Global Indicators of Successful Remote Monitoring Adoption Applying Diffusion of Innovation Theory

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Abstract: Innovations in technology have implications for sustainable development in health and wellness. Remote monitoring is one innovation for which the evidence-base has grown to support its viability as a quality healthcare delivery adjunct. This research reviews global data on telehealth adoption, in particular, remote monitoring, and the conditions under which its success becomes more likely. System-level indicators were selected to represent four constructs of DoI theory (relative advantage, compatibility, complexity, and observability) and assessed against 5 types of Telehealth (Teleradiology, Teledermatology, Telepathology, Telepsychology, and Remote Monitoring) using ordinal logistic regression. Analyses include data from 84 countries, as extracted from the World Health Organization, World Bank, ICT (Information Communications Technology) Index, and HDI (Human Development Index) datasets. Analyses supported relative advantage and compatibility as the strongest influencers of remote monitoring adoption. Findings from this research may help focus on the allocation of resources, as a sustainability concern, through consideration of systems-level factors that may influence the success of remote monitoring adoption.

Keywords: remote monitoring, diffusion of innovation, telehealth, digital health

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