



A FRAMEWORK FOR SUSTAINABLE HEALTH CARE

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Abstract: *This study examines sustainability in health care delivery and provides a framework for sustainable health care. The study identifies a number of factors which together establish a framework for sustainability in health care. Six key areas are discernible in the framework, including resources, planning, community based factors (such as partnerships and consultation), evidence based analysis and effective management of the health environment. These factors transcend social (including demographic and educational factors), cultural, economic and political factors. The study contends that the existing socio-cultural, economic and political institutions go a long way to ensure sustainability in health care. The study concludes that societies sustainability in health care is achievable and that the framework will enhance the achievement of that objective.*

INTRODUCTION

Sustainable health care is an emerging and innovative approach to health care. Numerous health professionals have been pondering about the actual concept and how it may be implemented to achieve maximum benefits for health service providers and patients. A conspicuously missing issue in all the discussions is a framework to enhance, understand and facilitate its achievement. Health is everybody's business. One of the greatest challenges that humankind continues to encounter throughout history (from generation to generation) is healthcare and, in particular, achieving optimum health outcomes for all population subgroups in individual countries (Yeboah, 2015). The challenge remains as to how best to develop and deliver health care to ensure the achievement of optimum health outcomes including improving health status into the future. A sure way of ensuring viability in delivering adequate health care today and tomorrow is to adopt sustainable health care. Governments around the world have tried to achieve these outcomes through the use of various strategies covering policies, legislation, programs and services. In addition, the provision of funding using various funding models has played a key strategic role in these developments. Despite these arrangements, many countries are struggling to provide adequate health now and would have even more problems in achieving positive health outcomes in the future.. Sustainable health care has been identified as a potentially



effective and efficient approach to solving the said health issues, especially maintaining current levels of health care into the future (see, for example, Pencheon, 2014).

The purpose of the present study is to identify and propose potential means of addressing the question of achieving sustainability in health care. It focuses on developing a framework on sustainable health care which is based on theoretical and empirical health analysis. .

THE PRESENT STUDY

As stated in the introduction, this study focuses on sustainable health care and its enhancement through the adoption of a framework. The initial question to be addressed is what is sustainable health care? The present study defines sustainable health care as evidence-based, responsive, adaptable, maintainable and scientific approach which addresses the health needs of current and future generations and which strives to achieve optimal health outcomes now and tomorrow.

.Other researchers have defined sustainable health care in various ways, but all definitions contain the common notion of providing health care for current and future generations of people. For example, Pencheon (2014), defined sustainable health care as environmentally sustainable, financially sustainable and make far smarter use of virtually unlimited social and human capital. Besides, Richetta (2013) stated that sustainable health care is the adoption of people centric innovative strategies that safeguard health of individuals and society by providing prevention and care adapted to evolving care needs today and tomorrow (see also Prada, 2012). .

To attain the tenets of this definition, sustainable health care must consider the existing environmental, social, cultural, political and economic factors (including existing institutions) as well as work in partnership with health service providers and identifiable key stakeholders. In addition, it is worthy to mention that the definition presupposes the need for a critical epi-statistical analysis of health data, especially disease data. Sustainable health care must exhibit a high degree of flexibility to allow relevant and key changes in the community to be incorporated. Indeed, there is research evidence indicating that community factors are essential in the development and delivery of health care (Yeboah, 2005; Whitelaw et al., 2006).



FRAMEWORK FOR SUSTAINABLE HEALTH CARE

The challenge is how to develop and deliver sustainable health care. No single factor can achieve sustainable health care, and this study proposes a number of diverse but interrelated factors. The identified factors have the potential to influence sustainable health care in any communities around the globe. They include effective planning, smart use of resources, and existing socio-cultural, politico-economic and environmental factors in the community (figure 1). As evidenced in the published research literature an appropriate framework must include all the salient elements of sustainable health (White, 2013). As shown in fig 1, all the key elements of sustainability in health care are included in the proposed framework



Figure 1 Sustainable health care framework

Resources

The successful achievement of sustainable health care depends on a number of human, financial and related resources which work individually and severally to achieve that outcome. The notion that funding is "sine qua non" for health is increasingly becoming a myth. There is no two ways about the need for adequate funding, but the provision of sustainable health care does not depend on just funding. Health care provision requires funding and most countries strive to fund health within the framework of their so called limited resources and competing sources for existing funds. The amount of money allocated



for health care is usually analyzed as a proportion of Gross Domestic Product (GDP) or as a proportion of Total Government Expenditure (TGE).

Accordingly to the WHO (2015), 15.6% of Total Government Expenditure was spent on health worldwide in 2013. Table 1 shows general government expenditure on health as a percentage of total government expenditure by WHO Region. It is evident that most Regions recorded an increase in government expenditure on health as a percentage of total government expenditure during 2000 and 2009, albeit the increases were very small. Most Regions recorded less than 1 percentage point increase during the 10 year period. Only the Region of the Americas and Western Pacific Region increased their expenditure on health by more than 1 percentage point. In terms of % change from 2000 to 2009, no WHO Region recorded a decline in General Government Expenditure on health as a percentage of Total Government Expenditure during the 2000-2009 period. On the contrary, all the Regions increased their General Expenditure as a percentage of Total Government Expenditure, with the Region of the Americas recording the highest increase of 16.6% while the Eastern Mediterranean Region recorded the lowest increase of 2.9% (Table 1).

Table 1 General Government Expenditure on health as % of Total Government Expenditure by WHO Region, 2000-2009

WHO Region	2000	2009	% Change 2000-2009
Africa Region	8.2	8.6	4.9
Region of the Americas	14.5	16.9	16.6
South East Asia Region	4.4	4.9	11.4
European Region	14.0	14.6	4.3
East Mediterranean Region	6.9	7.1	2.9
Western Pacific Region	13.8	14.4	4.3

Source: Derived from WHO (2012)

Table 2 shows government health expenditure as a % of Total Government Expenditure in the UAE and the GCC compared with selected other countries. UAE (10.2%) and Bahrain (10.6%) recorded the highest general government expenditure on health as a % of total government expenditure in the GCC. Oman and Saudi Arabia recorded the lowest proportions of government expenditure on health. Elsewhere, Argentina recorded some of the highest general government expenditure on health as a % of total government expenditure (31%).



Table 2 General Government Expenditure on Health as a % of Total Government Expenditure, UAE and selected countries, 2013

Country	%	Country	%
Bahrain	10.6	Australia	10.2
Kuwait	5.8	Argentina	31.0
Oman	4.8	Tanzania	10.2
Qatar	5.8	United Kingdom	13.0
United Arab Emirates	10.2	United States of America	16.0
Saudi Arabia	5.4	Vanuatu	7.8

Source: WHO (2015)

Within the realm of resources, another key indicator or factor for sustainable health care is the health workforce. Table 3 shows the health workforce for various WHO Regions during the 2005-2010 period. With the exception of European Region and Region of the Americas, all other Regions recorded lower density per 10,000 population than the global averages.

Table 3 Health Workforce Density per 10000 population, WHO Regions, 2005-2010

WHO Region	Physician	Nursing and Midwifery	Dentistry	Pharmaceutical	Environmental and Public Health
Africa Region	2.2	9.0	0.4	0.7	0.3
Region of the Americas	20.0	72.5	-	-	-
South East Asia Region	5.6	10.9	0.7	4.1	-
European Region	33.2	65.0	5.0	5.4	-
Eastern Mediterranean Region	10.9	15.6	2.0	5.4	-
Western Pacific	14.8	18.4	1.2	3.8	-
Global	14.2	28.1	2.2	4.0	-

Source: WHO (2012)

Planning

According to the present study, planning is an integral component of the framework for sustainable health care. To achieve sustainable health care in the UAE, effective and efficient planning at national and regional (by Emirates) levels is essential. The study proposes the adoption of place based health planning in sustainable health care. Following Yeboah (2005), planning for sustainable health care must be holistic and comprehensive, taking into consideration existing local demographic, socio-cultural, politico-economic and environmental conditions (see also Whitelaw, 2006).

Community factors



A number of community factors are included in the framework for sustainable health care. They include population characteristics such as size, composition, distribution and dynamics, socio cultural factors (education, norms and values etc.), economic factors (including employment and unemployment, incomes etc.) as well as political factors. The proposed framework for sustainable health care works on the fundamental notion that the existing local conditions operate individually and severally to determine the potential for sustainable health care. The proposed framework postulates further that the existing socio-cultural politico-economic and related local institutions must support sustainable health care, otherwise it will be near impossible to achieve sustainable health care in any society.

Evidence based approach

The framework proposes the incorporation of epi-statistical evidence in the development and delivery of sustainable health care. Continuous needs assessment is a “sine qua non” for sustainable health care. Evidence from needs assessment including future projections together with data on patterns of disease and injury, funding and population dynamics would have to be included in any approach to achieve sustainable health care. On a related matter. It is the postulation of the framework that due consideration be given to regular data collection and analysis if sustainable health care is to be achieved. There is also evidence to suggest that data on settlement patterns, internal and external migration, and urbanization and population redistribution will impact on planning and, thus, sustainable health care (Yeboah, 2007).

Stakeholders and partnerships

According to the proposed framework, sustainable care would benefit from the identification of key stakeholders in the community and the establishment and nurturing of ongoing partnerships with those stakeholders. Key stakeholders include patient and patients advocacy groups, service providers (public and private) funding agencies, health professional associations, community leaders, politicians etc. A salient feature of partnerships is consultation. Decisions must be made in consultation with key stakeholders who the framework suggests should be considered as partners and treated as such. The framework emphasizes the need for all parties to work together (Richetta, 2013).



Management

Management is a key issue in the sustainable framework and the study argues that sustainable health care cannot be achieved without the effective and efficient management of the whole process. In addition, the framework postulates the crucial need to manage relationships among all the relevant players in the health environment, including patients, policy and program developers and service providers. Most countries have a Ministry or Department of Health which takes responsibility for health at the national level. Decisions at the national level are usually passed on to regional health authorities in individual countries. Like many areas of human endeavor, management is essential to oversee the use of resources, planning, partnerships etc.

DISCUSSION

The proposed framework identifies a number of factors which work individually and severally to define a clear approach to sustainable health care. The role of resources in sustainable health care cannot be overemphasized, as funding and health workforce are, by and large, fundamental for the success of any health system. . As a rule, no country provides adequate funding for health and this is a direct result of limited availability of funds and competing sources for the national wealth. Table 1 shows government expenditure on health as a percentage of total government expenditure for WHO Regions. It is worthy to observe that, with the exception of the Region for the Americas, the general government expenditure on health as a percentage of total government expenditure was less than 10 for the other Regions. Clearly government health expenditure is not adequate.. Sustainable health care requires adequate health funding which must be maintained at a level to guarantee adequate health care for current and future populations.

Health funding as an element in sustainable health care transcends just the provision or supply of money. In addition to substantial monetary outlays, funding as envisaged in the framework includes appropriate management of health funds, avoidance of waste, substantial and efficient public and private sector investments as well as innovative approaches to health funding. There is evidence in the research literature supporting the key position of funding in the development and delivery of health care (see, for example, Prada, 2012). Maintaining current levels of health care into the future would entail keeping funding at current levels at least and adjusting for inflation using the consumer price index



(CPI). This study argues that, without a prudent management of health funds and the adoption of innovative funding approaches, no amount of money would ensure the attainment of sustainability in health care.

One such innovation to health funding is the proposal for the UAE to adopt place based health funding model inherent in place based health planning (Yeboah, 2005). Place based health funding takes into consideration the existing conditions in each society including such factors as demographic dynamics, availability, affordability, access and use of health services, local stakeholders and partnerships between health providers and policy makers. These vary from society to society and from Emirate to Emirate in the UAE. This presupposes a need to include local conditions in the development and delivery of health care to achieve sustainability.

This study advocates and supports place based health funding as an integral component of the place based health planning model. Besides, as noted by Pencheon (2015) a key challenge to embedding sustainability in health care is for health systems to strive to remain within tight financial environments. The onus is on health managers to strike the right balance and achieve sustainability.

In terms of resources, a second key component is the health workforce. No health system will be successful without well trained and skilled professional personnel. Again, there is evidence in the research literature postulating that sustainable health care is dependent on thriving and sustainable workforce (see, for example, Prada 2012). It is worthy to note that most countries strive to establish a well trained, skilled and innovative health workforce.

The key challenge in terms of sustainability is the effective and progressive management of the health environment including resources and workforce to ensure low turnover and high levels of workforce retention. Maintaining skilled workers for current and future populations is key to sustainable health care. Strategies to achieve this objective include better employment conditions for workers, continuous training and creating safe and healthy work environment.

Planning is also required to manage expected and unexpected developments in the health sector today and tomorrow. The framework proposes place based health planning, instead of the population based models. The population based planning models have the weakness of not giving due consideration of local conditions, including availability of health services,



resource related constraints, partnerships and local stakeholders. Inclusion of community factors in the development and delivery of health has been noted elsewhere in the published research literature (see White, 203).

Place based health planning adopts a holistic approach to health care and involves local demographic, socio-economic and environmental conditions (Yeboah, 2005). As these conditions vary by country and by geographical regions within countries, the framework suggests the need for due consideration of the prevailing local circumstances and conditions. Following Yeboah (2005), it is inherent in place based health planning to identify and prioritize local health needs, and to adequately articulate or translate those needs into policy and program development.

Closely related to planning are community factors which include demographic, socio-economic, political and environment conditions. The framework provides for consideration of factors such as income, employment and occupational classification and an index of socio-economic disadvantage to be included in policy and program development. Wealth and other indicators of modernization and development are not evenly distributed across countries and geographical regions of each country. It is imperative to give due consideration to those factors because they determine the allocation of resources within countries and subsequent health service provision. Another element in the framework for sustainable health care focuses on the identification of key stakeholders and the establishment of partnerships (see also Yeboah, 2005; Richetta, 2013). This is consistent with the tenets of place based health planning. Major stakeholders usually include the Ministry of Health, regional or State Health Authorities, public and private health service providers, professional associations and various health advocacy groups.

To maintain adequate health care for current and future generations of health care consumers, the key stakeholders must first be identified, followed by the establishment of partnerships and collaborations on all aspects of health care development and delivery. All parties must work together to achieve sustainability in health care (Richetta, 2013). No one group or agency can work individually to establish sustainable health care, and collaborations are essential amid competitive health environments.

As noted earlier, the private sector is a key stakeholder and needed partner in the provision of health care in every country albeit public sector health providers are dominant in



developing countries. To ensure sustainability in health care, these private providers must thrive (even in developing countries). There is a need to expand the involvement of the private sector in the provision of sustainable health care. For the private sector to thrive, they must provide affordable health care while making some level of profit at the same time..

In terms of the framework, the penultimate factor in sustainable health care is evidence based analysis, essential for needs assessment, identification of options to address the needs and subsequent delivery of appropriate health care. The continuous collection and analysis of data on patients, financial, human and related resources, local socio-economic and environmental conditions, service provision and utilization together with demographic dynamics cannot be overemphasized. Needs assessment for current populations and estimates of potential future health needs based on scientific data collection and analysis are paramount to achieving sustainability in health care. A number of factors outside the health environment affect health care. Government social policies, education and employment all influence health outcomes and current and future estimates of data on those factors should serve as catalysts for enhancing sustainability in health care.

While all the factors hitherto discussed are essential, sustainable health care ultimately rests with effective and efficient management of the health care environment. Successful management of the health care environment is based on the organizational culture of health agencies and service providers (Piuye, 2004). There are many elements in the management of sustainable health care. They include leadership, chain of command or hierarchy, innovation and knowledge transfer, resources and relationships management. Strong and committed leadership is naturally required for any emerging development in the health environment but more so in sustainable health care.

All the governance levels in the health care environment in individual countries must demonstrate leadership and commitment to sustainability in health care to enhance the successful achievement of sustainable in health care.

The point must further be made that sustainable health care transcends leadership, chain of command and commitment. The management of other elements in the framework for sustainable health care is crucial. Resources (human and financial), projects, equipments, innovation and knowledge transfer as well as a diverse range of relationships would have to



be properly managed. The effective management of relationships with stakeholders and partnerships, government organizations, public and private health providers would enhance sustainability in health care. All told all parties must collaborate to achieve sustainable health (Richetta, 2013).

CONCLUSION

This study has proposed a framework for sustainable health and attempted to explore how it can be achieved. It is the conclusion of this study that sustainability in health care is achievable even in developing countries using the proposed framework. The study concludes further that numerous elements work individually and severally to enhance the successful achievement of sustainable health care, including resources, planning, identification of local conditions, stakeholders and partnerships and effective management of the health environment. The standpoint taken in this study is that sustainable health care can be achieved in most societies, but only if all the parties involved work collaboratively and support the innovative approach and each other.

REFERENCES

- [1] Piuye P, Potvin, L and Denis J (2004): Making public health programs last. Evaluation and Program Planning. Cambridge, Elsevier
- [2] Pencheon D (2014): Sustainable health care: the NHS launches a new strategy. The Guardian issue of 9 September 2016, page 1
- [3] Prada G (2012) Sustainability: What does this mean for Canada's health care systems? The Conference Board of Canada www.confrtrtenceboard.ca
- [4] Richetta, P (2013): Working together to achieve sustainable health services. Irish Medical Times, August 9 Issue
- [5] White D (2013): Development of rural health framework: Implications for program health service planning and delivery. Health Policy, Vol. 8, No. 3: 27-41
- [6] Whitelaw S, Martin C, Kerr A, and Wimbush A (2006): An evaluation of health promotion service framework. Health Promotion International, Vol. 21, No. 2: 36-44
- [7] World Health Organization (2010): Health systems financing. Geneva, WHO
- [8] World Health Organization (2012): World Health Statistics. Geneva, WHO



- [9] World Health Organization (2015): Health financing: Global Health Observation Data. Geneva, WHO
- [10] Yeboah (2005): A framework for place-based health planning. Australian Health Review, Vol. 29: 30 - 36
- [11] Yeboah (2007): The impact of population variables on health services demand and provision in the United Arab Emirates. Arab Studies Quarterly, Vol. 29, No.1: 61-70
- [12] Yeboah D A (2015): Managing sustainable health care in the UAE. International Conference on Organization and Management, Abu Dhabi.