



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

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**Real World Evidence (RWE) Application
in Indonesia: Using Real World Registry
to Conduct Survival Analysis**

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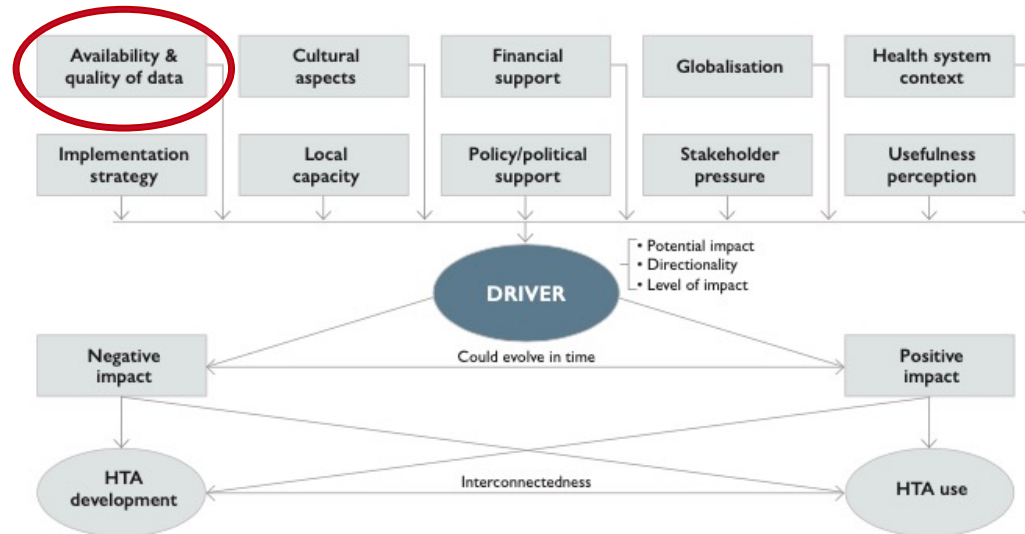
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Outline

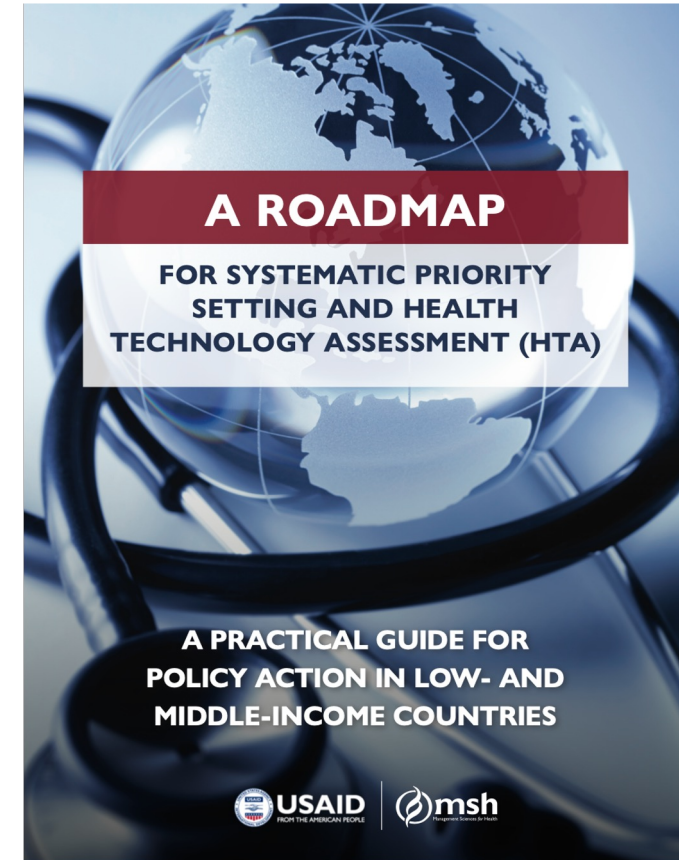
- Trastuzumab from Policy Perspective in Indonesia
- Indonesia's Drug National Adoption Process
- Using RWE in Assessing Trastuzumab's SA
- Challenges in Implementing RWE in LMICs

This work is partly made possible by the generous support of the American people through the US Agency for International Development (USAID) contract no. 7200AA18C00074. The contents are the responsibility of the authors (Management Sciences for Health) and do not necessarily reflect the views of the USAID or the United States Government.

There is significant interest in this topic. Availability and quality of (local) data is a key driver of HTA development



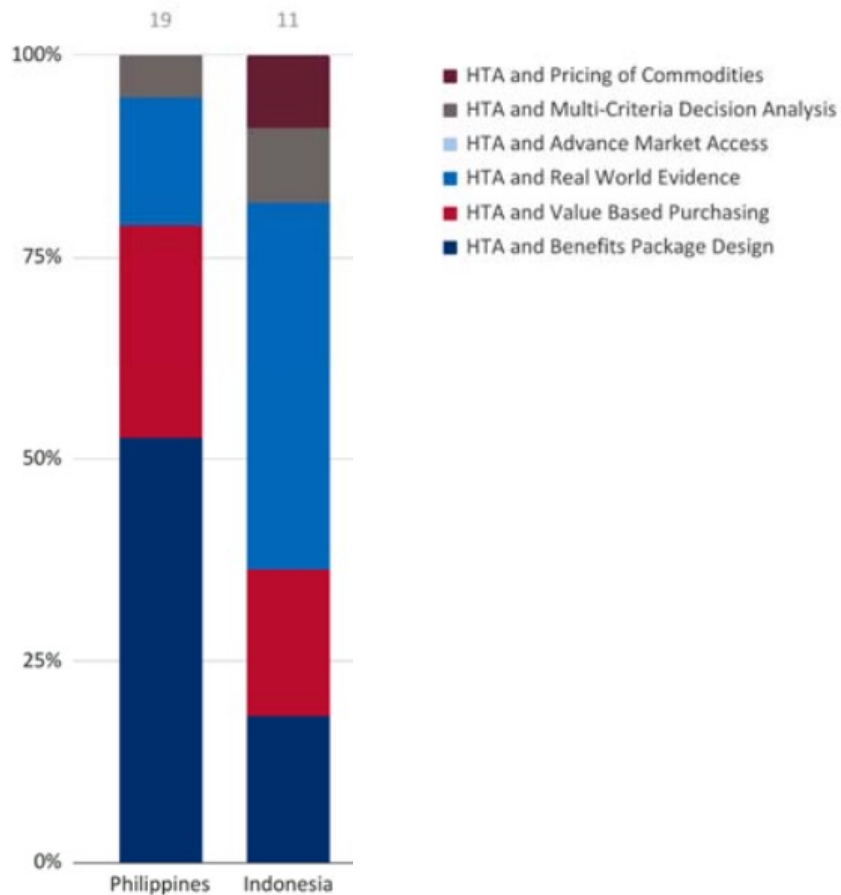
Chapter 1: potential drivers of HTA development and use, **such as availability and quality of data**, having/lacking an implementation strategy, cultural aspects, local capacity, financial support, policy/political support, globalization, stakeholder pressure, health system context, and usefulness



Download: <https://msh.org/hta-roadmap>

Source: (1) Castro HE, Kumar R, Suharlim C, et al. 2020. A Roadmap for Systematic Priority Setting and Health Technology Assessment, (2) Suharlim, C., et al (2022). Exploring facilitators and barriers to introducing health technology assessment: A systematic review. International Journal of Technology Assessment in Health Care

Demand survey at the MTaPS-led HTAsiaLink preconference highlighted that RWE/RWD is a key area of interest in Asia



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HEALTH TECHNOLOGY ASSESSMENT PATHWAYS *in* LMICS:
SCALING UP *for* SUSTAINABILITY *of* UHC IN ASIA

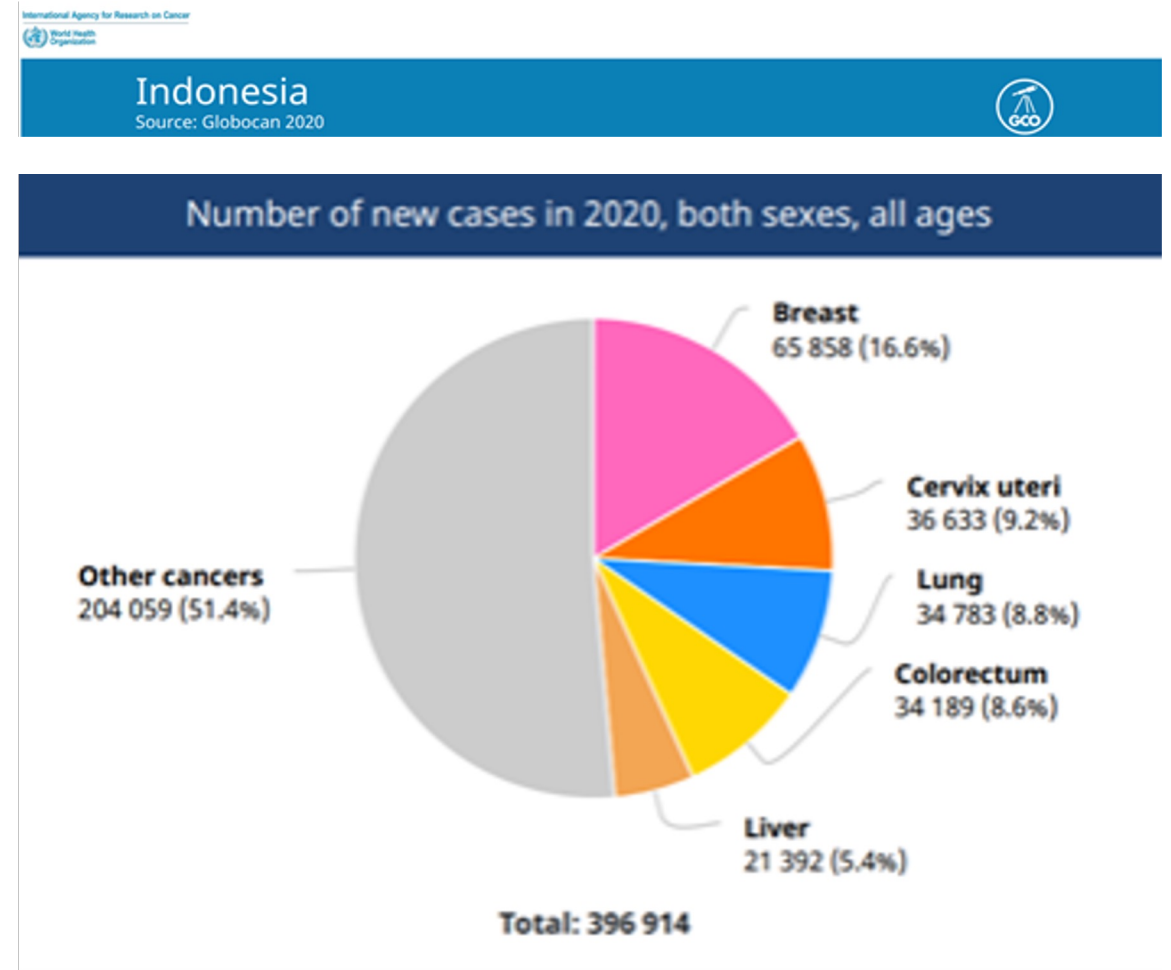


The workshop will be provided in English, with simultaneous interpretation in Bahasa Indonesia, Thai, Tagalog, and Vietnamese.

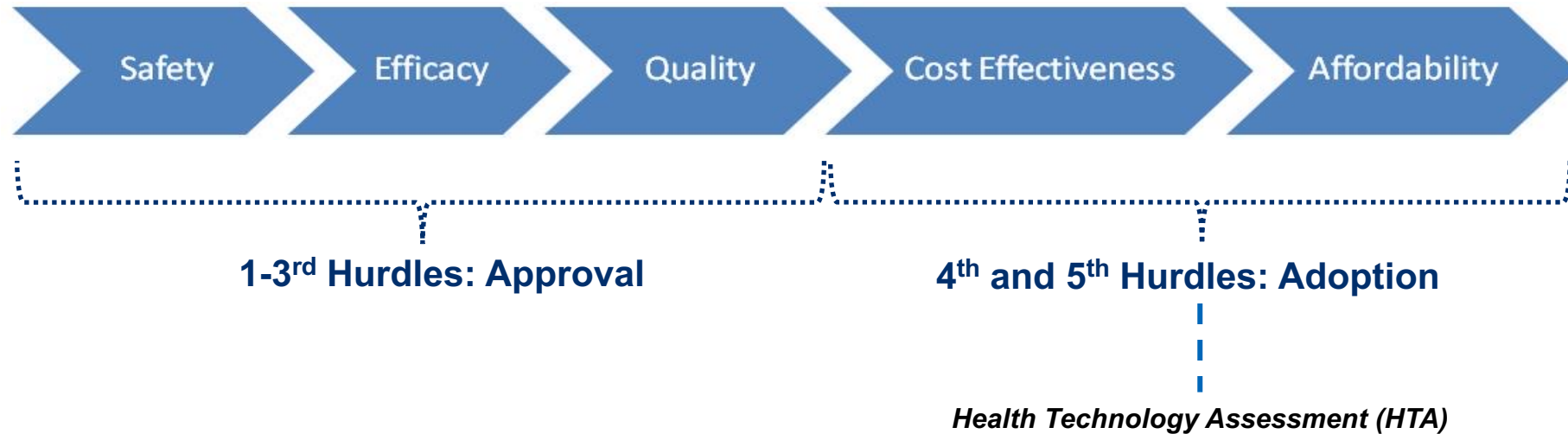
Source: Suharlim et al. 2022. USAID MTaPS: HTAsiaLink Pre-Conference Event Report: Health Technology Assessment Pathways in LMICS: Scaling up for Sustainability of UHC in Asia

Background

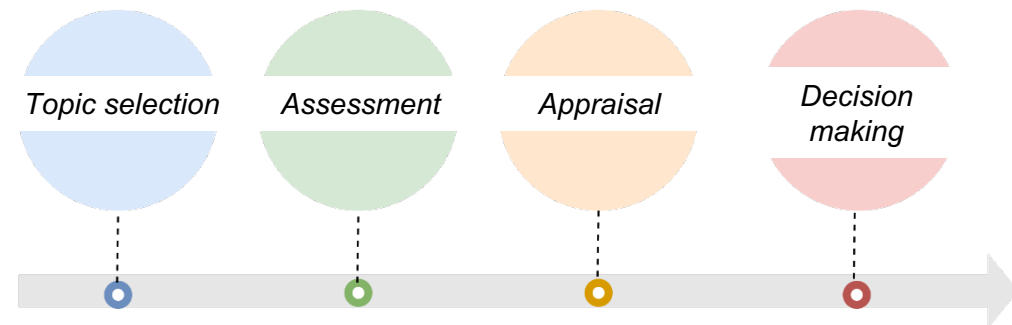
- Cancer is highly ranked as catastrophic disease
 - Ranked 2nd in Indonesia
 - Absorbs IDR 4.5bn (US\$ 305 mio.) in 2022 [Ministry of Health, 2023]
 - The spending is increasing per year: From 2021 to 2022, there is 29% increase of spending in cancer
- Breast cancer is one of the
- Globocan data shows breast cancer as one of the cancer with most incidence
 - Incidence reached 68.858 cases (16.6%) of 396.914 new cancer cases in 2020
- Trastuzumab is deemed effective in improving the survival of patients, and deemed cost effective in treating breast cancer, particularly HER-2 positive;



The journey to drug approval for reimbursement in Indonesia

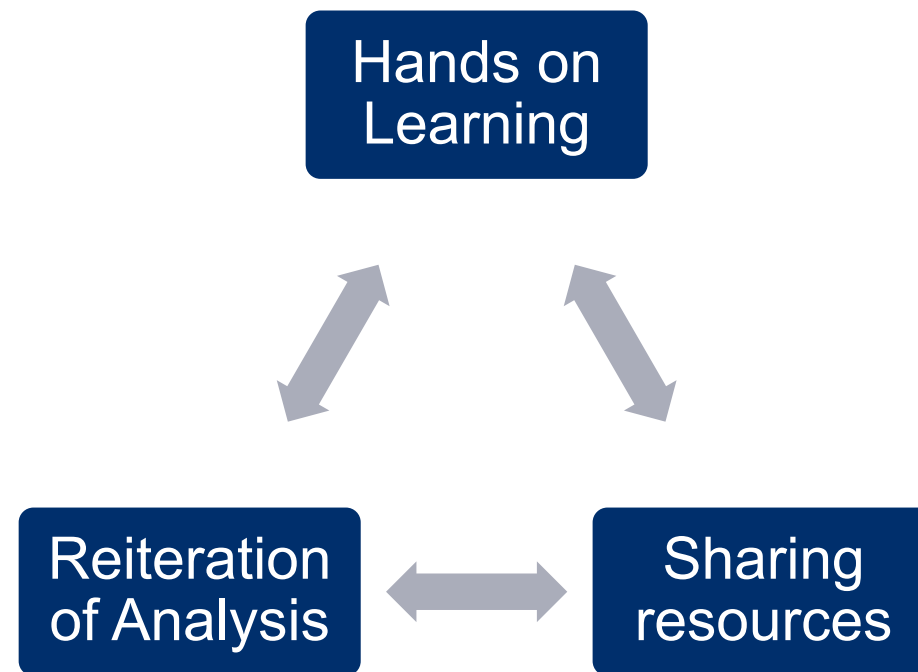


Before used as part of ongoing HTA study practice (i.e., supplementary evidence), RWE is typically used in setting value-based decision in planning stage (InaHTAc, 2021)



Capacity Building in Building RWE Ecosystem in LMICs

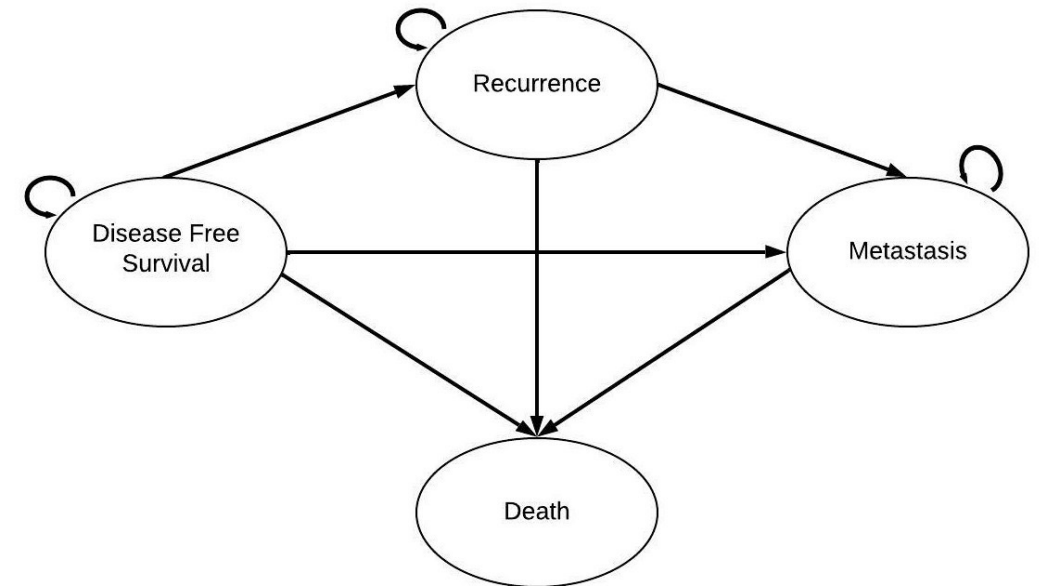
- The capacity building element in RWE is based on:
 - Hands on/experiential learning
 - Sharing resources
 - Reiteration of analysis
- Experiential learning: practice between research agencies with experts in RWE
- Sharing resources: registry data provided by the study sites proceeded with capacity building with stakeholders to generate evidence
- Reiteration of analysis
 - The data collection absorbs majority of the study
 - Each of addition of samples mean a lot – analyzed as the study progresses



Real World Evidence Application

Assessing Cost Effectiveness of Trastuzumab in Addition of Chemotherapy for EBC patients

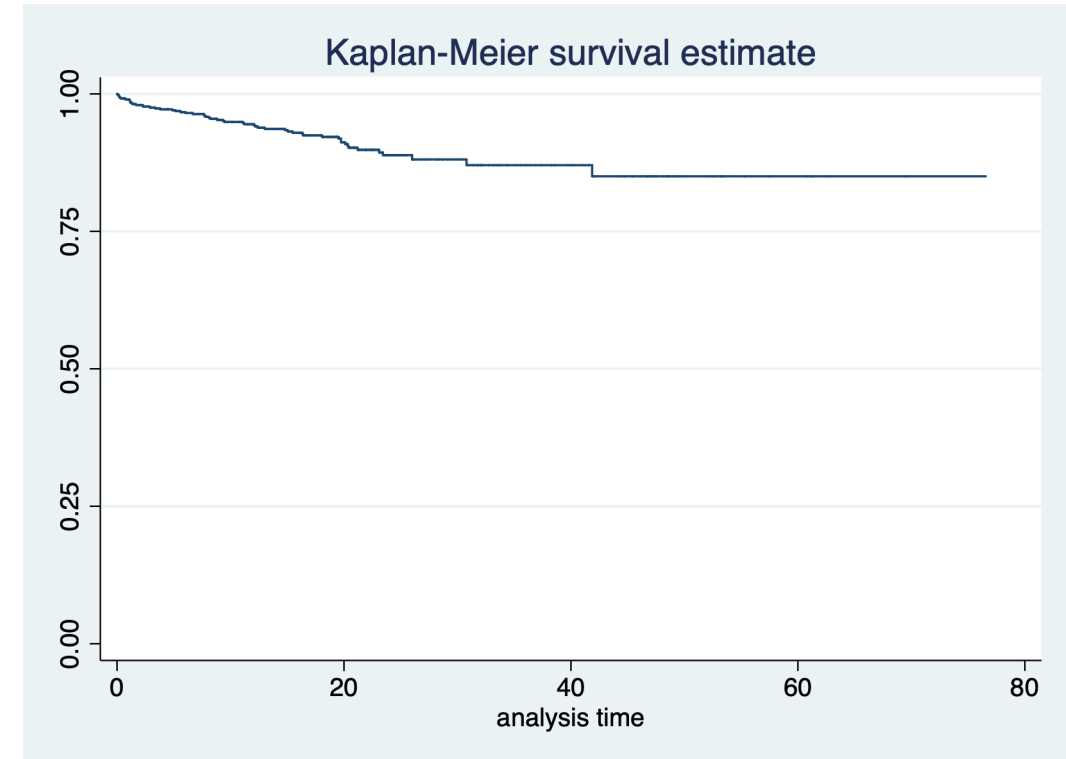
- To enhance the application of the model, we apply RWE as supplementary to the ongoing CE study
- Markov Model was built representing 4 states: DFS, recurrence, metastasis and death
- Real world registry data were achieved particularly from National Cancer Registry in 4 hospitals
- Transition parameters were derived from systematic review of published studies



Real World Evidence Application

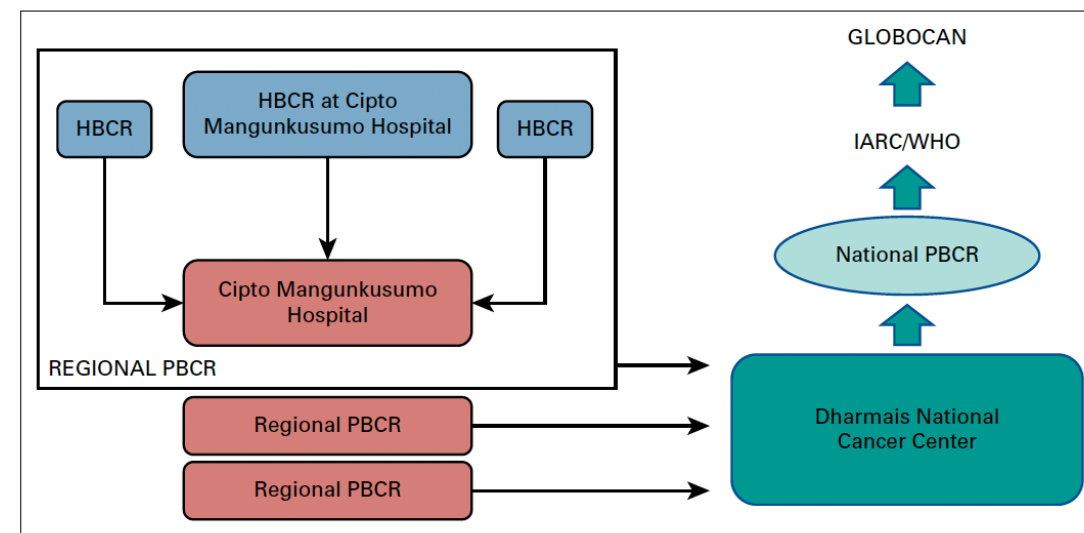
Example of Practice: Survival Analysis

- 1,007 patients were included the analysis
- Data patients receiving chemotherapy from 2016-2019 were inputed from (2/4 sites so far):
 - Sardjito Hospital Yogyakarta
 - Dharmais National Cancer Centers
- Estimated survival at two years: 86.11 (CI=83.21%, 88.54%)
- Subgroup analysis was performed
 - Substantial difference of SA due to metastasis, but little difference due to treatment;



Challenges with Implementing RWE in LMICs

- Multiple streams of data ownership
- Poor data quality
 - Limiting results
 - Prompts for alternative approach (i.e., calibration)
- High variability of capacity by do-ers



*Streams of national cancer registry data
HBCR = Hospital-Based Cancer Registry
PBCR = Population-Based Cancer Registry*

Source: Gondhowiardjo S., et al. 2021. Five-year cancer epidemiology at the national referral hospital: hospital-based cancer registry data in Indonesia. JCO Global Oncol 7: 190-203.

Recommendation and Conclusion

- Real world evidence in Indonesia is a newly emerging topic
 - Lots of opportunities to leverage policy adoption on reimbursement (i.e., supply of complementary evidence);
- Data integration and sustainable capacity building becomes key in enhancing productivity for evidence generation;
- National protocol on guiding RWE is warranted –
 - Research agents and/or institutions can accelerate its use to mass production of evidence to guide policy adoption for drug/technology reimbursement



Photo credit: MTaPS Jordan

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Thank you!
Terima kasih!

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