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# A Survey on Centralized and Decentralized Technology for Pregnant Women Health Care

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**ABSTRACT:** In developing countries and in many smart cities also traditional medical systems are not centralized and digitalized for information sharing and for patient assertiveness. Due to this, society is facing immense health problems. Furthermore; there are no such system which can help Government to track patients like pregnant women or travelling pregnant women, because there are two life's to save and to help for. Routine checkups can avoid birth of handicapped child and also helps in reducing fetal mortality rate to a very large scale. In our Project health report of the pregnant woman is created and stored in the mobile application. From patient's mobile Doctor can access this information and monitoring using web application. If emergency condition is there then emergency team or ambulance can track and monitor current location of patient for emergency help, all system will acts as collaborative center for hosting all the data from given actors with the help of this database.

**KEYWORDS:** Health issues in developing countries and smart cities, centralized, health parameters, location tracking, Assistive, database, medical

### I. INTRODUCTION

Every country has its own structure to develop a healthy and high skilled educational resource. It seems like basic need of every nation like food, education, home, medical care to its citizens, to fulfil this promise to citizens every developing nation like India efforts should start right from providing timely and quality health assistance to pregnant ladies which will lead to the birth of healthy children. Here comes the need of technology which helps to take care of them. People in rural areas are not aware of proper medications and technological advancements to alleviate complications during pregnancy period. For instance, pregnant women should perform ultrasound scan at least 2 times during pregnancy period to know more about fetal growth. Moreover, proper and timely check-ups can ensure safe delivery. Women in rural areas lack knowledge about importance of proper medication. Medical expenses are also unaffordable to them. Even though ultrasound scanning systems are available in market, it is highly expensive. Hence we propose a system on this problem which is in less price and high quality of health service.

Also most of the people have misbeliefs about their health and medical systems. Also most of the people from developing countries are poor, therefore they don't want to spend money on consulting to a doctor. They take medicines without consulting and without proper diagnostic.

we are not a platform for diagnosing or treating diseases; we trust only doctors to do it. we only reduce chances of manual errors. Every patient has to do routine check-up's and need o logged properly.

### II. RELATED WORK

Earlier reports we analyzed, we have seen so many problems related to fetus mortality rate in every developing and under-developed countries. We analyzed so many statistics from world health organizations in countries like India which is fastest growing and developing countries. Every country has its own particular problems based on geographical structure and its human resource.

We always focus on human resource because human resource is backbone of developing country. In human resource women play a vital role. As seen statistics below, every day, approximately 800 women die from preventable causes



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related to pregnancy and childbirth. 99% of all maternal deaths occur in developing countries. Maternal mortality is higher in women living in rural areas and among poorer communities.

A quarter of world's neonatal deaths (one million) each year take place in India, mostly at home (65.4% of all births and 75.3% of births in rural areas occur at home). Issues of availability and accessibility of maternal and child health care and nutritional programs are important in this context. Though India has made an appreciable progress in improving the overall health status of its population but it is far from Satisfaction.

Based on current situation of medical system and current lifestyle of people we are developing a system which is:-

- A Medicare system should be developed which should be easy to keep history of patient and it should give alert to relatives
- Use of mobile device for keeping all the records of patient and transfer of record to doctor's computer.
- Involvement of trainer should be less.

Uniquely each person has its own device, like mobiles, tabs etc. Our project is focusing on use of these devices for pregnant health logs and health reports based on regular monitoring of women health parameters like temperature, heart bits, weight and women's personal basic information like age, blood group, old diseases or operations related to health problems. Patient can input above health parameters using synchronized gadgets or manually using primary health checkup instruments like thermometer, weight measuring machine etc.

On health parameters we propose one improved algorithm to monitor and checkup critical condition for women health. On that algorithm alert, our system notifies current situation of patient's parameter and health log to doctor.

If doctor notices patient has critical problem, then doctor will forward patient's profile to rescue team or emergency team or private organizations like ambulance, safety services, Government services etc. In the last phase rescue team will monitor its current location or road map to track patient in real time.

This system proposes high quality of assertiveness to every women or mother and its kid to better nation's future.

### III. PROPOSED ALGORITHM

FOLLOWING ALGORITHM IS ALGORITHM OF ARCHITECTURE:-

- I. START
- II. LOGIN INTO MOBILE APP "MEDICARE"
- III. ENTER FOLLOWING PARAMETERS AS HEALTH REPORT
- IV. ENTER AGE (FOR CHECKING AGE CONDITIONS)
- V. ENTER MONTH OF PREGNANCY (FOR CHECKING NUTRITION)
- VI. ENTER BODY TEMPERATURE (FOR INTERNAL CHECKUP)
- VII. ENTER HEART RATE (FOR HEART HEALTH)
- VIII. ENTER BLOOD PRESSURE (FOR INTERNAL CHECKUP)
- IX. ENTER ECG READING (UPLOAD VIDEO FOR ANALYSIS)
- X. ETC (OTHER RELATED OPERATION TO ALGORITHM)
- XI. SHARING GPS LOCATION OF PATIENT
- XII. SEARCHING AND SELECTING DOCTORS
- XIII. SENDING HEALTH REPORT TO DOCTOR
- XIV. STORING PREVIOUS AND CURRENT HEALTH RECORDS ON CENTRAL SERVER
- XV. DOCTOR WILL CHECK PATIENT'S HEALTH RECORDS

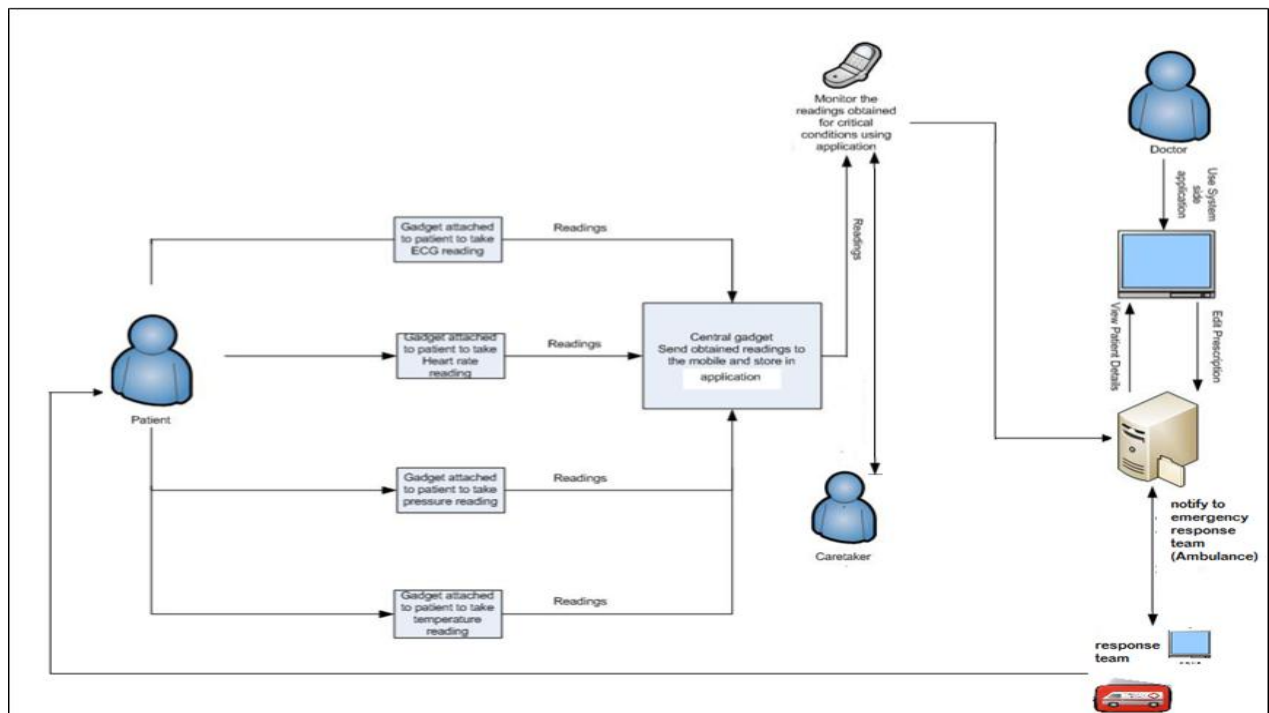
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- XVI. SENDING PRESCRIPTION TO PATIENT'S MOBILE
- XVII. CHECKING FOR CRITICAL HEALTH PROBLEM AND SENDING NOTIFICATION
- XVIII. IF(CRITICAL HEALTH CONDITION) THEN
- XIX. TRACK AND FORWARD PATIENT'S LOCATION
- XX. ELSE PATIENT WILL TAKE MEDICINE AT HOME
- XXI. ANALYSIS OF HEALTH DATA REGION-WISE
- XXII. CREATING LOGS FOR DOCTOR-PATIENT ACTIVITY
- XXIII. STOP

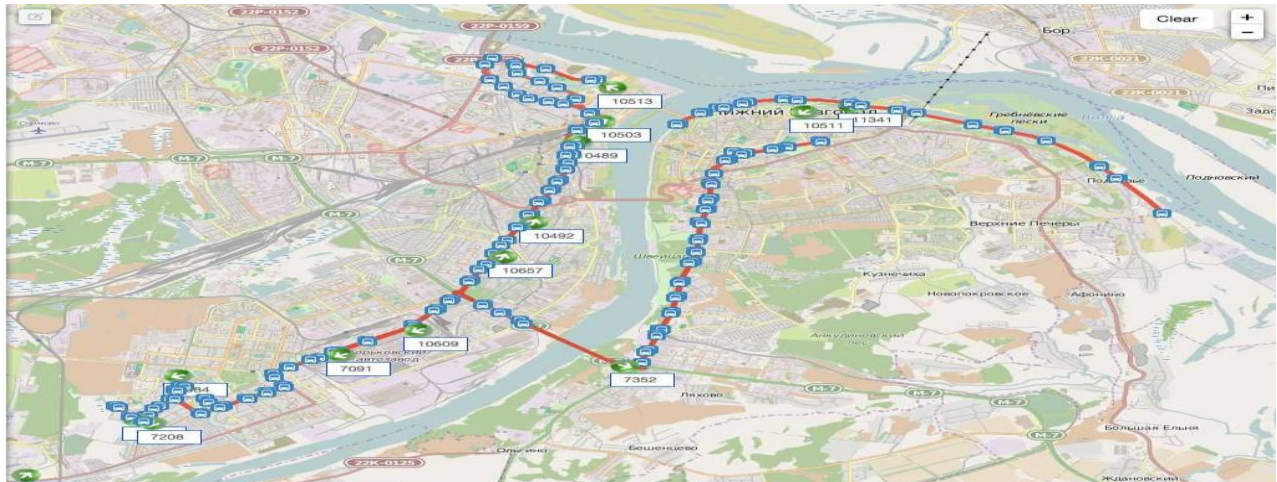
## IV. ARCHITECTURE OF SYSTEM



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## V. CONCLUSION AND FUTURE WORK

Our system tries to provide quality and timely health assistance for pregnant women of both under developed and developing nations. Detailed study of patients and alert mechanism are highlights of our system. Centralized technology will help health Medicare technology data in big data system like Hadoop.

It helps to get details about health condition of pregnant women in rural areas thus providing portable mobile health care system that helps in proper diagnosis at early stages of pregnancy thereby it helps in reducing fetal and maternity mortality rate.

Because of this system Government system will understand problems in rural areas and urban areas, which will help to take improve backbone of medical system and health.

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