



Hello Doctor-555

Effective use of ICT for seamless delivery of health care service

(Picture of Tehri Dam)

Introduction

- WHO defines health as:
“A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”
- Health remains a major issue in developing countries and more so in the hilly state like Uttarakhand
- In major countries health represent approximately 10% of GDP but in India it is only 1.15% which is one of the lowest in the world
- Investment in health returns social and economical benefits. WHO states that good health is linked to economic growth through higher labour productivity, demographic changes and educational attainment.

Tehri Garhwal



- Tehri Garhwal district is located in Uttarakhand on the southern slopes of the mid Himalayas, which comprise of low line peaks.
- Major land area of the district is hilly.
- Agriculture is the main occupation of the people of this district.
- Tehri Garhwal is surrounded by Uttarkashi district in the north, Pauri Garhwal district in the south, Rudrapur district in the east, and Dehradun district in the west.

Geographical and Demographic Coverage

- Population of Tehri is 618931(2011 census).
- New Tehri the headquarter of the district has been built at an height of **around 1750 meter** above sea – level, covering total area 4,080 km²
- 89% of Tehri Garhwal population lives in rural area.
- It is one of the three high priority district in Uttarakhand and it is the only high priority district in hills in Uttarakhand
- Have a huge population of HIV+ (41*) and Tuberculosis(728*) patients.
- Given the constraints of terrain and topography and the small and scattered nature of the rural settlements, adds to access issues.

Existing health Infrastructure

- 1 district hospital
- 1 SDH, 3 female hospitals, 11 CHC, 27 PHC,
- **209 Sub Centre(75 Sub Centre with Pharmacists)**
- 28 State Allopathic Dispensaries,
- 73 Ayurvedic Hospitals & Dispensaries, 12 Homeopathic Dispensaries, 1 blood banks and 1 TB clinics.

Bottlenecks and Challenges

- Delivery of healthcare in the rural parts of mountain district (Distance and Time)
- Lack of infrastructure & staff prohibits people from getting quality services.
- Digital Divide in Uttarakhand
- No place in district where a beneficiary can register complains
- No access to systematic information of healthcare facilities available in the district
- No community participation in health

Opportunity

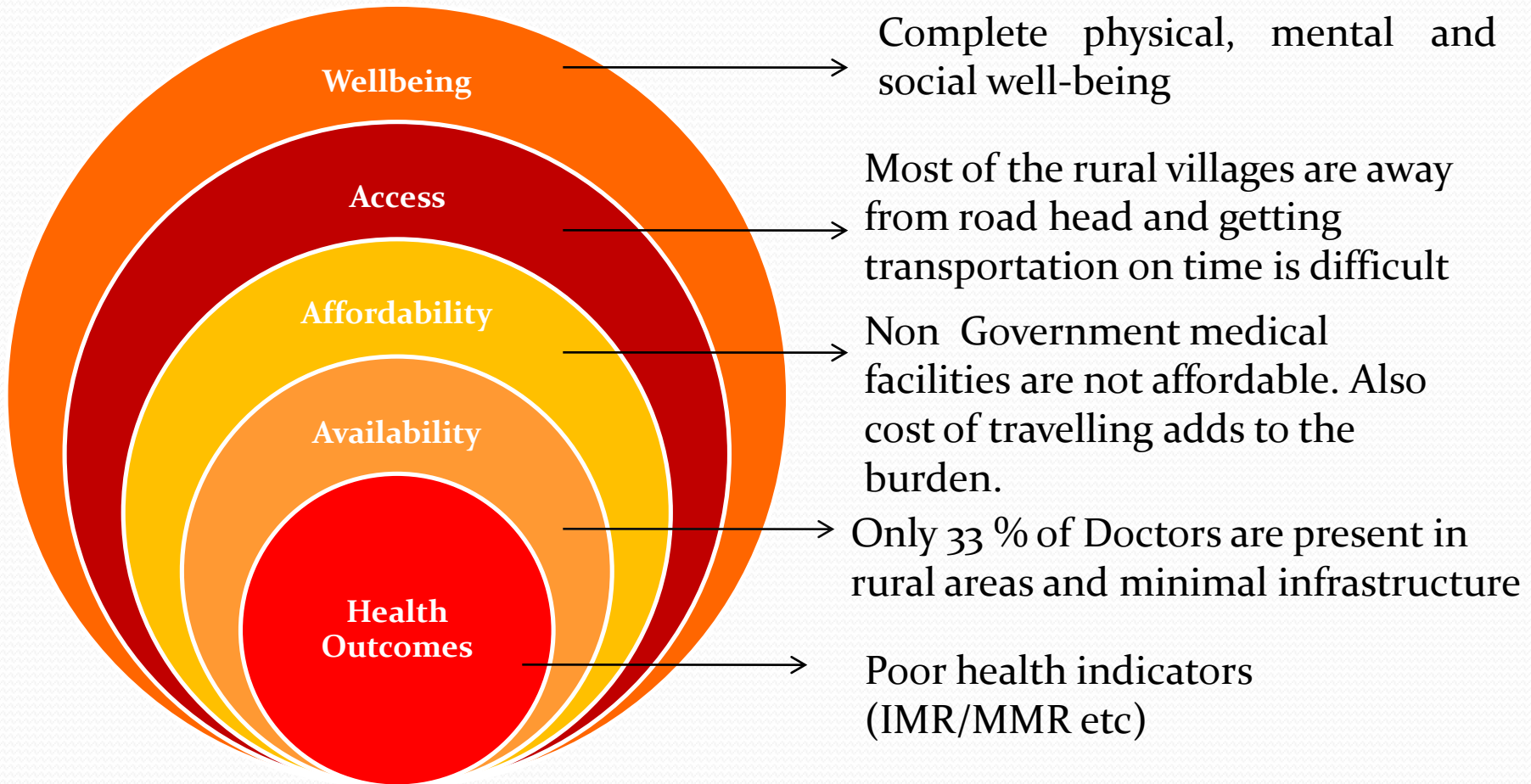
Telemedicine ..“it allows us to connect a patient to a doctor and it allows us to erase time and distance which is the miracle of telemedicine”

Opportunity

- The opportunity lies in the fact that there is a significant increase in the mobile phone subscribers and landline connections.
- The way telecommunication sector is booming in India, this coverage will further grow in coming times
- Internet is available and affordable, it provides a clear path for incorporating ICT in healthcare seamlessly
- With the onset of multiple telecommunication service providers there are chances of getting data connectivity of one service provider if not other

Key Objectives

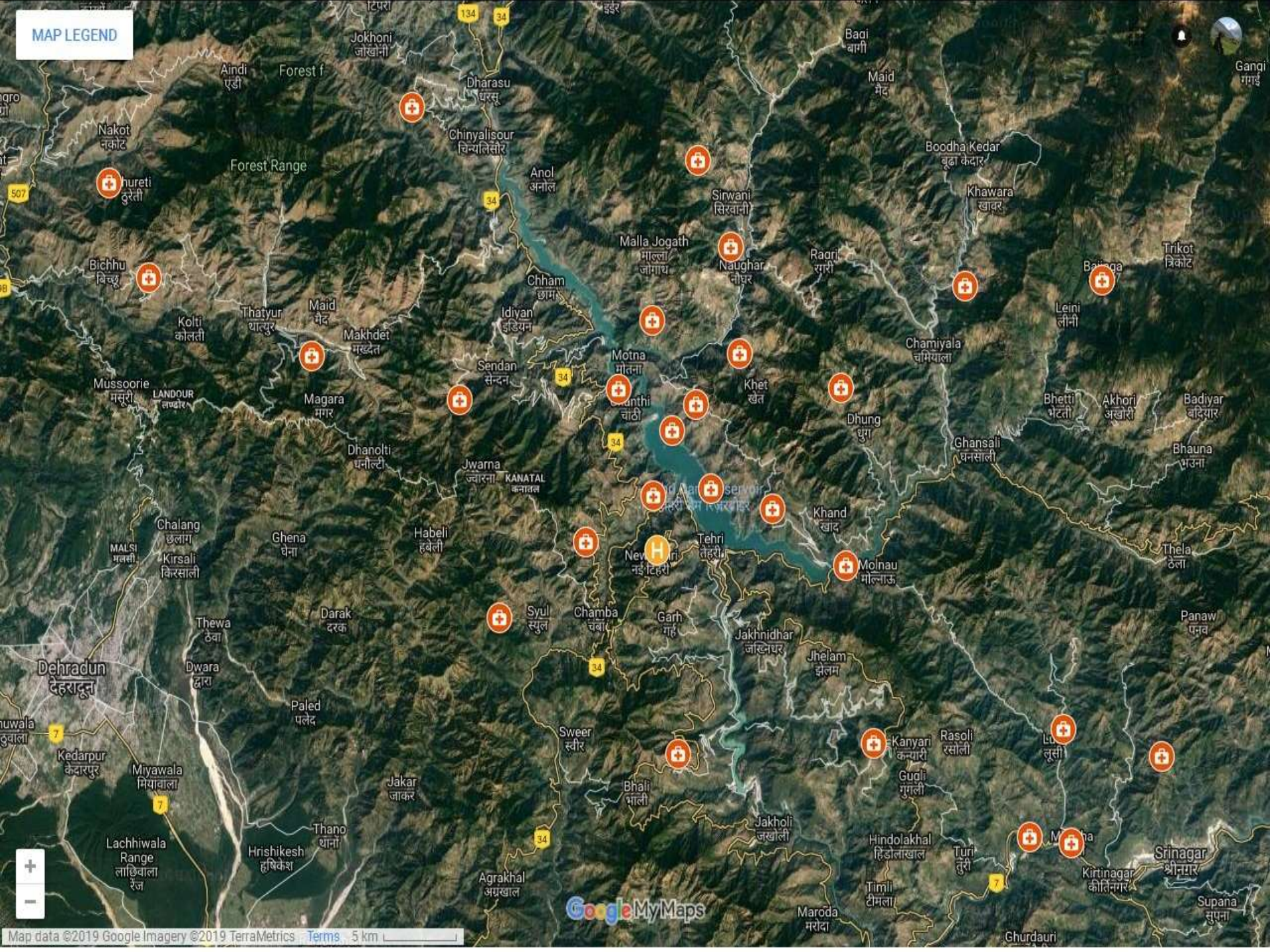
(Access, Affordability and Availability)



Hello Doctor-555(June 2017)

- 555/18001804112: a toll free number connecting citizens to all the 20+ schemes of NHM and state government on a call.
- 40 Subcenters manned with pharmacists'. Studio was established at the District Hospital(DH) manned with doctors and specialist on demand.
- Subcenters connect with district hospital on video call and subsequently a patient sitting at the remotest point gets services namely; Consultancy, Prescription and Medicine(allopathic, ayurvedic and homeopathic), Pathology* and Diagnostics*.
- Google Map

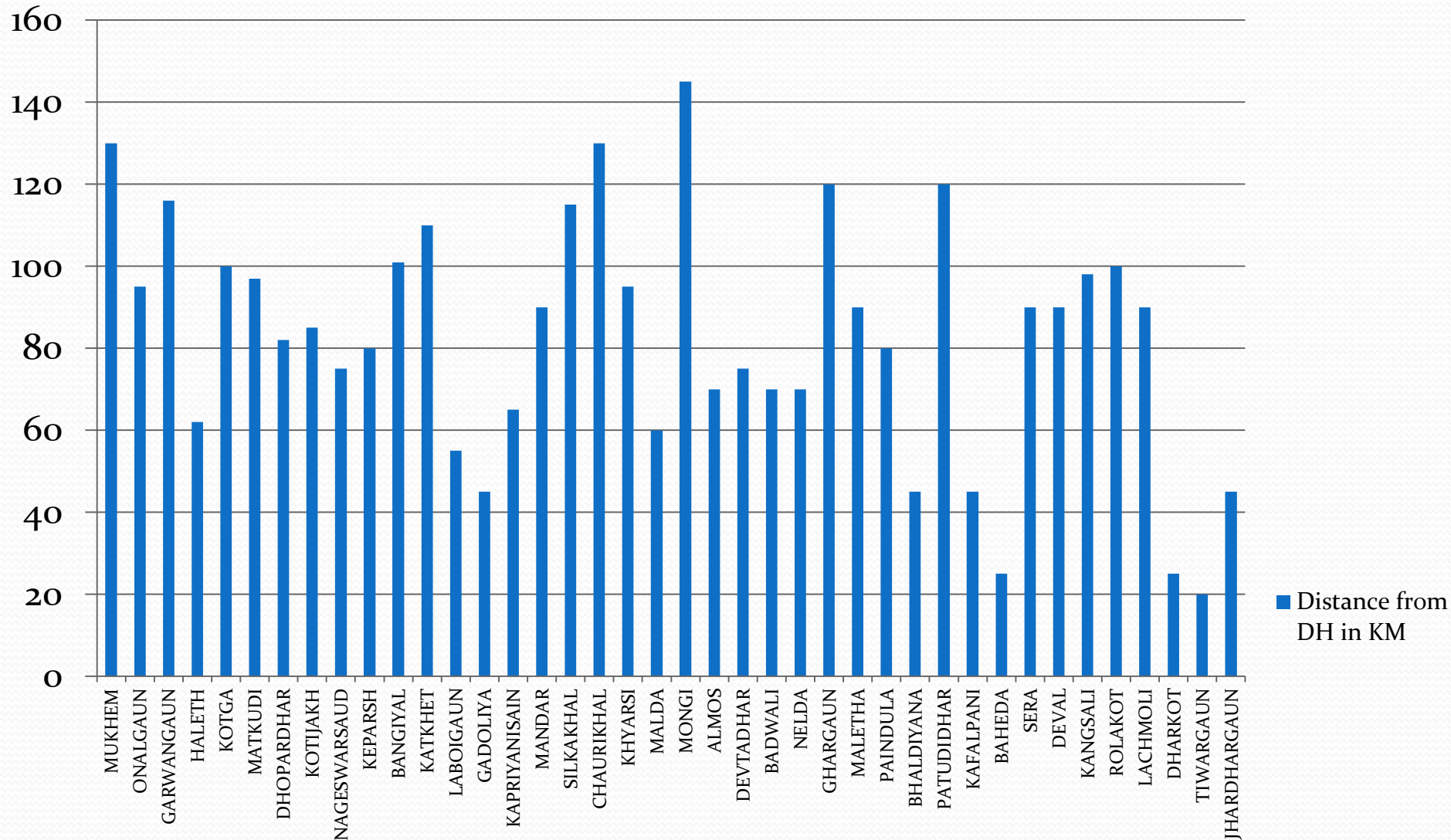
MAP LEGEND



Google My Maps

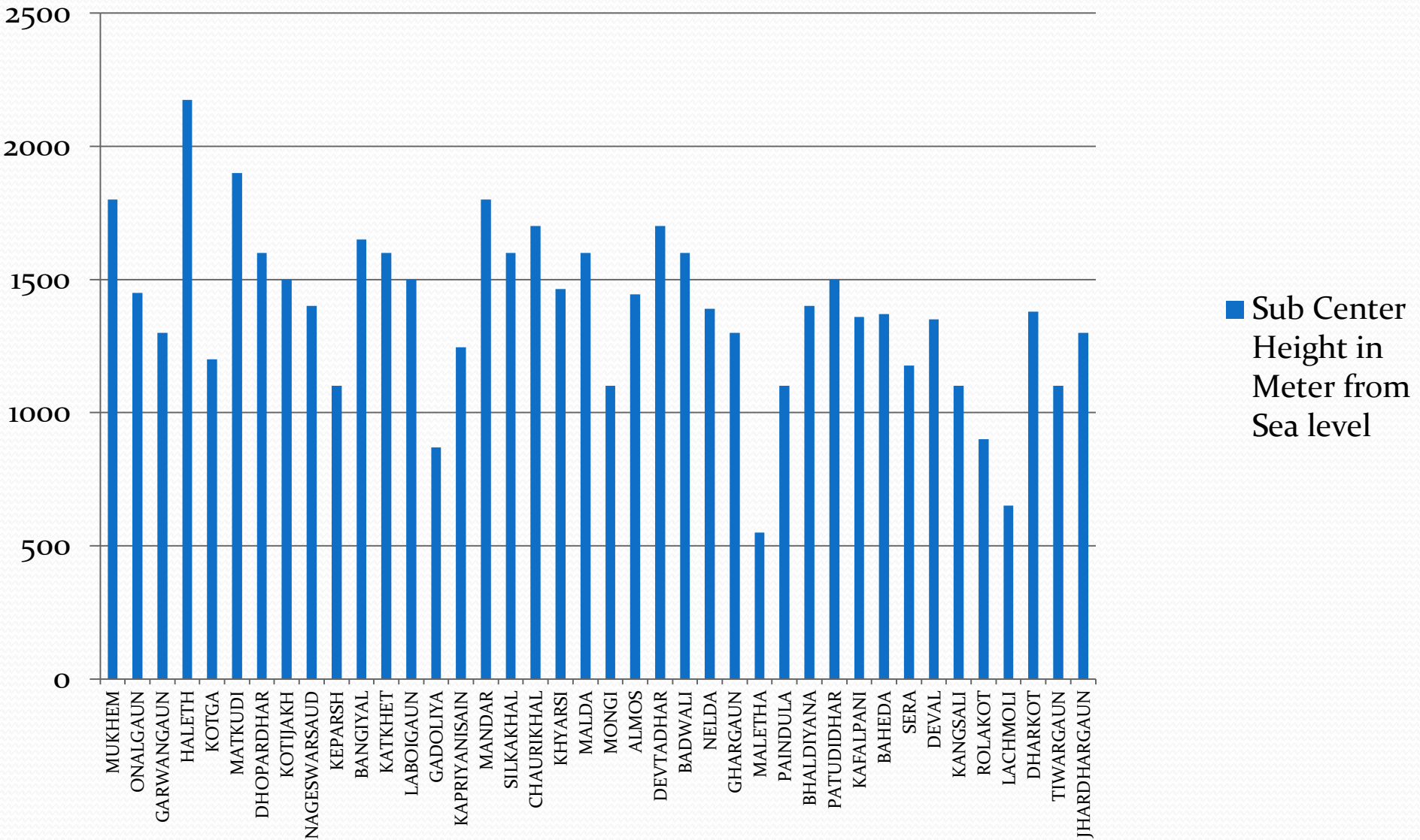
Sub Center Distance from DH in KM

- Mongi Sub Center has maximum distance (145 Km) from DH
- Tiwargaun Sub Center has minimum distance (20 Km) from DH



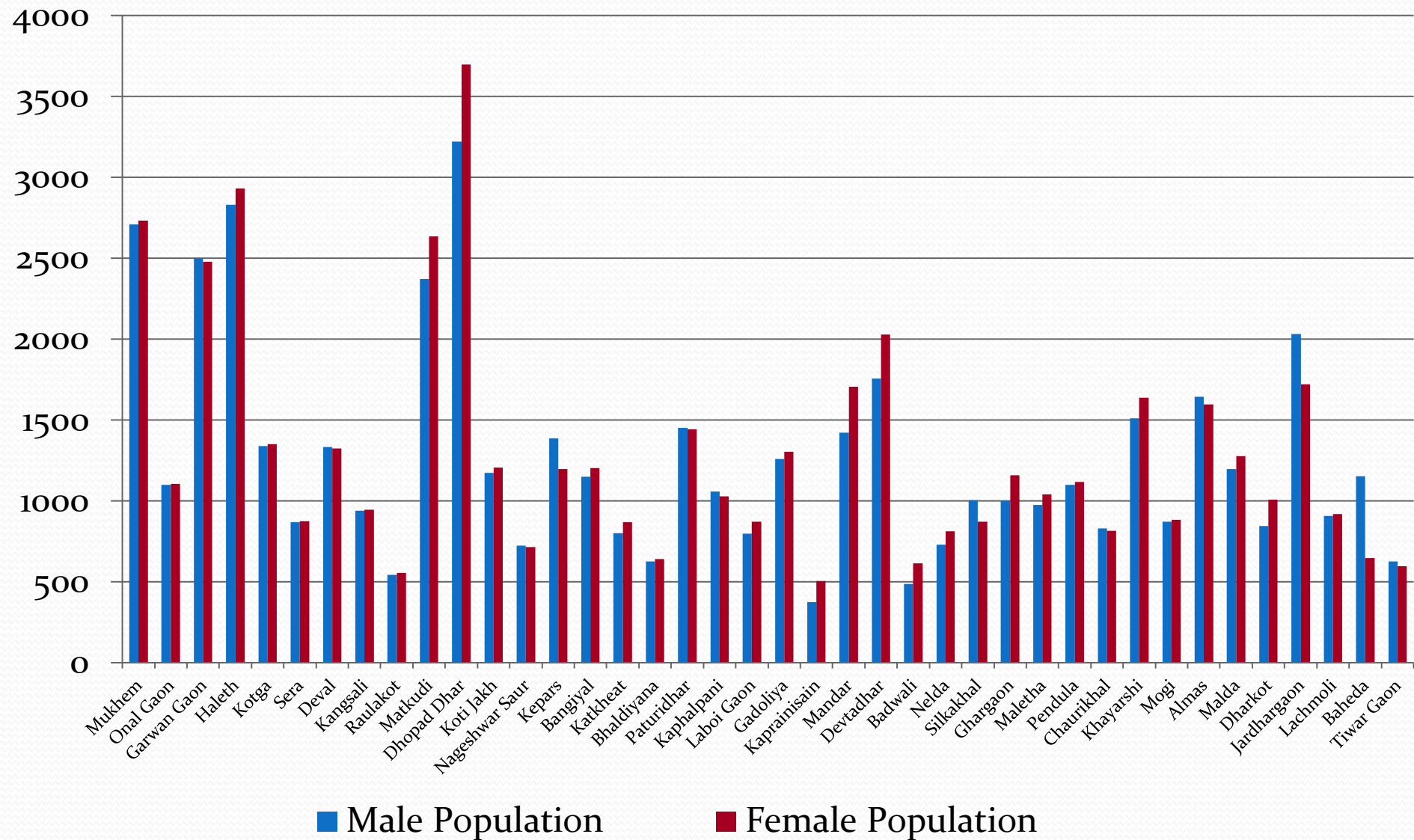
Sub Center Height in Meter from Sea level

- Haleth Sub Center (Pratapnagar) has maximum height (2175 meter)
- Maletha Sub Center (Devprayag) has minimum height (550 meter)



Population Covered by Sub Centers

(More number of female beneficiaries)



Technology

- District Hospital equipped with IVR (Interactive voice response) system & conferencing system
- District hospital and sub centers equipped with the tablets and optimized software for video call.
- Android based online/offline mobile application with integrated tele-consultation kit.
- CCTV camera installed at District Hospital. Installation in sub centers is in process.
- Android based devices like ECG Machine, Foetal heart rate monitor, Gluco meter, pulse oximeter etc for diagnosis and uploaded in the software for analysis & planning



555 New Call Center



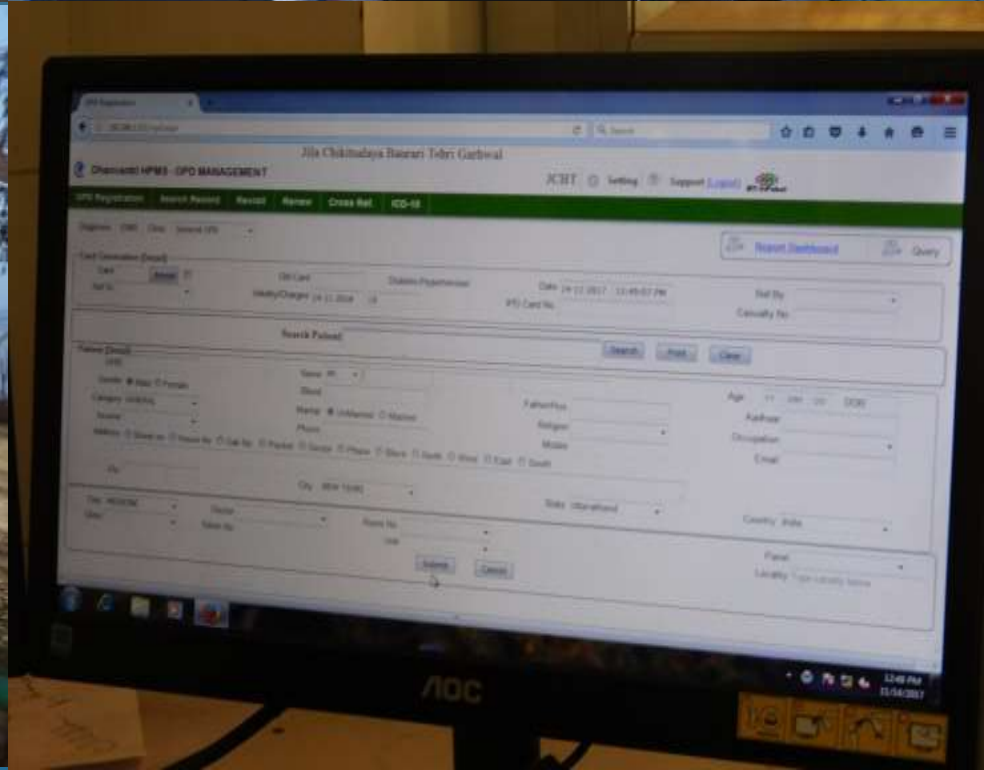
Telemedicine Center





Items in the Kit	Qty.
Android tablet 10" with S/W	1
Pulse Oximeter	1
Glucometer/ Blood sugar monitor+50 strips	1
Hemoglobin meter+50 strips	1
Otoscope	1
Thermometer	1
Wi-Fi enabled ECG machine	1
Foetal heart monitor	1
X-Ray view box	1
Power backup	1
Blood Pressure Instrument (Digital)	1
Jelly	1
Urine Analysis strips	1
Wi-Fi dongle	1
Briefcase	1





Demographic

UHID: PCode: Date:



Name:

Age: Date of birth: Blood Group:

M F

Father / Husband: Martial Status: No of Children:

H O F Head of the family: Relation:

Contact No: Email Id: Adhaar Card No:

Occupation: Patient Type:

Inv./Advise	Media ⁰	Save	Clear	Preview
Demographic	Complaint	Disease	Medicine	Allergy ⁰

H.No:

Zone: Village:

Height(cm)	Weight(kg)
<input type="text" value="Height"/>	<input type="text" value="Weight"/>
Abdomen	Temp(F)
<input type="text" value="Abdomen"/>	<input type="text" value="Temp"/>
Pulse(p/m)	Respiratory Rate
<input type="text" value="75"/> <input type="text" value="Rg"/>	<input type="text" value="30"/>
Systolic	Diastolic
<input type="text" value="122"/>	<input type="text" value="82"/>
SpO2%	Obesity
<input type="text" value="90"/>	<input type="text" value="Obesity"/>

Safety Parameters

Pregnancy	<input checked="" type="checkbox"/>
Lactation	<input type="checkbox"/>
C.K. Diseases	<input type="checkbox"/>
Liver Diseases	<input type="checkbox"/>
COPD	<input type="checkbox"/>
Hypothyroidism	<input type="checkbox"/>
Hypertension	<input type="checkbox"/>
Diabetes Mellitus	<input type="checkbox"/>

Inv./Advise	Media ⁰	Save	Clear	Preview
Demographic	Complaint	Disease	Medicine	Allergy ⁰



Sms/Email



Send



Share



Video Call

12345

Patient Detail

Uhid:	4559	Prescription#:	7498 - 18/01/2019
Name:	VINITA	Father/Husb.:	n/a
Age/Gender:	27Yr(s)/ F	Blood Group:	n/a
Occupation:	Occupation	P.Type	P.type
Height(cm):	n/a	Weight(kg):	n/a
BMI:	n/a	BP:	122/82
Abdomen:	n/a	Temp(F):	n/a
Pulse(p/m):	75/Rg	Res. Rate:	30
Contact No:	n/a	Email Id:	n/a
Heart Rate:	132	Address:	Mukhim
Referred by	n/a	Referred to	n/a

Complaint Detail

ABDOMINAL PAIN, 1 Day(s)

Free follow up in Days: Regular follow up visits: Prescription charge (Rs) :

History	Certificate	Handout	Att. Advise
Inv./Advise	Media ⁰	Save	Clear
Demographic	Complaint	Disease	Medicine
			Allergy ⁰



DISTRICT HOSPITAL

DR. VIDEO CALLING 1 DISTRICT HOSPITAL
MBBS, M.D (Med), Test
12345

Buarari
1234567890, 1234567890
test@gmail.com

Patient Detail

UHID/Name: 4598/ VINITA Prescription#: 7546/ 20/01/2019
Gender/Age: 27Yr(s) / F Address: Mukhim
BP (mmHg): 122/82 SPO2: 90 Pulse (p/m): 75/Rg

ComplaintDetail

ABDOMINAL PAIN, 1 Day(s)

Medicine Detail

1-0-1 TAB DUVADILAN 40MG Oral With water After meal x 5 Day(s) =10.0 TAB
[ISOXSUPRINE]
0-0-1 TAB IRON Oral With water After meal
[IRON]
Remark:Once only at bed time
0-0-1 TAB CAL Oral With water After meal
[L-LYSINE MONO HCL + MAG HYDROXIDE + VIT D3 + ZINC SULPHATE + CALCIUM CARBONATE]
Free follow up days : 7

DR. VIDEO CALLING 1 DISTRICT HOSPITAL

Have A Nice Day

Demographic

UHID: PCode: Date:



Name:

Age: Date of birth: Blood Group:

M F

Father / Husband: No of Children:

Incoming Prescription of KEDAR SINGH

H O F Head of the family:

Contact No: Email Id: Adhaar Card No:

Occupation: Patient Type:

<input type="button" value="Inv./Advise"/>	<input type="button" value="Media"/> 0	<input type="button" value="Save"/>	<input type="button" value="Clear"/>	<input type="button" value="Preview"/>
<input type="button" value="Demographic"/>	<input type="button" value="Complaint"/>	<input type="button" value="Disease"/>	<input type="button" value="Medicine"/>	<input type="button" value="Allergy"/> 0



Prescription



Patient Registration



Search

Advised Prescription of KEDAR SINGH

DOWNLOAD LATER



Patient History



Data Backup



Document





Current Edits

Pres. # 7496

18/01/2019

Tag

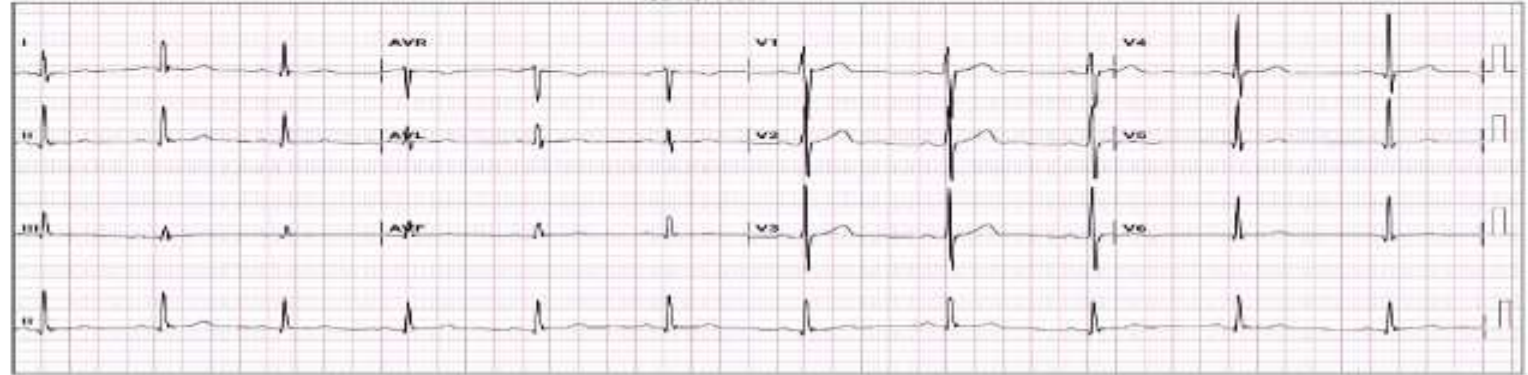
Description

Hospital Name :
Patient Details
Name : P. Rathore
Age : 54
Gender : Male
Height : cm
Weight : kg

Recording Details
Recorded : 2019-01-23 09:50:37
Device : SUNO W12
Device Id : SUNOWIP300001

Measurements
HR : bpm
PR Interval : ms
QRS Interval : ms
QT Interval : ms
QTc Interval : ms
PQRS,T Axis :

Analysis : (Minnesota code)
NA
(Note : Unconfirmed Report, Kindly consult with physician.)



Comments : NA
Interpretation : NA

Mobile Version : 4.0.51

Signature : prathod

(C) MET

Add Image

Save Image

Delete Image

Inv./Advise

Media ¹

Save

Clear

Preview

Demographic

Complaint

Disease

Medicine

Allergy ⁰

Output

- Received 9280 Advised by Doctor s and 4693 Video calls.(60% calls from women)
- Called 4015 (since September 2017) pregnant women as per their Expected Date of Delivery (EDD), tracking and preparing them for safe delivery
- Significant 9% increase in Institutional deliveries(2016-17:3673,2017-18:4038)
- Over 1000 calls for tracking 84 malnourished children
- 32 children treated under RBSK and 89 were provided emergency ambulance

Daily Report



Doctor :

Date :

Select Doctor

01/01/2018



Date	Uhid	Pcode	Patient Name	
01/01/2018	148	163	MAMTA	24
01/01/2018	149	164	DULARI DEVI	32
01/01/2018	150	165	MAHIMNAND	55
01/01/2018	151	166	RAJMATI DEVI	40
01/01/2018	152	167	MATESHWARI DEVI	50
01/01/2018	153	168	TULSI	44
01/01/2018	154	169	BISHANDAI	40
01/01/2018	155	170	KHIMLA DEVI	45
01/01/2018	156	171	RAGHUNATH SINGH	76
01/01/2018	157	172	BEENA	40
01/01/2018	158	173	PREM SINGH.	70
01/01/2018	159	174	KALAM.SINGH,RANA	65
01/01/2018	160	175	RAMJAN	25
01/01/2018	161	176	BRIJMOHAN	50



Daily Report



Doctor :

Date :

Select Doctor

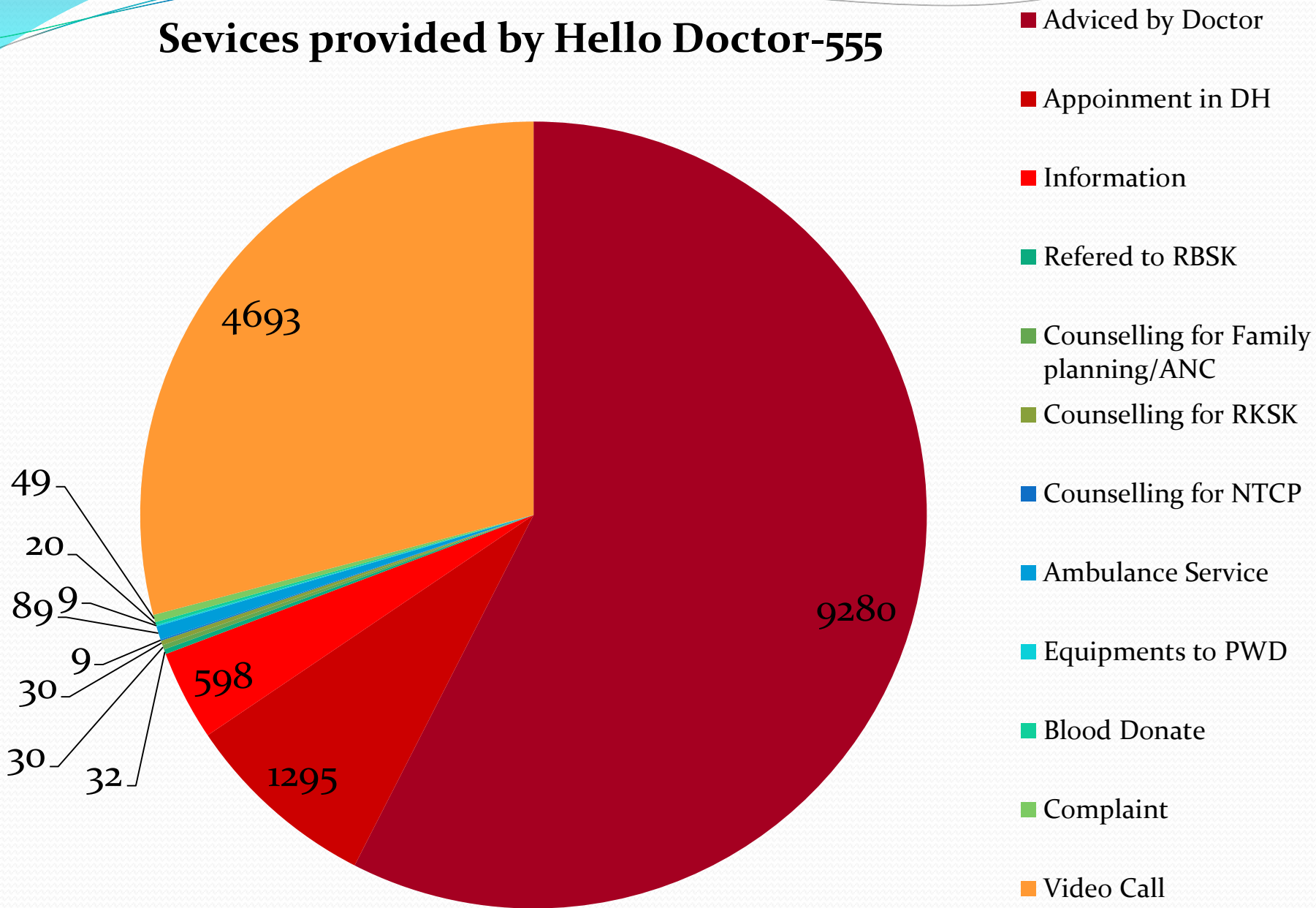
19/01/2019



Date	Uhid	Pcode	Patient Name	
19/01/2019	3892	4688	ANAND	17
19/01/2019	3893	4689	JABAR SINGH	74
19/01/2019	3894	4690	SMT. JASODA	61
19/01/2019	3895	4691	MUKESH BHATT	40
19/01/2019	3896	4692	SHRI INDER MANI	75
19/01/2019	3897	4693	RAGHUVVEER NEGI	30



Sevices provided by Hello Doctor-555



Outcome

- Service access point is localized at block level in sub centers.
- Little or Zero Cost to Citizen
- Reduction in travel time and distance to avail health service
- Real-time service delivery
- Transparent process
- Accountability ensured
- Continuous monitoring of service using inspection and review meeting by dedicated team
- Activated ten delivery points in the remotest areas.
- District Health Society (DHS) for analyzing feedback of patients
- Opened 2 Jan Aushadhi Kendra at district headquarter, remotest Hindolakhil and Pilkhi CHC and Beleshwar PHC

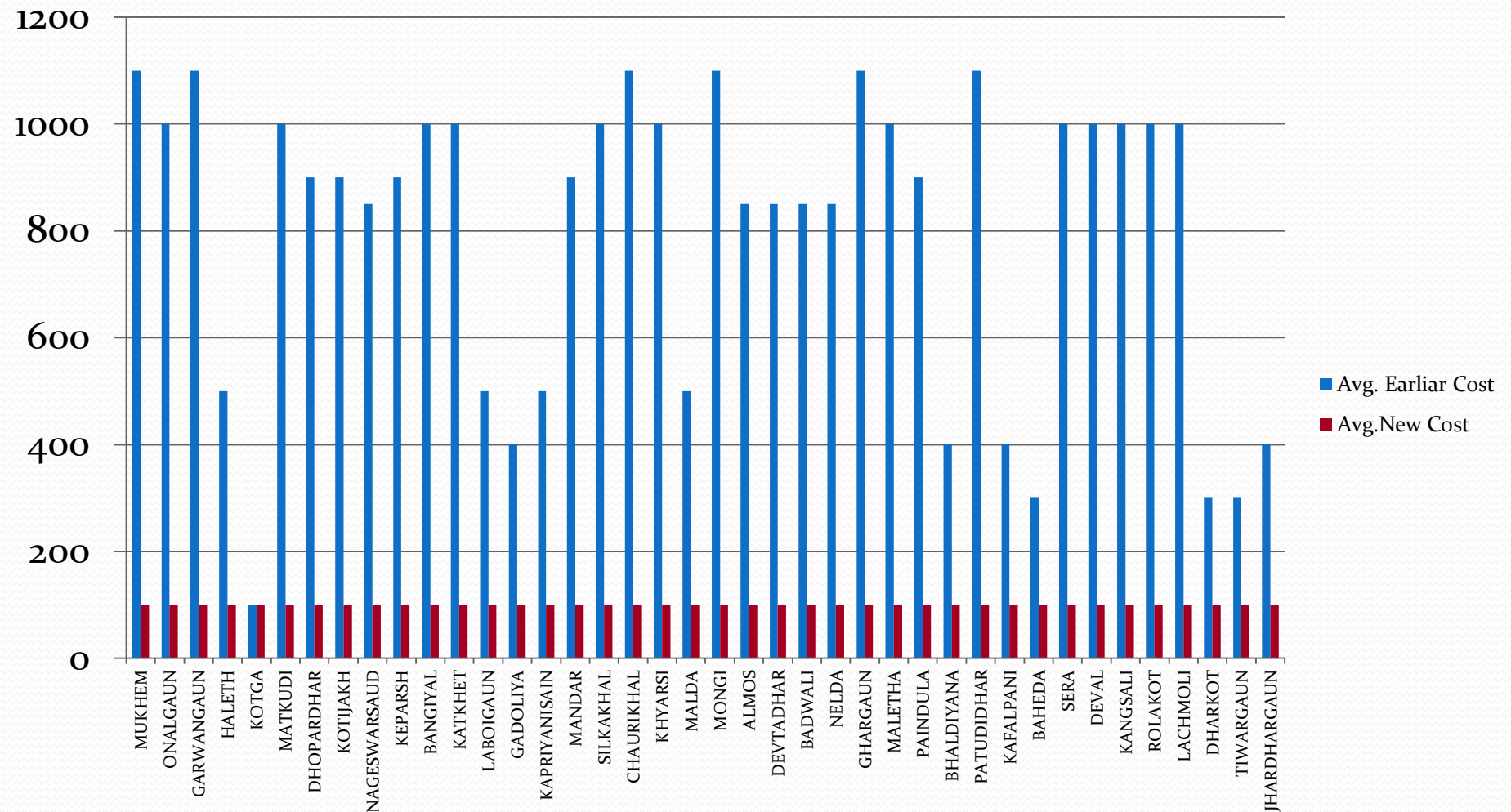
Outcome

- With community participation, activated 1742 VHNSC all over district and developed village health plan for 199 VHNSC in Chamba
- Center is also a center for monitoring & planning and grievance redressal for health services. Based on the experiences and learning
- AIIMS Rishikesh and Himalayan hospital has agreed to give tertiary care consultancy services(Finalization of MOU in process)
- District Health department has also started:
 - Water quality analysis project to reduce diarrheal cases
 - Project for Adolescent girls with special focus on menstrual hygiene and anemia.
 - Extension of video calling services to remaining 35 Subcenters
 - Mobile App for the field staff especially supervisors and ANM*.

Outcome

- Crowd funded more than fifty lakhs from various sources and Crowd sourced health services within and outside government sector.
- Collected and distributed, medicines worth 45,000Rs from the medicine collection boxes located in five Nagarpalikas and cloths worth 6,45,000 Rs in winters.

Average out of pocket expenditure reduction





Thank You