

# A Web Portal for Donating Unused Medicines and Medical Equipments

Vishal Gupta<sup>1</sup>, Shatakshi Jain<sup>2</sup>

<sup>1,2</sup>*Department of Information Technology, Meerut Institute of Engineering and Technology, Uttar Pradesh, India*

“Medicine is not a book but mind, not a business but life.”

**Abstract-**We frequently have extra medicine left behind. Manytimes, we do not use the entire amount of medicine from a bottle or a strip and are left wondering what to do with them. On the other side, there are many individuals who require such costly medications for their therapy yet are unable to afford to purchase them. There is also a need to provide people with the medical equipments that they might need after undergoing critical surgeries or if they have any kindof physical disability (temporary or permanent). A common tactic to fill the current gap is to donate medical equipment to low-resource areas, but documented experience and reviews are lacking. It has previously been noted that there are difficulties, including infrastructure gaps, a lack of technological and maintenance capabilities, and a lack of prioritisation of necessary supplies.

Our goal is to recycle medicines and otherwise costly mobility equipments in order to reduce medical waste and the costs associated with treating the underprivileged community.

We can use the strength of internet technology and its vast network, by which individuals can assist each other with just a few clicks, to satisfy the growing need for advances in healthcare facilities and services.

## 1.INTRODUCTION

In the human race, life is a crucial concern. The provision of health care is a necessity in emerging nations. Lack of access to medicines results in a chain reaction of pain and suffering, from failing to treat severe ear pain in children to mothers bleeding to death during childbirth to deaths from diseases that can be easily and affordably prevented or treated. One inequity that may be quantified by a glaringly obvious yardstick: the number of avoidable deaths, is a lack of access to medications.

People in impoverished countries have limited access to medical facilities, including doctors and paramedical workers. A strong ethical imperative motivates efforts to increase access to medications. Access to life saving and health improving shouldn't be restricted for unjust reasons, including those that have social or economic causes. In a fair and just world, it would be unimaginable for millions of children to die each year from diseases that could have been treated or prevented with current medical advancements.

As a result, such countries have a high demand for healthcare.

India is a populous country. The population of India is around 1.42 billion by 2023 which rounds to 464 people per sq. km.

There are an estimated 1.34 doctors per 1,000 Indian citizens, as per the World Health Organization (W.H.O).

Poverty eradicates the well-being of the people and the poverty of the nation while creating public health fears.

An estimated 1.3 billion people experience significant disability. This represents 16% of the world's population, or 1 in 6 of us.

The Sustainable Development Goals and global health priorities to attain health for all depend on disability inclusion.

16.4% of people in India live below poverty line. This makes it difficult for them to afford medicines and mobility support equipments, the average price of which ranges from 500 to 5 lakh rupees.

Here, we aimed to develop a website that may assist in gathering unwanted medications and medical equipments such as wheel chairs, walkers, canes, crutches, braces etc., from contributors through NGOs and also supply for the underprivileged or the unable. For low-income users of this site, accredited doctors

may recommend some medications and they could afford good medical services.

We also assist Organizations in keeping track of the accessibility of critical medications.

## 2.LITERATURE SURVEY

India is home to one in six people on the planet. For various populations, the accessibility and cost of high-quality healthcare varies greatly.

Governments, the World Health Organization, the World Bank, academic institutions, non-governmental organisations, and 36 pertinent studies demonstrated the significance of taking into account all phases of the donation process, including planning, sourcing, shipping, guiding, maintaining, and evaluating equipment donations. Both the supply and demand sides of the global digital health or e-health market are expected to significantly rise, according to experts. From 2019 to 2025, the digital health industry is anticipated to develop at a compound yearly growth rate of 29.6%. The market for digital health was worth \$86.4 billion in 2018 and is projected to grow to over \$500 billion by 2025. By 2023, the global market for digital health would be valued \$ 223.7 billion, predicts Research and Markets. According to Global Market Insights and Transparency Market Research, the global market for digital health would be valued \$379 billion by 2024 and \$536.6 billion by 2025, respectively.

Donors were asked to review national regulations to make sure that the equipment was suitable, attractive, and affordable for both parties. For long-term sustainability, access to biomechanical engineers and user training were recommended.

Finally, decreasing inappropriate donations and enhancing follow-up and assessment required equitable partnerships between donors and receivers. Despite medical equipment donation being the primary source of equipment in many low-resource settings, there is a lack of research on the factors that contribute to its success or failure.

A crucial part of digital healthcare is telemedicine, particularly in India where the number of phone subscribers is expanding quickly. By calling instead of going in person, more Indians will have simpler access to healthcare facilities. The country-wide lockdowns caused by the Covid-19 pandemic made it unsafe and difficult to access non-Covid patients, which helped to

accelerate the introduction of telemedicine. In India, between 1 March 2020 and 31 May 2020, there was a 67% reduction in in-person doctor visits, while there was a 500% increase in online medical consultations, according to a survey by the Indian health-tech startup Practo. The Telemedicine Practice Guidelines (TPG), published by the government in March 2020, appropriately set out guidelines for physician-patient relationships, concerns of liability and negligence, evaluation, management, and treatment, as well as informed consent.

Telemedicine faces a number of technological difficulties. First, those that create mobile applications can do so without having a good understanding of the real world, which would result in less-than-ideal results. Second, there is a tendency to keep updating software even when it is still useful. Money is spent on creating and testing a new version of the software rather than carrying out a project using the present version. Low-end mobiles are widely available, however applications that use the global positioning system (GPS) tracking capability would be better suited for inexpensive smart phones, like the open-source Android devices.

## 3.PROPOSED SYSTEM

In this system, we talk about the building and designing of the system.

### *Theory design*

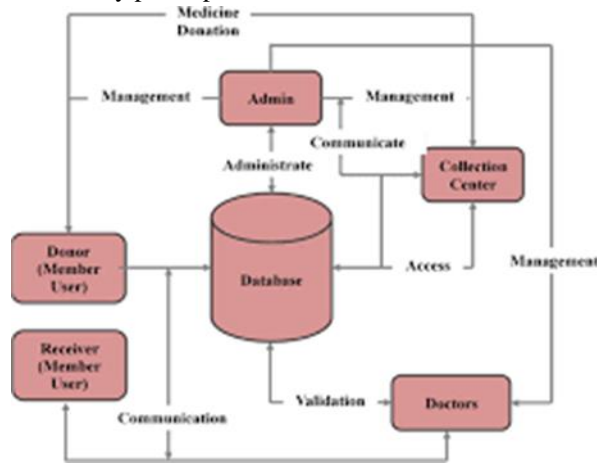
This part focuses on our program's conceptualization, which is an example of a programme that establishes fundamental ideas that may be utilised to know, comprehend, and replicate our programme. The online service will act as a conduit between users and approved sources (NGOs) that will provide drugs to the underprivileged. With this web platform, sponsors can give their prescription drugs, and registered doctors can recommend drugs to recipients for their patients who can't afford these pricey drugs. This completes the scheme. Participants in our programme include pharmacists who provide their services, people who will receive free medicine, and people who link resources so that any NGO can respond by keeping track of the medicines available, collecting drugs from donors, and prescribing medicines to people who need them to finish the programme.

The system can validate the account and any information provided by the provider and NGOs when

NGO representatives and a pharmacist or other provider register an account on our software side. Registration of the user's name, address, email address, and password is required for this process.

By presenting the certified prescription issued by the doctors for the treatment, the beneficiary can also pick up the drug directly from the NGOs.

Alternately, Patients can call doctors participating in the program and if the patient is unable to pay their prescription, the doctor can take this order form to the NGO and suggest that they request medicine through the program. To purchase medicine. As a result, receivers do not require direct access to the portal that addresses their power and technological problems associated with using smart phones and the internet. The concerned administrator made sure the recommended medication was still available before giving it to beneficiaries. As a result, the programme will satisfy participants' needs.



### Website Development

This section illustrates the process of creating a website. The development phase is divided into three sections:

- Initial Database and Server End
- Security Elements
- User Interface

### Database and Server End

In order to prevent unauthorised access, we first setup the ER (Entity Relationship) database recipients in accordance with the specifications of our website and used the database on the MYSQL server. On this website, we've employed two distinct logins (administrator and user) for security reasons to ensure

that nobody can easily access or finish the high-quality control panel information. The control panel updates the entire system and confirms that the software was successfully delivered from the user database.

### Security Features

Users must first register in order to access web portal services, and once all necessary information has been verified—doctor registration numbers are used to verify doctors—registration will terminate. We employed fundamental HTTP authentication, which authorises a strong user-encrypted password validated by the current email address with encrypted message (using the password hash () PHP function). A session-based login will be active until the user logs out or the system has to be uninstalled unavoidably after the precise time the session ends. We have therefore worked to make the web-portal more dependable and safe for users in order to enable these kinds of security features.

### User Interface

Secure access is made available through the portal so that users can personalise their information, and the web portal's content can be customised to meet the needs of different users (donors, NGOs, and recipients). It has simultaneous device and browser compatibility set up in a user-friendly manner to make it simpler to access the actual user. HTML, CSS, JavaScript, jQuery, PHP, and other technologies have all been employed in the creation of portal technology. What improves the site's user experience? The scanning cycle, which will be more difficult and rapid, is known as checking everything while rotating the scanner inside the information table. The productivity management module continuously searches the information table to decide when files should be examined. When testing is necessary, the module sends the data to the visible cloud machine, sends it back to the information table, and then does the necessary tasks before sending the information file back to the production management module. The production management module starts creating new input when production is lost.

### 4.FUTURE SCOPE

This project has the potential to develop into a complete application in the future, with all the

features. In the future, it can be developed to offer users treatment via video consultation with a facility to upload prescriptions from doctors.

Because it is crucial to abide by government laws and regulations in the current climate of COVID19, it can be highly advantageous to users. The best potential future use for the portal is the functionality that allows for doctor-patient video consultations. We are combining all of the medical services, such as consultations, drug donations, blood donations, etc., to provide better ideas in the future. As a result, it may one day also develop into a for-profit portal or app that is distinctive in both nature and accessibility.

## 5. CONCLUSION

Achieving universal health coverage in India requires a comprehensive human resource policy across the country. The policy also promotes the mainstreaming and task shift of health professionals practicing traditional Indian medicine (Ayurveda, Yoga, Naturopathy, Unani, Siddhas) and homeopathy, as well as other measures to increase the number of health workers. You can also implement innovative strategies for sector workers.

Efforts should be taken to ensure that a donation has as much of a positive impact as possible on the recipient. This principle suggests that all donations should be made in response to a recipient's declared need and that unsolicited donations should be avoided. The second rule is that donations should be made in full respect of the authority of the recipient and in support of any administrative and policy frameworks already in place. The third rule is that no two standards should be used; if an item's quality is poor in the country of origin, it should also be poor when donated. The fourth rule is that the donor and recipient must maintain clear lines of contact.

## REFERENCE

- [1.] [Researchgate.net/publication/361389050\\_An\\_Online\\_Web\\_Portal\\_for\\_Donating\\_Unused\\_Medicines\\_to\\_NGOs](https://www.researchgate.net/publication/361389050_An_Online_Web_Portal_for_Donating_Unused_Medicines_to_NGOs)
- [2.] IJARST, *Online Medicine Donation Website*, Volume 6, Issue 2, June 2021
- [3.] WHO Guidelines for Remedies Donations 3<sup>rd</sup> edition. [http://whqlibdoc.who.int/publication/2011/9789241501989\\_eng.pdf](http://whqlibdoc.who.int/publication/2011/9789241501989_eng.pdf)

[4.] Dory J. Donation of medical device technologies. *Clinical Engineering Handbook*, Burlington, Elsevier Academic Press

[5.] Medicine donation system, [https://zenodo.org/record/657899#ZBRFMqRX4z\\_Q](https://zenodo.org/record/657899#ZBRFMqRX4z_Q)

[6.] <https://www.studocu.com/in/document/ijresm-v4-i4-24-online-medicine-donation-system/28322571>

[7.] *Who.int*, WHO-India, 2023

[8.] *En.wikipedia.org, Poverty in India, 2021*

[9.] Prentza, S. Maglaveria, "Delivery of healthcare services over mobile phones".

[10.] WHO Guidelines for medicine donations