

# USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTaPS) PROGRAM

*Improved Access. Improved Services. Better Health Outcomes.*

Approaches and Tools for Strengthening Pharmaceutical Systems

Faculty of Pharmacy, Mahidol University  
Thailand



**Asst. Prof. Sitaporn Youngkong, PhD**

Lecturer

Social and Administrative Pharmacy Division, Department of Pharmacy

Program director of the Social, Economics, and Administrative Pharmacy, and

Administrative committee of the Mahidol University – Health Technology Assessment Programs



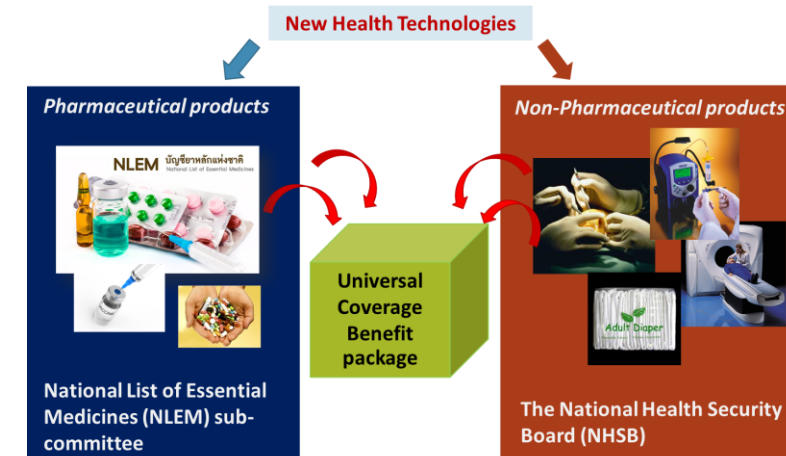
# Who We Are- Overview of Faculty of Pharmacy, Mahidol University

- The Faculty of Pharmacy, Mahidol University (MUPY) was established in 1968. With over 50-year of operations, MUPY has been playing instrumental roles in advancing the healthcare system and related business of Thailand both in the public and private sectors.
- MUPY staff from social and administrative pharmacy division have been working as the core team for the Mahidol University – Health Technology Assessment (MU-HTA) Programs since 2016.
- The mission of MU-HTA programs is to build up social and intellectual capital on HTA for Low- and Middle-Income countries to support priority setting in achieving Universal Health Coverage (UHC).



# What We Do - In Pharmaceutical Systems Strengthening (PSS)

- Involved as the key developers for Health Technology Assessment (HTA) infrastructure in Thailand including: *the Thai HTA guidelines (methodology and process), Standard cost list, the societal willingness-to-pay in Thailand, the Thai version of EQ-5D-3L & EQ-5D-5L, Development process of the Thai universal coverage health benefit package (for non-pharmaceutical products), and Priority setting of vaccine introduction.*
- Generating HTA evidence under lots of research projects for supporting the national Universal Health Coverage decisions for health interventions (including pharmaceutical and non-pharmaceutical products).
- Analyzing the feasibility and the readiness of the Thai hospitals for introducing automated IV admixture solutions.
- Involving in the Vaccine Economics and in the One Health Economics international network.
- Providing (virtual & onsite) workshops on HTA for the National Health Insurance Agency of Nigeria & Ghana.



## Particular PSS Gaps We See

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- Horizon scanning and health technology re-assessment in the disruptive world to improve the accessibility to (necessary) medicines and healthcare services.
- Co-dependent health technologies or combination & multiple indication therapies bring challenges with value-based pricing and budget impact.
- Unknow current situation and unpredictable for the real situation constraints cause challenges of resource allocation and government's investment on automated system for pharmaceutical services.

# Tools and Approaches We Use

## Health Technology Assessment (HTA)

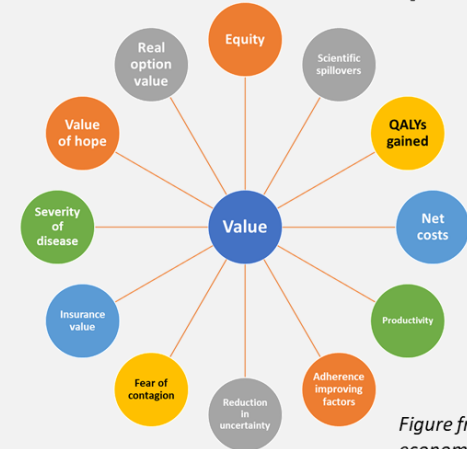
**Medical consequences** →

- Technical properties
- Safety
- Efficacy/Effectiveness (benefits)

**Economic consequences** →

- Value for money (cost-effectiveness)

### Social and ethical consequences



| Methods                           | Cost | Outcomes   | Results  |
|-----------------------------------|------|--|--|
| Cost-minimization analysis (CMA)  | \$   | -<br>(assume to be equal)  | Cost per case  |
| Cost-benefit analysis (CBA)       | \$   | \$   | <ul style="list-style-type: none"> <li>Net benefit</li> <li>Benefit-to-cost ratio</li> <li>Return on investment (ROI)</li> </ul> |
| Cost-effectiveness analysis (CEA) | \$   | <ul style="list-style-type: none"> <li>health outcome in natural unit</li> <li>Life year gained</li> </ul> | ICER (cost per LYG)  |
| Cost-utility analysis (CUA)       | \$   | Outcome in a common unit e.g. QALY   | ICER (cost per QALY)   |
| Cost-consequence analysis (CCA)   | \$   | Health outcomes  | <ul style="list-style-type: none"> <li>Cost per outcome</li> <li>ICER (cost per health gained)</li> </ul>                        |

- Budget impact

Figure from: Lakdawalla DN, et al. Defining elements of value in health care - A health economics approach: An ISPOR Special Task Force Report. Value Health 2018. 131-9.

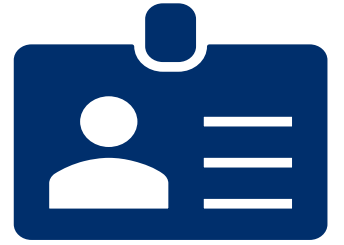
- Health Technology Assessment (HTA)  
This assessment is conducted by interdisciplinary groups using explicit analytical frameworks, drawing on clinical, epidemiological, health economic, social, ethical issues, and other information and methodologies.

- Equity involved in the assessment
- One Health Economics
- System thinking



# Resources

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- <https://hta-program.mahidol.ac.th/>
- <https://pharmacy.mahidol.ac.th/grad/seap/main.php>
- Contact email: [sitaporn.you@mahidol.edu](mailto:sitaporn.you@mahidol.edu)

THANK YOU!

