

E-health Points an Attempt to Reverse the Man Made Disaster in Cancer Belt

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ABSTRACT

The Green Revolution transforming Punjab into a prosperous state also resulted in deleterious impact on the health of the people of Punjab. High Yield variety of seeds led to the immense usage of pesticides. The indiscriminate use of pesticides percolating into the ground water over the years has led to grave consequences like increased incidence of Cancer in the region. As cleaning the ground water is a herculean task; and the continuous increase in Cancer cases along with other ill health effects due to polluted water calls for an immediate solution. Thus generating a need for an alternative remedy. E- Health point model, which is a one stop solution is catering to both the issues, it is providing RO filter water at a nominal price (Rs.75/month for a family of five members) and expert telemedicine consultation to cancer patients, that too at a rural setting without having the patient to travel to cities. E Health points thus obviate the usage of polluted ground water and go a long way in preventing the further deterioration of health. Since its inception many people have taken the advantage of E health Points as the facility is available at their door steps.

Keywords: E-health Points, Cancer Belt

INTRODUCTION

Punjab is one of India's most prosperous states. This prosperity has been largely due to its success in the agricultural green revolution.¹ Unfortunately, over the past five decades health of the people of Punjab has deteriorated as Green Revolution brought changes in their agricultural practices and lifestyle.

Liberal use of pesticides and fertilizers especially the internationally banned chemicals, the improper disposal of hazardous wastes, lack of knowledge on safety precautions for handling chemicals has all led to contamination of the ground water, rendering it unfit for drinking and irrigation purposes.

Cumulative exposure to pesticides may come from food, water, air, dust, soil etc. Total number of pesticides detected in blood samples from Punjab was 15 out of 28 pesticides analyzed.²

As per the U.S. Center for Disease Control and Prevention, the concentration of these pesticides in the blood of Punjabis was 15 to 605 times greater than the concentration of the same compounds found in U.S. farmers.³

MAGNITUDE

The Malwa region of Punjab, India, has been facing an unprecedented crisis of environmental health linked to indiscriminate, excessive, and unsafe use of pesticides and fertilisers for decades resulting in poor groundwater quality. Cancer is so prevalent in the Malwa region that the region

has been called India's Cancer Capital. The data shows a continuous increase in the number of cancer cases in the last 12 years. The highest number of cancer cases among the four districts are in Muktsar, followed in order by the Mansa, Faridkot, and Bathinda districts.⁴

Studies conducted over two years back, of this region have also highlighted a sharp increase in many other pesticide-related diseases, such as mental retardation and reproductive disorders.⁴

The Atlas of Cancer in Punjab State (ICMR, 2012- 13) has also reported a spurt in cancer cases in Punjab, with 1453 total cases in 2012 in Bathinda region increasing to 1646 cases in a matter of one year.⁵

The water quality in the region is indicating towards a potential hazard, since excessive intake of fluoride causes fluorosis which is a pathological condition resulting usually from drinking water. Premature greying of hair and premature ageing have been reported in district Bathinda (Punjab)⁶

CHALLENGES

The cause is local, it is geographical, in this case it is polluted water, and the source of pollution is the increased use of pesticides for decades. So it is the ground water which is the causative.

These reports, coupled with media scrutiny and increasing public awareness have now forced the state government to announce a series of steps to augment health facilities to tackle the scourge of cancer.⁷

The measure which can be taken at this point is cleaning the ground water which by itself is not an easy task and constraint is bio-monitoring.

Many states are not able to adopt it or carry it on regular basis due to the following main constraints: i) Lack of desired level of skill in many State Pollution Control Boards; ii) Lack of manpower; iii). Lack of resources and iv). Lack of awareness.⁸

Thus, the feasible and practicable remedy left is to make easy access of potable water to people from retail outlets like shops and temples. The drawbacks of which seem to be that sick persons and / or their family members may not often

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go to fetch water. Thus, the need arose to look out for an apt place where the sick are more likely to visit for one or the other definite purpose.

INNOVATION / SOLUTION

E Health Point units, started in rural India, intending to provide families in affected villages with, advanced tele-medical services that “bring” a doctor and/or a paramedic and modern evidence-based healthcare to their community where the local available paramedics or doctors can consult the specialist or consultants residing in metros of the country or abroad through telecom conferencing services.

These E Health points have also been equipped with RO filters which provide safe water to the Population at a rate of 20 litres per person per day for drinking and cooking. Taking average of 5 members in a family, every family is being charged a nominal fees of Rs. 75/Month.⁹

Also, providing alongside greater access to high quality health-care and safe drinking water services resulting in better health and well-being, enhanced productivity and improved standard of living, it also provides multiple opportunities for employment generation in the local areas.¹⁰

E Health Points have successfully provided telemedical consultations, diagnostic investigations, alongwith supply of safe drinking water to many beneficiaries from the time of its inception.

E Health Points positively changes the perspective of the public versus private health sector by implementing a technology-based social enterprise for low income groups.¹¹

The gathering of people at a common place can be utilized to raise awareness about health issues and can be used as an opportunity for preventing and promoting health concerns. Clubbing healthcare delivery with a basic amenity of water provision can go a long way in combating social taboos like HIV, TB, and Leprosy.

Cancers due to water contamination pose a serious threat to public health. Government agencies are proactive in tackling the issue but with little success.

CONCLUSION

Many organizations be it public private or a NGO provide different components of healthcare and water services separately. As per our view E health point model brings together all these stand alone services; using telemedicine for a doctor- patient interaction, combining preventive and curative services, providing RO water, bringing urban facilities to rural rather than the usual approach of rural patients having to travel to cities for treatment.

This further decreases their expenses on water borne diseases, healthcare, and reduces sickness absenteeism and lost wages.

E health point serving as an epitome of Universal Health Coverage is first of its kind and a unique contribution to the field of public health.

Thus it is a model which is innovative, effective, acceptable to people, replicable, scalable, sustainable, with a belief that it will decrease health inequities and so will further augment human productivity.

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