



A CSR initiative by **Honda**

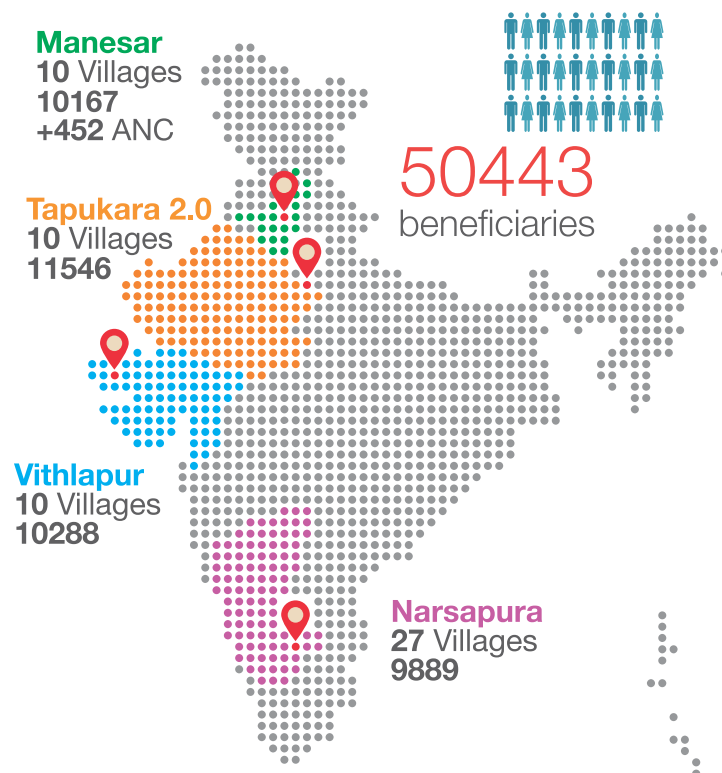


# *Healthcare* **To the Hut**

at  
**Tapukara**  
Rajasthan

.....  
A Honda CSR Initiative

Executed by -  
**Enable Advisory** and **Swasthya Pariwar ek Prayas**



# Dedication

The absence of verifiable medical data among the Rural populace and the woeful presence of Doctors; motivated us. The National Health Profile 2018, states 'there is 1 Allopathic Doctor for 11,082 patients. Way below the WHO recommended 1 Doctor for every 1000. Add to it the fact that 80% of the certified Medical Personnel are in 20% of the land-mass of the country, in the cities. This is why we need to focus on getting diagnostics to work in the villages. Importantly providing information to PHC Doctors and to the Health authorities in the District Headquarters.

The Honda Healthcare to the Hut Program a CSR Initiative has empowered over 50446 beneficiaries in villages in and around the factory locations of Tapukara, Rajasthan, Vithlapur, Gujarat, Narsapura, Karnataka & Manesar, Haryana. Taking the cue from previous learnings on the ground; it was decided to empower the villagers with their Health data, ANC, OPD with attending Doctor & medicines and even Tertiary Care through Telemedicine.

The over 50000 beneficiaries empowered today do not have to submit themselves to the vagaries of not knowing, being over-tested or being at the mercy of quacks. And this is done through the Counsellors who are working in the villages and after the camp is over often going for specialization to continue. Indeed, a sustainable course!

Today, we are in a position to alleviate suffering by disease protection from the reports. We are proud of the endeavor but this is only the beginning. True sustenance will be essayed by the continuous Telemedicine initiative and periodic care.

# Contents

S.NO.	TITLE	PAGE NUMBER
1.	DEDICATION	1
2.	CONTENTS	2
3.	ABBREVIATIONS	3
4.	INTRODUCTION	4-5
6.	THE ANC INITIATIVE	6
7.	TAPUKARA 2F	7
5.	OBJECTIVES	8
6.	PROPOSED TASKS TEAM FORMED / VILLAGES COVERED / TOTAL BENEFICIARIES COVERED / DURATION OF THE PHASE	9
7.	METHODOLOGY	10
8.	METHODOLOGY (Contd.)	11
9.	TEST CONDUCTED	12-14
10.	RESULTS	15-21
11.	BENEFITS OF THE PILOT PROJECT	22
12.	RECOMMENDATIONS/FURTHER COURSE OF ACTION	23
13.	REFERENCES	24
14.	EXPRESSION OF GRATITUDE	25



# Abbreviations

1. CSR: Corporate Social Responsibility
2. EMR: Electronic Medical Record
3. NCD: Non Communicable Disease
4. B.P.: Blood Pressure
5. SpO2: Peripheral Capillary Oxygen Saturation
6. BMI: Basic Metabolic Index
7. COPD: Chronic Obstructive Pulmonary Disease
8. I.D.:- Identification
9. DALYs: Disability-Adjusted Life-Years







# Introduction

In India NCDs were estimated to have accounted for 53% of all deaths and 44% of disability-adjusted life-years (DALYs) lost in 2005. The prevalence of anaemia in all the groups is higher in India as compared to other developing countries and affects an estimated 50% of the population. The problem becomes more severe as more women are affected with it as compared to men [1,2,3,4]. It is estimated that about 20%-40% of maternal deaths in India are due to anaemia and one in every two Indian women (56%) suffers from some form of anaemia (5). Screening for anaemia, treatment of anaemic women, and availability of food fortification (wheat flour with iron and folic acid), milk, sugar and salt with iron to build long term iron stores remains the key to reduce anaemia. Even cooking in cast iron utensils improves iron content in diet [6]. Nearly 44 lakh Indians in their most productive years — aged 20 to 79 years — aren't aware that they are diabetic, a disease that exposes them to heart attack, stroke, amputations, nerve damage, blindness and kidney disease. The diabetes epidemic in the country, that killed 10 lakh people in 2011, has also thrown up an interesting trend. Contrary to popular belief, diabetes affects more people in rural India (34 million) than affluent urban Indians (28 million). The gap between the number of diabetic men and women in India is also diminishing. Urbanization, diet, a sedentary lifestyle and lack of awareness have contributed in a big way to these galloping figures. Because current methods of treating diabetes do not prevent all the complications associated with the condition, prevention & early detection of diabetes and even pre-diabetes is preferable. The Diabetes Prevention Program Research Group has published several studies showing that Type 2 diabetes may be preventable by diet and exercise. About 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Nonpharmacological therapy (or lifestyle management) has an important role in both non-hypertensive and hypertensive individuals. In non-hypertensive individuals, including those with pre-hypertension, lifestyle modifications have the potential to prevent hypertension and more importantly to reduce BP and lower the risk of BP-related clinical complications and in hypertensive individuals, lifestyle modifications can serve as initial treatment before the start of drug therapy and as an adjunct to drug therapy in persons already on medication. In hypertensive individuals with medication-controlled BP these therapies can facilitate drug step-down in individuals who can sustain lifestyle changes.

Out of all the NCD's, chronic respiratory disease accounted for 7% deaths and 3% DALYs loss; India also has had the ignominy of experiencing the



"highest loss in potentially productive years of life" worldwide in 2005. Crude estimates suggest there are 30 million COPD patients in India.

A major chunk of the rural population is not even aware of their blood group, they need to be tested so no time is wasted during emergencies.



The Pilot Project was conceived by Enable Advisory under the CSR activities of the Honda Motorcycle and Scooter India Pvt. Ltd. and conducted with trained staff usually hired from the area where we work. As it grew from the Beta stage we added on more of what the villagers needed. We added the ANC in the Manesar chapter. And in our current thrust in Tapukara we have had all the screening; ANC; OPD with a Doctor in attendance giving out generic medicines culminating in the Tertiary Care through Telemedicine. The objective of the project was to screen the population of 10 villages in Tapukara, Alwar district for various non-communicable and communicable diseases by assessing the vitals and conducting various tests. Ultimately doing 18 villages for 11, 546 beneficiaries. The EMR of all the beneficiaries was collected and the link shared with them for future reference; besides giving them individual reports printed out. A detailed report has been created on the pilot project which forms the initial sustainability of the project and the same is being shared with Government Health Authorities. It will function as the basis for 'big data' to provide markers & easy identification of occurrence of diseases.

# The ANC Initiative



Importantly, a new dimension was added to the tests with an ANC initiative screening pregnant women. The aim was to screen, protect, observe the affected population. Approximately one-fourth of the world's maternal deaths – almost 120,000 women a year – also occur in India. In 2016, 130 women died after every 100,000 births & 2400 children died in the first 6 months. Increasing the survival and health of mothers and children is essential to improving the future of India's people and to addressing the political challenge represented by this inequity.

For our ANC thrust we used Women Counsellors and Doctor to allow for total confidentiality and confidence. They in turn strengthened the hands of the ANMs.

Rather than doing it in PHCs we decided to take it to the doorstep of the needy. 144 women were diagnosed, protected and data saved on the cloud!

For the OPD & Medicine Distribution we have completed a patient list of 1270!



# Tapukara 2F



Inaugurated on 18th July '2018 it ran its course till 14th October. The Camps concentrated in and around Tapukara. Spreading ourselves wider we covered 18 villages to exceed our target of 10,000 by much more.



# Objectives of the rural camp



- Assess the basic vitals of the population
- Screening the Population for the Non Communicable diseases like Hypertension, Prediabetes, Diabetes, Syphilis etc.
- Enable the beneficiaries to empower themselves with knowledge basic health parameters
- Preparation and Submission of the reports

# Proposed Tasks



- Developing a tool for the vital assessment and disease screening
- Forming barefoot Health Worker Groups.
- Training and Certification of the barefoot health workers to empower them with technology for collection of health data
- Organizing the camps or trips of health workers to the villages
- Conducting the vital assessment and disease screening
- Data Management by transferring and securing it to cloud and storing it on the Portals
- Preparing and Submitting a Detailed report & helping the Health authorities change strategies.

# Methodology

## Groups formed for the Camp

5 groups were formed for the pilot project. Each group had 2 members and cutting edge Diagnostic tools. Besides that we had the ANC group OPD.

## Villages covered in the Pilot Project

• Tapukara	• Nakhnol
• Thara	• Bibipur
• Tatarpur	• Karampur
• Burera	• Khushkhera
• Banveerpur	• Budibawal
• Karoli	• Dheriyawas
• Kamalpur	• Nasopur
• Bhokar	• Modhupur
• Teuwas	• Maseed

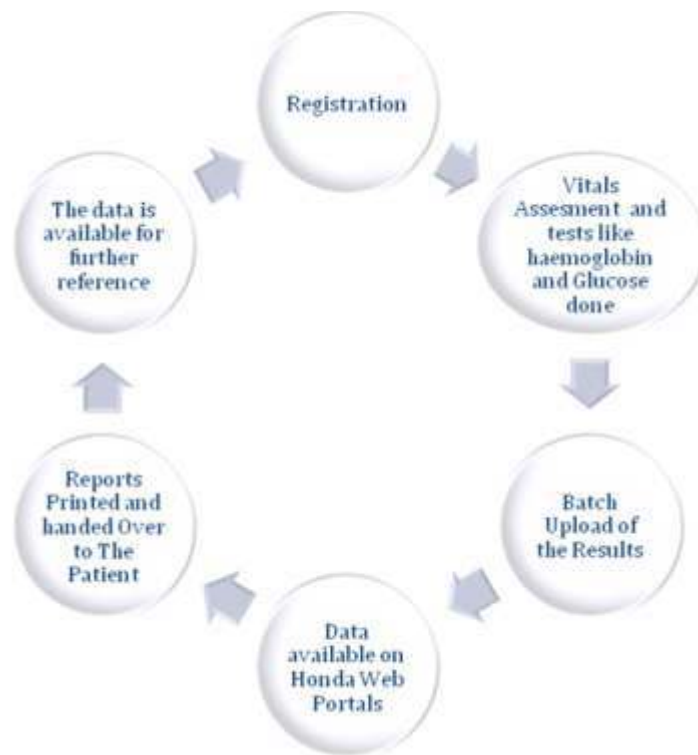
## Number of Beneficiaries Covered

10276 beneficiaries were covered/screened during the project of which 144 ANC patients were also empowered.

## Duration of the Project

The project was of three months duration from 18th July, 2018 to 14th October, 2018 & the tertiary cover continues through Telemedicine backed by remote area Doctors' panel in Delhi.

# Methodology (Contd.)



## REGISTRATION

The screenshot shows a mobile application interface for patient registration. The screen displays a form with various fields for patient information, including name, age, sex, date of birth, and address. A 'Take Picture' button is visible at the bottom right.



## TESTS CONDUCTED DURING THE PROJECT



S.No.	Body Measurements	Body Vitals	Tests
1.	Height	Blood Pressure	Blood Grouping
2.	Weight	SpO2	Pregnancy Test
3.	BMI	Pulse Rate	Urine protein
4.		Heart Rate	Urine Sugar
5.		Temperature	Blood Glucose
6.			Haemoglobin
7.			Malaria
8.			Typhoid
9.			Hepatitis B
10.			Syphilis

## DATA MANAGEMENT ON THE WEB PORTALS:

swasthyasate.org/mohealthportal/index.php

**MO Health TPRK Monitoring Portal**

Home Reports Logout

**Registered Patient Lists**

Patient Name  Start date  End


S.No	Patient Name (ID)	Age	Sex	Qualification	Mobile	Address	Registered Date	Diagnostics
1	Prem ( HONDATPKR117139)	50	Female	10th	9462401621	Miyas	30 Jan. 2016	<a href="#">Diagnostics</a>
2	Kalamab ( HONDATPKR115658)	70	Female	10th	0000000000	Tapukara	30 Jan. 2016	<a href="#">Diagnostics</a>
3	Kirshana ( HONDATPKR117202)	45	Female	10th	0000000000	Meethawas	30 Jan. 2016	<a href="#">Diagnostics</a>
4	Naveen ( HONDATPKR117819)	22	Male	10th	7891038373	Tapukara	30 Jan. 2016	<a href="#">Diagnostics</a>
5	Hresh ( HONDATPKR116010)	6	Male	10th	0000000000	Tapukara	30 Jan. 2016	<a href="#">Diagnostics</a>
6	Tajshu Bai ( HONDATPKR115760)	19	Female	10th	0000000000	Meethawas	30 Jan. 2016	<a href="#">Diagnostics</a>
7	Ruhude ( HONDATPKR116987)	58	Female	10th	0000000000	Chayavas	30 Jan. 2016	<a href="#">Diagnostics</a>
8	Rajesh ( HONDATPKR115649)	50	Female	10th	0000000000	Tapukara	30 Jan. 2016	<a href="#">Diagnostics</a>
9	Rameshchand ( HONDATPKR115722)	60	Male	10th	7665646030	Tapukara	30 Jan. 2016	<a href="#">Diagnostics</a>

swasthyasate.org/mohealthportal/view-report.php?pgid=Hondatpk228355

**MO Health TPRK Monitoring Portal**

Home Reports Logout

**PATIENT REPORT**



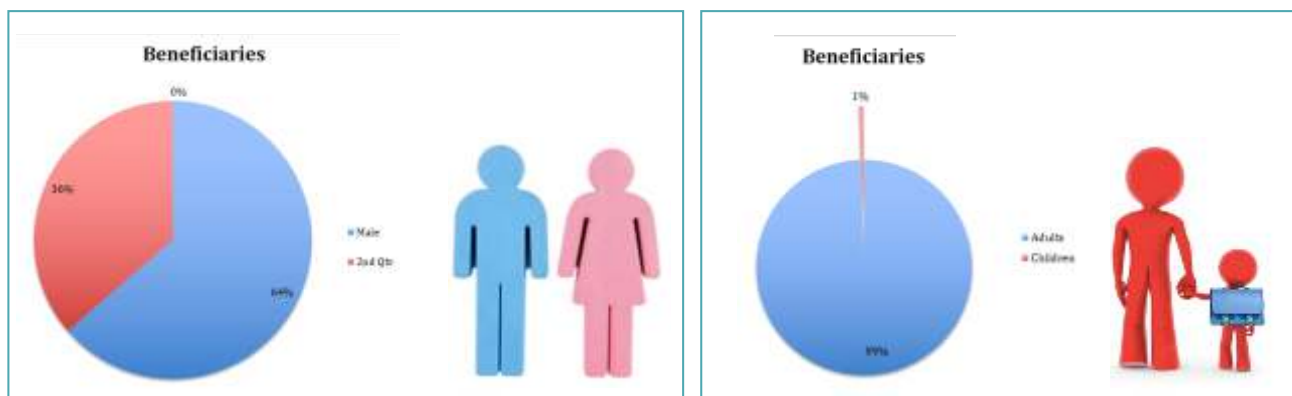
**Rameshchand**  
 ID :HONDATPKR115722  
 Age: 60  
 Sex: Male

Qualification: 10th  
 Mobile: 7665646030  
 Address: Tapukara  
 Registration date: 30-Jan-2016

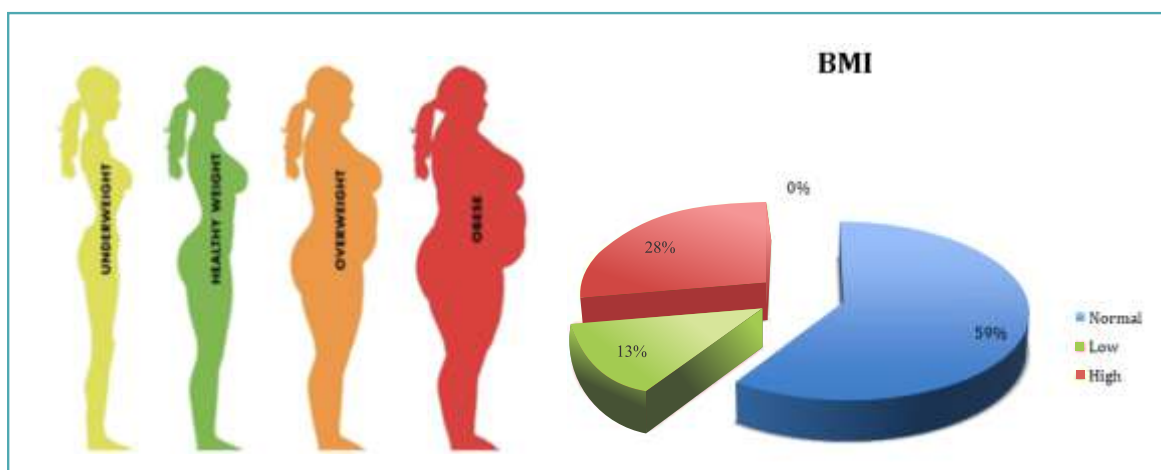
**Diagnostic Report**

Pulse Oximetry(SPO2) %	97
Blood pressure(mmHg)	157/967
Height(cm)	168
Weight(Kg)	75
BMI KG/M2	26.57
Blood Glucose (mg/dl)	114
Body temperature	97.77

# Results

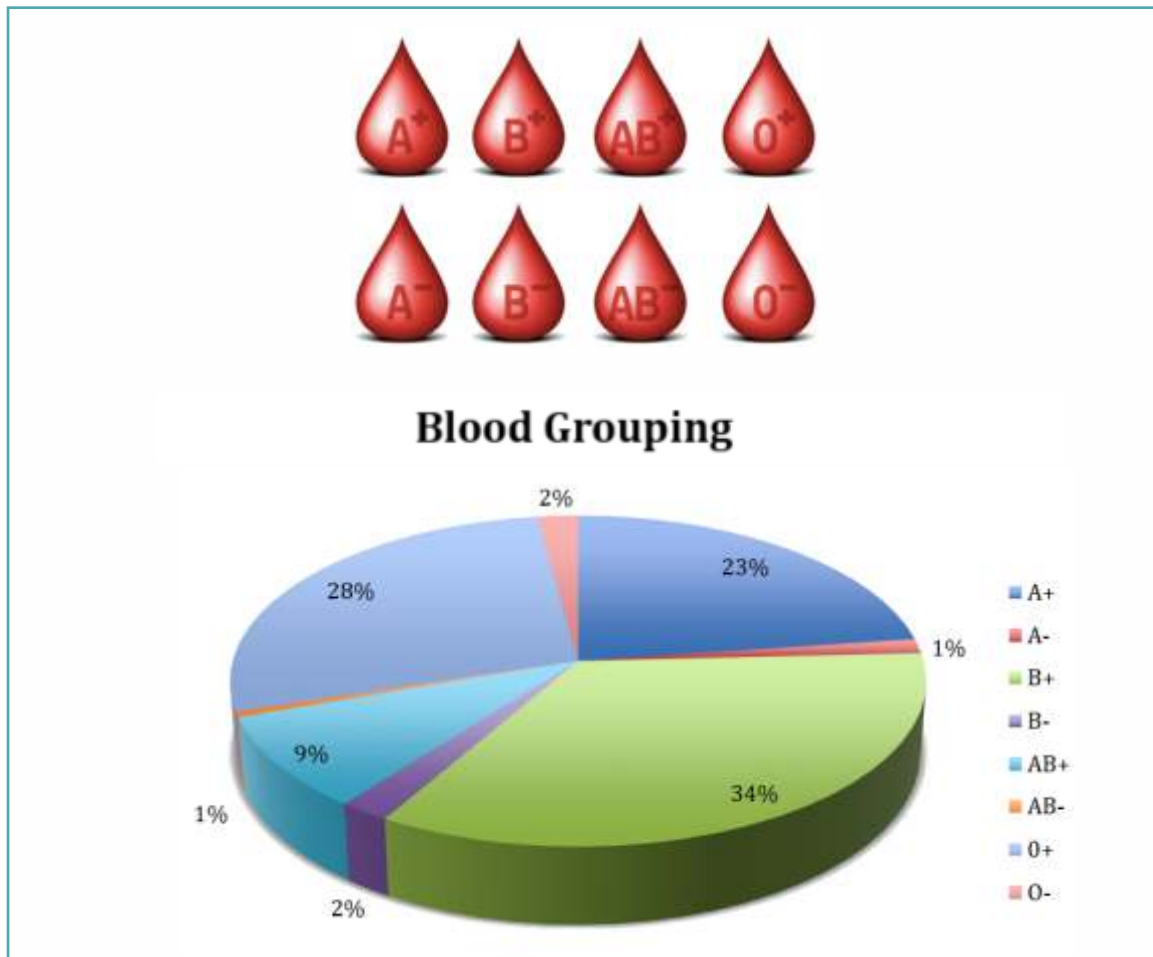


The total number of beneficiaries catered to in the project was 10276 (OPD-1270). Out of these, 6577 were males, 3699 were females and 144 were ANC



The height and weight of the beneficiaries was measured and fed in the tablet and the BMI was automatically generated. There were 1381 beneficiaries with low BMI and 2973 beneficiaries with high BMI.



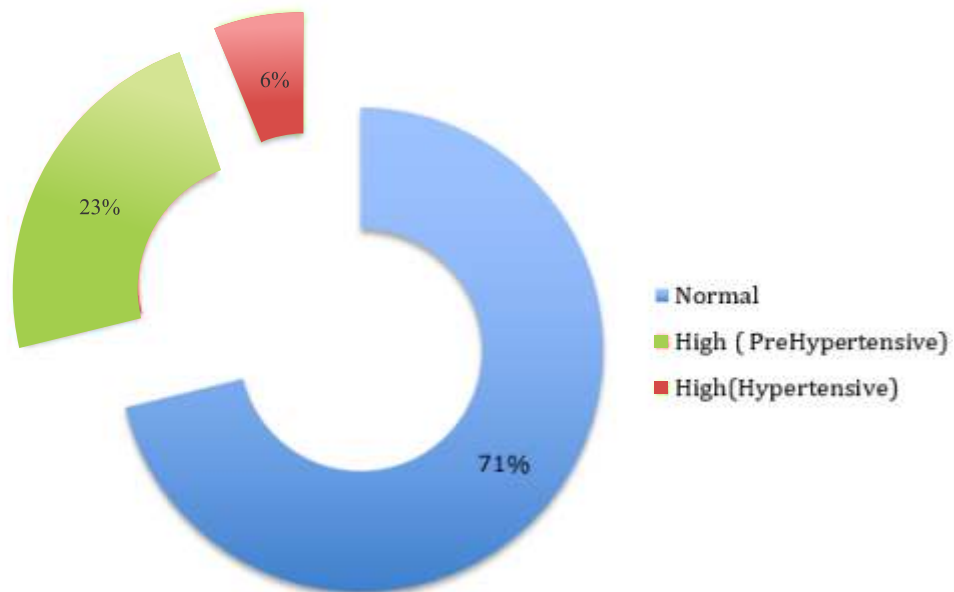


The blood grouping was done by the slide method and it analyzed the blood group of the beneficiaries. The distribution of the blood groups was as follows:-

<b>A+ Patients</b>	<b>2362</b>
<b>A- Patients</b>	<b>147</b>
<b>B+ Patients</b>	<b>3531</b>
<b>B- Patients</b>	<b>220</b>
<b>AB+ Patients</b>	<b>950</b>
<b>AB- Patients</b>	<b>53</b>
<b>O+ Patients</b>	<b>2869</b>
<b>O- Patients</b>	<b>221</b>



## Blood Pressure

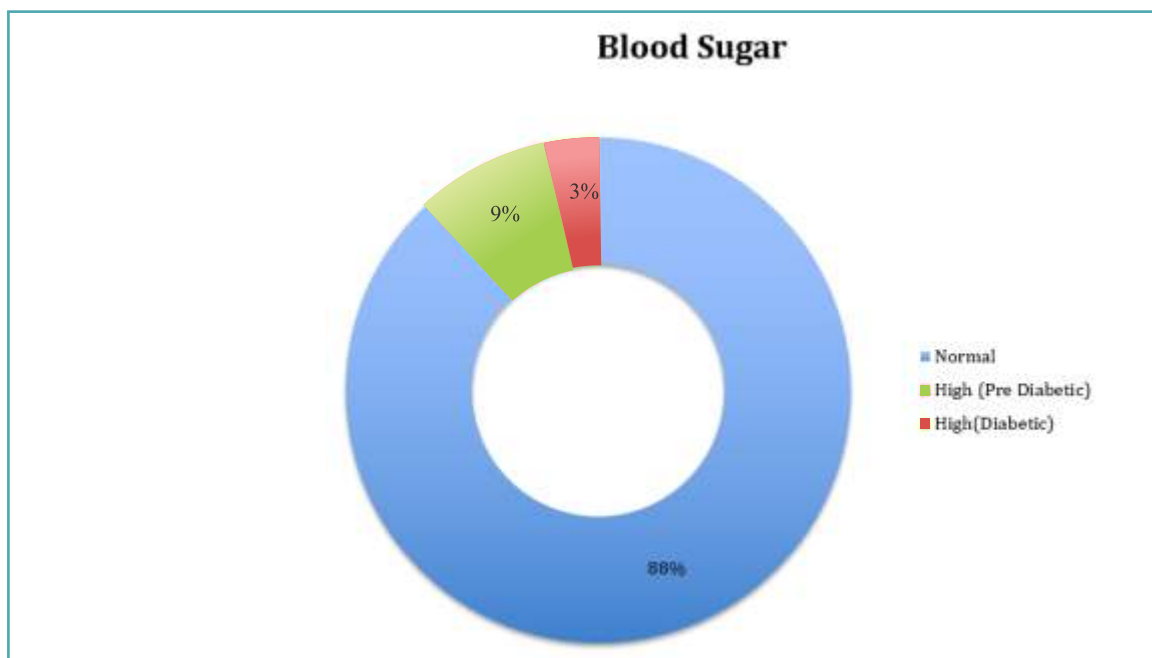


The blood pressure of the beneficiaries was measured through Healt hCube Pro and based on the results they were automatically segregated into three categories of Normotensive and Hypertensive.

The Criterias kept for the division are as follows:-

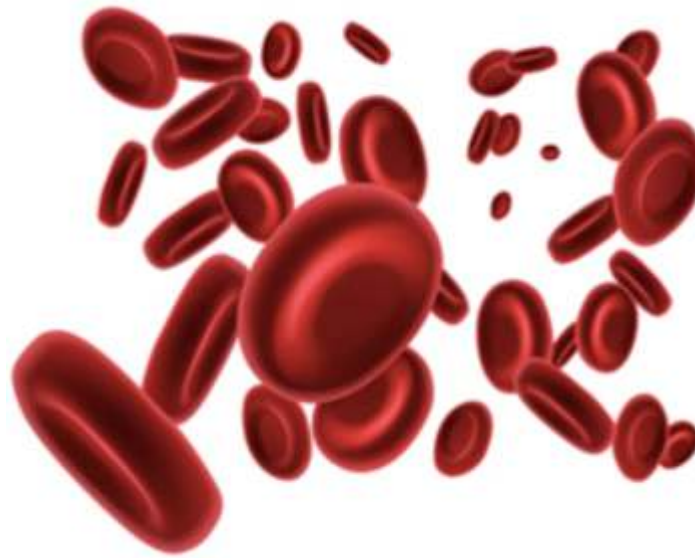
- Normal blood pressure is below 120 systolic and below 80 diastolic
- High blood pressure (hypertension) is 140 or above systolic and/or 90 or above diastolic

There were 2442 Normotensive and 637 Hypertensive individuals were diagnosed.

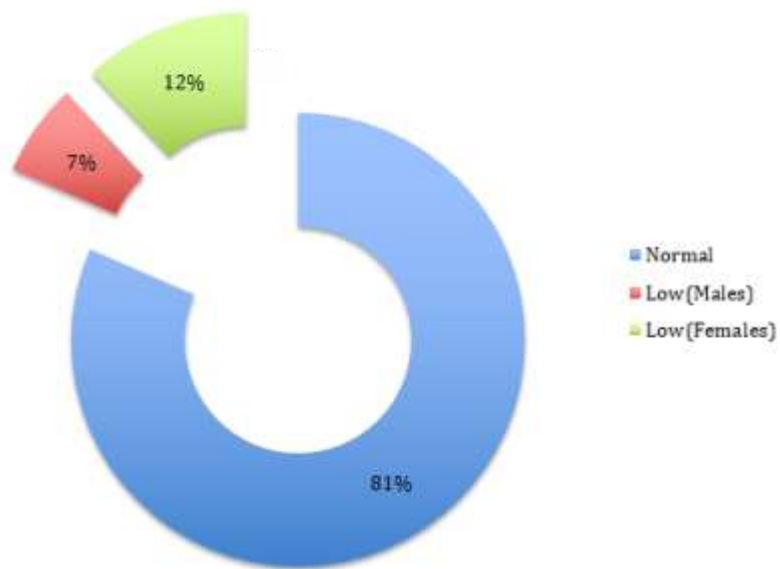


The random Blood Glucose levels of the Beneficiaries were checked and they were divided into three categories Normal Blood Sugar Levels, PreDiabetics and Diabetics. The criteria used for division were Normal Blood Sugar (less than 140 mg/dl), PreDiabetes (140 mg/dl - less than 200 mg/dl) and Diabetes (200 mg/dl or more).

Based on the above criteria, 956 Pre-diabetics and 318 Diabetics were diagnosed.



## Haemoglobin



The Haemoglobin of the beneficiaries was checked and following criteria was applied to diagnose the Anaemics:-

In Males, Hb values of less than 12.5 were considered to be Anaemics. In females, Hb values of less than 11.5 were considered to be Anaemics. The males and females were considered as Normal.

Based on the above analysis there were 1275 Anaemic female and 743 Anaemic males.





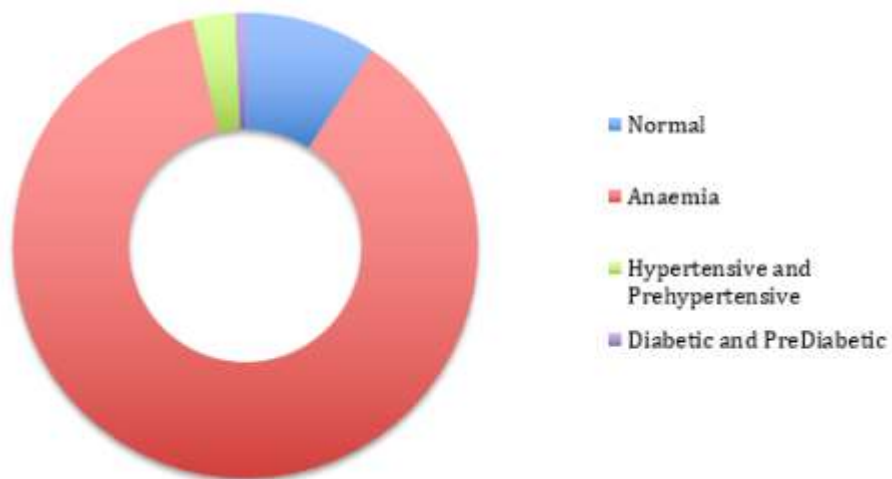
**SpO2**



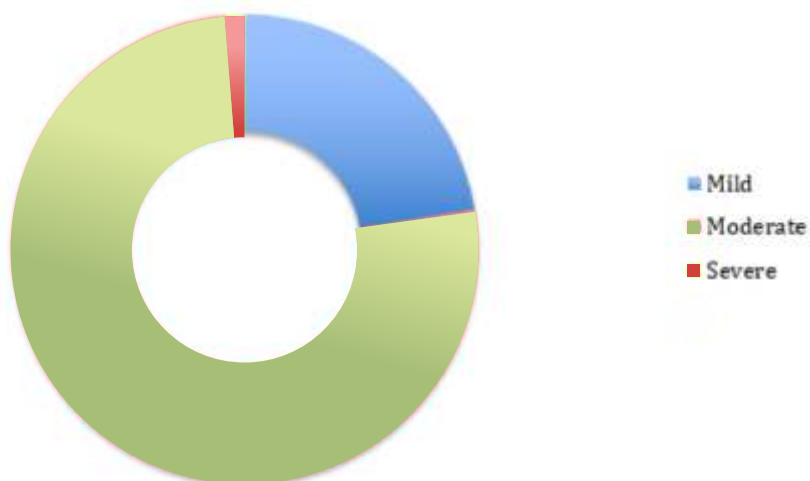
- SpO2 of greater than 95% is generally considered to be normal.
- An SpO2 of 95% or less (at sea level) suggests hypoxemia. There were 672 beneficiaries with SpO2 between 80% to 95%.
- In a patient with acute respiratory illness (e.g., influenza) or breathing difficulty (e.g., an asthma attack), an SpO2 of 80 % or less may indicate a need for oxygen supplementation. There were 14 such beneficiaries.
- In a patient with stable chronic disease (e.g., COPD), an SpO2 of 92% or less should prompt referral for further investigation of the need for long-term oxygen therapy.



### ANC results on Pregnant Females



### Anaemia(Pregnant Females)



# Benefits of the Project



- The basic body measurements and vitals of the beneficiaries were recorded.
- The basic parameters like blood group are known so that in case of an emergency when blood transfusion is needed, time is not wasted on determining the blood group.
- The beneficiaries at risk of developing diseases like Hypertension and Diabetes are identified. They are referred to as Prediabetics and Prehypertensives. This can help in preventing them from developing the diseases with appropriate life style modifications.
- The beneficiaries with diseases like Anaemia, COPD, Hypertension etc. are diagnosed.
- Health Awareness generated in the villages.
- The health records are stored and available for further reference & the final reports are showed with the Health authorities



# Recommendations and Further Course of Action

- The health data should be assessed and further course of action be planned.
- The Prediabetics, Prehypertensives, Anaemic etc should be taken care of and provide Nutritionist and lifestyle coach who can help in preventing them from getting Diabetes and Hypertension by simple life style modifications like diet changes, exercises etc.
- The sugar levels, B.P. levels of the Diabetics and Hypertensives can be controlled by providing them access to the doctors, medicines and routine laboratory tests.
- The Haemoglobin levels of the Anaemics can be improved by providing those iron and folic acids tablets and the medical advice.
- The beneficiaries suffering from diseases COPD, Malaria, typhoid etc. can be treated with the access to the doctors, laboratories and medicines.
- The beneficiaries needing specialist doctor care should be provided the same.
- The improvement and progress of the beneficiaries should be documented electronically by capturing the health parameters, test results regularly to evaluate and certify the benefits of the various interventions.
- Individual patient I.D. and individual patient portals should be created so that the health records of the beneficiaries are available anytime, anywhere in the world for referral.



Ramdhan Yadav, Sarpanch Kamalpur



Pushpender Chauhan, Sarpanch Karoli

# References

1. Anaemia 'a silent killer' among women in India: Present scenario  
KawaljitKaur – European Journal of Zoological Research,  
2014, 3 (1):32-36
1. EM DeMayer; A Tegman, World Health statistics  
quarterly, 1995, 38, 302-316.
2. K Kalaivani, IJMR, 2009, 130, 627-633.
3. P Malhotra; S Kumari; R Kumar; S Varma, JAPI, 2004, 52, 18-20.
4. National Family Health Survey (NFHS-III), 2005-2006,  
<http://www.nfhsindia.org/pdf/India.pdf>, last accessed on  
February 4th , 2014
5. D Kapur; KN Agarwal; DK Agarwal, Indian J Pediatr, 2002, 69, 607-616.
6. <http://timesofindia.indiatimes.com/india/44-lakh-Indians-dont-know-they-are-diabetic/articleshow/17274366.cms>
7. <http://timesofindia.indiatimes.com/city/bengaluru/India-home-to-over-6-3-cr-diabetics/articleshow/25608090.cms>
8. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/>
9. Chronic obstructive pulmonary disease: Indian guidelines and the road ahead, Parvaiz A Koul, CMR-MRC Workshop. Building Indo-UK Collaboration in chronic diseases; 2009. p. 16.
- 10.Reddy KS, Shah B, Varghese C, Ramadoss A. Responding to the threat of chronic diseases in India. Lancet 2005;366:1746-51.
- 11.Salvi S, Agarwal A. India needs a national COPD prevention and Control program. J Assoc Physicians India 2012;60Suppl: 5-7.



# Expression of Gratitude



- We would like to express our gratitude to Team Honda for their vision, confidence and unstinted support during the Execution of this Pilot Project that has provided immense benefit to the Villagers residing in the Tijara block.
- We would also like to thank the Government Health Authorities, the CMHO – Alwar district, BCMO – Tijara and Tehsildar – Tijara to ensure that there were no administrative issues during the execution of the project.
- No words are enough to express our gratitude to the CMO – CHC, DCMO PHC, Tapukara, who foresaw the benefits that would accrue to the patients, through quick diagnostic checks and uploading of results on the cloud for their future use, by conducting tests on and critically the findings summarized to show the markers for disease prevention.
- And finally the Sarpanches of all the 18 villages i.e. Tapukara, Nakhnol, Thara, Bibipur, Tatarpur, Karampur, Burera, Khushkhera, Banveerpur, Budibawal, Karoli, Dheriyawas, Kamalpur, Nasopur, Bhokar, Modhupur, Teuwas and Maseed where the project was conducted and completed; it would not have been possible without their support. A big Thank you to each one of them. And the villagers for their faith!



Dr. Chandan Kumar at the OPD.

# Notes





A CSR initiative by **Honda**