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COVID-19 Health Expenditure Estimation Using Fundamental Principles of National Health Accounts (NHA) and Its Practical Challenges

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ABSTRACT:

Introduction: The outbreak of coronavirus disease (COVID-19) in 2020 was a public health emergency of international concern and had significant impact on health spending worldwide. Effective resource prioritization and allocation, require well documented information on financing resources, healthcare providers and healthcare services. The pandemic highlighted the usefulness of using the National Health Accounts (NHA), as the fundamental accounting principles assist in capturing of a comprehensive, internationally comparable health expenditure data. The objectives of this study were to analyze and report COVID-19 related health expenditure based on Malaysia National Health Accounts (MNHA) framework.

Methods: The approach consists of 3 broad stages, encompassing planning, data collection, data analysis and validation. Various data sources were identified. Steps were taken to ensure the total COVID-19 health expenditure took into account absolute amount which included not only cash but also in-kind expenditure related to donations. Data analysis included mapping of expenditure based on the 3 dimensions of MNHA framework and to the newly developed COVID-19 function codes. Verification and validation of the analyzed data was carried out at several levels prior to obtaining endorsement from the MNHA Steering Committee.

Results: For 2020 the COVID-19 health expenditure estimation was 3.2% of total expenditure in health of which, Ministry of Health Malaysia (MOH) was the main source of financing. Donations by various public and private agencies contributed to 19.6% of the total. The main provider of health care was for the provision of public health programs at RM 980 million or 45.4%, followed by hospitals at RM 509 million (23.6%). Spending on gross capital formation was the highest at RM 508 million or 23.5%.

Discussion: This was the first attempt of estimating COVID-19 health expenditure using MNHA framework. To be able to capture the flow of expenditure from Source to Provider to Functions, data was gathered from various sources. This was difficult as data for out-of-pocket and corporation depends on secondary data that is not produced annually. Further adding to this, was lack of specific tagging to mark COVID-19 health expenditure. These challenges and limitations led to an underestimation of the total health expenditure. However, analysis based on available data showed expenditure for gross capital formation which encompassed money spent on purchasing ventilators and medical equipment, increasing number of hospital capacity, development of mobile tracing applications and other IT infrastructure and software cost was the highest. This confirmed that the government paid serious attention to ensuring our health facilities were well equipped to treat those in need and invested in elevating existing preventive measures.

KEYWORDS: