**Sustainabllity in Health and Health CareProvision**

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**Abstract:**

Sustainable healthcare delivers high-quality care without damaging the environment, is affordable now and in the future, and transporting a positive social impact. This course outlines foresight of a sustainable health system based on planetary health principles with a broader focus on health creation at a population level. Health systems consume excessive quantities of materials, energy, chemicals, and water, and they produce vast amounts of waste, much of it toxic. A well organized sustainable health system use resources in a way that affects the health of the people. Sustainable healthcare can also make a significant contribution to the carbon reductions by the Paris Agreement, the NHS net zero commitments, and the wider UN Sustainable Development Goals. The World Health Organization identifies Sustainable Healthcare System as a system that improves, maintains or restores health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve the health and well-being of current and future generations

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**Key wards:** Sustainable, healthcare, population, resources, environment

**Introduction:**

Sustainable Healthcare provide quality care without impacting the environment is economical and socially beneficial. This course introduces a holistic health perspective as a global health framework, with a focus on health promotion and eradicating populations. Cleaning machines use excessive amounts of materials, energy, chemicals and water and generate large amounts of waste, most of which is toxic. A healthy lifestyle uses resources in ways that affect people's health. Healthcare can also contribute to carbon reduction under the Paris Agreement, NHS net zero commitments and the broader UN Sustainable Development Goals. The World Health Organization defines a healthy health system as one that promotes, preserves or improves health while reducing environmental impact and utilizing opportunities to improve and improve the health and well-being of current and future generations.  
  
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Key words: Sustainable, healthcare, population, resources, environment  
  
  
  
**Introduction:**Sustainable healthcare reduces the environmental impact while providing high-quality care at a reasonable price. It depicts a system that satisfies current health requirements without endangering the health of next generations.

Understanding that human health and the environment are inextricably linked, sustainable healthcare involves acting in a way that promotes the wellbeing of both people and the earth.

The environmental impact of the healthcare industry will only grow with the adoption of sustainable healthcare. In the future decades, it is anticipated that population expansion, unhealthy lifestyles, an increase in chronic diseases, an ageing population, and increased access to healthcare would all contribute to an increase in the needs for healthcare and the use of resources.  
  
**SUSTAINABLE HEALTHCARE IS UNDERPINNED BY THREE CORE PRINCIPLES:**1. Focus on prevention

People should require fewer healthcare services and resources if they are encouraged to take an active role in their own health by engaging in good behaviors including quitting smoking, keeping a healthy weight, being active, and eating a balanced diet.

Catching diseases at an early stage are also often related with less resource-intensive care – as well as better outcomes for patients – so screening and testing for conditions like cancer or lung disease is another way to reduce the long-term consumption and burden on healthcare resources

Better management of established health conditions such as heart failure and diabetes can help to lower the complications and subsequently reduce reliance on healthcare services.

**2. Digital Solutions**  
Virtual GP appointments, remote analysis of conditions using AI, and accurate digital imaging in dentistry can all support sustainable healthcare .Appropriate treatment option first time, reducing the need for multiple trips to clinics or hospitals and the resources that they consume. The adoption of digital imaging in many of our dental clinics is helping to reduce the environmental impact of traditional X-rays.

**3. Reducing the environmental impact of care**

It is important to combine the provision of high-quality care with a reduction in the environmental impact of this care on Earth .This can be done in many ways, starting with taking evident steps such as ensuring healthcare settings are powered using renewable energy, improving waste management, and transitioning to feasible products and suppliers. However, it also includes initiatives such as reducing the length of stay where clinically appropriate and minimizing the number of duplicated tests or unnecessary procedures.  
Additionally, investigating the environmental impact of different treatments and interventions alongside their clinical outcomes will support healthcare professionals in making informed decisions about how to treat patients in a clinically effective and livable way.  
Health-care quality improvement and sustainability  
A health system that is socially, environmentally, and financially sustainable requires clinical leadership, yet few healthcare workers possess the conceptual framework or practical skills for creating new models of care. Practitioners can make global health protection an integral part of practice by integrating the triple profit into quality improvement or quality control. The first attempt to incorporate sustainability into the development of education and training has shown to change students' interest in improving the quality and sustainability of the environment. Integrating sustainability models and technologies into design-development education and practice can put global health into practice, creating the skills needed to pace treatment and measure need.

Improvement in health care is informed by domains of quality, defined as patient experience, safety, effectiveness, efficiency, equity, and timeliness. Sustainability is a domain of quality that must “run through and moderate other domains”, as health care should consider what can be delivered both for patients today, for the population in general, and for future populations

Sustainability in quality improvement (SusQI) is a pioneering framework that embeds environmental, social, and economic sustainability into established quality improvement methodology. It is defined as “an approach to improving health care in a holistic way, by assessing quality and value through the lens of a ‘triple bottom line”

**Environmental** **Sustainability**The project team has an ethical responsibility to promote environmentally sustainable practices throughout the design and construction process. The main environmental design ideas for the new hospital are:  
• Improvement of the building's ground level to accommodate the rising sea level.  
• Reduce energy consumption by creating solar energy and ventilation systems.  
• Improve the area's biodiversity and help cool buildings.  
• Collect rainwater to irrigate and flush toilets.  
• Reduce carbon footprint generation by providing renewable energy sources.  
• Heat stroke (hot or cold) – similar to what we have seen worldwide in recent years These are risk factors for heart disease and lung disease3. Air pollution can affect the respiratory system, such as asthma, increase pressure, reduce air pollution, cause smog and increase hospitalization. There are also concerns about the effects of hot weather on maternal, infant and child health5, with prolonged exposure to heat and sunlight increasing the risk of skin cancer. more  
• Global warming is an important factor in the incidence of skin cancer in Turkey. Diseases around the world pose a serious threat in regions that may not be the same as before. As the global temperature rises and countries warm, the diversity of diseases once seen in tropical and subtropical regions is increasing7. For example, while mosquitoes and the potentially deadly diseases they carry (such as malaria, dengue fever, and Zika) can spread and survive at high altitudes and high altitudes, high rainfall can create new breeding grounds for diseases. 8 < br>• Mental health People also experience stress, ecological stress, they are also beginning to understand the effects of climate change9, from PTSD to suicide. Globally, nearly half of climate change survivors experience mental health problems 10.  
• In addition to the direct effects of climate change on human health, climate change also poses a threat to health care delivery and health care. The frequency and severity of severe weather events means that hospitals, nursing homes or nursing homes can be physically damaged or electrocuted. Roads can become flooded or damaged, making it impossible for doctors to reach patients who would have difficulty accessing basic medical services.

**Social Sustainability**

Social security in health is the ability of hospitals and health systems to improve the quality of life and improve people's health. Hospitals promote connectivity, facilitate access, improve health and promote equity.  
  
• Visits are encouraged by creating a central courtyard symbolizing the transparency (less organization) of the treatment process.  
• Focus on delivering critical services and making a greater impact on quality health outcomes in the hospital's most important activities.  
• Improve patient recovery by controlling infection and including autologous grafts.  
• Improve access and equity in healthcare by distributing primary healthcare from one large hospital to many smaller centers across the island.

**Economic Sustainability**

There is a strong correlation between poverty and the impact on poor health in society. The new hospital concept includes ideas for the acquisition and subsequent operating costs of the hospital to secure financial health and people. These strategies include:  
• Capacity building through construction to support local workers and promote local employment.  
• Reduce operating costs by using renewable energy and reducing waste.  
• Improving the capacity of medical staff and standards of care through service development.  
Healthcare Sustainability Measures  
Measures to increase productivity require care of individuals and communities as well as care managers and communities. In general, working in a hospital is not much different from the rules. While some opportunities exist in terms of economies of scale and resources, efficiency gains in hospital care tend to be small. For example, different economic and operational models for primary and community care offer opportunities to strengthen health efficiency and thus community participation.  
In fact, the core concept should be shifted from diseases and injuries to the management of health (i.e. health) where treatment is provided for people with health problems and injuries, from hospitals to community centers and their sequential transfers to people's homes. and change the health of the human population through principles of nutrition, health, and management. It goes without saying that a small increase in health "productivity" per capita in a society/country will increase the number of healthy workers.

**Indian Healthcare Sector and the Sustainable Development**

NITI AAYOG, the main think tank for developmental planning, developed the Index for Sustainable Development Goals (SDGs), which scrutinizes the progress of states and Union Territories (UT) for various parameters which include healthcare, education levels, gender justice, economic growth, institutions, measures to combat climate change, and the environment protection. It was first launched in December 2018 and became a key instrument for tracking the developmental path towards the Sustainable Development Goals in India. This contributed to the development of competition between states and their ranking according to global goals.

The index was developed in partnership with the United Nations. It monitors all states and Union Territories on 115 metrics that are in tandem with the National Index System of the Ministry of Statistics and Program Implementation. This tool is important regarding dialogue, formulation, and implementation of targeted based initiatives. This helps to oversee important gaps in monitoring and to highlights the necessity of having indigenous statistical programmes in India.

It helps identify weaknesses in the implementation of SDGs and the need for developing indigenous statistical systems. Kerala ranked first in the NITI Aayog India SDG Index 2020-21, while Haryana, Mizoram and Uttarakhand are the top achievers in improving their rankings since 2019.

The challenges to the sustainability of health systems globally are such that structural (i.e. organizational) reforms and rearrangements, and even changes in some payment methods will not achieve the desired system stability and growth. Instead, a reimagining is necessary. This will need to include a shift away from pay-as-you-go transactional care delivery to, as much as is possible, a fully forward-funded healthcare system that invests against future health and economic dividends. For publicly funded systems, this will require a social commissioning approach.

It is inevitable that fully forward-funded healthcare will be increasingly proactive and preventative and will address the entire range of the social determinants of disease. It is possible to make such a transition: the Accident Rehabilitation and Compensation Corporation in New Zealand is a successful example. However, the transition is difficult, can be expensive and will require consideration of a range of broader policy issues. A question to be asked then for different jurisdictions is are there any cheaper and easier-to-obtain ‘halfway houses’ that are likely to achieve most of what will be obtained by way of changed behaviours through a completely fully forward-funded system.

Conclusion: Maintaining a sustainable healthcare system while providing high-quality, effective, and safe healthcare is a major economic and social challenge for healthcare services and consumers. The cost-saving potential of a more efficient use of energy and other resources in healthcare systems is clear; yet, there is a long way to go for environment-friendly hospitals, healthcare structures, and clinical laboratories to become the norm. Good collaboration among the EU healthcare systems and a common vision for future actions would help achieve such goals. **References**

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