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**Executive
Summary**

**Health Spending in Egypt between Efficiency and
Effectiveness**

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Introduction

Despite the reports indicating an increase in the volume of health spending in Egypt, this has not yet reached the level that improves the indicators of outputs of the health system, which increases the sick burden of the citizen, and raises the cost of treatment. A report by the World Health Organization indicates that Egyptian citizen pays 62% of the treatment cost.

With limited resources that may be available for health spending, it becomes necessary to ensure that those resources are efficiently spent and optimized. Hence, it is important to measure the efficiency of health public spending and highlight the requirements necessary to ensure that efficiency is achieved.

Based on the above, health spending is a governing issue in the health system, and its diagnosis needs monitoring, analysis, and discussion of the challenges that hinder the efficiency of its outputs. In addition, develop proposals that can improve the efficiency of spending aimed at preserving the limited financial resources allocated to the health sector and maximizing the return from them, represented in raising the level of health outcomes. This is reflected in raising the health level of society, while not losing sight of this coincides with the implementation of a new system of comprehensive social health insurance and the radical change in the health system, especially on its financial aspect, with regard to sources of financing and ensuring the financial sustainability of the system.

Ensuring efficient health spending depends not only on allocating more financial resources, but a set of factors and requirements must be in place to ensure maximum return from the allocation of those resources. On top of these requirements is improving levels of governance, transparency, and accountability. In addition, the social determinants of health (illiteracy - family size) and economic factors (income inequality - unemployment), in order to ensure the success of increasing health spending in raising public health levels of the population, which in turn contributes to raising economic growth rates. Hence, the importance of measuring the efficiency of health public spending and highlighting the requirements necessary to ensure that efficiency is achieved.

Objectives

In light of what has been exposed, the overall objective of the research is determined as **Studying the efficiency of public health spending in Egypt** achieving this goal requires achieving the following sub-goals:

- Clarify the relationship between increased and efficient health public spending on the one hand, and economic growth rates on the other.

- Clarify how to measure the efficiency of public spending, and try to reach the best indicators that can be relied upon to measure that efficiency.
- Clarify the most prominent factors that can affect the efficiency of health public spending.
- Briefly identify the current state of global health spending, its sources, and its nature among countries at different levels of development.
- The development of the value of health spending in Egypt during the period (2015/2016-2020/2021).
- Assess public health spending in terms of indicators of adequacy, efficiency and fairness, and justice.
- Evaluate the effectiveness of spending in the community (social) health insurance system by conducting an attitude analysis of the effectiveness of the performance of the previous health insurance system and analyzing the position of the expected effectiveness of the spending needed to perform; the current health insurance system.
- Identify lessons learned from the experiences of some countries in health care regarding the issue of spending on health services.

Methodology

Within the framework used to enhance the efficiency and effectiveness of health spending in Egypt, and the problems surrounding it, and for the purposes of the research, both descriptive and analytical methods have been relied upon. The research also relied on the stats of general data to track government spending on health in Egypt, as well as data issued by the Ministry of health regarding the number of hospitals, health units, doctors, and nursing.

Findings

Within the above mention framework about the efficiency and effectiveness of health spending in Egypt and the surrounding problems, the following results were monitored:

- Measuring and analyzing the efficiency of health public spending mainly seeks to determine, to what extent health sector inputs, such as spending and other resources, can be optimally exploited to achieve the desired goals of outputs such as expected age at birth, child mortality rates, and justice and equity in health coverage. The more indicators (composite indicators) the measurement is based on measuring the outputs or performance

of that sector, the more detailed and comprehensive there is that reflects various aspects of health systems.

Adding more funding to spend on the health sector does not necessarily guarantee increased efficiency. Increased spending must be accompanied by a set of measures that seek to ensure its efficiency, foremost of which is improved levels of governance, transparency, and accountability - especially with regard to financial management - which is one of the main requirements for ensuring the efficiency of healthy public spending.

- The decline in average per capita health spending in Egypt in 2019, will limit the ability to make tangible progress toward achieving the third of the UN Sustainable Development Goals.

- Direct payment of individuals (from pocket) is the main source of financing for health spending in Egypt, and its sources of funding are not highly dependent on government spending and social health insurance systems.

- According to WHO data, global real spending on health has doubled over the past two decades to about \$8.5 trillion in 2019, accounting for about 9.8% of global GDP. Governments finance about 60% of total health spending (direct transfers from the budget and subscriptions to mandatory health insurance systems), while 40% of total health spending was funded from local private sources and the percentage of foreign aid did not exceed 0.21% of total health spending in the world in 2019.

- There is a clear disparity between countries both in terms of the volume of health spending and its average per capita and in terms of sources of financing. Overall, high financial capacity has made the average per capita health spending in high-income countries higher than in middle- and low-income countries. The average per capita health spending in high-income countries was \$3,191 compared to \$39 in low-income countries and ranged from \$119-472 at the middle-income level.

- Locally, there is no local data on total health spending in Egypt from all sources, and according to data from the World Health Organization, the total current spending on health in Egypt from various sources has almost tripled. It increased from about 5 billion dollars in 2000 to reach 17 billion dollars in 2015 and then reached about 15 billion dollars in 2019. This doubled the average per capita current health spending from about \$74 in 2000 to \$183 in 2015 and \$150 in 2019.

- The average per capita health spending in Egypt (\$150) in 2019 fell below the global average of \$1105, among higher-middle-income countries (\$472) and higher-income countries (\$3,191), and the low average per capita health spending in Egypt limits the ability to make tangible progress towards achieving the third of the United Nations Sustainable Development Goals.

- Direct individual payments are the main source of financing for health spending in Egypt, and its percentage of total health spending increased from about 59% in 2015 to about 63% in 2019, compared to a percentage of government spending of 31% in 2015 and decreased to about 28% in 2019. Thus, the pattern of financing health spending in Egypt differs from that of high- and higher-middle-income countries whose sources of funding are highly dependent on government spending and social health insurance systems.
- Current public spending on health increased from 43.9 billion pounds in 2015/2016 to 87 billion pounds in 2019/2020 and is estimated to reach 93.5 according to the fiscal budget 2020/2021 and 108.7 billion in the draft budget for the year 21/2022, where confronting the coronavirus pandemic required strengthening health sector allocations during 2019/2020, which required an additional increase of about 14 billion pounds, which
- Expenditure on the health sector comes in the fifth item of public expenditures according to the job classification, where it is preceded in terms of its share of public expenditures by spending on public services, social protection, education, and economic affairs.
- With regard to the adequacy criterion, despite the increase in the total allocations of the health sector at current prices during the study period, its share is still modest in total public expenditures and GDP and did not exceed half of the percentages approved by the Egyptian Constitution issued in 2014. The share of health government spending decreases in total public expenditures and GDP in Egypt compared to the average per capita government health spending in Egypt is also lower than that of middle-income (higher) countries, which is estimated at \$605.3 and amounts to about \$2536 in high-income countries and is lower than in many comparative countries.

As for the adequacy indicators, it shows the relative distribution of health sector allocations on various spending items: First: The share of current spending is in the range of 87% of the total health public expenditure, while the share of investment spending did not exceed 13% of the total health public expenditure during the study period. The above confirms the modest share of the health sector in the total investments implemented at the level of various economic sectors; according to the data of the Ministry of Planning and Economic Development, the health sector accounts for an average of 2.5% of the total investments implemented during the study period.

It is also noted that the share of investments in the total allocations of the health sector has increased from 10% in 2015/2016 to 22% in the 2020/2021 budget and aims to rise to about 24% in the draft budget of 2021/2022, indicating the state's efforts in the field of infrastructure development for the health sector, from hospitals and service centers.

Second: Wages accounted for the largest share of total public spending on health (52% on average for the period from 15/2016-19/2020), but its share has decreased from about 61% on 15/2016 to only 44% during the 20/2021 budget and the draft budget of 21/2022 as a

result of the increase in allocations for the sector as a whole. It should be noted that although wages account for the largest share of the allocations in this sector, the wages of its employees are still modest, especially when compared to the average wages of workers in the private health sector and other economic activities.

Regarding the standard of justice, The available data reflect the allocations of the Ministry of Health to the health directorates in the governorates, including the varying shares of the health directorates from public spending without the existence of announced scientific foundations on the basis of which the share of each directorate is determined.

Some indicators that reflect the fairness of health services can be guided by the following set of indicators that indicate the distribution of health services to different governorates, stressing that they reflect the aspect of availability and do not necessarily reflect the quality of health service.

- According to WHO data, direct individual payments are the main source of funding for health spending in Egypt and its percentage of total health spending increased from about 59% in 2015 to about 63% in 2019, which represents a challenge to the delivery of health care services in a community of 29.7% of its population is poor.

The percentage of participants in compulsory health insurance in the private sector has also modesty, where employees inside establishments represent about 46% of the total employed and the percentage of participants in health insurance 26%, while the private sector outside the establishments accounts for 32% of the employees and the percentage of participants in health insurance did not exceed 2% as an average for the period (2015-2020).

- Spending on health services is related to the standard of living; the minimum group (lowest 10% spent) spends 8.3% of its income on health services with an average per capita share of 483.1 pounds compared to spending of the top group (the highest 10% spending) 12% of its income on health services with an average per capita share of 5016 pounds during 2019/2020.

- This means that the low standard of living is associated with reduced access to adequate health services and that health expenditures may lead to citizens entering poverty. Therefore, it is important that the state provides basic health care services to all citizens with appropriate quality and free of charge so that everyone, including the lower segments, can enter these services.

- According to WHO data, Egypt's average per capita primary health care spending was estimated at about \$58 in 2018, representing 46% of current health spending in Egypt. Only about 30% of it is funded by the government and the other two-thirds are privately funded. So the average per capita spending on primary health care is modest, below that of middle-

income (lower) countries, which is about \$61 while rising to about \$193 in middle-income countries (higher) and jumping to about \$1,333 in high-income countries.

The governorates of Cairo, Dakahlia, and Alexandria account for the largest share of government and private hospitals and the number is clearly lower in Upper Egypt governorates and the border governorates, and by calculating the number of beds per 1000 inhabitants is a better indicator to judge the availability of medical service due to the discrepancy between the capacity of each hospital, the indicator shows that while for every 1000 inhabitants in Minya, Qena, Sohag and Fayoum governorates less than one bed, more than 10 families / 1,000 people are available in South Sinai Governorate.

3. Public spending and health system efficiency

The improvement in public spending on health in Egypt was linked to the improvement of many indicators that reflect the efficiency of the health system, including the comprehensive health coverage index and the life expectancy index. According to the data of the World Health Organization, Egypt has made remarkable progress in this index, as it obtained 70 points in 2019 compared to 62 points in 2015, a value better than its ideal for low-income middle-income countries, which averaged only 58 points compared to 77 points for countries.

High-income middle-income and 83 points for high-income countries, so Egypt has the opportunity to make further progress. Egypt performs better in this index than Jordan, India, and South Africa but is lower than many middle-income countries.

Life expectancy has also improved in Egypt and at the comparative level of 2015 and 2019 but is still lower than in some comparative countries except India and South Africa.

There is not a single indicator that can be used to measure the efficiency of health spending or public health spending in any country. The two issues increase the efficiency of outputs at a certain time, reflecting spending, policies, and procedures in a previous period. The outputs of the health system are not only the result of its inputs. Achieving the goal of improving the quality of citizens' health is not And the population and their educational levels..... Etc.

Numerous studies have tried to measure the efficiency of health public spending in Egypt through a simple indicator mentioned in the study (Alfonsoet al.) It is based on the performance indicators of the health sector as outputs to spending as inputs and was used by other studies, including the study (Al-Baz, Heba, 2016), which used the indicators of life expectancy and mortality rate of children under five and concluded that the efficiency of health spending in Egypt during the period 2008/2009 to 11/2012 amounted to 0.609.

The study (Hashim, Iman, 2021) followed the same methodology in measuring the efficiency of public health spending in Egypt and relied on the same indicators and found

that the efficiency of health public spending in Egypt during the period 2014 to 2018 amounted to 1.2 points.

The results of Egypt's efficiency indicators using data on average public per capita spending on health show a slight decline in the index between 2015 and 2019. Egypt's ranking according to the efficiency index varied among countries during the two years, as well as it is clear that China achieved the highest life expectancy in good health and is not have the highest average per capita government spending.

This indicator is a simple and inaccurate procedure for estimating the efficiency of public spending or total health expenditure due to its strong impact on the selection of variables that represent inputs and outputs, in addition to the difficulty of linking outputs (which can be evaluated according to one or several indicators as we have already indicated) to inputs. The difference in variables that express

- Despite the expansion and expansion since 1964 in community health insurance coverage by covering emerging categories, the annual spending of the family, as well as the individual on private health care, has continued to increase from year to year.
- Household spending on health care comes in third place after spending on food, drink, and housing.
- Private clinics occupy the first place for individuals' access to health care services regardless of the type of disease for about half of individuals, and pharmacies come as a source of medical consultation in the second place and as a source of people's access to health care services, and then government hospitals and health insurance hospitals come in the rear.
- The highest percentage of annual household spending on sub-items of health services and care was for medical products, devices, and equipment, followed by spending on outpatient services and then spending on hospital accommodation services.
- WHO stressed that health systems that provide strong financial protection and minimum levels of uncovered health needs share the following characteristics:
 - Lack of significant gaps in health coverage.
 - Coverage policy in its three dimensions (design method, implementation, and governance) is meticulously designed to minimize barriers to access to health services and minimize payments from the private pocket for both the poor and those who are regular users of health services.
 - Public spending on health is too high to ensure timely access to a wide range of health services without informal payments.

- Payments from the private pocket are therefore low and barely 15% of total health spending in such systems.

Recommendations

- Relying on a large number of indicators (composite indicators) to measure the outputs or performance of the health sector to draw a more detailed and comprehensive picture that reflects various aspects of health systems, this requires the availability of audited and up-to-date data.
- Activating the role of regulatory authorities in combating corruption, especially with regard to financial management, by improving levels of governance, transparency, and accountability, which is one of the main requirements to ensure the efficiency of health public spending.
- Making some adjustments to the combination through which spending is made at different levels of health care (primary, secondary and tertiary), as well as on various items, activities, and areas specific to the health sector, and transferring some financial resources from one item or level to another, which may be enough to raise the level of efficiency of spending on the health sector.
- Work to activate the articles approved by the Egyptian Constitution issued in 2014 on health spending, which increases the share of health government spending from the total public expenditures and the total GDP gradually until it reaches global averages.
- Updating and auditing health data and indicators (direct and indirect) that reflect the evaluation of the quality of health services provided.
- Implementing the social health insurance system in a financially disciplined framework aimed at activating and achieving economic efficiency and social justice.
- Activate the directions of the World Health Organization to increase economic indicators directed to government health spending to achieve universal health coverage and reduce disparities in health care delivery.

Policy Impacts

High-performance health financing is a form of investment that benefits the economy. Investment, in particular, in primary and community primary health care services is a form of capital, and investment in health leads to higher labor productivity, thus higher levels of both incomes and the well-being of citizens.

The outputs of the health system are not only the result of its inputs. Achieving the goal of improving the quality of citizens' health is not limited to the availability of spending necessary for the development, availability, and distribution of health services in a balanced manner, but is linked to many other considerations, including internal considerations, including the efficiency and readiness of human resources, infrastructure, supporting regulatory, legislative and Etc.

Pursue a rational fiscal policy that increases the efficiency of health spending and takes into account the partnership between the public and private sectors to provide quality health services that satisfy the aspirations of both providers and users of health services and at an affordable cost for the entry of citizens.

Activating the principles of good governance, combating corruption, transparency, and accountability, and making available accurate, up-to-date, and detailed information and data on aspects of public health spending on various health service items.

Adopting a combination like me through which spending is allocated to various items of health spending, with the possibility of (flexibility) transferring some resources from one item or level to another.

Pursue multi-source financing policies to ensure the financial sustainability of the social health insurance system.

Conducting specialized and extensive studies to measure the efficiency and effectiveness of health spending using composite indicators of direct and indirect factors affecting health spending.

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