Urgency of the Implementation of Health Technology Assessment to Support Indonesian National Health Security System

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Abstract. In 2004 Indonesian has promulgated Law No.40 Year 2004 regarding National Social Security System (SJSN), which followed by the establishment of Social Security Administration Body (BPJS), one among them was BPJS Kesehatan. Recently on 17 September 2018, the President Director of BPJS Kesehatan delivered his speech in the hearing with People Representative Council (DPR) that there was deficit in health security fund. There were several items of action was proposed, but none of them referred to Health Technology Assessment. Some scholar has introduced that in order to manage good funding in national heath security system is by way of reducing the cost (Economic), without reducing the clinical effectiveness of the intervention (Clinical) and at the same time increasing the capacity and capability of the patient to become “human being” again (Humanistic Outcome). This ECHO principles can be done through health technology assessment. The aim of this research is to discuss the urgency of the implementation of health technology assessment. This research was a descriptive analytical research. It conducted literature review to obtain the required data. Data obtained and used in this research were secondary data. Data obtained from literature review were analysed using qualitative approach. The finding and analysis in the research proved that there was an urgency to implement the health technology assessment in order to assist the implementation of National Health Security System (JKN). The results of this study shall trigerm other researchers, either locally or nation wide to start conducting health technology assessment evaluation.

1. Introduction
Healthcare expenditures were something that can be catastrophic for many individuals [1] [2]. In order to manage and keep people from catastrophic in healthcare expenditure, WHO introduced a Universal Health Coverage (UHC) scheme. Through UHC, people may have same access to health care services that they need without having difficulties in payment. UHC provided financial protection for citizen of a certain country from suffering from cost of health services that they will pay [3]. This was the reason of the existence of No.40 Year 2004 regarding National Social Security System (SJSN). To administer the National Social Security System, a Social Security Adminstration Body (BPJS) was established by Law No.24 Year 2011 regarding Social Security Adminstration Body (BPJS). The BPJS that is set up to take care for health security is BPJS Kesehatan.
On 17 September 2018, the President Director of BPJS Kesehatan just delivered his speech in the hearing with People Representative Council (DPR). According to him, there was deficit in health security fund. The deficit, based on the report, was mainly caused by the difference between collected premium and the total health expenditures. To cover the running deficit from year to year, there were several items of action had been proposed, but none of them referred to Health Technology Assessment [4].

This study aims to discuss on the importance to understand and the urgency to implement health technology assessment to reduce the total health expenditure by reducing cost of illness over the population. This will assist the achievement of universal health coverage and finally support the success of National Health Security System in Indonesia.

2. Method and Data

2.1. Data
Data used in this research is secondary data. Data are collected through literature review. Literature review was conducted by searching through “google schoolars” web using “health technology assessment”, “pharmacoeconomy”, “universal health covergare” and “catastropic health expenditure” as keywords.

2.2. Method
Data obtained through literature review were analysed using qualitative method to find out the relevance among catastrophic in health expenditure, universal health coverage, health technology assessment and pharmacoeconomic to reduce cost in health expenditure.

3. Results and Discussion

3.1. Understanding health technology assessment and pharmacoeconomy
Health technology assessment (HTA) is “a form of policy research that examines the short and long-term consequences of using a healthcare technology” [5]. Health technology assessment is also known as “a systematic evaluation of the properties and effects of a health technology, addressing the direct and intended effects of this technology, as well as its indirect and unintended consequences, and aimed mainly at informing decision making regarding health technologies” [6] [7]. Meanwhile health technology is defined as “an intervention that may be used to promote health, to prevent, diagnose or treat acute or chronic disease, or for rehabilitation” [6]. Health technology asessement was uned by government to formulate its national health policy. Health technology assessment that included pharmaceautical in their evaluations to set up relevant medicinal products pricing and its utilization policies is known as pharmacoeconomy [7].

Pharmacoeconomy conducted research to obtain economic, clinical and humanistic outcome [8] [9]. Pharmacoeconomy never intended to reduce the cost of medication only just to have the lowest cost. Pharmacoeconomy uses four kinds of economic analysis in order to have: the lowest price of medicine that provide at least the same clinical result (the cost minimization analysis); the best benefit a patient can get with the same or least cost (the cost benefit analysis) [10], the most effective medicine/ intervention patient can have with the most effective results (the cost effectiveness analysis) [11] [12], and the best quality of adjusted life yearly (QALY) that a patient can achieve after he/ she was treated (the cost utility analysis) [8] [9] [13] [14] [15] [16].

3.2. The implementation of health technology assessment and pharmacoeconomy in other countries
Health technology assessment has been widely used around the world from developed countries, developing countries and less-developed countries. Ghana [17] [18], Brazil [19] in africa, China [20], India [21] [22], Sudi Arabia [23], Malaysia [24] and other asian countries [25], Hungary [26], Cyprus [27], England [28] [29] including Ireland [30] have implemented health technology assessment or
pharmacoeconomy as part of their national health security policy. Some of them event had incorporated the health technology assessment in their regulations and/ or official guidelines. As can be read from the journals, reports and other references as quoted above, most of the countries acknowledged the benefit of doing and implementing health technology assessment and/ or pharmacoeconomy evaluation.

3.3. Current regulation and implementation of health technology assessment and pharmacoeconomy in Indonesia

Research found that the term health technology assessment was already introduced in President Regulation No.12 Year 2013 regarding Health Security (Pres Reg12/13). The President Regulation No.12 Year 2013 was then amended twice. The first amendment was made in year 2013 with President Regulation No.111 year 2013 regarding Amendment of President Regulation No.12 Year 2013 regarding Health Security (Pres Reg111/13). The second amendment was done in year 2106 with President Regulation No.19 Year 2016 regarding Second Amendment of President Regulation No.12 Year 2013 regarding Health Security (Pres Reg19/16). The Pres Reg12/13 as amended twice, latest by Pres Reg19/16 was then totally replaced in year 2018 by President Regulation No.82 Year 2018 regarding Health Security (Pres Reg82/18).

In article 26 paragraph (1) of Pres Reg12/13 it was clearly stated that the development of utilisation of technology for the benefit of social security must be adjusted with medical needs in accordance with the result obtained from health technology assessment. Prior to article 26 paragraph (1), article 25 point j also stated that the health care facility provided under SJSN does not include complementary, alternative and traditional health care service which had not been determined as effective based on health technology assessment. Since then in 2014, the Ministry of Health has established an health technology assessment committee. The establishment of the committee was then formalised by the issuance of Minister of Health Decree No.HK.02.02/Menkes/422/2016 [31].

The provision of article 26 paragraph (1) of Pres Reg12/13 was deleted in Pres Reg82/18. Based on article 49 of Pres Reg82/18, the Ministeof Health can determine other health care services that can be secured according to health technology assessment by calculating the sufficiency of the premium after coordinating with the Minister of Finance. Article 52 paragraph (1) of Pres Reg82/18 stipulated that complementary, alternative and traditional health care service which had not been determined as effective based on health technology assessment are not covered by SJSN.

The research also found that in 2013 the Ministry of Health has issued Guidance for the Implementation of Pharmacoeconomy [32]. Researcher did not find any published result in pharmacoeconomy evaluation that become the standard for nation wide medication. Until today the utilisation of medicine was based on (the cheapest) generic drugs that were incorporated in National Formularium. Researcher found many independent researchers in hospitals had been using health technology assessment to conduct research for their own consumption. The transparency and disclosure of the results of nation wide health technology assessment utilisations and/ or pharmacoeconomic evaluation may benefit the implementation of SJSN. BPJS Kesehatan will pay based on the most effective, most benefit and most utilised result of any medications or health interventions as may be required. There would be no reason for BPJS Kesehatan to reject or to refuse the payment of any coverage by SJSN as long as there were supported by health technology assessment utilisations and/ or pharmacoeconomic evaluation.

The cheapest medicine never guaranted that the cost of illness will be the cheapest. Cheapest medicine may resulted in the longer period of recovery from the illness, which means the longer the patient will be in the hospital, which will increase the hospitalisation cost. The repetition of the illness caused by cheap medicine, which resulted in in-complete recovery will also increase the cost of illness. Using cheapest medicines with multiple regime of medicines will increase the risk of the medication, which at the end could increase the cost of illness. Low absorption, distribution, metabolism and excretion of drugs because of different formulation of cheapest medicine will prolong the achievement of the required peak of effective dose, which finally will also increase the cost of
medicine and probable hospitalisation cost. The utilization of health technology assessment and pharmacoeconomy evaluation will reduce the unnecessary cost, such as mentioned before.

4. Conclusion
In conclusion the researcher urges the importance that health technology assessment or pharmacoeconomy be conducted, in order to achieve the best practice medicine that will provide economic, clinical and humanistic outcome. The result will not only reduce cost but also provide the best clinical outcome and at the same time making people more human.

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