Environmental dividend and Economic Cost Savings of Telehealth Interventions in an Eco-sensitive Sub-Himalayan Region of India

(Telehealth touching community well being : last Miles)

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Key Messages

Digital health Interventions in eco sensitive geographical zones has proven to earn environmental dividends, Carbon social cost savings and economic cost savings to individuals and the community

Introduction

The Center for Digital Health of AIIMS Bilaspur, an Institute of national importance in India provides Tele consultation services in the 4 specialties (Medicine, Dermatology, Pediatrics and Obstetrics and Gynecology) to the 12 remote districts of Himachal Pradesh (India). This whole region is geographically, an eco-sensitive, hilly, treacherous mountainous region with scattered population. Digital health interventions like telehealth (1,2,3) could impact on many factors like climatic dividends (equals one ton of Co2 avoided), carbon social cost savings ($50 /Ton), man hours saved, distance travelled saved (combinedly Environmental and economic dividend)

Objective

This report aims to explores the impact of a telemedicine interventions on factors contributing to environmental and economic dividends in eco sensitive sub-Himalayan region.

Methodology

From the available Teleconsultations data, we assess the factors like Number of Kilometers distance avoided, Co2 emission avoided, Man hour saved, travel cost saved, Climatic Dividend and Carbon social cost saving, by applying appropriate statistical and mathematical calculations, to analyze the findings.

Results

As depicted in the Fig 1,teleconsultations from all the districts happened from May 2022 to 31March 2024. A total of 15111 tele consults were given and its impact on environmental and economic costs has been assessed (Table 1).

Discussion

In addition to health benefits due to service provision of the specialties, which are not available at remote locations. It is observed that there is a significant individual cost savings, Savings in the man hours at community level. By digital health interventions, the impact on climatic dividend and carbon social costing is found to be an enormous. The cost saved could be an opportu

Conclusion

Although report was conducted in one healthcare institute, by involving all districts of a Mountainous state. The report strongly depicts that even with this small digital health intervention of telemedicine services in fragile Himalayan region, the environmental dividends are significantly high. Therefore, the findings strongly advocate for inclusion of factors contributing to environmental and economic dividends into the digital health policies/strategies of healthcare organizations of future.

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References

1.Purohit, A., Smith, J. & Hibble, A. Does telemedicine reduce the carbon footprint of healthcare? A systematic review. *Future Health. J.* **8**, e85–e91 (2021).

2.Bartlett, S. & Keir, S. Calculating the carbon footprint of a Geriatric Medicine clinic before and after COVID-19. *Age ageing* **51**, afab275 (2022)

3. https://www.climate-dividends.com,accessed on 25.04.2024

Picture 1: Geographical map of Himachal Pradesh and remote geographical telehealth centre

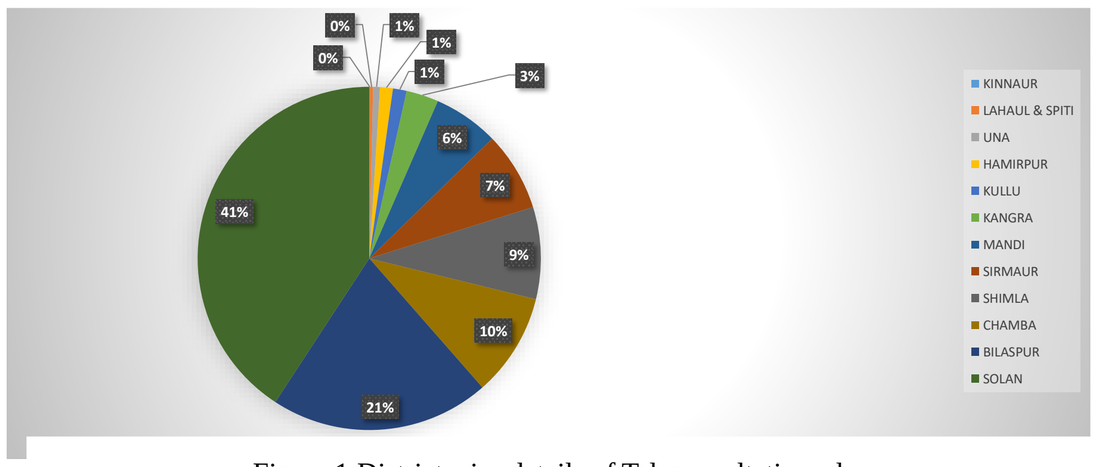

Figure 1:District wise details of Teleconsultations done

District	Total	Total Distance Avoided (Kms)	Carbon emission (gm)	Climatic Dividend (Tonnes)	Carbon Social Cost Saving	Money Saved In Dollars (INR)	Man Hours (Days)
Kinnaur	9	5337	453645	0.45	23	90 (7471.8)	167.1 (7)
Lahaul & Spiti	45	31797	2702745	3	135.1	534.3 (44516)	767 (40)
Una	97	15849.8	1347233	1.3	67.3	266.3 (22190)	294.2(12.2)
Hamirpur	183	24082.8	2047038	2	102.3	405 (33716)	555.1 (23.1)
Kullu	196	54840.8	4661468	5	233	922 (76778)	1365.4 (57)
Kangra	459	127785.6	10861776	11	543	2147.3 (178900)	3749 (156)
Mandi	932	102333.6	8698356	9	435	1720 (143267)	2330 (97)
Sirmaur	1127	513235.8	43625043	44	2181.2	8625 (718530)	12247 (510.)
Shimla	1308	203786.4	17321844	17.3	866	3425 (285301)	6714 (280)
Chamba	1468	841164	71498940	71.4	3575	14136 (1177630)	21482 (895)
Bilaspur	3124	68728	5841880	0.5	292	1155 (96219)	52 (2.0)
Solan	6163	1725640	146679400	1.4	733.3	28999 (2415896)	40060 (1669)
Total	15111	3714580.8	315739368	316	15787	$ 62422.4 (INR 5200413.1)	89781 (3741)

Table 1:Showing impact of Telehealth on the various factors

Environmental Dividend Economic Dividend