

## Medi 24/7 App for Non-Communicable Diseases - India

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### Abstract

We know that health is a primary needed for all the people who live on this planet. It is also said that "Health is Wealth". So, health plays a major role in one's life. We are much aware that we use many Android applications which are many in Play store. There are many apps such as 1) Medicine delivery 2) Consulting a doctor 3) Diagnosis 4) Health issues. But there is one feature that is not available i.e, tracking health camps. The government is conducting many health camps but because of people unawareness due to lack of intimation where it is being conducting (location) they are unable to utilize those services. Tracking those health camps is the android application that we are thinking. The advantages of this developed app are 1) A huge amount of pocket expenditure can be saved. 2) Time can be saved. 3) Easy navigation through Google maps. 4) User friendly UI. 5) Get notified with updates and alert messages. 6) Free supply of health drugs and free camps can be utilized.

**Keywords:** NCD, Android, Location track, Medical camps.

### 1. Introduction

Reducing the major risk factors for Non-Communicable Diseases (NCDs) [1][2] - tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol - is the focus of WHO work to prevent deaths from NCDs.

Cardiovascular Disease	<ul style="list-style-type: none"><li>•Ischemic (Coronary) Heart Disease</li><li>•Cerebrovascular Disease</li><li>•Hypertension</li></ul>
Cancer	<ul style="list-style-type: none"><li>•Breast, Cervical, Prostate</li><li>•Lung, Colon, Stomach</li></ul>
Metabolic Disorders	<ul style="list-style-type: none"><li>•Diabetes Mellitus</li><li>•Obesity</li></ul>
Respiratory Diseases	<ul style="list-style-type: none"><li>•Chronic Obstructive Pulmonary Disease</li><li>•Atopic Conditions (Asthma &amp; Allergic Disorders)</li></ul>
Injuries & Violence	<ul style="list-style-type: none"><li>•Motor vehicle accidents, Accidental poisoning, Suicide and Homicide.</li></ul>
Psychoneurological Disorders	<ul style="list-style-type: none"><li>•Depression</li><li>•Psychoses (schizophrenia)</li><li>•Epilepsy</li></ul>
Special Programme - Sickle Cell	

Figure. 1 Types of NCD's

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The [Figure 1] shows the following,

(1) NCD - The major diseases treated under this category are like the diabetes, cancer, lung diseases and heart diseases. Most of the population in the world is suffering with these sorts of serious diseases in a huge number. These diseases can be treated as one of the more important and major killers of people with very serious issues of health and sometimes it leads to the death of the people who are relying on them. If the world death statistics are considered most of the people who were dying with disease are these people only with affected of these diseases other than the people who were dying in road accidents.

(2) Among the people who were dying with these diseases are premature people that means most of these people are less than 70 years of age only [3]. If the proper steps were taken and followed by these people, the death rate due to these diseases can be reduced a lot by following simple preventive steps.

(3) Prevention of NCDs is the most important aspect to be considered for reducing these sorts of diseases and their spreading [4][5][6]. The proper information to the patients for their symptoms in their bodies will not be identified by the people themselves and many people don't know the symptoms that might be observed due to these diseases. As a result, by the time they know that they were affected with these diseases, the life of such persons are in risk and the prevention or the cure cannot be worked out for such patients. Hence, providing preliminary data to the patients about these diseases and their symptoms and based on symptoms the level or stage of the diseases can be observed and spread among the people in a wide way. As a result the lives of many people who cannot afford treatment for such diseases can be avoided or can be reduced [7][8][9].

## **2. Existing applications**

There are few applications existing on the play store with the specifications such as:

- Medicines Delivery
- Consulting a doctor
- Diagnosis
- Health issues

### **2.1. MedPlus-medicines & grocery**

One of the recent revolutions in medicine and other grocery market with shops for purchase of medicines and other items was the MedPlus online medical stores and other physical stores. Due to the initialization of these stores, the availability of medicines become very easy and it also had created an impact on the market for providing the quality medicines at cheaper rates. In the earlier days, the medical and other stores used to play the gambling with the patients by giving the medicines with higher rates and also the medicine shop will provide the alternative medicines even though the actual prescribed medicine is available due to the reason of increasing the sales of a particular medicine for several market strategies. But, nowadays due to the availability of online stores and online facility to book the medicine by sitting at home and also to the option of searching the same and correct medicine availability at various stores in the same city or some other city or other locations. As a result, the patient is having the facility of getting whatever the item he wants based on his choice and also the proper discount also they will get based on their frequent visits to the shop or online visits to the application. As a result, the customers are being benefitted in a wide way.

The online application home pages and other pages of the application can be seen as [Figure 2].

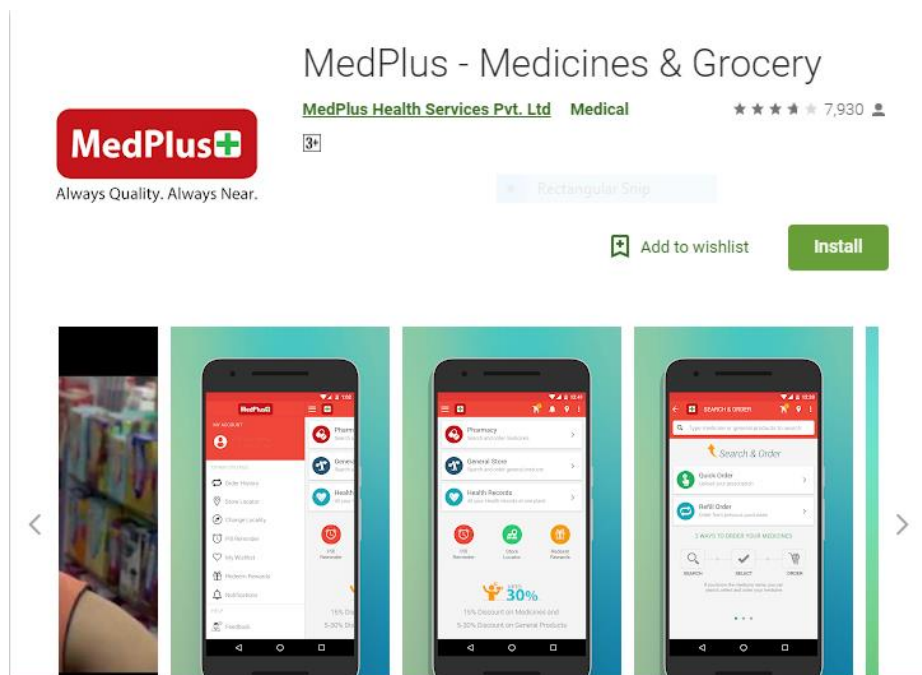


Figure 2. Existing app (MedPlus)

### 3. Medi 24/7 app

The online version of the MEDI 24/7 application can be seen in the following figure in detail. Here, the registered user can get the many features or the benefits for the work they got from the current application. The users can login to the current application and can apply or can select the problem they had and can get the good suggestion based on the problem they had selected. It will provide the basic idea about the preventive measures to be taken for several diseases. These diseases may be either small or severe diseases, the first aid is the best medicine for several diseases and it can control the effect of such diseases on human bodies.



Figure 3. MedPlus store model

If the proper medicine and proper first aid was done at an earlier time, the life of the patient may not be risk in terms of life and later on proper usage of medicine the life risk of the patient can be reduced. It also provides the data about the fitness ideas and techniques to be followed and also the amount of weights should be there for a male or female based on their age and height etc. The diet plan also sent to the users, if they want to follow for their health, tips can be followed for good health etc.

The application can also be useful for the users for providing the basic data or basic knowledge about various health issues and other related symptoms to be observed for the serious diseases like cancer, heart diseases, lung diseases and other chronic diseases. The prescriptions required or the scan and other sources also can available in the current application.

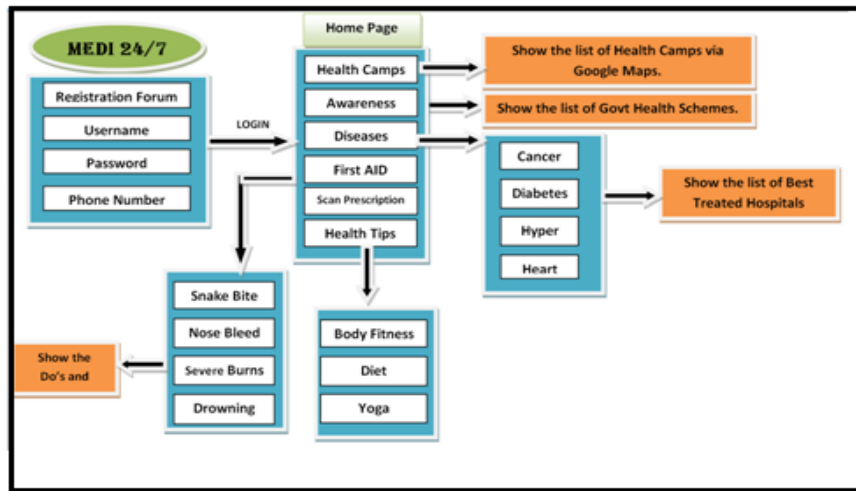


Figure 4. Design of Medi 24/7 app

Technology stack for Medi 24/7 APP:

- Front End: Xml
- Back End: Json, Java
- Tools: Android Studio, Fire Base Console
- Open Source Plug-in

Advantages:

- Huge out of pocket expenditure can be saved.
- Time can be saved.
- Easy navigation through Google maps
- User friendly UI.
- Get notified with updates and alert messages.
- Free Supply of Drugs by Government.

#### 4. Results

The results obtained from the current application with several inputs given by various users are observed in the following figures.



Figure 5. This screen will show splash



Figure 6. List of NCD's activity of the app.

Several features of the application can be observed in detail from the above images or the figures. The information about various chronic serious diseases and their preventive measures and nearby good doctors for such diseases can be available from the [Figure 6]. Several medical camps being conducted by various government medical colleges, hospitals, and also private voluntary organizations and other private medical colleges. The information about such medical camps can also be collected from various sources and kept at in the application such that all types of people and patients can know the types of medical camps and their locations and can attend based on their requirements. The data about such features can be observed from the [Figure 7]. The first aid to be followed for various diseases or small accidents or small issues can be observed and followed in the meanwhile the patient reaches to the doctor for initial stage of controlling such diseases or accident impacts can be observe din detail from [Figure 8]. As a whole this application can be useful for normal people to the other educated

people being located or staying at various locations of the interior areas like tribal areas and other remote areas to the hospitals can be used in a better way.

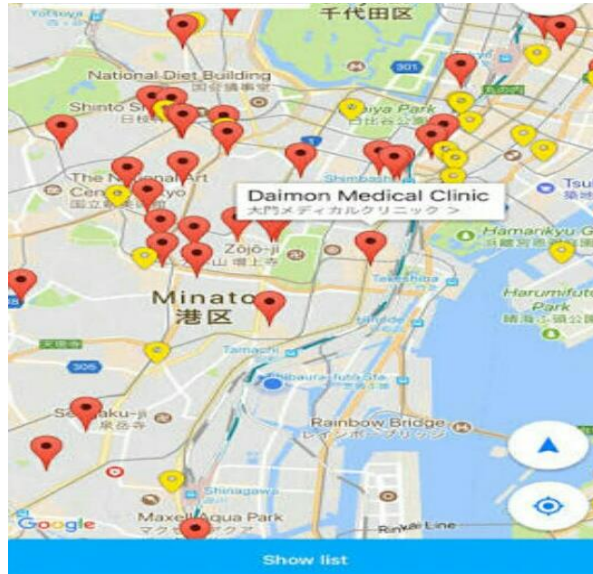


Figure 7. Medical camps location track



Figure 8. First aid of various dieses

## 5. Conclusion

The main obstacle is the most of the people in rural areas don't have knowledge of using smartphones. Awareness can only help to bring users to that service delivery channel. "Health is the greatest gift, contentment the greatest Wealth, the best part of relationship." Health for Everyone, Everywhere and health for all. Government is conducting many health camps but because of people's unawareness due to lack of intimation where it is being conducted (location) they are unable to utilize those services. Tracking those health camps is the android application what we are thinking. The advantages of this developed app are 1) A huge amount of pocket

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