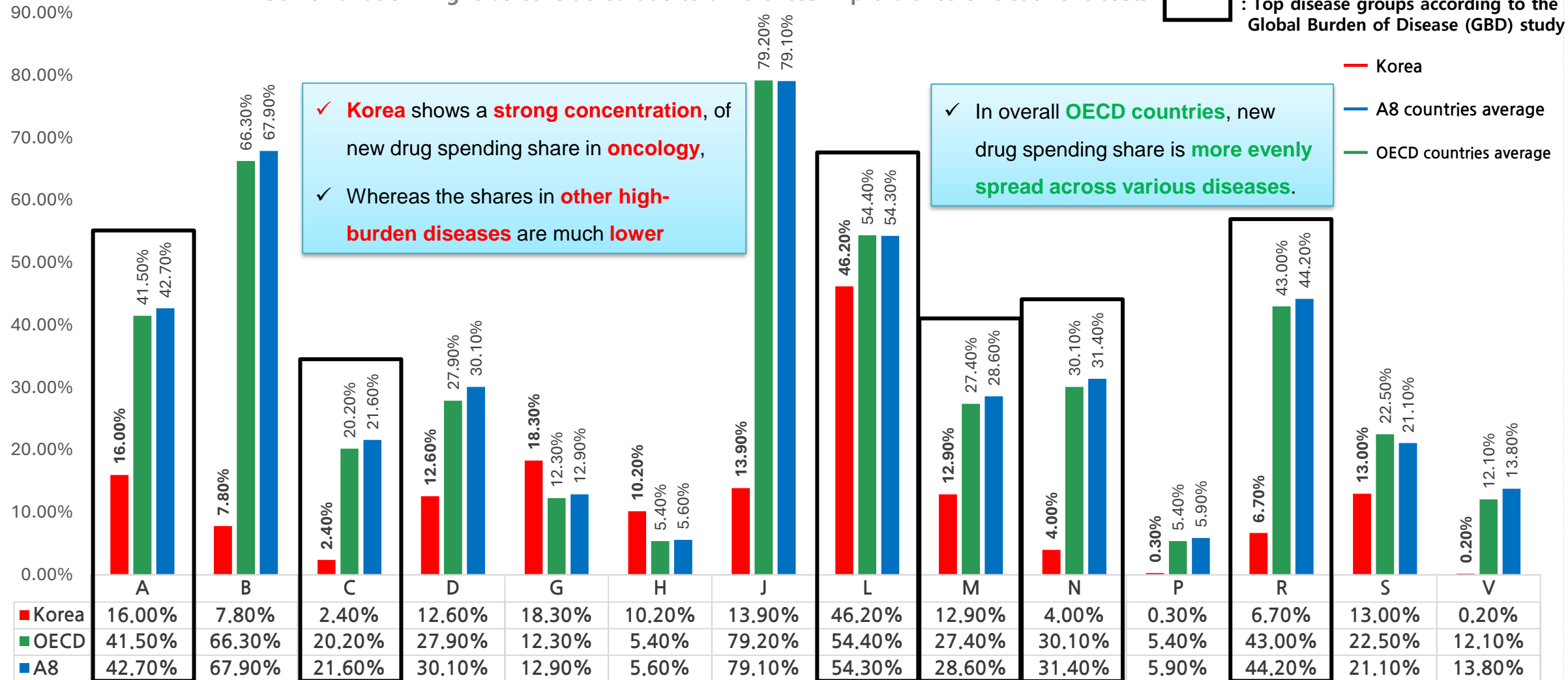
Global Burden of Disease (GBD) Indicators: Disability-Adjusted Life Year (DALY)



New Drug Expenditure Proportion by Therapeutic Area

* Some variation might be considered due to differences in prevalence or treatment costs

☐ : Top disease groups according to the Global Burden of Disease (GBD) study



Conclusions and Recommendations



❖ Key Findings

- ✓ **Korea's drug expenditure policies support budget sustainability but also limit access to new drugs.**
- ✓ **The share of new drug spending (13.5%) remains much lower than A8 (38.0%) and OECD (33.9%) averages.**
- ✓ There are clear **spending gaps by disease area**, along with **limited application** of special tracks (e.g. RSA).

❖ Policy Directions

- ✓ **Strengthening coverage for severe diseases and high-cost treatment** to reduce the disease burden.
- ✓ **Expanding strategic tools such as RSA & PE Exempt for various diseases** to enhance health equity.
- ✓ **Prioritizing budget allocation for innovative new drugs** that meet Universal Health Coverage goals.

These can be achieved through continued collaboration among stakeholders

Thank you

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