

A Framework for Assessing Sustainability in the Healthcare System

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Abstract

A sustainable healthcare system is a system that makes sure the correct balance among social, cultural, economic, and political environments is intended to take care of the health needs of individuals ranging from health promotion, and prevention of diseases to the restoration of health. The sustainable health system guides optimal and rational health and health outcomes without negotiating the capacity of future generations to look after their health and personal healthy life, This paper explains that the sustainability in healthcare system involves balancing of environment, employees, customers, and community sustainability for constantly improving quality of healthcare services and reducing cost. The healthcare system is adopting sustainability ideas in its business models with social obligation and responsibility. Conservation of the environment and a conducive working atmosphere are essential for sustainability in the healthcare system which provides various benefits to healthcare professionals and the community. Sustainability in the healthcare system is continuously increasing the quality of healthcare services and excellence of healthcare organizations and is functioning based on accessibility, responsibility, value addition, and alliance among healthcare services and outcomes. Meanwhile, innovation at organizational and individual levels is a main driver for sustainability in the healthcare system and it improves the quality and efficiency of healthcare services and reduces the cost of healthcare services.

Key Words: *Assessment, Driving Factors, Healthcare, Innovation, Strategies, Sustainability*

Introduction

A sustainable healthcare system is a system that makes sure the correct balance among social, cultural, economic, and political environments is intended to take care of the health needs of individuals ranging from health promotion, and prevention of diseases to the restoration of health. The sustainable health system guides optimal and rational health and health outcomes without negotiating the capacity of future generations to look after their health and personal healthy lives. Further, the sustainable health system is complicated by nature and has multiple stakeholders with their capacities to gather and distribute scarce resources in the long term through which current and future health needs of individuals can be fulfilled (Prada et al 2014).

The sustainability of the health system is influenced by an array of factors namely environmental, political, legal, and social factors of the nation. The extent and allocation of the budget on priorities and various areas of the health care system is determined by those factors (Herzlinger, 2006). Sustainability is largely connected with higher degree of innovation and continuous improvement of healthcare system and delivery that needs flexibility and innovation for adopting various changes in social, cultural, political, and economic environments and also depends on the demand of people for healthcare services and it also needs integrated and innovative approaches. Sustainability in the healthcare system consists of three main features namely affordability, acceptability, and adaptability of patients, Government, and employees (Fineberg, 2012). Healthcare organizations are continuously searching for the best quality, low operating expenses, and enhancing confidence, and sustainability for employee and patient care and they are very important for creating competitiveness among them. Thus, sustainability in the healthcare system is imperative for having multi-dimensional approaches in the areas of product, and delivery of healthcare services to the environment, employees, customers, and community as a whole. The sustainability framework is used for assessing the performance of the healthcare system based on prevailing criteria of society. This is highly useful to understand precious problems related to the environment along with healthcare activities, but, also finding solutions for healthcare problems.

Dimensions Of Sustainability in Healthcare System

The execution of sustainability in the healthcare system will lead to improvement in the quality and financial aspects of healthcare (Tudor, 2007). The dimensions of sustainability in the healthcare system are as follows.

Environment Sustainability

The healthcare system is well known for adopting environmentally sustainable practices in its operations and it is undertaken to improve environmental pollution by diminishing wastes in their activities it is also helping to reduce the cost of healthcare operations. Decreasing the toxicity of wastes in healthcare operations, eliminating mercury in use, and minimizing of use of harmful substances are major practices adopted by healthcare organizations for the sustainability of the environment (Yang et al 2009). Further, they are involved in recycling wastes and reducing the increasing quantum and cost of treatments (Tudor, 2007). Further, healthcare organizations are also applying sustainable concepts in designing and building methods to generate the best environment for the healthcare and healing process (Kim and Osmond, 2013).

Customer Sustainability

Healthcare organizations have realized the significance of providing superior quality healthcare services to patients and are balancing the requirements of patients and resources as components of sustainability practices (Faezipour and Ferreira, 2013). Furthermore, healthcare organizations are using innovations and advanced technologies to provide the best treatments to customers and they have also incorporated health information systems and e-health services (Coiera and Hovenga, 2007).

Information and communication technologies are also guiding healthcare providers for sustainable healthcare services as they are helping to increase service and operational efficiencies, making tools and techniques for sustainability, and modifying and improving products and services (Coiera and Hovenga, 2007). Satisfaction and happiness of patients are very critical measures for the sustainability of healthcare services and system that is highly and very closely associated with improvement in the quality of healthcare services, decreased medical expenses, and fulfilling anticipation of customers (Chandra et al 2013).

Employee Sustainability

Sustainability in the context of the healthcare system is also taking care of employees by healthcare organizations by generating a healthy and peaceful workplace atmosphere for employees. Occupational sustainability relating to healthcare services is involved in fulfilling the demands of continuous changes in operations associated with healthcare without negotiating well well-being and health of employees of healthcare organizations (Knowles, 2010). Hence, providing a healthy and safe working atmosphere for employees is essential through which they can perform well and it enhances their job satisfaction.

Furthermore, creating sustainability in the minds of healthcare professionals will improve the adoption of sustainability healthcare practices in their respective organizations and it can create rich applied and innovative knowledge and encourage sustainability thoughts among them in their works (Mortimer, 2012). Most healthcare organizations are continuously improving the behavior and professional development of healthcare professionals (Paper et al 2012) as an integral component of improvement in the quality of healthcare services and their delivery. Modern equipment and physical structure of healthcare organizations and medical supplies are also increasing the efficiency and satisfaction of employees of healthcare organizations.

Community Sustainability

The delivery of healthcare services under the program of home-based healthcare is leading to community sustainability in the healthcare system (Barjis et al 2013) and it is because of restricted accessibility, mistakes in medical treatments, and healthcare negligence in rural regions and people. Patient monitoring and telemonitoring systems are used to provide technology-based healthcare services to the community (Barjis et al 2013) and it is restricted to only healthcare information systems (Vest et al 2013). Healthcare organizations are also involved in the conservation of resources and reduction of pollution to provide sustainable healthcare services to people and it is preferred and adopted by healthcare professionals effectively (Arce-Corrales et al 2014). The sustainability framework for the healthcare system is shown in Figure 1.

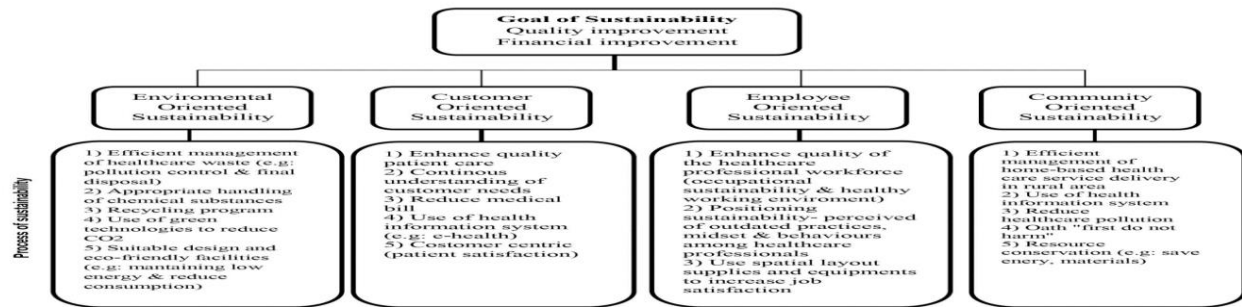


Figure-1.

Sustainability Framework for Healthcare System

Driving Factors for Sustainability in The Healthcare System

The healthcare system is incorporating sustainability into its business models based on social responsibility and obligation to society. There are so many factors that are driving sustainability in the healthcare system. The main driving factors for sustainability in the healthcare system are shown in Figure 2.- Growing apprehension of government on problems of sustainability in the healthcare system and it formulates and implements effective policies for saving energy and conservation of environmental resources and it directs healthcare organizations to adopt sustainable healthcare practices (Paper et al 2012).

- Transformations are occurring in the environment namely pollution, global warming, dearth of natural and environmental resources and these are forcing the healthcare system to discover various means to include sustainable healthcare practices in all types of operations (Paper et al 2012).

- Education and increasing awareness among all members of society are through various programs on efficient use of natural and environmental resources by healthcare organizations and reduction of pollution through sustainable practices in its various activities (Yang et al 2009).

- Corporate sustainability is increasingly popular and adopted in most healthcare organizations and it includes the development of healthcare employees, innovations, organizational climate, social responsibility, and moral and ethical behaviors of employees which are moved towards the adoption of sustainable practices in healthcare services (Kantabutra, 2011).

The increasing cost of healthcare services compelled healthcare organizations to concentrate on sustainable healthcare practices to decrease medical expenses (Hudson and Vissing, 2013).

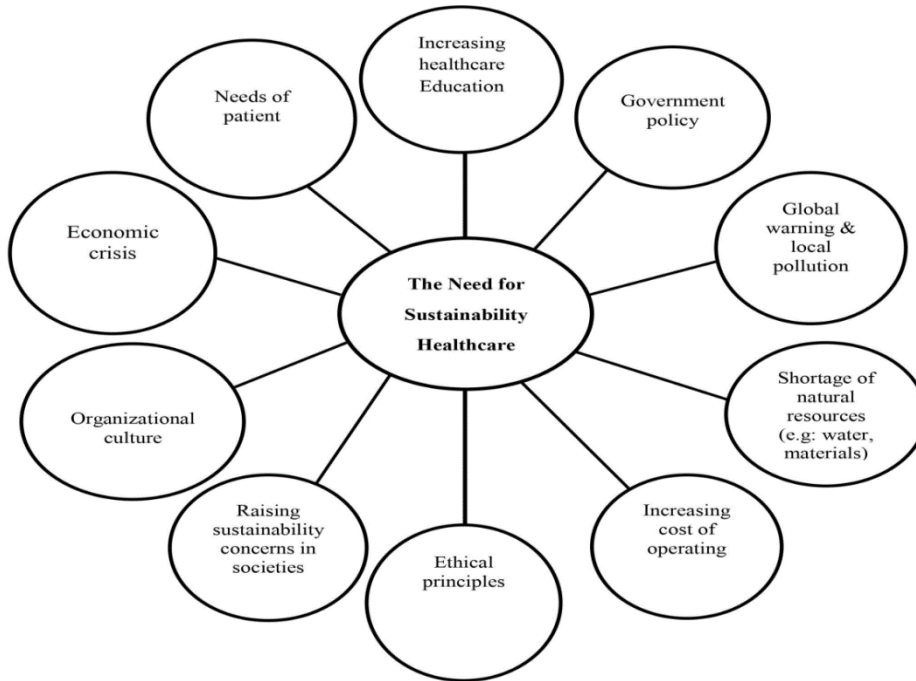


Figure-2.

Main Driving Factors for Sustainability in Healthcare System

In addition, the following important factors are considered for the sustainability of the healthcare system (Prada et al 2014). The sustainable health system is shown in Figure 3.

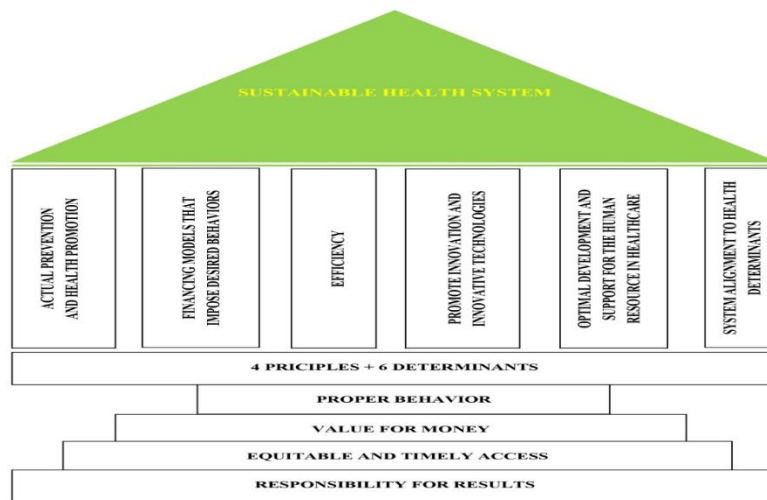


Figure-3
Sustainable Health System

Effective Disease Prevention and Health Promotion

This reveals concentrating on the best ways to control chronic diseases at the lowest possible medical expenses and on prevention and management of risks in healthcare and promotion of health among people. Proper healthcare intervention is required at organizational and individual levels to change their perception of health and healthcare services.

Higher Effectiveness of the Health System with the Help of Advanced Technologies

Considerable amounts of resources are wasted due to clinical and operational inefficiencies because of not success in the adoption of better healthcare methods, wrong implementation, absence of coordination among various healthcare services, extreme treatments, ineffective administrative practices, fraudulent practices, and higher prices and poor healthcare services to patients (Berwick and Hackbarth, 2012). The application of modern technologies generates value addition to a healthcare system that can be contributed to eliminate or reduce waste.

Funding Models to Lead to Desired Behaviour Change

A better financing model is necessary to attain sustainability in the healthcare system because it decides the dominant motivation for desirable changes in the healthcare system. The increasing cost of healthcare

services is a threat to the financial sustainability of healthcare systems and organizations. The financing model decides how much to spend on the prevention of disease and promotion of health among the general public and patients.

Promoting Creativity and Innovation

Healthcare productivity and life expectancy of people can be enhanced by innovative and creative practices and it helps improve the quality of healthcare services. Thus, it is essential to make and execute strategies for a proper understanding of the technical know-how and capacities of the healthcare system.

Optimal Development and Adequate Support for the Human Resource in the System

Healthcare organizations are continuously and adequately supporting their doctors, nurses paramedical, and supportive employees to attain sustainability in healthcare services. Healthcare systems must develop leadership qualities and communication skills, social skills, and decision-making skills among healthcare professionals to manage their stress efficiently (Edwards et al 2002) they must pay attention to the training and development of healthcare professionals, and they should give necessary support to them.

System Alignment with the Determinants of Health

The public health system is one of the choices for people and the general public and policy makers should make it sustainable.

Strategies For Sustainability in Healthcare System

5. Many strategies are implemented to constantly incorporate culture for sustainability in the healthcare system. They are:

Leadership should be developed for sustainability practices in the healthcare system and Effective strategies must be created and implemented in the most efficient ways for sustainability practices in the healthcare system (Parsons and Cornett, 2011).

Participation of healthcare employees should be encouraged in the decision-making process for adopting healthcare-sustainable practices. Learning assessment for them must be increased.

Healthcare organizations should provide a conducive atmosphere for their employees to steadily improve the quality of healthcare services.

Programs must be conducted regularly to enhance awareness of sustainable health practices among all stakeholders and encourage employees to be involved in adopting sustainable practices (Dunphy, 2013).

In addition, motivational programs training, and materials should be given adequately to them in a continuous manner for the sustainability of healthcare organizations (Higuchi et al 2013)

The healthcare system must give more attention to advanced healthcare technologies and innovations which will enhance its sustainability in every aspect of healthcare sustainable practices (Doyle et al 2013).

Psychological and social research should be conducted among healthcare professionals to comprehend their attitudes, culture, and behavior which will be required to improve the sustainability of the healthcare system (McGain and Naylor, 2014).

Collaboration and cooperation among various healthcare professionals should be increased to help healthcare organizations deal with challenges in the sustainability of the healthcare system (Ramirez et al 2013).

Healthcare organizations must collaborate with NGOs and other various associations to adopt and improve practices for the sustainability of the healthcare system (McGain and Naylor, 2014).

Innovation As a Driver For Sustainability in Healthcare System

Innovation in the health sector consists of new products, services, and modern methods to carry out healthcare practice and or advanced technologies (Lansisalmi et al 2006). Patients are expected to improve their health conditions or reduce suffering from various diseases. Innovation is the invention, improvement, and or development of organization, and healthcare business models for creating value addition to patients and getting financial benefits to healthcare organizations, innovation is an efficient execution of modern and advanced ideas that offer value addition to all stakeholders of healthcare organizations (Varkey et al 2008).

Innovation may be disruptive and nondisruptive (Moore, 2004), and nondisruptive is also described as evolutionary, incremental, supportive, and linear to enhance something that is already existed, but, it opens new ways to find solutions for existing problems. Disruptive is also denoted as nonlinear, revolutionary, and radical (Govindarajan, 2006) which disturbs older systems, generating new players and providing value to all stakeholders that adopt innovations in healthcare practices.

Innovations in healthcare practices occur on three levels such as product, process, and structure (Varkey et al 2008). Patients are paying for the products and services of healthcare organizations. Processes are innovations coming out from the production or method of delivery of healthcare services and innovation may change processes in production and it will increase value addition for stakeholders. The structure influences external and internal facilities and makes new business models for healthcare organizations. Thus, innovation in the healthcare system is the process of introducing modern ideas, products, and services, processes to improve medical treatments, education, diagnosis, prevention, outcomes, and research in the long run for enhancing safety, services, outcomes, efficiency, and expenditure in the health system.

Further, three kinds of innovations significantly contribute to the sustainability of the healthcare system (Herzlinger, 2006). The first one is modifications in the ways through which patients buy and use healthcare services. The second one is using modern technologies to develop new treatments and products to enhance the services of the healthcare system. The third one is creating new business models by considering horizontal and vertical integrations of different activities and organizations.

Assessing Sustainability in The Healthcare System

The main criteria used for assessing sustainability in the healthcare system are lean management, the satisfaction of patients, the satisfaction of employees, continuous improvement, corporate social responsibility, brand, and accreditation (AlJaberi et al 2017). Lean management includes inventory, transportation, waiting time, motion, over-processing, overproduction, and defects. Satisfaction of patients includes appointment availability, professionalism of doctors and nurses, quality of amenities, and core and emergency services.

Satisfaction of employees consists of career development, rewards, salary, encouragement and support, and empowerment in jobs. The continuous improvement consists of innovative practices, modern

technologies, and improvements in workflows and business continuity. Corporate social responsibility comprises environmental, economic, and social aspects of healthcare services, Brand includes transparency, friendliness, reputation, and communication. Accreditation includes ISO, JCIA, boards, and membership in boards of healthcare organizations.

Conclusion

This paper explains that the sustainability in healthcare system involves balancing environment, employee, customer, and community sustainability to constantly improve the quality of healthcare services and reduce costs. The healthcare system is adopting sustainability ideas in its business models with social obligation and responsibility. Conservation of the environment and a conducive working atmosphere are essential for sustainability in the healthcare system which provides various benefits to healthcare professionals and the community. Sustainability in the healthcare system is continuously increasing the quality of healthcare services and excellence of healthcare organizations and is functioning based on accessibility, responsibility, value addition, and alliance among healthcare services and outcomes. Meanwhile, innovation at organizational and individual levels is a main driver for sustainability in the healthcare system and it improves the quality and efficiency of healthcare services and reduces the cost of healthcare services.

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