FINAL REPORT FOR THE HEALTH ACCOUNT SCHEME (HAS) IN ARUNACHAL PRADESH

1. **Project Title:**

   Health Accounting Scheme - Empowering people to have a participatory approach in assisting the formulation of healthcare policies, which has been implemented through Multi-Sectoral coordination: An operational evaluation (Papum Pare District in Arunachal Pradesh).

2. **PI (name & address):** Dr. Nabam Peter, Scientist- C
   Room No.119, Ground Floor
   Directorate of Health Services
   P.O. - Naharlagun
   Papum Pare District
   Arunachal Pradesh-791110
   Phone: 0360-2350629
   Mob: 9402475729

3. **Co-PI (name & address):** Dr. S. Ronya, District Medical Officer
   Papum Pare District
   P.O. - Yupia
   Arunachal Pradesh
   Mob: 9436052658

4. **Research Scientist:** Dr. Mesing Pertin, Research Scientist
   CHC, Doimukh
   P.O: Doimukh
   District: Papum Pare
   Arunachal Pradesh
   Mob: 8974553681

5. **Implementing Institutions & Other Collaborating Institutions:**

   (i) Implementing Institutions:

   (a) Directorate of Health Services, Government of Arunachal Pradesh
   (b) Health Account Scheme, Doimukh

   (ii) Collaborating Institutions:

   (a) Community Health Centre, Doimukh
   (b) Circle Officer, Doimukh
   (c) DRCHO, Doimukh
   (d) Representatives from the Panchayati Raj

6. **Duration:** 3 (Three) Years

7. **Time Period of Report:** October 2015 - December 2016

8. **Objectives as approved:**

   i) To evaluate the acceptability and feasibility of Health Account Diary.

   ii) To determine efficacy of scheme in generating health status report.

   iii) To explore the ability and contribution of various sectors in government and private for proposed model.

9. **Deviation made from original objectives if any, while implementing the project and the reasons thereof:**

   None.

10. **Experimental Work, Setup & Methods Adopted:**

   (i) **Health Camps:** People have been more responsive in their participation when health camps have been setup in the adjoining areas. Real time feedback and a more communicative response have been observed during such camps.

   (ii) **Free medicines:** Distribution of free medicines during health camps have been greatly appreciated. It is safe to conclude that free health camps and the distribution of free medicines gains positive responses from beneficiaries and this directly correlates to their participation in the health account scheme. Diminished purchasing power of individuals could be one of the reasons for some of the beneficiaries showing preference to free medicines, but this is also indicative of people generally responding positively towards these services as an added incentive.

   (iii) **Use of medical kits & equipment:** This has been an important tool through which we have been able to convince people of their participation. By using basic equipment measuring BP, blood sugar, weight and height, it provides people with a sense of care from health service providers like us. It is safe to conclude that during the collection of carbon pages, if we continue to measure the metrics of a person's health, they will continue to respond more positively towards the effort of the health diary.

11. Methodology of data collection:

i) Listing of Healthcare facilities in the district and manpower.

ii) Secondary data on population of the district and data on economic census 2011.

iii) Baseline survey of selected area.

iv) Health Diary distribution, IEC activities on Health Diary use,

v) Simple random survey.

vi) Data collection by the field assistants.

vii) Making a note of real time responses from the beneficiaries.

viii) Data entry into the online website.

ix) Comparison with previous years report in calibrating the efficiency of the project.

12. Data Analysis:

I. Overview:

Total number of households used in the households = 528
Total number of residents = 2205
Total number of people who had either migrated = 784
Or misplaced their diary

II. Distribution of population:

The majority of the population surveyed are local indigenous people of Arunachal Pradesh. During the initial survey we also saw a larger percentage of non-locals, however, a sizeable population have either migrated or misplaced their health diaries. This data provides us with inputs necessary to identify beneficiaries who are not permanent residents of the area and were susceptible to migration and therefore it helps us determine our selection of beneficiaries who can provide sustained data over a longer period of time. Fig.1 shows a significant difference in population vis-à-vis the initial survey.

One of the feedbacks that that has been provided in the previous reports is to make a concerted effort in a new approach during implementation of the HAS Project in a new region. The list of beneficiaries should be methodically chosen so that we are able to collect quality data for analysis. Surveying households of central government employees, students in rented accommodations or migrant labourers should be avoided as the probability of relocation is much higher. This will make data collection more efficient, save on the cost of printing additional health diaries and also the burden on field assistants and research scientists associated with the project.

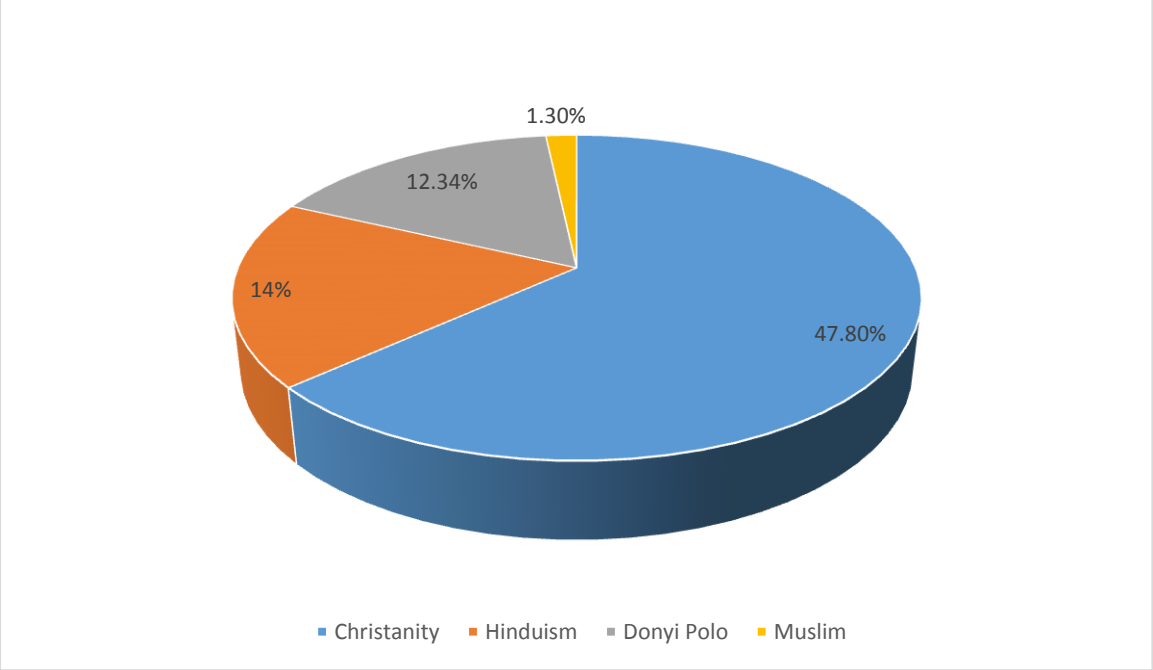


Fig 1: Population distribution based on religion.

III. Migration Trend:

As mentioned above, the number of initial beneficiaries was a total of 2205, however, due to factors like migration, misplacementof health diary, missing data and late submission of data by field assistants, hence the data collected has certain deviations vis-à-vis past reports. Fig 2 & 3 represents the deviations.

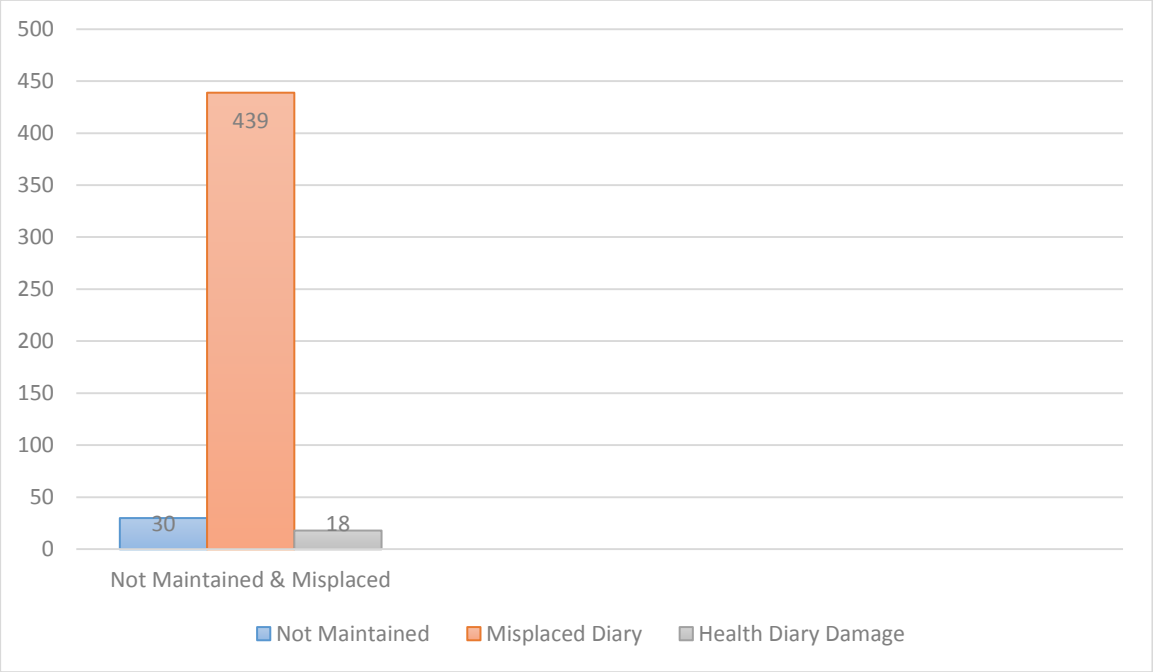


Fig 2: Diary Not Maintained & Misplaced by Beneficiaries.

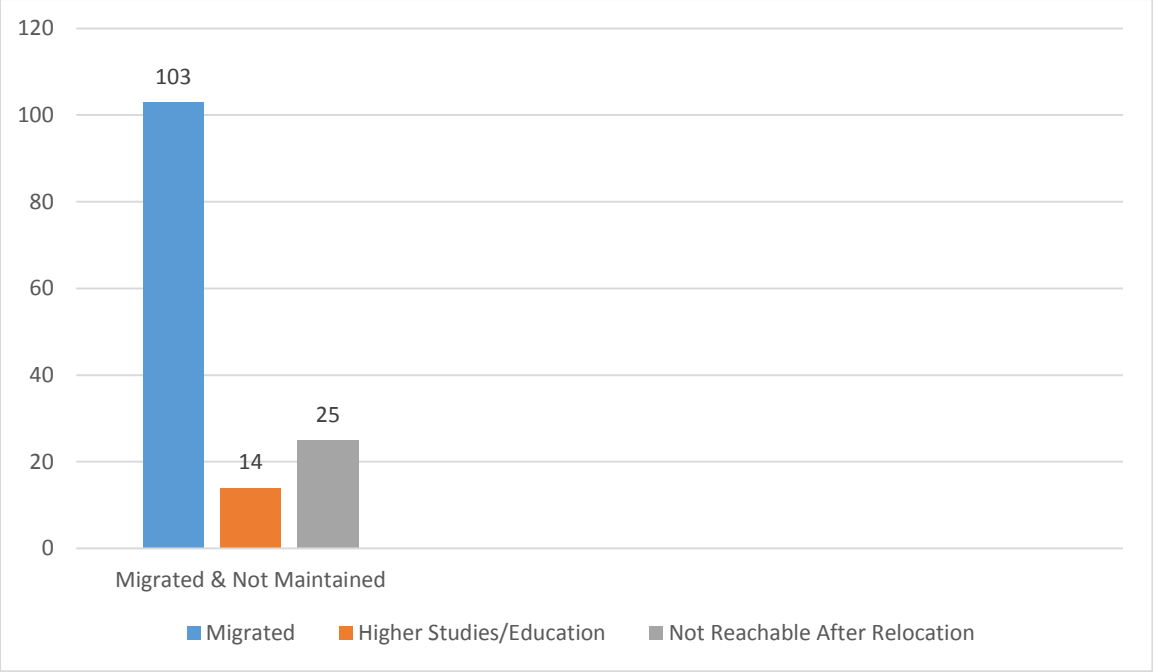


Fig 3: Migration data

IV. Preference in Health Care Treatment:

We have not observed any dramatic change in an individual's preference of health care facilities in the area. In relation to issues like headaches, cold, cough or body pain people continue to seek assistance of a local chemist shop which indicates that medicines are being purchased without any prescription.

Most treatments are carried out in the Community Health Centre in Doimukh, State General Hospital and other private hospitals.

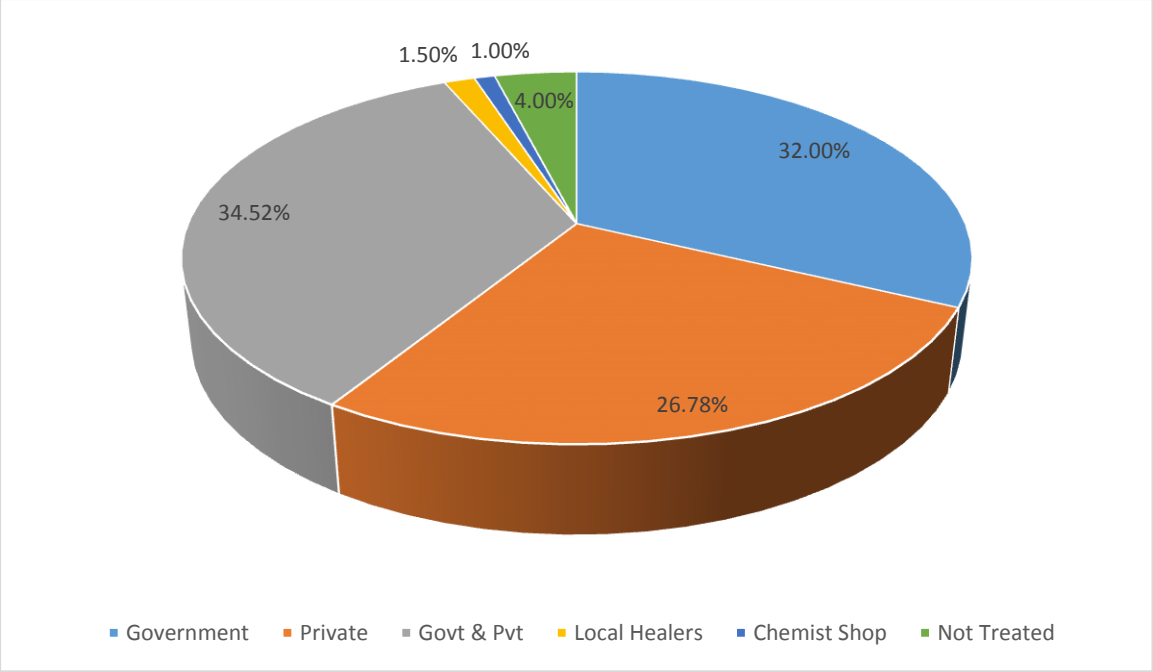


Fig 4: Health Care Preference of the Beneficiaries

V. Gender Equations:

More number of females are unemployed as compared to males. The larger percentages of unemployed females are home makers. We can also observe a healthy sex ratio amongst households that have been surveyed. Fig 5. & Fig 6 will illustrate this point. Although we see a higher percentage of employment among the female population Fig 5, however we need to take into account the total number of females which is significantly higher than males.

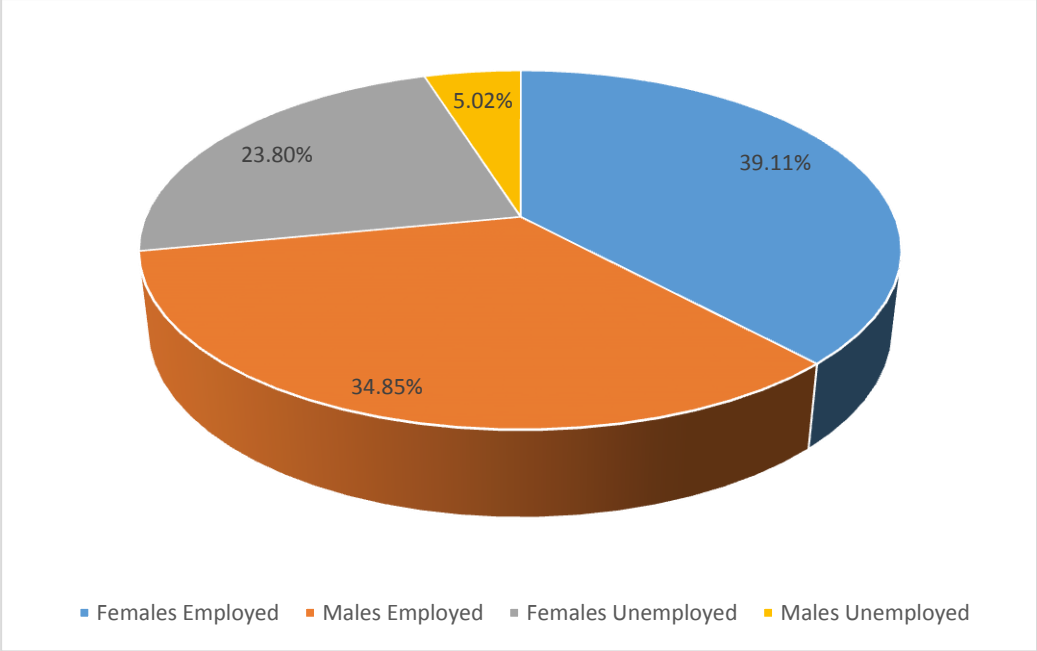


Fig 5: Employment by Gender

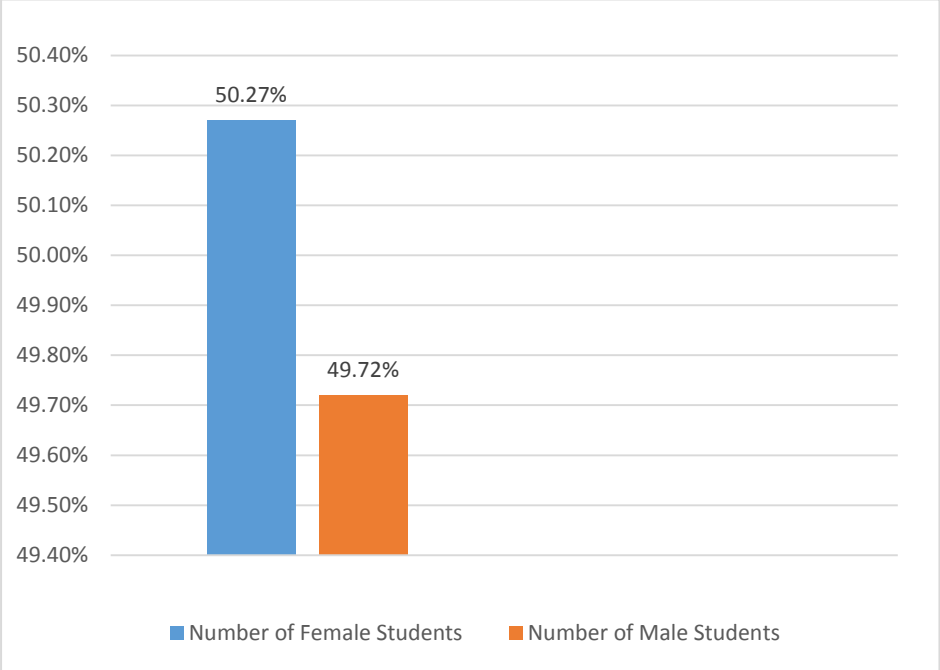


Fig 6: Number of Male & Female Students

VI. Addiction among Males &Females:

There is no significant change in addiction among women for the data that has been collected. The average rate of addiction in the previous year's progress report is 23.97 percent. For the period of analysis in the present year, there has been a marginal decrease, bringing down the addiction rate to 22.78 percent.

However, the addiction rate among the male population has dropped down significantly. The last progress report showed the addiction at an alarming rate of 45.42 percent. This meant that almost half the male population in the area was addicted to one or all forms of vices like tobacco, alcohol, smoking, betel nut or a combination of the whole. Therefore, it is indeed heartening to see that the addiction rate has come down to 37 percent.

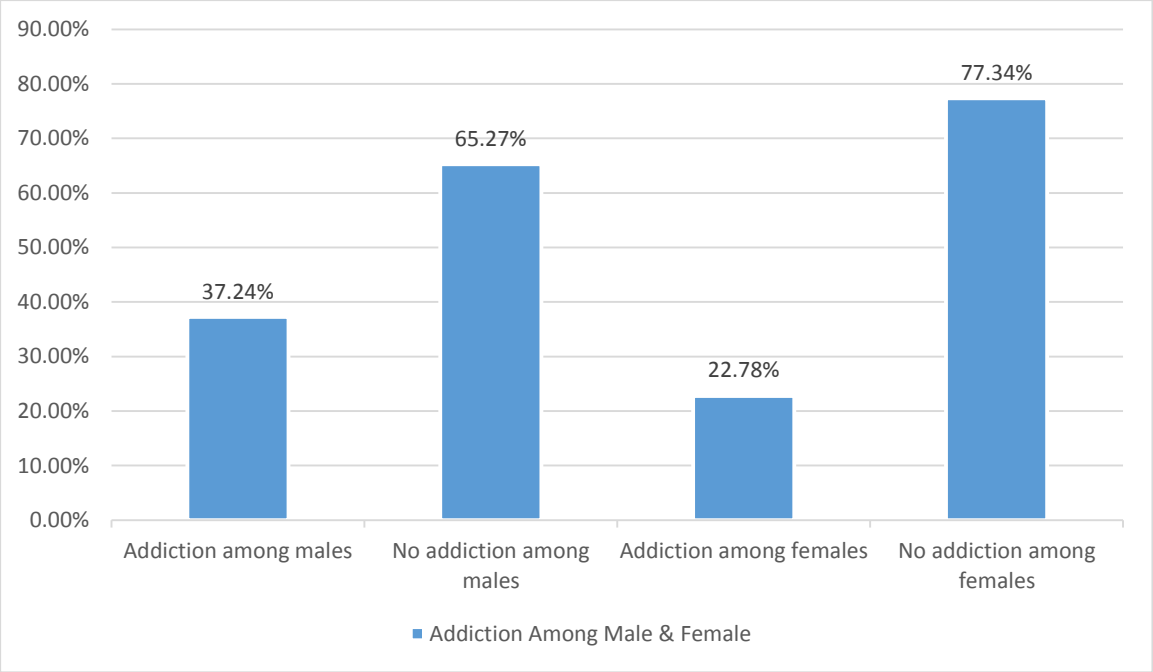


Fig 7: Addiction among Males& Females

VII. Health Issues:

Data analysis shows that more females are suffering from health problems. Lifestyle diseases, consumption of alcohol or tobacco and even a sedentary lifestyle are some of the reasons why the female population maybe falling ill. In general, the students are healthier, however, some cases of children experimenting in various forms of addiction is a concern. There is deviation in data because of the lack of response or feedback from the individuals in the health diary.

We have segregated the data into a graph for adult male and females and students in a separate graph as mentioned underneath.

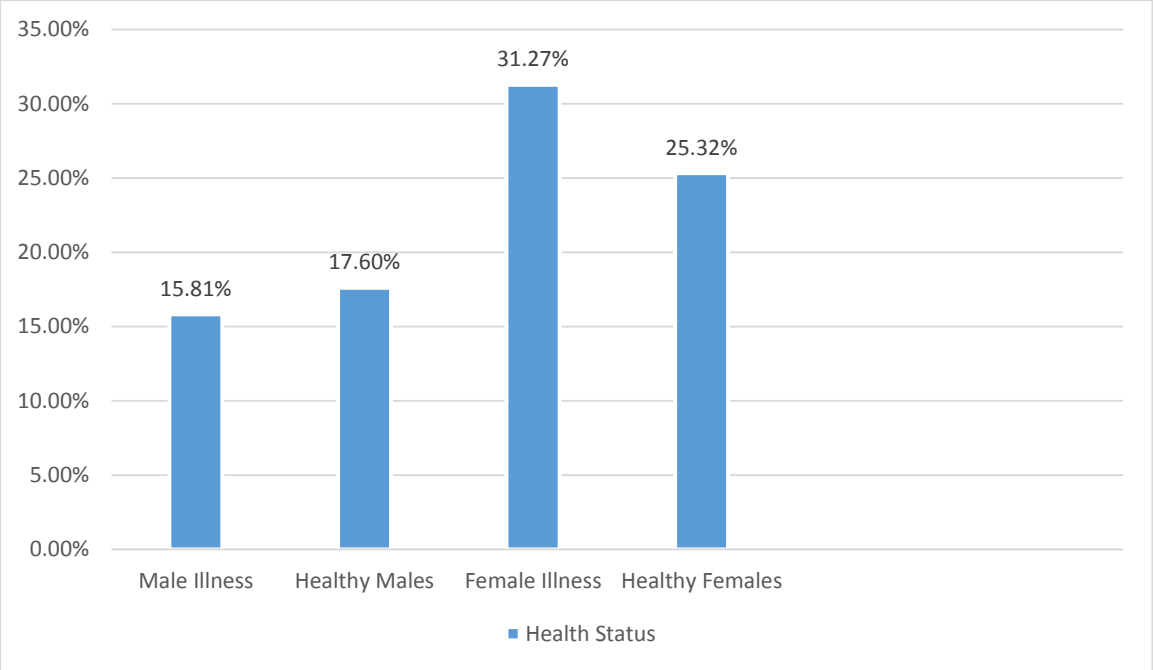


Fig 8: Health Status of Males & Females

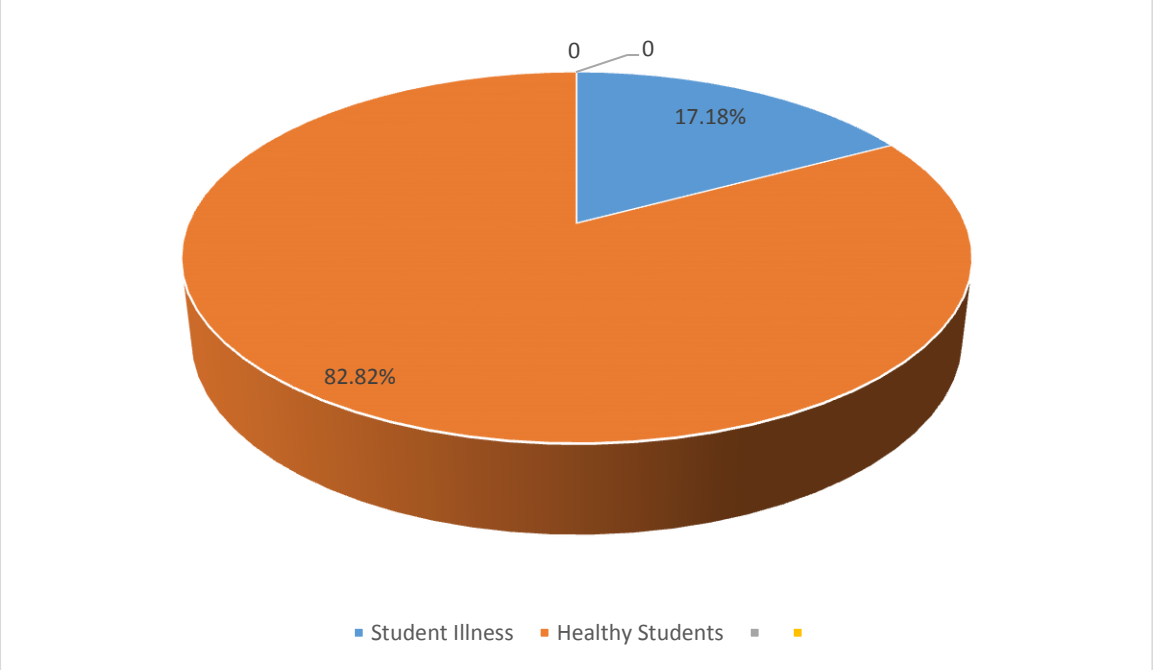


Fig 9: Health Status of Students

VIII. Feedback from Beneficiaries of Health Diary:

A number of beneficiaries have provided feedbacks regarding their expectations from the government and their expectations of health care facilities. A large percentage of these are related to making health care more affordable and hence have requested for more free health camps and distribution of free medicines.

It has also been observed that the want more specialized doctors in the Community Health Centres instead of visiting private hospitals or the State General Hospital.

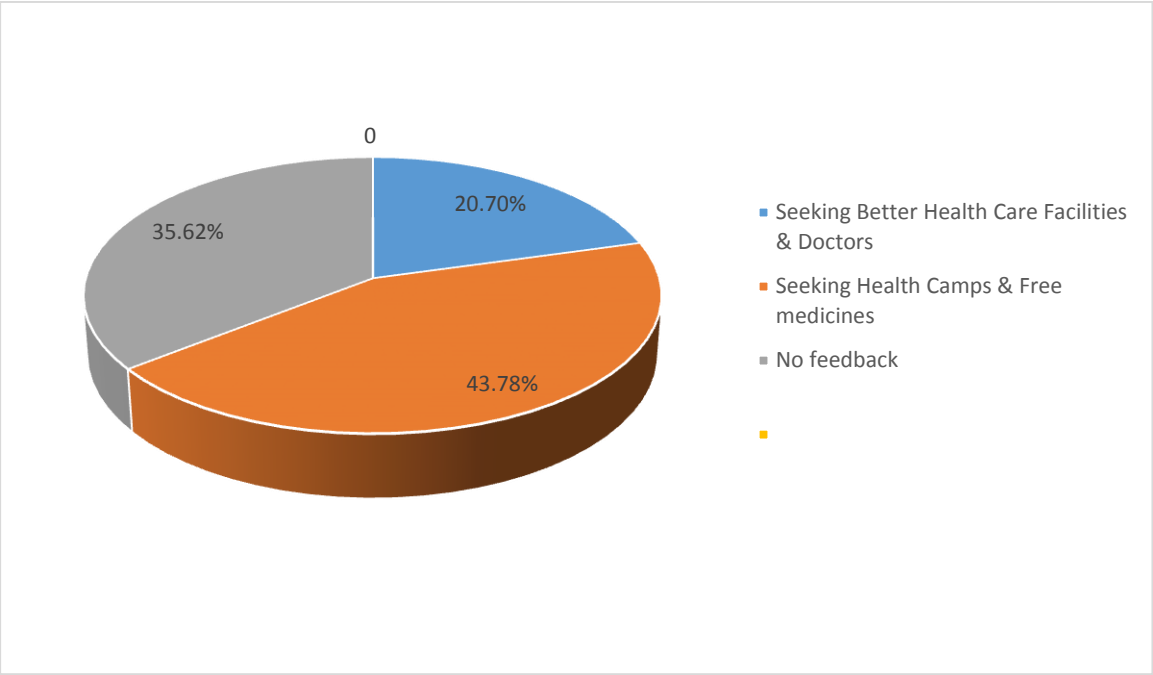


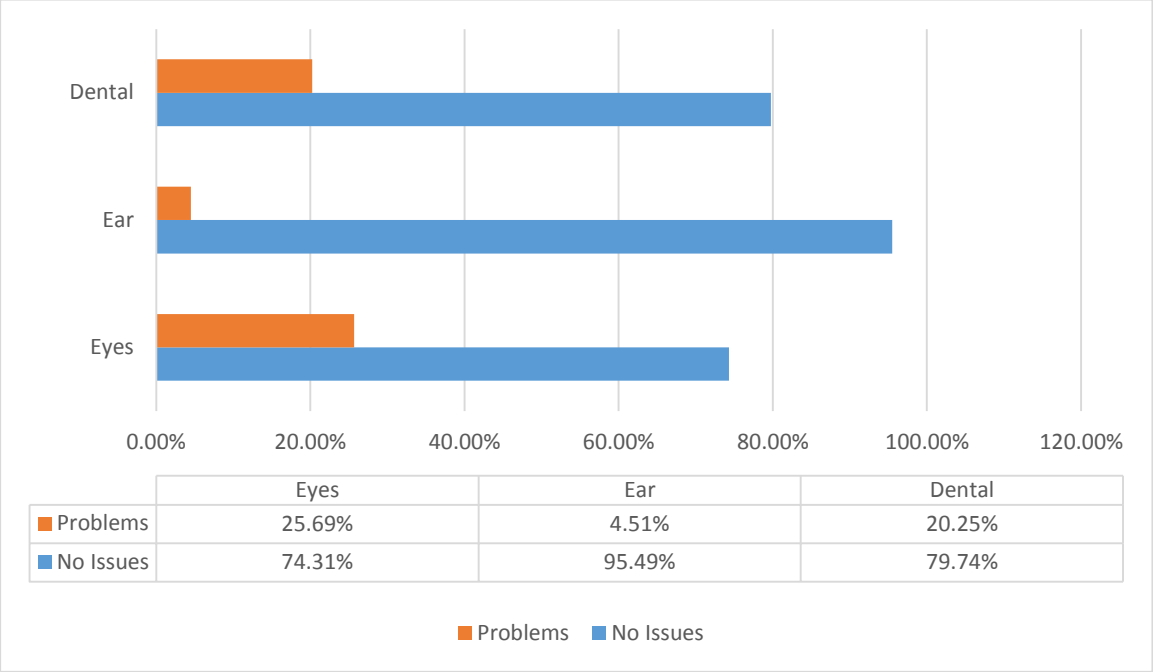
Fig 10: Feedback from beneficiaries

IX. General Observation Related to Ear, Eyes and Dental Issues:

We have also conducted surveys and general screening of individuals to find out their health status related to ear, eyes and dental issues that they are presently facing. Fig 11 underneath highlights the findings.

The overall data is a healthy trend, with more number of people facing a greater degree of good health in this regard. Common issues related to Eyes Problems is Myopia & Hypermetropia, Ear Problems relates to low hearing frequency in one ear or the other and Dental issues primarily

relate to cavities or caries, bleeding of gums, sensitive tooth and rare case of gingivitis.



	Eyes	Ear	Dental
Problems	25.69%	4.51%	20.25%
No Issues	74.31%	95.49%	79.74%

Fig 11: Graphical representation related to illness of Eyes, Ear & Dental.

X. Analysis of Results:

The baseline survey conducted during the initial stages and subsequent follow up by the team at HAS, Doimukh, gives us a better understanding of the existing health situation within the targeted individuals. We can analyse some of its findings underneath:

(i) **Quality data:** Quality data can only be achieved if the office infrastructure and manpower to conduct the various surveys and collection of data is in place at least a month prior to the project being rolled out. This can be utilized to provide extensive training to the field assistants in educating them with technical terms, out of the box thinking, handling objections when individuals are hesitant in providing person information, etc. This time period can also be used to coordinate between the various departments and local community leaders to ensure better participation by the beneficiaries.

Also, the targeted individuals should be methodically chosen by focusing on permanent residents of the area. We have observed large scale migration of central and state government employees, students moving away for further studies and also migrant

construction workers or labourers who move on to a new location once an existing project is completed.

(ii) **Migration & Non-maintenance of Health Diary:** The data clearly shows that the cost of rolling out this project to migrant workers and non-permanent residents of the area is detrimental to the timely execution of baseline survey or data collection and it has also increased the work of the HAS Team manifold. This problem has been further compounded because of the topographical challenges and conveyance issues faced on a daily basis. Weather conditions, large distances between households and no dedicated vehicle for transportation has greatly hampered the task at hand. Baseline survey and data collection had to be re-done for all the migrated individuals and missing beneficiaries.

During the last three years, most of the field assistants were collecting data on foot or sometimes using their own vehicles. This led to backlogs in data submission. With a dedicated vehicle service, data collected can be submitted to the HAS Office on the same day.

Also, we need to make the best efforts in trying to analyse whether an individual is committed of their participation in maintaining the diary. This can be done through open ended questions and an assessment can be made to determine whether the household should be used as part of our project. In case of more negative responses related to diary entries or apprehension in sharing personal information, we should avoid such targets and find people who are better suited for the campaign.

(iii) **Health Care Preference & Complaints:** People have expressed their preference for government hospitals vis-à-vis private establishments. The data shows 32% preferring government hospitals, 26.78% preference for private hospitals and clinics and 34.52% showing preference for both government & private hospitals.

This means that the total number of people preferring government hospitals and community health centres is 66.52% (32%+34.52%). So given an opportunity, provided the government hospitals have proper infrastructure and specialized doctors, the beneficiaries would prefer to firstly seek the services of these establishments instead of private entities. This could be reflective of the cost of health care and its burden on the people.

(iv) **Addiction:** There is no improvement on the state of addiction among females in the past three years. However, it is pertinent to note that the addiction rate among the male population has gone down by almost 8%. Addiction among the younger generation viz. school students, under graduates or pursuing their PG degrees is under 18%, however, there is one exception of a Class X student who has been addicted to smoking for the last seven years and has been diagnosed with Tuberculosis.

The overall picture with regards to addiction among males, females and students is still below the national average. However, more awareness needs to be introduced to further lower the abuse of various addictions.

(v) **Feedback from beneficiaries:** People have expressed their frustration with regards to limited infrastructure and specialized doctors at the CHC. They have requested for the availability of medicines and medical equipment.

One of the recurring feedbacks from the community is their preference for free health camps and the distribution of free medicines. This could be because of the rising cost of basic health care. But the initial data obtained regarding income of households and the fees charged in hospitals as per the state census data, does not really correlate to their spending power. However, it is also fair to assume that with increase in the cost of living and cost of education, the finances may have been affected due to these factors.

XI. Summary:

The Health Account Scheme has its place in an ongoing effort in the health sector to pre-empt health care measures for the benefit of the community. The initial enthusiasm of the beneficiaries was a positive sign that we could have a participatory approach from the health card holders. However, it is safe to conclude that this enthusiasm has to be sustained by the providers of health care i.e. the team at the HAS Office in coordination with the existing health system and the local authorities. We need to understand the elements that will allow the beneficiaries to commit their time and effort in maintaining the diary over a long period of time.

If we take into account the basic feedbacks received over a period of 3 (three) years, people expect the following:

(i) Timely, regular and fixed date for collection of carbon pages.
(ii) Regular health camps & free medicines as an incentive.

The first aspect of their expectations can be fulfilled by an effective team and a dedicated transport facility to collect and submit data to the HAS office on the same day. This will also minimise the issue of backlogs related to data entry in the online portal and excel sheets. The latter is a policy decision and needs to be discussed by the appropriate authorities.

Efforts were made to involve volunteers who could provide assistance regarding baseline survey or carbon page collections, however, without monetary benefits; we were unable to find any. The field assistants have done an unsatisfactory job as per even their own expectations but there have been factors which contributed to their non-performance and this has already been highlighted in past reports.

We also tried to engage ASHA and Anganwadi workers and, initially, two ASHA workers had agreed but later backed out of the project stating the difficulty in handling both her primary job and the HAS survey and data collection work. Since they are already part of the health system and are knowledgeable about the residents of the area, it will be an ideal scenario to provide them with extensive training and have them conduct the survey and collect data. However, this too requires the approval of the authorities.

It is also pertinent to note that in our interactions with ASHA and Anganwadi workers, they have not sounded optimistic about taking on an additional burden by extending their service in survey and data collection work, with the same meagre salary they are getting paid on a monthly basis. Therefore, simply engaging them because of the directions of the policy makers will still not be enough. During our discussions, they too have advised additional compensation for their efforts.

The Digital India campaign is a good precursor to the idea of having access to our health status online. We can readily access it whenever needed. If we look at the population that has been surveyed, the data brings forth a large number of youth in the area – school children, college students and youths under 30 (thirty) years of age. Maybe we need to make a different approach when we speak to the adults in the family who generally maintain the health diaries. We can use the message of Digital India and also communicate to the parents that the health records of the younger generation are important for the wellbeing of their children in the future. Although it may not be applicable for all, but, children or young adults who have had some serious health issue in the past, can access his/her data in future, in case it is needed to make a better assessment of their health in the present. Hard copies of prescriptions, reports etc. can be lost, damaged or soiled and hence a digital record could prove valuable.

This project has brought a lot of awareness among the beneficiaries. We have addressed their health queries regarding precautions, treatments, options, solutions and also received considerable feedback regarding their expectations from the existing health facilities in the area. By conducting health camps in the remote areas, we have provided opportunities for people to avail these benefits, who otherwise would have had to walk long distances or waited to hire a vehicle to visit an OPD. The parents of new born babies or under 6 (six) months old have especially shown great appreciation for the service.

It can be summarised that with the challenges that have been faced by the HAS Team in Doimukh, as stated above, if we look to make amends, then the prospect of continuing with the project is realistic and it can continue to offer quality data for analysis.

XII. S & T Benefits Accrued:

(i) **List of research papers with complete details:** None

(ii) Manpower:

Name	**Designation**	**Date of Hire**
Dr. Mesing Pertin	Research Officer	01-01-2014 till date
Mr. Techi Niya Tara	Data Entry Operator	01-08-2014 to 31-07-2016
Ms. Tana Meena	Social Worker	06-07-2015 till date
Mr. Taba Naka	Data Entry Operator cum Field Assistant	01-09-2015 to 31-10-2016
Mr. Bullo Hassang	Data Entry Operator	01-08-2016 till date
Mrs. Bima Bagang	Office Assistant cum Helper	16-01-2015 till date
Ms. Tana Ajap	Field Assistant	03-06-2014 till date
Mr. Techi Tacho	Field Assistant	01-10-2014 till date
Ms. Tana Nape	Field Assistant	09-09-2015 till date
Ms. Nabam Yata	Field Assistant	10-09-2015 till date
Ms. Teri Yajo	Field Assistant	March 2016 till date

(iii) Manpower trained on the project:

(a) Research Scientist: 1 (One)
(b) Nos. of PhDs Produced: None
(c) Other Technical Personnel Trained: 4 (Four)
(d) Training of Field Assistants: 6 (Six)

(iv) **Patents Taken, if any:** None

(v) **Products Developed, if any:** None

XIII. Abstract:

Health Account Scheme (HAS) is a unified approach between multi-sectoral agencies to provide a participatory platform to individuals, to maintain a health diary and provide inputs regarding their personal health status. This data will be utilized to pre-empt necessary policy measures based on the analysis of objective feedback. Data is collected through baseline survey and the carbon page in the health diary is subsequently collected in a timely manner to be uploaded to an online portal for easier access. The data obtained provides a comprehensive insight on the standard of living, food habits, income, health issues, occupation, addiction and lifestyle choices of individuals. This information provides us with an understanding to the onset of lifestyle diseases like hypertension, blood pressure, cancer etc. among the tribal population of the area. As the diary has to be maintained for a longer period of time, a large number of beneficiaries continue remaining committed to the cause with added incentives like conducting free health camps and the distribution of free medicines. Endemic diseases have not been observed in the area, however, in case of duplication of this project in other unknown endemic areas, we may be able to determine policy measures specific to an area, instead of a blanket policy for all.