

Title: Empowering Healthcare: A Gateway to a Sustainable Future

Authors: Nasima Helal and Amna Ashfaq

Institution: Department of Biomedical Engineering, Ajman University

Abstract

With the ever-increasing population, the need for healthcare facilities also drastically increases. However, the healthcare sector contributes to about 5% of the worldwide carbon emissions, negatively impacting the environment. Thus, the use of sustainable energy resources is critical given the increasing requirement. This study focuses on the effectiveness of various renewable energy sources in meeting the energy demands of different types of healthcare facilities, as well as the contribution of sustainable energy practices on overall energy consumption. Additionally, it identifies the obstacles to implementing sustainable energy technologies and proposes ways to overcome them. The study is limited to the healthcare facilities concentrated in the Global South, focusing on the Middle East and North Africa. Utilizing renewable energy options can offer a reliable source of electricity, resulting in better healthcare services and long-term cost reductions. The integration of renewable energy sources leads to a significant decrease in greenhouse gases emissions and air pollution. Therefore, its use reduces the environmental impact of traditional energy sources like coal and natural gas and leads to an overall healthier and sustainable future.

Keywords Renewable energy, Sustainable Healthcare, Energy Efficiency, Global South.