

# Elective 2023

## Report: Survey at Bhandardara



Department of Community Medicine

Dr. Balasaheb Vikhe Patil Rural Medical College

Pravara Institute of Medical Sciences (DU), Loni

### Student Contributors

1. Aanchal Mishra
2. Rishita Goyal
3. Shreya Shekhawat
4. Rahul Singal
5. Shubham
6. Akash Yadav

### PG Students

1. Dr. Shivam Raj
2. Dr. Monica Saha

### Guides

- Dr. Mandar Baviskar  
Dr. Anand Bhide  
Dr. Gautam Bhavare

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Anchal Mishra

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## **Post Graduate (TA)**

Dr. Shivam Raj

Dr. Monica Saha

## **Guides**

Dr. Mandar Baviskar

Dr. Gautam Bhaware

Dr. Anand Bhide

## **Acknowledgement**

Dr. Deepak Phalke

Prof. Somasundaram

AVM (Retd.) Dr. Rajvir Bhalwar

## Preface

Field surveys play a crucial role in the realm of medical sciences, serving as a valuable tool for gathering essential data and generating insights. By venturing into the real-world settings and engaging directly with populations, researchers can gather firsthand information about various health-related aspects, thus enabling a deeper understanding of diseases, risk factors, and healthcare needs.

Field surveys provide an opportunity to observe and analyze health conditions, lifestyles, and environmental factors that influence public health. They help identify patterns, trends, and disparities in disease prevalence, aiding in the development of targeted interventions and preventive measures. These surveys also facilitate the assessment of healthcare infrastructure, accessibility, and quality, allowing policymakers to make informed decisions regarding resource allocation and healthcare planning.

Moreover, field surveys allow for the collection of biological samples and epidemiological data, enabling researchers to investigate the etiology and progression of diseases, assess treatment efficacy, and monitor public health outcomes. Such data is crucial for designing evidence-based healthcare policies, implementing disease control strategies, and improving overall healthcare delivery.

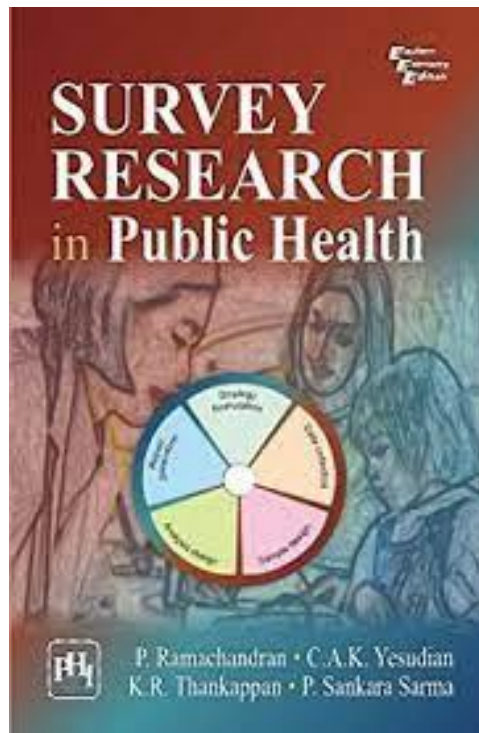
In essence, field surveys provide a dynamic platform for researchers to bridge the gap between theory and practice, translating scientific knowledge into actionable solutions that can have a profound impact on the health and well-being of communities.

Training undergraduate medical students in family study and survey methodology holds significant importance as it equips them with essential research skills and enhances their ability to investigate various aspects of family health. By gaining proficiency in these areas, medical students can contribute to advancing knowledge in family medicine, public health, and healthcare delivery. Additionally, this training enables them to conduct comprehensive family assessments, understand familial risk factors, and provide holistic and patient-centered care.

## Elective Training

### Week 1: Orientation to Survey Methodology

- The students after joining the elective were made aware of objectives of the elective.
- They were taught Survey Methods. Survey Research in Public Health was used as a reference text.
- The book covers basic survey planning, Do's and Don'ts of implementation.

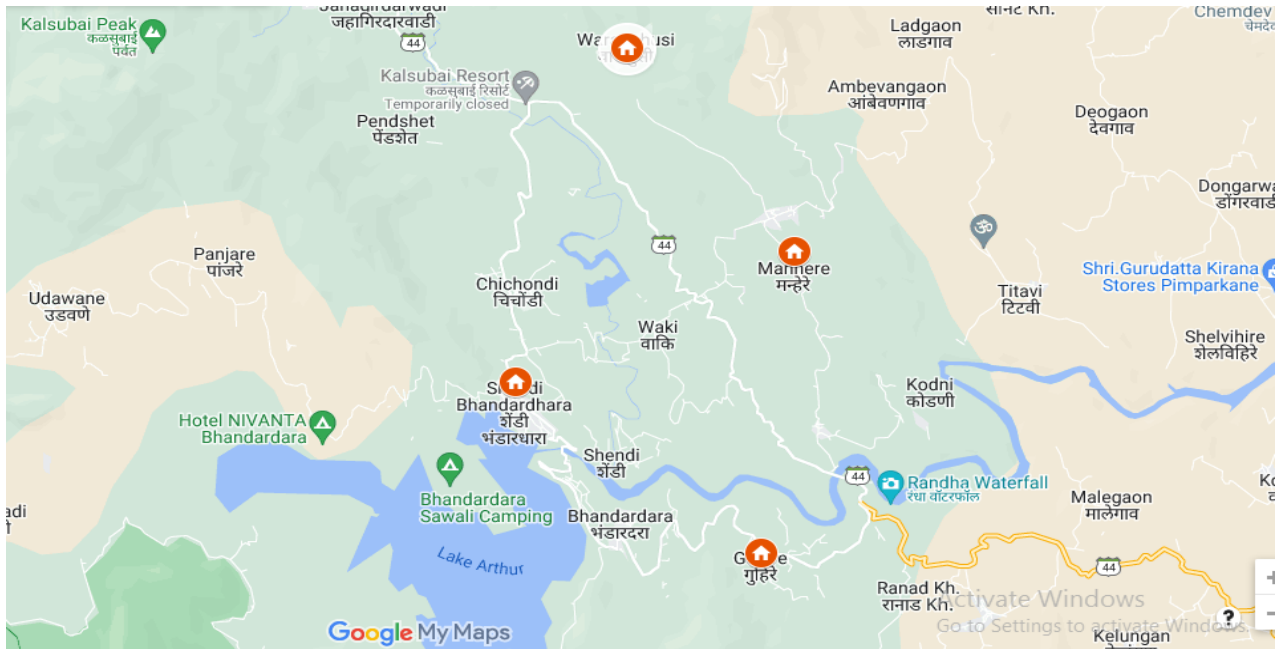
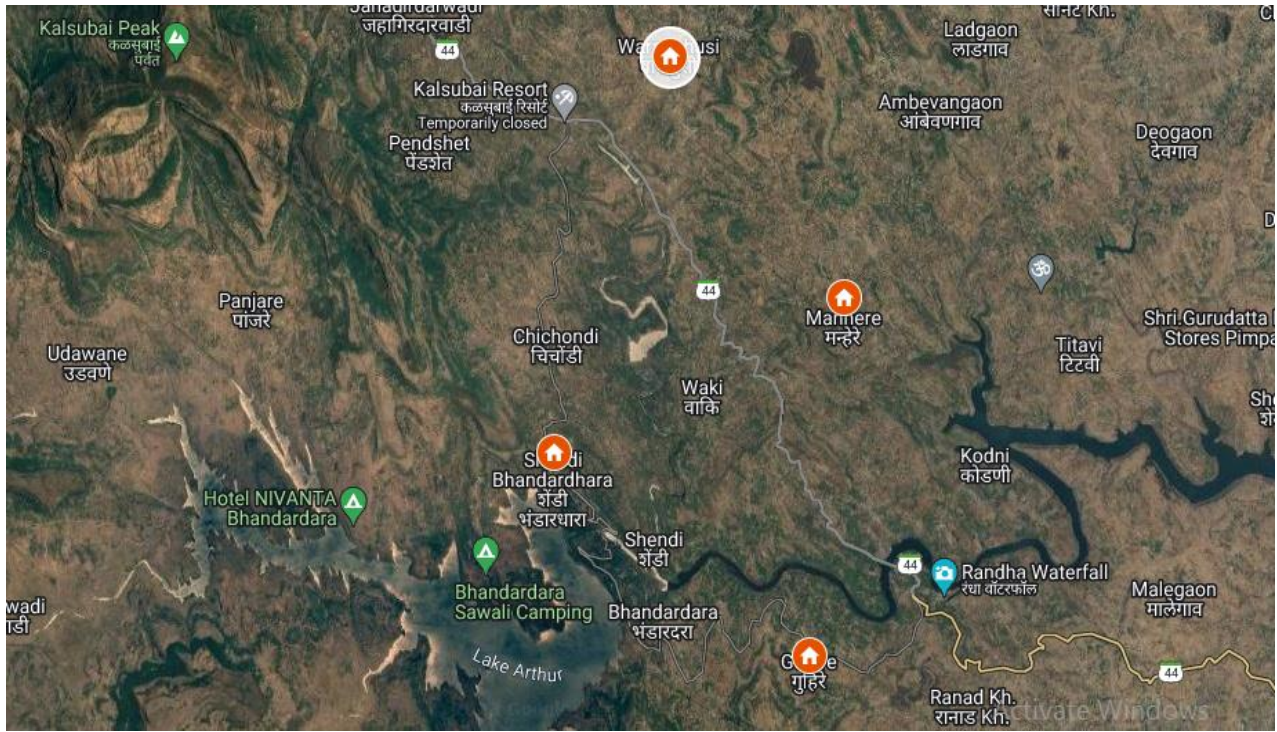


### Week 2: Micro-planning of Survey

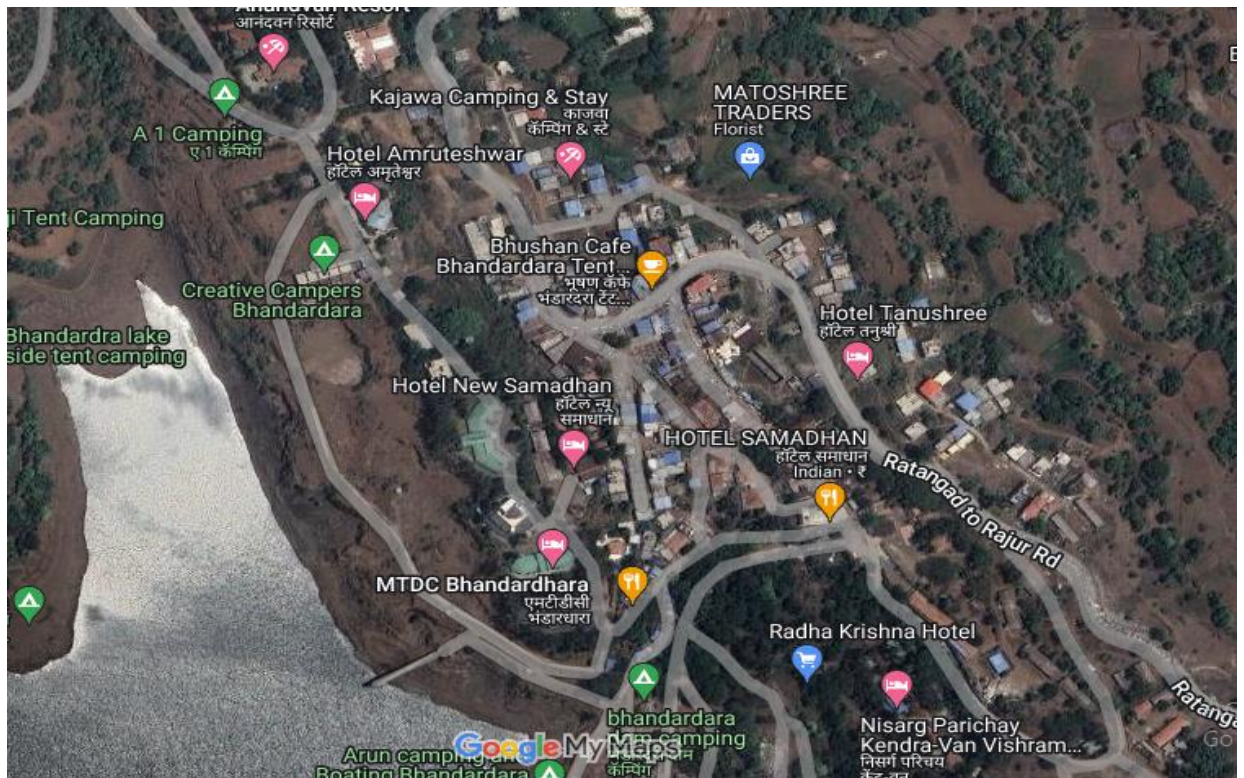
The study area was identified. A proposal was prepared and approval taken. A standard family study questionnaire was selected and approved. Involvement of Stakeholders was done prior to survey planning.

Approvals taken from Head of Department, Community Medicine, Dr. BVP RMC, Loni and Dean, Dr. BVP RMC, Loni. Co-operation was sought from Professor Somasundaram, Director, School of Public Health, PIMS(DU) and Coordinator Outreach Dr. Patil, nurses and social workers at Tribal Health and Research Centre (THRC), Bhandardara were informed. Permissions for travel and Accommodation at guest house were made (Annexure 3)

A total of four villages were covered during survey: **Shendi, Manhere, Guhire, Waranghushi**



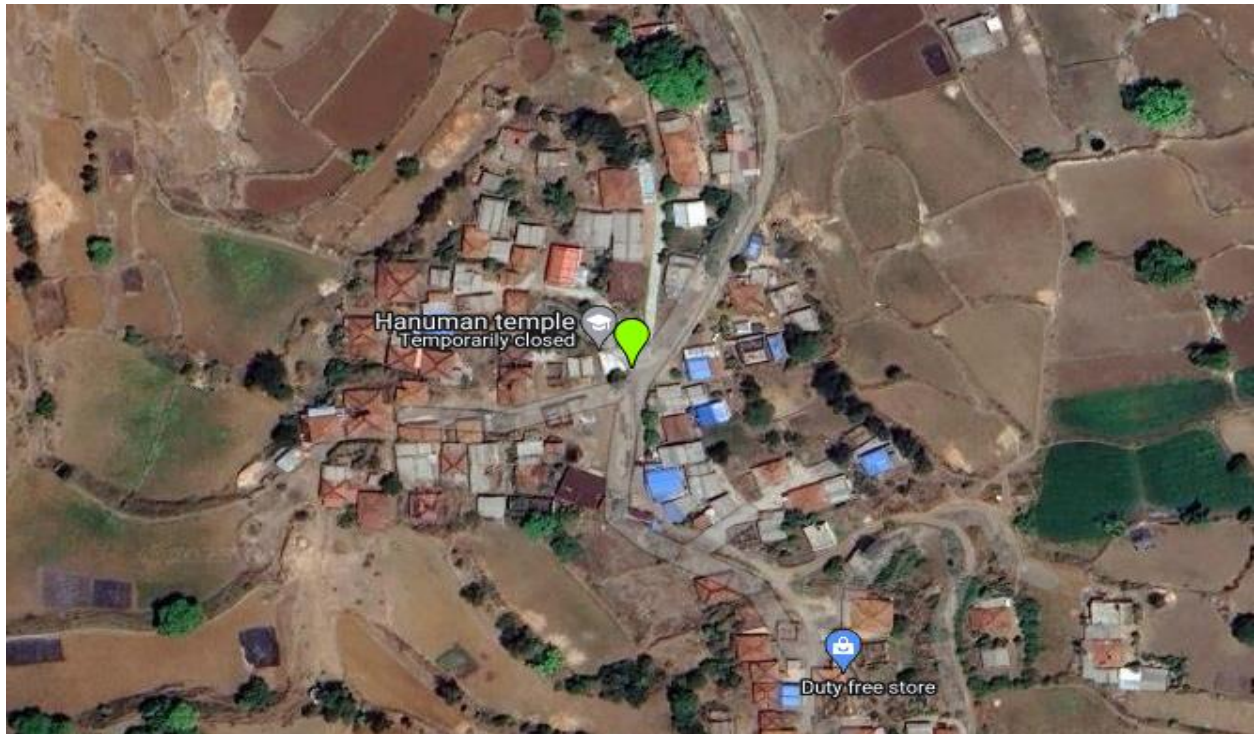
### 1) Shendi



### 2) Manhere



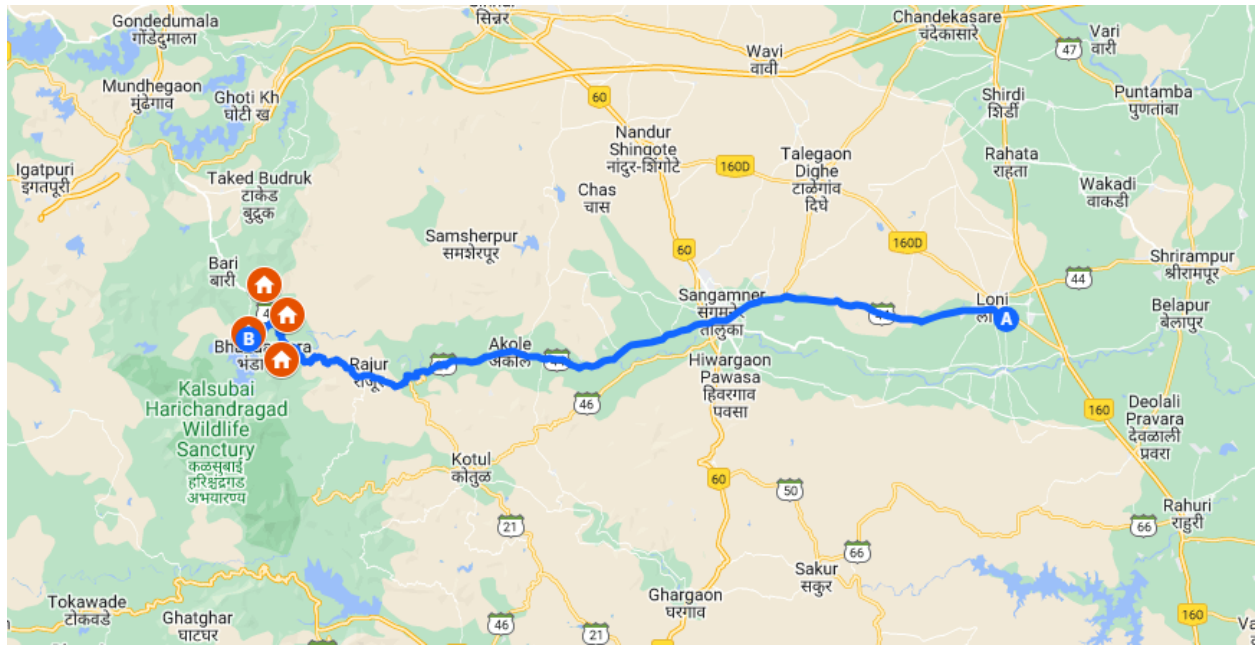
### 3) Guhire



#### 4) Waranghushi



Route from Institute (~91 kms.)



### Week 3: Data Collection

Data collection was done by each student. Students were sent to the field in batches of three. A team of nurse, social worker and resident doctor accompanied the students. Data was collected in Family folders. Following data collection the data was entered in Google sheets.

### Week 4: Analysis and Presentation

A data analysis seminar was taken following which each student analyzed a part of the data using Microsoft Excel and IBM SPSS software. Results were then compiled and interpreted. A brief presentation was made in front of the Guides and a report was prepared to be submitted along with log books.



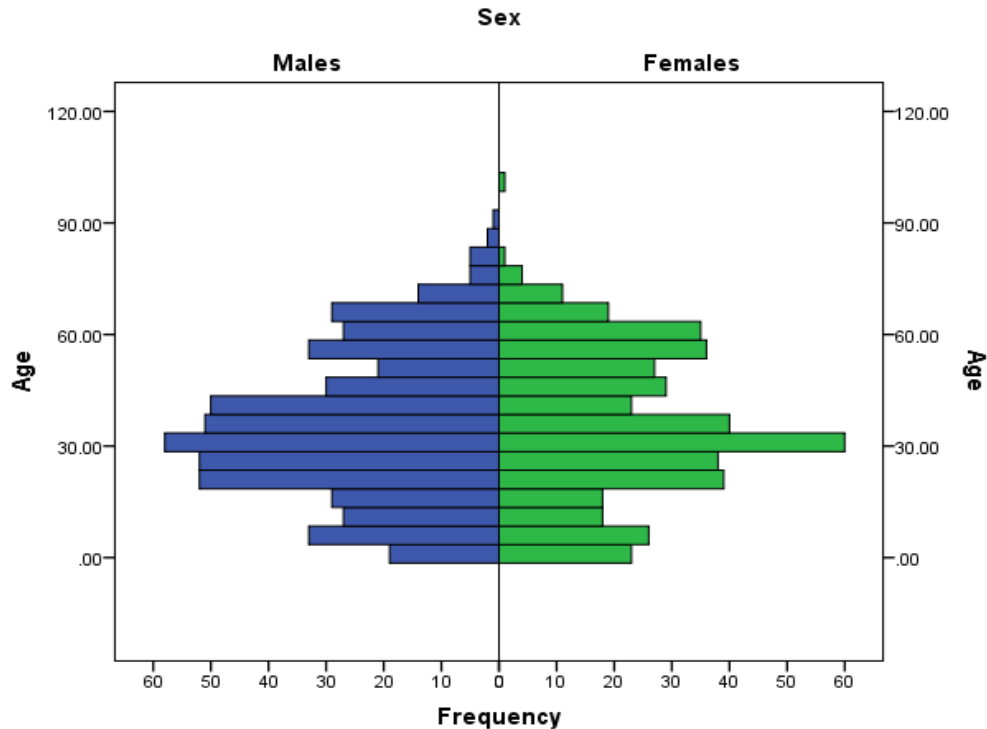
## Survey Results

A total of 228 families and 986 individuals were surveyed

**Table 1] Age wise and Sex wise Distribution**

Age Group	Sex		Total
	Males	Females	
0 to 5 years	27(5%)	37(8.3%)	64(6.5%)
5 to 18 years	81(15.1%)	48(10.7%)	129(13.1%)
18 to 30 years	131(24.3%)	112(25%)	243(24.6%)
30 to 60 years	235(43.7%)	210(46.9%)	445(45.1%)
Above 60 years	64(11.9%)	41(9.2%)	105(10.6%)
Total	538(100.0%)	448(100.0%)	986(100.0%)

**Figure 1] Age Pyramid**



**Table 2] Education**

Age Group	Sex		Total
	Males	Females	
0 to 5 years	27(5%)	37(8.3%)	64(6.5%)
Primary	101(18.8%)	111(24.7%)	212(21.5%)
Secondary	98(18.2%)	103(23%)	201(20.4%)
Higher Secondary	189(35.1%)	151(33.7%)	340(34.5%)
Graduation	123(22.8%)	46(10.3%)	169(17.1%)
Total	538(100.0%)	448(100.0%)	986(100.0%)

**Figure 2] Occupation**



**Table 3] Type of Family**

<b>Family Type</b>	<b>Frequency</b>	<b>Percent</b>
Nuclear	31	13.6%
Three Generation	131	57.5%
Joint	64	28.1%
Broken	2	0.8%
Total	228	100.0%

**Table 4] Family Members**

<b>Family Members</b>	<b>Frequency</b>	<b>Percent</b>
1.00	7	3.1%
2.00	21	9.2%
3.00	36	15.8%
4.00	76	33.3%
5.00	40	17.5%
6.00	25	11.0%
7.00	9	3.9%
8.00	5	2.2%
9.00	3	1.3%
10.00	3	1.3%
11.00	3	1.3%
Total	228	100.0%

225 families were Hindu, 2 Christian, & 1 Buddhist

**Table 5] Diet**

<b>Type of House</b>	<b>Frequency</b>	<b>Percent</b>
Mixed	200	87.8%
Vegetarian	28	12.2%
Total	228	100.0%

**Table 6] Socio-Economic Status (BG Prasad Scale 2022)**

<b>Socio Economic Status</b>	<b>Frequency</b>	<b>Percent</b>
Upper	40	17.5%
Upper Middle	27	11.8%
Low Middle	103	45.2%
Lower	25	11.0%
<b>Total</b>	<b>195</b>	<b>85.5%</b>
Did not Choose to Answer	33	14.5%
Total	228	100.0%

**Table 7] House Type**

<b>Type of House</b>	<b>Frequency</b>	<b>Percent</b>
Kaccha	148	64.9%
Pucca	80	35.1%
Total	228	100.0%

**Table 8] Rooms**

<b>No. of Rooms</b>	<b>Frequency</b>	<b>Percent</b>
1	51	22.4%
2	173	75.9%
3	4	1.7%
Total	228	100.0%

Overcrowding was present in 54(23.7%) households

**Table 9] House Ownership**

Type of House	Frequency	Percent
Rented	36	15.8%
Owned	192	84.2%
Total	228	100.0%

Mean duration of residence was 17.9 years (SD=9.2 Range:3 months to 50 years)

**Table 10] Ventilation**

Ventilation	Frequency	Percent
Adequate	205	89.9%
Inadequate	23	10.1%
Total	228	100.0%

**Table 11] Kitchen**

Separate Kitchen	Frequency	Percent
No	85	37.2%
Yes	143	63.8%
Total	228	100.0%

**Table 12] Cooking Fuel**

Cooking Fuel	Frequency	Percent
LPG	129	56.6%
LPG\WOODSTICS	75	32.9%
Cow Dung	24	10.5%
Total	228	100.0%

**Table 13] Water Source**

<b>Water Source</b>	<b>Frequency</b>	<b>Percent</b>
Tube well	38	16.7%
Tap	190	83.3%
Total	228	100.0%

**Table 14] Latrine**

<b>Latrine</b>	<b>Frequency</b>	<b>Percent</b>
Own Latrine Absent	129	56.6%
Present- Inside house	75	32.9%
Present- Outside	24	10.5%
Total	228	100.0%

**Table 15] Animal Rearing**

<b>Animals Reared</b>	<b>Frequency</b>	<b>Percent</b>
No	155	68.0%
Yes	73	32.0%
Total	228	100.0%

**Table 16] Animal Sheds**

<b>Separate Shed</b>	<b>Frequency</b>	<b>Percent</b>
No	36	49.3%
Yes	37	51.7%
Total	73	100%

**Table 17] Community Based Assessment of NCD risk factors**

<b>Parameters</b>	<b>Frequency (%)</b>
<b>AGE :</b>	
<35 Years	<b>36.36%</b>
35-49 Years	<b>36.36%</b>
>50 Years	<b>27.28%</b>
<b>Waist Circumference :</b>	
<80 cm(F) ,<<90 cm(M)	<b>55.45%</b>
<80-89cm(F) ,<90-99cm(M)	<b>40%</b>
>90cm(F),>100CM(M)	<b>4.55%</b>
<b>Physical Activity :</b>	
Vigorous	<b>12.7%</b>
Moderate	<b>46.5%</b>
Mild	<b>19%</b>
No Exercise	<b>21.8%</b>
<b>Family History of Diabetes :</b>	
No diabetes in parents	<b>81%</b>
One parent is diabetic	<b>16.34%</b>
Both parents are diabetic	<b>2.66%</b>

**Table 18] Addictions**

<b>Substance</b>	<b>Frequency</b>	<b>Percentage</b>
Alcohol	123	12.4%
Mishri	245	24.7%
Tobacco	111	11.2%

## Discussion

The age distribution is in keeping with the national pattern although 11.9% males and 9.2% females belonging to age above 60 years suggests need for providing quality geriatric services including specialized NCD care in tribal areas. Vaishnav et al. 2022 also identify this need and discuss it further with reference to National Programme for Care of Elderly (NPCE).<sup>7</sup>

Lower proportion of women were graduates. Most people were not college educated. Farming, Homemaking, Laborers were the most common occupations reported. This shows that agriculture is still the predominant source of income. Jungari et al. study this phenomenon in greater detail with mixed methodology and comment upon husbands perceptions on maternal health.<sup>8</sup>

Three generation family is most common and children live with their elderly parents. Median family size was 4-5 people although some families with more than 10 people were seen as well. Eighty seven percent population had mixed diet and preferred farm grown '*desi*' chicken and mutton as part of non-vegetarian diet. Most people belonged to lower middle class lived in *kaccha* house and had two rooms. Most owned their own house and only 15% rented a house. Poor ventilation was seen in 10 percent houses. Separate kitchen was not present in about 37% of houses. 32.9% households used LPG+ Wood as cooking fuel and 10.5% used cow dung the rest had LPG. Burning cow dung and wood inside the house without separate kitchen may be detrimental to health and can lead to respiratory diseases. 83% households had taps and rest used tube wells. Shah et al. observed similar condition and also measured higher proportion of indoor air pollution among tribal households.<sup>9</sup>

Forty three percent houses had their own latrines. Rest used public latrines. The penetration of *swacch bharat abhiyan* was found evident in the tribal areas as well. 32.0% reared animals however only half of them had separate animal sheds. 17.2% had high risk of diabetes, 56.4% had moderate risk and 27% had low risk of Diabetes. Alcohol intake was also high at 12 % Mishri use was found to be high and awareness needs to be created regarding the side effects of mishri as well as other tobacco products.

## Conclusion

The survey has given a good baseline understanding of community profile and health needs. Further health check-ups and interventions can be built upon this information.

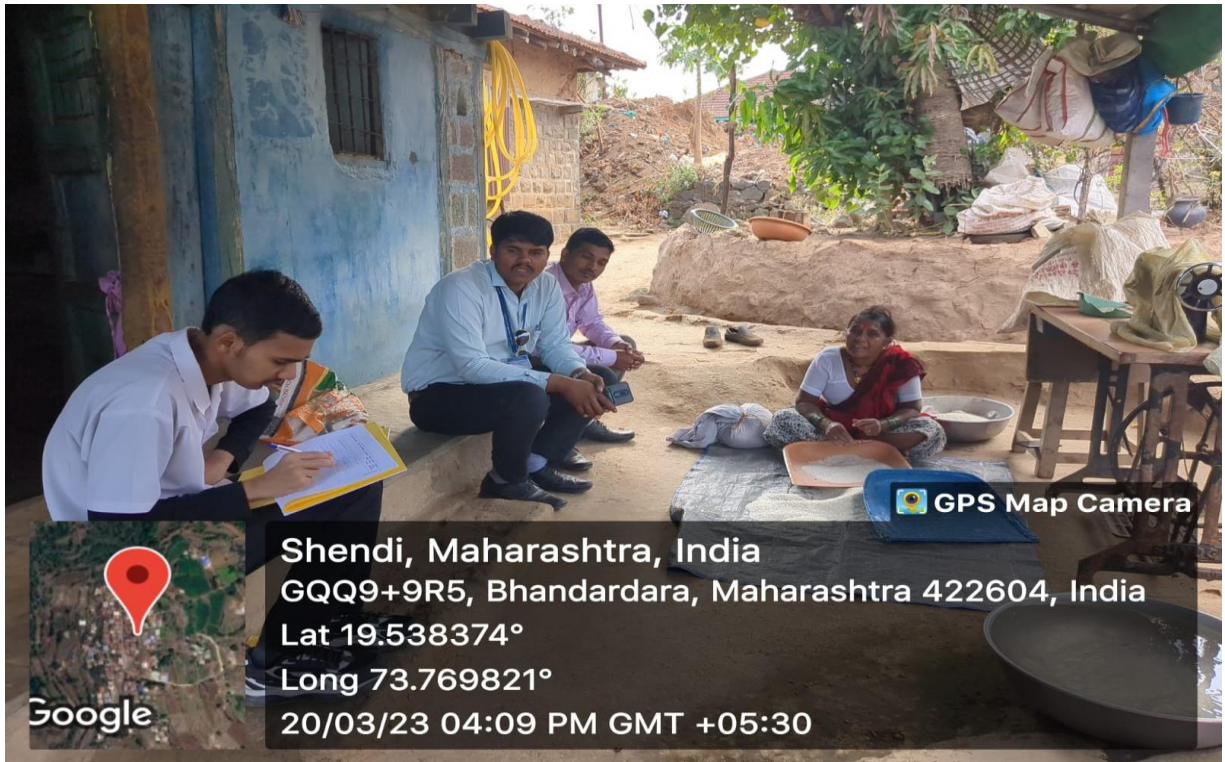


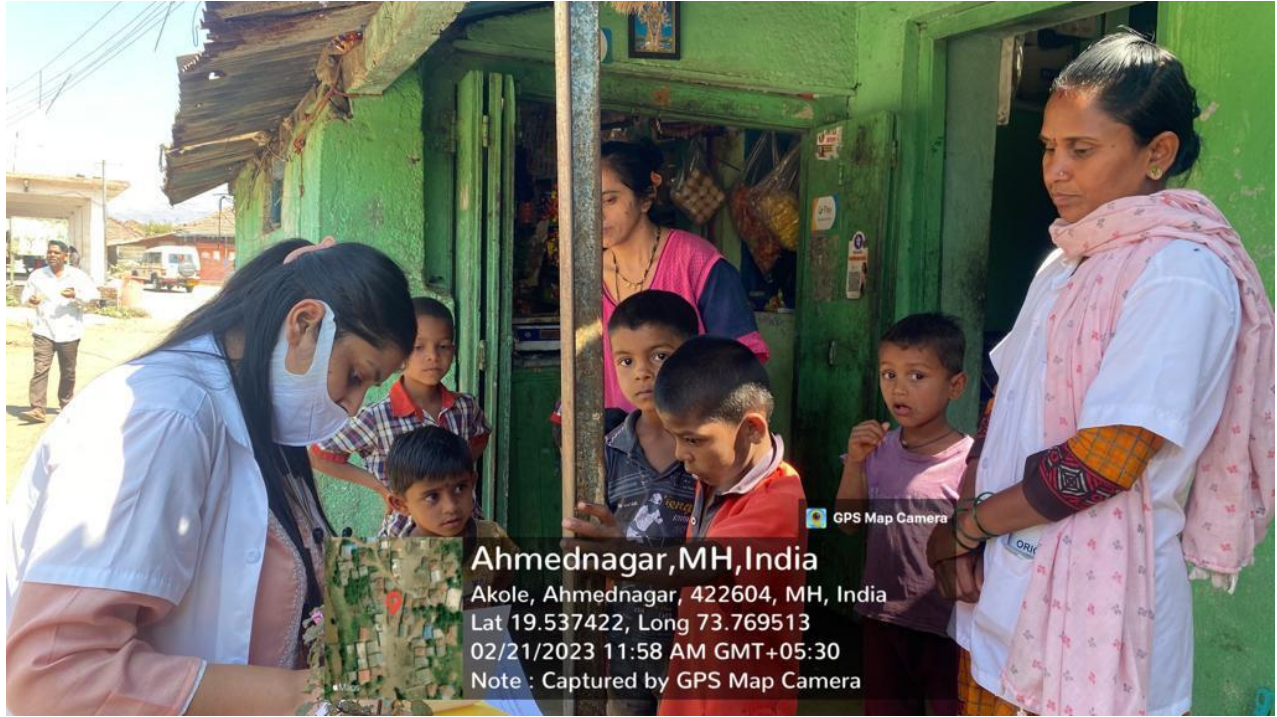
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8. Jungari S, Paswan B. Male perception and participation in family planning among tribal communities of Maharashtra, India: a mixed-method study. *International Quarterly of Community Health Education*. 2020 Apr;40(3):163-9.
9. Shah AK, Yetalkar AD, Kaware AC. Housing conditions, knowledge and perceived health effects of indoor air pollution in tribal women of rural Maharashtra.

## ANNEXURE: PHOTOGRAPHS









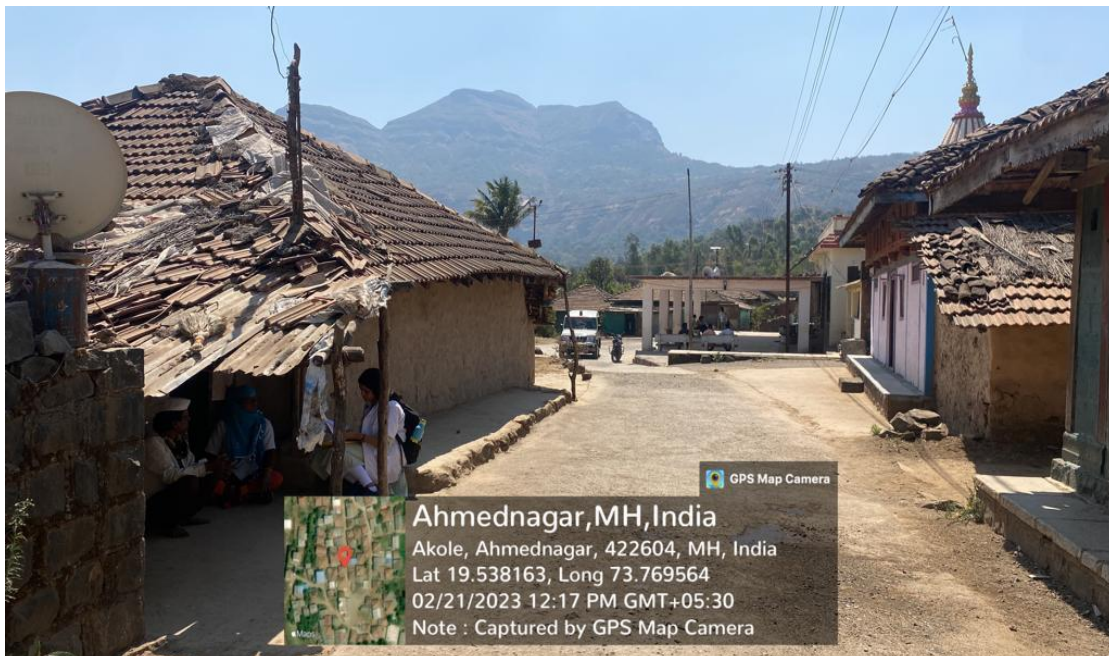














## प्रवरा मेडीकल ट्रस्ट, लोणी

प्रवरा सरल हॉस्पिटल, मेडीकल, डेंटल कॉलेज

दिनांक : 20/2/2023

प्रति,  
प्रशासकीय अधिकारी / गॅरेज इंचार्ज  
प्रवरा मेडीकल ट्रस्ट,  
लोणी

नांव : श्री. Dr. Mandar Bavishkar (Gurda) Loni  
Miss. Monika Saha - PG (DPM) राहणार  
Miss. Anchal Mishra  
Miss. Shreya Shetkawat - 2019 batch  
Miss. Richita Goel  
महोदय, - One Lady Security } elective posting at Bhandardara

कृपया मला आपल्या संस्थेची ॲंब्युलन्स / ॲंटोरिक्षा / बस / स्वराज्य मजदा मोबाईल ॲंब्युलन्स / डी. सी. एम. टोयाटो / टेम्पो / जीप / सुमो (on 21/2/23 7:00 AM pickup)  
1) ऑफीस काम : On 22/2/23 5:00 PM Pickup  
2) खाजगी काम : Elective Posting - Bhandardara  
3) दिनांक : 20/2/23 (Loni - to Bhandardara) 7:00 AM  
4) वेळ : 21/2/23 (Bhandardara to Loni) 5:00 PM  
5) गावाचे नांव : Bhandardara (Tribal Research Centre)  
6) झायव्हरचे नांव : \_\_\_\_\_

मंजुर / नामंजुर  
प्रशासकीय अधिकारी साहेब

आपला विश्वासु,

Remark + Dear, Dr BVP RMC

Allowed

Dr. Mandar Bavishkar

Dr. Mandar Bavishkar  
HOD Community Medicine

Professor & Head  
Dept of Community Medicine (PG)  
Bhandardara, Dist. Solapur, MS - 431 202  
1001413200

o/c

Dr. Mandar Bavishkar



**Pravara Institute of Medical Sciences**  
(Deemed to be University)

NAAC Re-accredited with 'A' Grade (CGPA 3.17)

**Dr. Balasaheb Vikhe Patil Rural Medical College**  
(Formerly called as - Rural Medical College, Loni Maharashtra)



LONI - 413736, (Near Shirdi) Tal : Rahata,  
Dist. : Ahmednagar (Maharashtra) India.  
Established in : 1984

Phone : +91-2422-271288, 273600  
Fax : +91-2422-273442  
Email : principal.rmc@prmpims.org  
Homepage : www.pravara.com

Ref. No.

Date 20/2/2023

To,

Prof. K V Samasundaram,


Director,SPHSM

Sub: Requesting to do the needful for arranging a two day family survey programme for 3 MBBS students & 1 PG (Dr.Monica Saha ) as part of elective posting 2019 CBME batch.

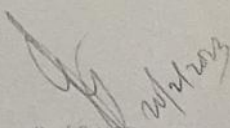
Sir,

We are sending a team of 3UG students & 1 PG Student under the guidance of Dr.Mandar Baviskar on 21/02/2023 & 22/02/2023.

UGs will do a family survey in the tribal area of Bhandaradara & PG will analyse the IDRS score among the tribal population. we will be gateful if you help us in arranging local transport,accommodation ,local guide /ANM & food at subsidized rates .

  
Dr.Mandar Baviskar

Guide

  
Prof & HOD

Dr. BVPRMC

COPY TO : DR.Patil ,MOIC outreach ,SPHSM