EDITORIAL

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Incremental Cost-effectiveness Thresholds for Policy Decision-makers

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The US national healthcare spending in 2021 recorded a year of moderate growth, with an increase of 4.2% totaling US$ 4.3 trillion, making healthcare spending 18.8% of the overall US economy.[1] In fact, the growth surge in US healthcare in 2020, during the COVID-19 pandemic, was even higher, at 9.7%.[1] The healthcare segments with the greatest growth in spending were hospital care, physician and clinical services, as well as prescription drugs. The total expenditure (22.6%) by the Ministry of Health in Oman rose to OMR 972.5 million (US$ 2.49 billion) in 2020 compared to OMR 793.3 million (US$ 2.03 billion) in 2019 with healthcare expenditure as a percentage of gross domestic product (GDP) at 4.07%.[2,3]

In 2021, the pharmaceutical expenditure in the US grew by 7.7% to a total of US$ 576.9 billion. This year, 2022, overall drug expenditure is expected to increase by 4–6%.[4] Drug expenditures and their continued growth are generating significant public health and political concern in the US and the world at large.

In the current economic climate of constrained healthcare budgets, not only in Oman but also in the Arabian Gulf region in general, pharmacoeconomic analyses are of paramount importance for decision-makers to make more efficient use of their limited resources.[5] When comparing interventions, an incremental cost-effectiveness ratio (ICER) is the difference between the costs of the two interventions divided by the differences in their health outcomes, expressed in monetary value per quality-adjusted life-year (QUALY). To aid decision-makers, an ICER threshold is sometimes used to determine which alternative option is cost-effective and included in hospital formularies.[6]

In the UK, the National Institute for Health and Clinical Excellence has been using a cost-effectiveness threshold range between £20 000 and £30 000 per QUALY.[7] In Australia, the Pharmaceutical Benefits Advisory Committee (PBAC) does not have a specific ICER threshold cut-off for funding new medications; however, costs of < AUD$ 50 000 per QUALY gained are more likely to be recommended for funding. The PBAC considers other factors such as clinical needs and equity issues when deciding an ICER threshold.

In recent years, the most common approach promoted by the World Health Organization (WHO) is the "Choosing Interventions that are Cost-Effective (CHOICE) Program" in which a threshold of one to three times a country's GDP per capita per disability-adjusted life years avoided, is accepted.[8] If the calculated ICER falls below a WHO benchmark threshold, then the intervention is said to be favorably cost-effective. Using the WHO-CHOICE threshold, Oman's GDP per capita for 2021 was US$ 16 439/year (OMR 6328). Therefore, a drug is considered as a highly cost-effective if it costs < OMR 6328/year, cost-effective if it costs < OMR 18 984/year, and not cost-effective if it costs > OMR 18 984/year.

The use of these ICER thresholds is not without controversy. ICER thresholds are important tools in guiding decision-making in healthcare, but they should always encompass social, ethical, and political debates about the goals of medicine in healthcare. Reliance on these thresholds may ignore the real-world needs of patients and providers and could ultimately prevent patient access to necessary treatments.

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REFERENCES

1. The Wall Street Journal. U.S. Healthcare spending growth slowed in 2021 after covid-19 surge. [cited 2022 September 6]. Available from: https://www.wsj.com/articles/u-s-healthcare-spending-slowed-in-2021-after-covid-19-surge-11648497601.
2. Times of Oman. Oman's health expenditure grows 22%, reaches OMR972mn. [cited 2022 September 6]. Available from: https://timesofoman.com/article/105565-omans-health-expenditure-grows-22-reaches-omr972mn.
3. The World Bank. Current health expenditure (% of GDP) – Oman. [cited 2022 September 9]. Available from: https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=OM.
4. Tichy EM, Hoffman JM, Suda KJ, Rim MH, Tadrous M, Cuellar S, et al. National trends in prescription drug expenditures and projections for 2022. Am J Health Syst Pharm 2022 Jul;79(14):1158-1172.
5. Drummond MF, Sculpher MJ, Claxton K, Stoddart GL, Torrance GW. Methods for the economic evaluation of health care programmes. Oxford University Press; 2015.
6. Wiseman V, Mitton C, Doyle-Waters MM, Drake T, Conteh L, Newall AT, et al. Using economic evidence to set healthcare priorities in low-income and lower-middle-income countries: a systematic review of methodological frameworks. Health Econ 2016 Feb;25(Suppl 1):140-161.
7. The National Institute for Health and Care Excellence. Carrying NICE over the threshold. [cited 2022 September 10]. Available from: https://www.nice.org.uk/news/blog/carrying-nice-over-the-threshold.
8. World Health Organization. Commission on macroeconomics and health macroeconomics and health: investing in health for economic development. Geneva, Switzerland; 2001.