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Project Finance Structuring, Management and Sustainability of Healthcare Systems

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Abstract:

This concept paper examines how project finance structuring and management affect the sustainability of healthcare systems. A good healthcare system is characterized by efficient health service delivery, adequate human resources, a sustainable financing system and good governance. The study was guided by the sustainability model, prospect theory, pecking order theory and the agency theory. This study adopted a qualitative approach, relying on articles previously reviewed. There is an urgent need to transform healthcare systems so that new and existing health problems can be dealt with decisively and more efficiently. This requires renewed commitment from governments, reprioritizing and readjustment of present healthcare programs, inter-sectorial collaborations that involve all relevant stakeholders including the communities, and renewed investments in sustainable healthcare policies that deliver maximum impact at minimal cost. Project Finance structuring is a framework in which risk structure and financial structure decisions are made and tied together in the project's legal structure, which, in turn, forms a foundation for funding the project on a limited recourse basis. From the analyses, institutions are yet to achieve ideal project finance structuring and management to achieve sustainable healthcare systems. Countries must come up with elaborate healthcare structures and management models to achieve sustainable healthcare systems. This paper explores the relationship between project finance structuring, management and sustainability of healthcare systems. The interrelationship between these variables determines the condition, functionality and adequacy of healthcare systems. In conclusion, health care should move towards quality improvement and safe practice through effective risk management in organizational process, equitable health financing mix and strong legal frameworks.

Keywords: Project structuring, management, sustainability

1. Introduction

1.1. Background of the Study

A healthcare system is made up of all the people, institutions and resources, working together to improve the health status of a given community. In an analytical framework developed by the World Health Organization (WHO), a health system is conceived as comprising of six building blocks that include leadership and governance, service delivery, health workforce, health information system, medical products and health system financing (WHO, 2011). Countries like Cuba, Indonesia, Myanmar, Nigeria and Sudan have a well-recognized, long-established healthcare systems which serve the fundamental roles of governance in healthcare, manpower development, resource production as well as service delivery.

Cuba's healthcare system is public driven that has gained remarkable achievements in terms of equity, universal access and efficiency (Vos, 2006). On the other hand, Myanmar's healthcare system was shaped by an open-door policy introduced since 1988 which promoted a free market approach to healthcare management (Grundy, 2014). In many countries, health services provision primarily revolve around general health promotion, disease prevention, cure and rehabilitation. However, the degree to which these functions are emphasized and the priorities attached to each one of them may vary.

Health systems appeared after 1950, as Europe was healing from the Second World War. With a political shift to the left, governments responded to public demands for affordable health services accessible to all (Judt, 2010). Until the 1970's, health systems shared one concern: how to funnel an average 7 % of national Gross Domestic Product (GDP) collected through taxes and labour contributions into healthcare services.

A good health financing system raises adequate funds for health, so that people can use needed services protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient (WHO, 2007). The evolution of health financing during the last half century reveals a fundamental shift in core issues. After 1950, health systems were designed for populations expected to live for an average of 65-70 years. With retirement at 60-65 and near full employment, lifetime earnings and savings were sufficient to finance a decent health system, while rising health expenditure meant welfare gains for all. In the 21st century, average life expectancy rose above the age of 80, and health science and technology improved quality of life even at a very old age.

Although desirable, the prolongation of life in good health costs, a reality that no democratic society can ignore for long. The real political, economic and ethical question is the source of the required financing. Rich countries can still afford to rely largely on private health insurance despite the serious equity issues involved (Schirnding, 2002). Most developed and developing countries, however, finance their welfare state through taxation and labour contributions. It is in developing countries that globalization is bringing increasing economic inequality and economic uncertainty that has caused a major debate on the sustainability of health financing.

1.2. Statement of the Problem

The national healthcare system is an important issue in governance that is typically regulated by the state's health. Most often, this system is revised and transformed continuously to cater for the evolving health needs of the general population. There is hardly any country in the world without some form of organized healthcare service structure. The overwhelming majority of them adopt the top-bottom approach, with various degrees of decentralization along the administrative levels.

The 2008 economic crisis brought an unprecedented attention to the issue of health system sustainability in the developed world. The discussion, however, has been mainly limited to 'traditional' issues of cost-effectiveness, quality of care, and, lately, patient involvement. Not enough attention has yet been paid to the issue of who pays and, more importantly, to the sustainability of financing. This fundamental concept in the economics of health policy needs to be reconsidered carefully. In a globalized economy, as the share of labour decreases relative to that of capital, wage income is increasingly insufficient to cover the rising cost of care. At the same time, as the cost of Social Health Insurance through employment contributions rises with medical costs, it imperils the competitiveness of the economy. These reasons explain why spreading health care cost to all factors of production through comprehensive National Health Insurance financed by progressive taxation of income from all sources, instead of employer-employee contributions, protects health system objectives, especially during economic recessions, and ensures health system sustainability (Liaropoulos, 2015).

1.3. Objectives of the Study

This study is guided by the following objectives: -

- To determine how risk structure influences sustainability of healthcare systems.
- To determine how finance structure influences sustainability of healthcare systems.
- To determine how legal structure influences sustainability of healthcare systems.

1.4. Theoretical Framework

Healthcare sustainability has captured great attention in the recent era globally, in view of economic and social crises that developing countries are recently facing. Therefore, it is necessary to generate value and integrate sustainability in the healthcare sector-always considering the importance of all stakeholder demands (Karamat, 2018). This study is underpinned by the below model and theories:-

1.4.1. Sustainability Model

According to the model by Marek and Mancini (2007), elements that lead to sustainability include leadership competence, effective collaboration, understanding the community, demonstrated program results, staff involvement and integration, and program responsiveness as shown in Figure 1: -

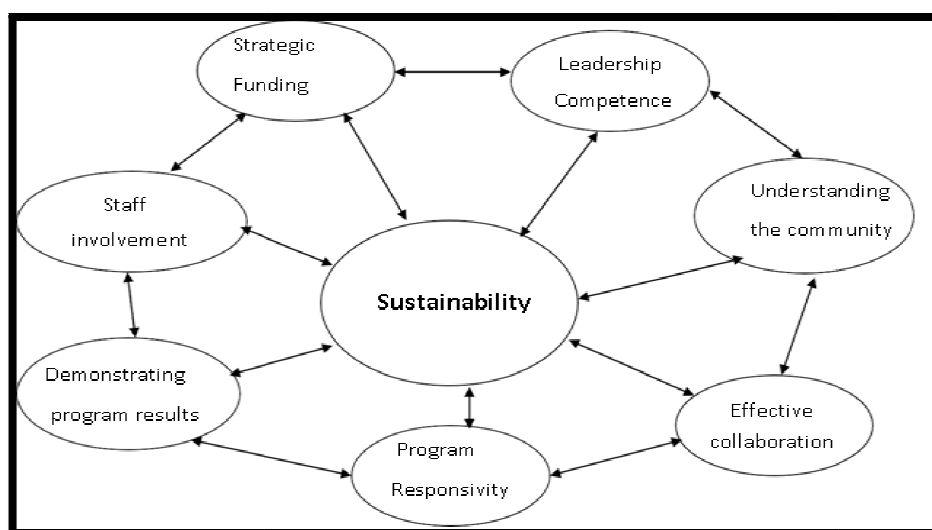


Figure 1: Sustainability Model
Source: Marek and Mancini (2007)

A sustained project, according to Marek and Mancini (2007), means a project continues to deliver the intended benefits to the intended target group over the long-term and in line with program goals and objectives. The model

proposes seven important elements for sustainability. One of them is strategic funding. This involves coming up with tangible plans for resources mobilization and to secure funding, for present and future programming and ongoing projects. Marek and Mancini noted that this is the most important element for sustainability. This study focused on project finance structuring, management and the sustainability of a healthcare systems.

According to Marek and Mancini (2007), leadership competence influence sustainability since, leaders establish goals; develop clear and realistic plans regarding development, implementation, and evaluation. On effective collaboration, stakeholders who support project goals and understand the project, have clear roles, and who actively participate in the project lead to sustainability of the project. Understanding the community means project implementers respect community culture, norms, belief and values, respects members for whom they are, have knowledge on community needs and assets, and ensure community actively participate in meeting project goals and objectives. Project management must communicate achieved milestones over time. This increases support and positive image from stakeholders.

The evaluation of project process and outcomes by management with acceptable methods and informing stakeholders of results are also important ingredients for sustainability of projects. Staff involvement and integration means, management should ensure staff are committed to program goals, involved in important program decisions and activities. Program responsivity means the ability of the project to adapt to changing community needs.

1.4.2. Prospect Theory

The proponents of this theory were Daniel Kahneman and Amos Tversky, who, in 1979, proposed accurate psychological description of preferences of alternative sources of funds compared to expected utility theory. This theory is a behavioral economic theory that describes how management makes decisions between alternatives that involve risk. According to the theory, individuals make decisions based on the potential value of gains and losses rather than the outcome. The model is descriptive in nature and it explains real-life choices, rather than optimal decisions to be made (Esterlin, 1974).

In healthcare systems, stakeholders consider the risk of taking loans in terms of interest rates expected to be paid to the financier as a loss due to decreasing liquidity of the project, which therefore, decreases the possibility of going for debt finance. This could affect ability of the healthcare system to meet its short-term obligations, such as, conducting repairs and maintenance of the health project infrastructure. On the other hand, grants from the government and donors come with no costs or loss hence increasing the prospects of depending on grants as compared to debt financing. However, effects of free funds may cause the project to be tied to the donor and may lead to implementation of projects that are not priority and the recipient communities could have little to say in the project. Grants could also have a negative effect on management of healthcare systems productivity by impairing their competitiveness.

1.4.3. Pecking Order Theory

The pecking order theory was first suggested by Donaldson in 1961 and it was modified by Myers and Nicolas Majluf in 1984. Most companies will prefer to raise equity as a last resort financing option due to the complexity in raising equity finance. As a result, companies utilize internal funds first, and when the internal sources are depleted, debt is raised, and when it is not practical to issue more debt finance, equity finance is issued (Myers, 2001). For healthcare projects, it is easier to raise grants especially from the government as compared to debt finance which requires more efforts to raise since banks require collateral plus other requirements which are normally stringent.

Pecking order theory application starts with a situation where the firm has asymmetric information and managers are more informed about the companies risks, prospects and value than outside investors. The choice between external and internal financing and between the issue of equity or debt is influenced by the asymmetric information available to management. For projects in health systems, this theory justifies the use of government grants which are easily accessible. Debt finance requires greater effort to raise and resistance falls in the order of preference. Therefore, there exists a pecking order for the financing of healthcare projects and systems.

1.4.4. Agency Theory

Agency theory was developed by Jensen and Meckling, in 1976. They suggested a theory of how the governance of a company is based on the conflicts of interest between the company's owners(shareholders), its managers and major providers of debt finance. Each of these groups has different interests and objectives. Agency theory suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents.

These relationships are not necessarily harmonious; indeed, agency theory is concerned with agency conflicts, or conflicts of interest between agents and principals. This has implications for, among other things, corporate governance and business ethics. When agency occurs, it also tends to give rise to agency costs, which are expenses incurred to sustain an effective agency. In the case of healthcare systems, there exists agency relationship between the government and its citizens and between healthcare facilitates managers and the public. Elaborate healthcare systems must be instituted to ensure efficiency and sustainability in the provision of healthcare services.

2. Sustainability of Healthcare Systems

Sustainable healthcare systems can be defined as systems which deliver high quality care and improved public health without exhausting natural resources or causing severe ecological damage (Fineberg,2012). Further, Fineberg (2012) attributed the triple-A concept with sustainable healthcare system, which includes affordability, acceptability, and

adaptability for all stakeholders including patients, employees, employers, healthcare agencies, and government. Coulson-Thomas (2013) indicated knowledge management as a quicker, improved, and affordable route for greater organizational performance, especially in service-based organizations.

Knowledge has become an important resource and asset to become strategically competitive in current era (Yahya,2002). The healthcare industry is a knowledge-based business in which doctors process about two million pieces of information to manage their patients (Smith,1996). At the same time, the generation of knowledge in the healthcare industry is very high; it is estimated to increase four times over the lifetime of a healthcare professional. The professionals must be updated because patients, due to the internet, have access to a large amount of information and demand better healthcare service. Patients these days are well educated and aware of the healthcare possibilities and treatment options. To overcome these challenges, doctors need to have access to quality knowledge, which can be provided by knowledge management. The implementation of knowledge management would also provide a healthcare organization with a sustainable competitive advantage.

The answer to the question of who must pay for healthcare and how lies in the moral fabric and the value system of a society. It is a deeply ideological and political question with undertones of social involvement, personal responsibility, and freedom of choice. Big changes in health care financing happen rarely, usually after major events (Hsiao,2007) and are more likely to take place in countries with social cohesion high on their value scale (Thomson,2009). This is possibly why discussions on health system sustainability continue to finesse the question of financing, and perhaps to avoid two uncomfortable truths. One, that reliance on out-of-pocket expenditure is not acceptable on equity and financial protection grounds. Two, that only some kind of income transfer, such as taxation, can cover the increasing cost of health care. The moral determinant of who pays and how must now gain importance, as ageing societies, technological advances, globalization, and economic recessions put astrain on the sustainability of financing sources. The question therefore should now focus, not only on whether society will bear the cost but also on how to obtain and manage the needed savings, and on the efficiency and competitiveness of the economy which must produce them. Employment contributions as a source of health financing are incompatible with universal coverage, quality of services, and rising life expectancy.

A move towards general taxation to meet health care needs can boost economic growth through increased competitiveness, and achieve major non-health objectives, like equity, financial protection, quality and responsiveness even during economic downturns. Health system sustainability, as a system objective, must turn to financing through progressive taxation of all types of income. Uncomfortable as this may appear, it is a reality not to be overlooked. Political concerns associated with economic imperatives as well as moral considerations may force changes in health services financing in both the developed and developing world. National health insurance financed through taxation should gain momentum in the quest for more sustainable and responsive health systems.

3. Project Finance Structuring

Project finance structuring refers to the way in which the participants in a project have been organized in terms of their risk relationship and how that risks relationship has been reflected in the project and financing agreements for the project in question. In other words, it refers to the project's architecture, that is, everything from the jurisdiction(s) through which sponsors infuse equity into the project (to take advantage of favourable investment treaty protections), to the jurisdictions in which the project company holds its bank accounts (to safeguard project revenues and provide adequate repayment security for lenders), to the way in which the key commercial arrangements for the project (for example, construction, operation and maintenance, fuel supply and power purchase) have been structured to reduce credit risk or promote performance reliability by those parties and therefore create revenue certainty for the project. Taking the economic and commercial viability of the project in question as a given, the creation of a successful project structure is possible only once the sponsors and lenders have gained a thorough understanding of the detailed legal, commercial and political risks affecting that project (Julian,2018).

The structuring of project financing is a framework in which ownership structure, project structure, risk structure, and financial structure decisions are made and tied together in the project's legal structure which, in turn, forms a foundation for funding the project on a limited recourse basis. The ownership structure is how the special purpose company (SPC) is organized; that is, as a corporation, unincorporated joint venture, limited liability partnership, etc. A special purpose vehicle (SPV) project company with no previous business or record is necessary for project financing. The company's sole activity is carrying out the project by subcontracting most aspects through construction contract and operations contract. Because there is no revenue stream during the construction phase of new-build projects, debt service is possible during the operations phase only. For this reason, parties take significant risks during the construction phase. Sole revenue stream is most likely under an off-take or power purchase agreement. Because there is limited or no recourse to the project's sponsors, company shareholders are typically liable up to the extent of their shareholdings. The project remains off-balance-sheet for the sponsors and for the government. Project structure on the other hand refers to the agreements defining responsibilities and transfer of rights and/or ownership of the SPC such as build, operate, and transfer of ownership (BOT), build, own, operate, and transfer (BOOT), build, lease, and transfer (BLT), etc.

Risk structure is the prioritization and mitigation of risks after the identification, assessment, and allocation process is completed. The project's legal structure is the web of contracts and agreements negotiated to make financing possible. Financial structure refers to the mix of financing used to fund a project, which includes equity, short - and long - term loans, bonds, trade credits, etc. and the cash flows to equity providers and the lenders.

4. Review of Related Literature

4.1. Risk Structure and Sustainability of Healthcare Systems

New or restructured healthcare infrastructures are a typical risky investment, which can be financed in many different and competing ways. Public Private Partnership and project financing techniques are increasingly recognized as a useful and appropriate device. Risk identification, transfer, sharing and management are a key point of the whole structure and the risk matrix, used to classify and - wherever possible - measure risk is an unavoidable part of the package.

A study carried out by Roberto (2016), notes that 'An analysis of the SPV's governance peculiarities helps to understand why milder information asymmetries and softer conflicts of interest can allow for higher even if unsecured leverage.' He concludes that to the extent that risk sharing can be professionally managed by specialized agents, it is not a zero-sum game, even if pricing risk is never a trivial issue. While the public part traditionally bears core market risk (demand for health services), other key risks, such as those related to construction and management of commercial activities, are typically transferred to the private part, often represented by a SPV.

A cross sectional study by Jamileh (2015) was conducted on 200 nursing staff from three teaching hospitals affiliated with the Kerman University of Medical Sciences in southeast of Iran. Data was collected from the participants using questionnaires and an observational checklist in quality improvement offices and selected wards. The study concluded that health care should move towards quality improvement and safe practice through the effective integration of clinical risk management in organizational process. Apart from force majeure considerations, the ultimate risk may tentatively be considered the following:-for the public part, risk that the hospital doesn't properly work, not being functional to the changing needs of the patients, and that these inefficiencies bring extra costs and delays; a correct assessment of the responsibilities of the project financing instrument is however necessary, since malfunctioning would probably be present even choosing other financing models and core (health) market risk is typically not included in the project financing package; for the private SPV and its shareholders, risk that the whole investment, across its (long) life, is not profitable, eroding the forecast Net Present Value (NPV) or yielding insufficient financial returns; for the lending institutions, risk that debt (principal and interests) is not timely and properly paid back.

Adibi (2012) carried out a study on 'Development of an effective risk management system in a teaching hospital.' The study reviewed WHO draft guideline and patient safety reports from different countries for defining acceptable framework of risk management system. Also, the prevailing situation of the teaching hospital in safety matters and dimensions of patient safety culture was evaluated using a questionnaire. The researcher concluded that 'it is of paramount importance for all health organizations to lay necessary foundations to identify safety risks and improve the quality of care. Inadequate participation of staff in education, reporting and analyzing, underreporting and uselessness of aggregated data, limitation of human and financial resources, punitive directions and management challenges for solutions were the main executive problems which could affect the effectiveness of system.'

Hospital investments are capital intensive projects with a cash flow timing mismatch for the SPV, for which the construction period is riskier. Even if many of the risks of a project financing scheme are similar to those of a standard long-term investment with multiple stakeholders pivoting around it, some characteristics are typical of the peculiar PF structure, such as risk segregation of the SPV's shareholders, due to the ring-fence and no (little) recourse finance; the very fact that the property of the hospital belongs from the beginning to the public entity increases the no-recourse paradigm, since creditors of the SPV are unable to grasp neither the personal assets of the SPV's shareholders (ring fence protection) nor the real estate property, built using the money that mainly privileged debt holders have lent to the SPV. The main risks can interact within the risk matrix, with many possible outcomes often difficult to model and forecast; in many cases, the interaction follows a sort of Shanghai model, according to which each stick can randomly hit the others, causing a chain effect with unforeseen results (Xiaowei, 2020).

The impact of risk on the public or the private part (represented by the SPV and its stakeholders) is highly asymmetric and while some risks are shared (e.g., bad project design; contractual risk; force majeure; inflation ...), most of them are borne either by the public part (first, the demand for health services) or by the private SPV (construction risk; bankability and liquidity...). The very fact that the healthcare business has little seasonality - since patients unfortunately get ill at any time - contributes to decrease the intrinsic volatility of cash flows, which are anyway mediated by the long-time span of the investment.

To the extent that the SPV transfers its risk to its shareholders and, in a broader sense, stakeholders, there can be a mitigation effect, not only as a consequence of the intrinsic diversification and spreading, but also because professional stakeholders might undertake the specific risk that they can conveniently handle; for example, a construction company can undertake the building risk, while a financial shareholder can monitor the cash flow statements and a professional manager the operations during the management phase; pass through (back to back) agreements, according to which the SPV delegates and contracts out some functions (e.g., laundry; surveillance ...), are highly frequent and can bring to substantial risk transfers, leaving few if any residual risks within the SPV - good news for its lenders, not so for the lenders of the sub-contractors, even if risk is both diversified and reduced, to the extent that is professionally managed. If the transfer of risks follows a sophisticated number of passages, then complexity can itself become a risky problem, hiding information asymmetries and difficulties of coordination and problem detection.

Interactions between different risk factors can take place and be identified using either sensitivity analyses, changing one parameter at a time (e.g., impact of a decrease in the availability payment on the overall economic and financial plan, from sustainability to bankability and profitability ...) or more complex what-if scenario analyses, where different parameters change simultaneously, producing possible future events by considering alternative outcomes. Risk mitigation is a key issue that could be achieved through specialization of the agent (public or private) which professionally

deals with a specific risk; risk sharing among different subjects (e.g., multiple shareholders of the SPV); insurance, putting quality first; a good construction, maintenance and management can substantially decrease risks and related costs.

- Proposition 1: Healthcare systems with well managed risks are sustainable.

4.2 Financial Structure and Sustainability of Health Care Systems

Healthcare financing has a major role to play in ensuring effective delivery of the healthcare system. Health financing involves the basic functions of revenue collection, pooling of resources, and purchase of interventions (Abekah, 2009).

There are several ways by which healthcare costs are financed in any country and these may take the form of public and private funding. Public funding includes tax revenue, social health insurance and user fee/out-of-pocket. Private sources of funds for healthcare services include private health insurance schemes, employer financed services, charitable and voluntary donations, community self-help and fund raising and private household expenditures (WHO, 1978). Public funding of healthcare services includes all governmental sources of finance for healthcare services. In countries where majority of healthcare institutions include government owned hospitals, government provides a substantial resource to this effect. Government funding of healthcare services and hospitals for that matter comes from budgetary allocations (Ackon, 2003). The source of government funds for healthcare is tax revenue; general tax revenues, earmarked taxes and local tax revenues (WHO, 1978). This is most common in Western countries that have developed, sustained and well administered government bureaus that collect and manage tax revenues (Fried, 2002). Lee (1984) suggests that, in developing countries however, the tax revenue base is often narrow and consists largely of indirect taxes such as trade-based taxes. However, some governments earmark tax revenues for health (Green, 2007).

Schieber (2006) reviewed and updated literature on the global evidence on health spending, health needs, revenue-raising capacity, organization of health financing. His study discussed the key challenges that country policy makers face in ensuring access to services and financial protection while dealing with a new health policy world defined by new instruments such as sector wide approaches and Poverty Reduction Strategy Papers. The study concluded that out-of-pocket spending of low-income countries accounts for 60% of total health spending, whereas in high-income countries, out-of-pocket spending accounts for 20% of total health spending. Therefore generally, at least some form of fee is paid before healthcare is received, particularly for in-and-outpatient services. The fee may be either an all-inclusive flat rate or a fee for each service received. Yates (2006) confirms that the introduction of user fees charge in Africa at a time of widespread downward pressure on public expenditure and dwindling aid flows during the late 1980s, suited both donors and governments to shift some responsibility for healthcare financing to the population through 'cost sharing'. White (2006) argues that one of the more controversial approaches to health resource mobilization is user fees (or cost recovery) at public health sector. These fees pose the risk of inequality in access to the use of health services.

According to Wagstaff (1992), social health insurance is a form of financing and managing healthcare based on risk pooling. Vogel (1988) explains that, it is a prepayment mechanism where funds are pooled into a basket to cater for the losses of the few. Social health insurance pools both the health risk and the people on one hand and the contributions of individuals, households' enterprises and the government on the other hand. Where the state oversees such an arrangement, it is known as social insurance (Lee, 1984). Social health insurance financing represents about 2% of total health in low-income countries, 15% in lower-middle income countries, and 30% in upper-middle -income and high-income countries. In sub-Saharan Africa, only 2% of all public spending on health is through social health insurance and in South Asia, this represents 8% of total health spending (White, 2006).

Carrin (2005) studied the potential of community-based health insurance (CHI) to contribute to the performance of health financing systems. The international empirical evidence was analysed based on the three-health financing sub-functions as outlined in the World Health Report 2000: revenue collection, pooling of resources and purchasing of services. The evidence indicated that achievements of CHI in each of the subfunctions had been modest, although many CHI schemes were still relatively young and would need more time to develop. The researcher presented an overview of the main factors influencing the performance of CHI on these financing subfunctions and discussed a set of proposals to increase CHI performance. The proposals pertained to the demand for and the supply of health care in the community; to the technical, managerial and institutional set-up of CHI; and to the rational use of subsidies. Carrin (2005) suggested that health financing systems through general taxation or through the development of social health insurance are generally recognized to be powerful methods to achieve universal coverage with adequate financial protection for all against healthcare costs.

Sekhir (2005) carried out a study on 'Private health insurance: implications for developing countries.' The study used data on private insurance available on sampled countries National Health Accounts. The researcher explained that, private health insurance gives households an opportunity to avoid large out-of-pocket expenditure; it can provide access to financial protection that is otherwise lacking in out-of-pocket spending on health services. Private health insurance premiums are paid by an individual shared between the employees and the employer or paid wholly by the employer and the insurance agents, manage the premiums fund. Government may subsidize the cost of private health insurance using tax credits or tax relief (Mossialos and Dixon, 2002).

Another source of private funding is health partners such as multinationals, bilateral and multilateral donors. Donations could be in the form of money, equipment, building or healthcare supplies. Scheiber (2006) are of the view that, the external assistance accounts for some 7% of all health spending in low- income countries and is not a significant source of health financing for other country income groups.

Public health institutions also raise financing from undertaking other activities such as operating a cafeteria, gift shop sales, parking garage fees, space or equipment rentals and research grants. Research grants tend to constitute a

significant source of funds for a hospital particularly if it is a teaching hospital. Hospitals also receive funding from pharmaceutical companies to test new drugs and products (Lane, 2001). Different hospitals have different investment strategies: some hospitals invest in stocks or other securities that provide higher returns at greater risk, while other hospitals invest more in conservative fixed rate return instruments such as bonds and money market funds. It may be difficult to get a sense of hospitals' investments from their financial statements, although the general mix of stocks, bonds and cash are often disclosed in the footnotes of the audited financial statements. Since investment income can be a 'black box' because you cannot tell what a hospital is investing in or what the level of risk involved is, it is important to ask management about its investment strategy (Lane, 2001).

- Proposition 2: There exists a significant relationship between well managed financing structures and sustainability of healthcare systems.

4.3. Legal Structure and Sustainability of Healthcare Systems

A sound public health law infrastructure is important because it establishes the powers and duties of government to prevent injury and disease and promote the population's health. Statutes, regulations, and litigation can be pivotal tools for creating the conditions for people to lead healthier and safer lives (Grad, 1990), (Christoffel, 1993) and (Wing, 1995). Theories of democracy and political communities help to explain the primacy of government in matters of public health. Public health can be achieved only through collective action, not individual endeavor. Acting alone, individuals cannot ensure even minimum levels of health. Individuals may procure personal medical services and many of the necessities of living, such as purchasing a home, clothing, food, and the services of a physician. Yet, no single individual, or group of individuals, can ensure the health of the community. Meaningful protection and assurance of the population's health require communal effort. The community has a stake in environmental protection, sanitation, clean air and surface water, uncontaminated food and drinking water, safe roads and products, and control of infectious disease. Each of these collective goods, and many more, are essential conditions for health. Yet, these goods can be secured only through organized action on behalf of the public. Public health takes on a special meaning and importance in political communities. Health is indispensable not only to individuals, but to the community. The benefits of health to everyone are indisputable. Health is necessary for much of the joy, creativity, and productivity that each person derives from life (Brock, 1994).

Health risks in the 21st century is beyond the control of any government in any country. In an era of globalization, promoting public health and equity requires cooperation and coordination both within and among states. Law can be a powerful tool for advancing global health, yet it remains substantially underutilized and poorly understood (Gostin, 2019). The term law means legal instruments such as statutes, treaties, and regulations that express public policy, as well as the public institutions (e.g., courts, legislatures, and agencies) responsible for creating, implementing, and interpreting the law. By establishing the rules and frameworks that shape social and economic interactions, laws exert a powerful force on all the social determinants of health. According to Gostin (2009), well designed laws can help build strong health systems, ensure safe and nutritious foods, evaluate and approve safe and effective drugs and vaccines, create healthier and safer workplaces, and improve the built and natural environments. However, laws that are poorly designed, implemented, or enforced can harm marginalized populations and entrench stigma and discrimination. Legal 'powers, duties and restraints' structure the mission of public health agencies and shape how it is carried out (Gostin, 2008). Law is a prominent intervention tool to achieve public health goals. Laws and their implementation also have important unintended effects, both positive and negative, on population health.

Gostin (2008) succeeds in focusing the field on the state's role in managing collective action to protect the population's health while still encompassing a diverse range of cooperating actors and related functions, including private actors and the health care system. His claims for public health law are broad enough to earn libertarian criticism: scholars have argued from diverse standpoints that Gostin (2008) and his colleagues in public health are expanding the jurisdiction of public health beyond its legitimate mission and into a realm of wrongful—and counterproductive—meddling in the autonomy of citizens (Epstein 2003), (Hall 2003) and (Rothstein 2002). Yet for other scholars, Gostin's definition may be too narrow. Regulatory researchers, for example, question the importance of distinguishing between public and private actors in health governance (Black 2008), (Lobel, 2004) and (Trubek, 2006). Other scholars insist that public health law must include the role of law as a determinant and mechanism for the health effects of social and physical environments (Burris, 2002); (Magnusson, 2007) and (Mariner, 2009).

Of interest to public health sustainability are studies examining how research evidence influences policymakers. Innvaer (2002) carried out a systematic review study whose aim was to summarize the evidence from interview studies of facilitators of, and barriers to, the use of research evidence by health policymakers. He searched multiple databases, hand-searched key journals and personally contacted investigators. The researcher included interview studies with health policymakers that covered their perceptions of the use of research evidence in health policy decisions at a national, regional or organizational level. The study concluded that 'researchers who wish to increase the use of the results of their research should: have personal and close two-way communication with decision-makers; provide decision-makers with a summary of their research with clear policy recommendations; ensure that their research is perceived as timely, relevant and of high quality; include effectiveness data; argue that the results of their research are relevant to current policy.'

Other scholarly works have looked at the behavior and strategies of policy actors. Jacobson (1999) carried out a study titled 'Consulting as a Strategy for Knowledge Transfer.' He argued that consulting can be a strategy for transferring knowledge between researchers and decision makers and is effective at promoting the enlightenment and interactive models of knowledge use. The study highlighted how policymakers use devices such as preemption and litigation to shift policy battles into forums where they have a greater chance of success. Other scholars also looked at how community

organizations may be brought more effectively into the lawmaking or law enforcement process (Markell 2008), and how consulting can be used to translate research knowledge more effectively for policymakers (Jacobson, 2005).

There has been growing interest in the question of how model laws are developed for public health purposes, and whether and under what circumstances model legislation is more likely than other proposals to be enacted (Hartsfield, 2007). For a law to be effective, its implementation must be such that it will influence the behavior of its targets. The process of putting a law into practice can be understood in terms of a series of mediating factors, including the attitudes, management methods, capacities, and resources of implementing agencies and their agents; the methods and extent of enforcement; the relationship between the legal rules and broader community norms; and the attitudes and other relevant characteristics of the population whose behavior is targeted for influence. The text of the law and the resources appropriated for its enforcement constrain, but do not eliminate, the discretion of bureaucratic entities to reshape the rules to fit their existing culture and mission (Deflem, 2004).

Although research in regulation and governance has been limited in public health law (Biradavolu, 2009) its applicability is clear (Magnusson 2009). Public health services are provided by a diversity of public and private actors, and private entities play an important role in practicing and promoting standards of healthy behavior and health-promoting practices (IOM 2003). Scott (2010) carried out a study on 'Making the Case for Laws That Improve Health: A Framework for Public Health Law Research.' The study found out that the maturation of public health law research as a field depends on methodological rigor, adequate research funding, access to appropriate data sources, and policymakers' use of research findings. The study concluded that 'public health law research is a young field but holds great promise for supporting evidence-based policymaking that will improve population health.' Complex systems like health care cannot simply be managed by top-down rules but require the use of many flexible tools, like professional self-regulation, ethics, accreditation, collaborative and deliberative decision making, continuous quality improvement, and market incentives (Braithwaite, 2005).

- Proposition 3: Governments should institute legal structures for sustainability of healthcare systems.

5. Relationship between Variables

Project Finance structuring is a framework in which risk structure, and financial structure decisions are made and tied together in the project's legal structure which, in turn, forms a foundation for funding the project on a limited recourse basis. The interrelationship between these variables determines the condition, functionality and adequacy of healthcare systems. Healthcare management is an integral part of the health system and countries that have achieved better health status for their populations have learnt to prioritize it. As an avenue for providing primary care, health services should not only be available to the public but also accessible and affordable, bringing upon its minimal cost to the consumer (Auwal, 2016). Health promotion and disease prevention are the most efficient and cost-effective approach to addressing health problems, especially where the communities involved are willing to participate and in sustaining health care services. In any case, problems affecting developing countries such as poor infrastructure, lack of clear policy direction, poor implementation of health programs inefficient use of limited resources need to be addressed to achieve sustainable healthcare.

Health care system is considered among the largest industries worldwide. The public expenditure on health and long-term care in Organization for Economic Co-operation and Development (OECD) countries is set to increase from around 6% of GDP today to almost 9% of GDP in 2030 and as much as 14% by 2060. At the EU, healthcare sector accounts for 10% of gross domestic product (GDP), 15% of public expenditure and 8% of the EU's workforce (OECD 2015). In the same era the WHO suggests that the 2030 agenda for Sustainable Development Goals is an opportunity for governments and international community to renew their commitment to improving health as a central component of development. The accompanying 17 sustainable development goals (SDGs) define the priority areas of action. The Goal 3 (to ensure healthy lives and promote wellbeing for all at all ages), with Target 3.8 on universal health coverage (UHC), emphasizes the importance of all people and communities having access to quality health services without risking financial hardship (UN, 2015) and (World Health Organization, 2016).

Many countries will thus continue to need external financial support, mostly to build the foundations of their health systems (UN, 2016). However, even the poorest countries can reach some level of universality. In settings where clinical services are still underdeveloped and human resources for health are critically low, there is potential to rapidly move towards full coverage with interventions that can be delivered through non-clinical service delivery platforms (Karin, 2017). All countries could afford universal access to the range of public health services delivered through mostly policy, population-wide, and periodic schedulable and outreach delivery platforms. Examples include effective policy interventions to curb the rise in non-communicable diseases, which could substantially reduce future expenses on disease management (Zamparas, 2019) —e.g., fiscal policies, such as public health taxes on goods harmful to health, including tobacco, alcohol, and sugar. Improvement of the efficiency of current systems will be crucial to attain the Sustainable Development Goals.

6. Conceptual Framework

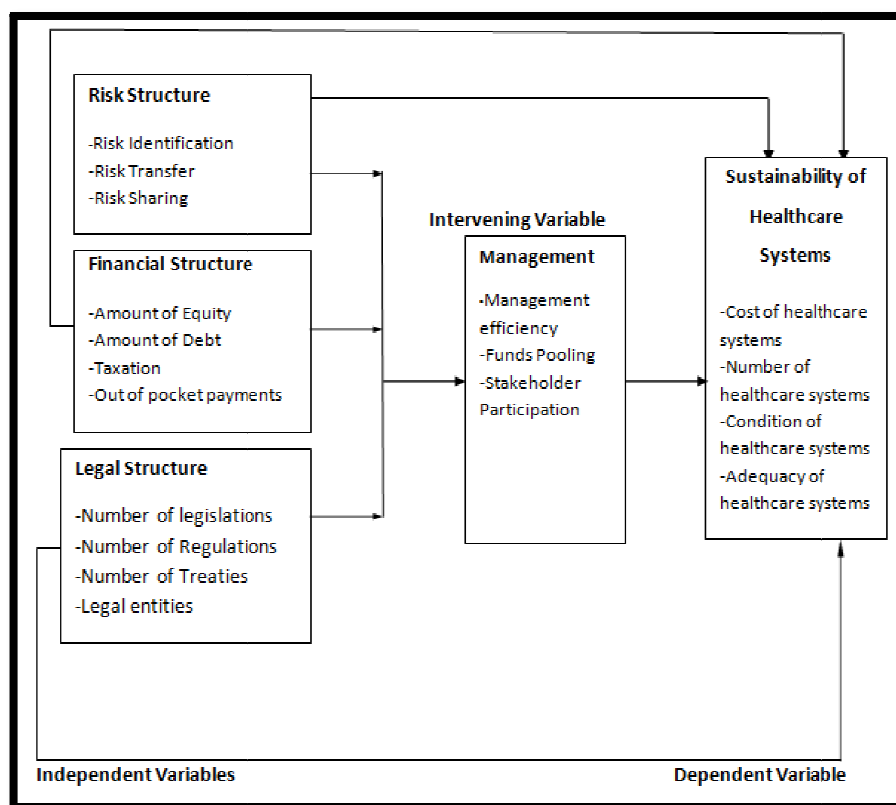


Figure 2: Conceptual Framework

7. Propositions

All health care systems, no matter whether they are predominantly tax, social insurance-based, or market-based, have struggled with the issue of sustainability (defined as maintaining quality and service coverage at an affordable cost), particularly for the last decade. Costs have risen because of ageing populations and the technologies developed to meet their expectations, concerns, and needs (Busse,2003), and the recent economic crisis has exacerbated the problem (Mladovsky,2012). Maintaining funding levels that are appropriate to the technology innovation curve, the demographic-epidemiological curve, and citizen expectations is an unprecedented challenge for nearly all health systems (Lega,2012). This leads to these conclusions: -

Healthcare systems with well managed risks are sustainable. Project finance is an infrastructural investment with extended duration and long and complex gestation process, substantially illiquid due to its lumpiness and indivisibility, capital intensive, highly leveraged and difficult to evaluate – all characteristics that make the investment intrinsically risky. When complexity grows, risk increases and supervision becomes more important. The high prevalence of clinical risks or health care risk, such as adverse events, near misses, errors and other clinical incidents have created great concerns for healthcare organizations. Besides their effects on patients, they have significant socioeconomic impacts (Johnstone, 2006).

There exists a significant relationship between well managed financing structures and sustainability of healthcare systems. In a globalized economy, as the share of labour decreases relative to that of capital, wage income is increasingly insufficient to cover the rising cost of care. At the same time, as the cost of Social Health Insurance through employment contributions rises with medical costs, it imperils the competitiveness of the economy. These reasons explain why spreading health care cost to all factors of production through comprehensive National Health Insurance financed by progressive taxation of income from all sources, instead of employer-employee contributions, protects health system objectives, especially during economic recessions, and ensures health system sustainability (Lycourgos, 2015).

Governments should institute legal structures for sustainability of healthcare systems. In an era of globalisation, promoting public health and equity requires cooperation and coordination both within and among states. Law can be a powerful tool for advancing global health, yet it remains substantially underutilised and poorly understood (Gostin, 2019).By establishing the rules and frameworks that shape social and economic interactions, laws exert a powerful force on all the social determinants of health. Well-designed laws can help build strong health systems, ensure safe and nutritious foods, evaluate and approve safe and effective drugs and vaccines, create healthier and safer workplaces, and improve the built and natural environments. However, laws that are poorly designed, implemented, or enforced can harm marginalised populations and entrench stigma and discrimination.

8. Conclusion

Attempts have been made to establish healthcare risk management through improvement quality approach such as clinical governance and accreditation. However, health care should move towards quality improvement and safe practice through the effective integration of risk management in organizational process. Employment contributions as a

source of health financing are incompatible with universal coverage, quality of services, and rising life expectancy. A move towards general taxation to meet health care needs can boost economic growth through increased competitiveness, and achieve major non-health objectives, like equity, financial protection, quality and responsiveness even during economic downturns. Health system sustainability, as a system objective, must turn to financing through progressive taxation of all types of income. Political concerns associated with economic imperatives as well as moral considerations may force changes in health services financing in both the developed and developing world. National health insurance financed through taxation should gain momentum in the quest for more sustainable and responsive health systems. In weak legal environments, project finance may be preferable not only to Corporate Debt Finance, but also to equity finance since weak investor protection laws make equity financing and public debtfinance relatively unattractive.

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