

# Snakebite Common But Still Not A Health Concern

What to be blamed? Traditional lifestyle, Typical Religious beliefs/practices or policies



Sources: Google photos

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## INTRODUCTION

Snakebite is a neglected public health issue in many tropical and subtropical countries, especially in India. Despite the fact that WHO has included it in a list of neglected tropical diseases, it lacks proper conception and emphasis. According to WHO snake bites specially affect women, children and farmers in poor rural communities. The highest burden occurs in where health systems are weakest and medical resources sparse. Bites by venomous snakes can cause acute medical emergencies such as fatal hemorrhage due to bleeding disorders eventually leading to reverse kidney failure etc. All these can cause permanent disability and limb amputation. Unlike other serious illnesses snakebite is completely preventable if the antivenoms are cheaply and widely accessible by marginalized communities for example tribals etc.

However the incapacity of the state to produce antivenom, high dependency on market mechanisms, unregulated manufacturing causing higher price and low quality, and most importantly the lack of relevant data on types of snake bite have resulted in higher mortality specially in India. In India alone the reported deaths caused by snake bite hover around 50 to 60 thousand per year of which rural and tribal areas have the largest share. However this figure seems completely unreliable owing to the high under-reporting, less accessibility to PHCs and health seeking behavior among tribals and others to rely on traditional practices. the above prices for the aggravated by "Structural Violence", social economic and cultural practices by the traditional communities.

In India the tribal health is often seen from the clinical perspectives where individuals are held responsible for their ill health or disease. However tribal health is an interplay between social, political and cultural factors. The tribals as majority of them inhabit hilly and forested areas away from the development processes and so called human growth are in isolation. The status of tribal health in India is very poor and is affected by General widespread poverty, malnutrition, illiteracy, occupational patterns, poor maternal and Child Health Services etc

## **RESEARCH QUESTIONS**

- I. How do tribal communities in Jharkhand view snakebite as a health concern?
- II. What socio-economic factors determine health care seeking practices to manage snakebite?
- III. What is the current health care provision and how can this be improved if any to address snakebite related health concerns?

## **METHODS**

- Qualitative in nature: it allowed me to understand the respondents position as well as the issue in a more nuanced way.
- Focus group Discussions with community members and in depth interviews with healthcare workers and persons affected with snakebite
- Discussion with elderly populations to understand the evolution of the region concerned and any historical shift related to the issue in the light of ecological changes.
- Case narrative to understand the differences but emerging themes out of the discussion. It also helped me to understand the prevalence, hotspot areas and vulnerable population etc.
- Field Site: Manoharpur Block, West Singhbhum Jharkhand
- Population: Ho Tribe

**Little about the field site:**

Manoharpur is one of the blocks of West Singhbhum, Jharkhand. The district is predominantly populated by tribal communities, especially Ho. The Ho communities are mainly casual laborers, agricultural workers and wood collectors. Though these people are a major vote share in the district but are lacking on most of the human development indicators such as education, health, income etc. Manoharpur is also a major mining area but lacks basic amenities such as hospital care, road connectivity, electricity to the HOs etc.

**Learnings:**

- The finalization of tools as well as the testing of these tools in the field proved critical to understanding the processes of using the tools in different manners. For example, being the student from the online batch due to COVID 19, we didn't get in hand experiences while studying the paper MSRA. The winter field was our first experience in the field, and hence got a chance to use the understanding of these tools on the ground. Similarly I was not aware about basic differences between the two tools. It was a continuous process and learning from the mentor that now I can differentiate between the FGDs and Public Forum.

**MAJOR FINDINGS:**

The snakebite has been found very common among the major communities of Manoharpur block. Snakebite has been viewed as a problem which should be taken into account before government and administration as a common health concern among people. The Major health concerns among the people have been related to diarrhea, typhoid and malaria, which is not novel considering the socio- physical situation of the region. It was also found that there has been an increase in snakebite cases because of rampant deforestation. This deforestation has increased the conflict between humans and snakes. In one of the interviews with an old man from Dhipa panchayat mentioned that "The snake bite cases have increased in recent years as people are cutting more trees. If we destroy their homes, they will come to our homes." For instance, the people from Chiriya panchayat were saying that after SAIL mining in this area, a lot of deforestation took place. It has not only contaminated the groundwater and soil but has also increased the snakebite incidences. Now snakes take shelter in our homes. It is apparent that so-called developmental processes or indicators of modernization have not only made the Ho community in the region more vulnerable towards hazards but have also attacked their livelihood sources. On the top of all, these communities are labeled as the culprit of deforestation. It has not only distanced them from availing the services such as health care but has also played a vital role in stigmatization.

The various socio economic determinants play vital roles in determining not only the frequency but also the distribution of snake bite cases. The Ho communities are mainly dependent on forest for livelihood and other subsistence. The absence of any other livelihood opportunities make them more vulnerable towards any particular hazards in this case snake bites. Wood collection is daily activities performed by them in order to earn 120 rupees to 200 rupees. The activity increased the exposure towards snakes and therefore snakebite cases and deaths are common among the community.

Secondly, the Ho community here are mostly living in forest with houses made of locally available resources such as bamboo or local grasses. The housing condition with no propagates and different holes provide a gateway for snakes to enter into the houses. Therefore it was found that among 32 recorded cases of a snake by 22 happened either inside the house (majorly) or just outside the house. I can still remember the comment made by one of the interviewees that " bhaiya ham to Apne Ghar mein bhi surakshit nahin hai". The smile with sarcastic expression after comment was not only showing the failure of long term development processes in the region but also shows the social alienation and hopelessness. Furthermore this is not only about housing conditions but the living space as well. The snake bite cases that happen inside the houses were because of the absence of a proper bed or cot. Since the women and children are more likely to stay within the houses and sleep on the floor they were affected more. Out of 21 within house incidence 20 were women. These women were bitten by snakes while sleeping on the floor during the night.

Thirdly, the higher prevalence of open defecation and absence of electricity also immersed as major determinants of health outcomes towards snake bites. After analyzing all the FGDs and interviews it was found that in every village only one or two members had access to toilets

properly. These toilets were owned also majorly by OBC communities and I only found one toilet owned by Ho community members. The male and female both go to the forest in an open field for defecation and hence increase the exposure. Since the women are more likely to defecate during the night or early in the morning they are more likely to get bitten by the snakes and more vulnerable. A member of Baranga Panchayat commented that "yahan Swachh Bharat Mission sirf diwaro par paye jate Hain". What he meant was that here has been found only on walls referring to advertisements on walls and absence of any real work. Furthermore these situations get worsened in the absence of proper electricity connections.

Lastly, I also found that Ho communities members largely view the snakebite cases also as part of black magic resulting out of enmity between two parties. They are of the opinion that these black magic cases cannot be treated by hospitals. Furthermore the depth resulting from cases are treated as a natural death and hence buried outside the graveyard boundaries. The cases also result from the delay or mistake in prayer for goddess Mansa. This view and absence of knowledge from government programs have led to situations where people feel more comfortable with local healers called Raudiya.

At the end there is how this bite is managed and the reasons become crucial in order to understand the health seeking behavior and health outcomes. Majorly it was found that members of the community are dependent on local or traditional healers not only for snake bite related cases but also for other health concerns. The traditional healers are locally available persons trained in medicines from forest. But this dependency should not be seen in isolation or from the lenses that they are backward or uneducated or unaware. The low level of income, absence of transportation and non functioning of local PSC is play a major role in this dependency. Manoharpur CHC is only equipped to treat snake bite cases. Let this be understood from an example. A woman from Chhota Nagra got bitten by a snake around 4 o'clock in the morning as she was going for defecation in the forest. Chhota Nagra is located 40 km away from CHC. The village does not have road connectivity either. Chhota Nagra has a PHC but does not function on a regular basis. She was taken to Raudiya first but when she was referred to hospital by Raudiya as condition was deteriorating, there was no way to arrange the transportation. She was taken to the nearest main road which is 5 km away from the village on charpai or cot. By the time she reached the main road she died. If you would have been alive for a few more hours, it would have caused 2000 to 2500 rupees for transportation arrangement for one side and 2 hours to reach CHC.

This is not only about physical distancing but also social distance. People feel comfort and support while visiting the Raudiya, why is discomfort and support missing in the case of CHC. It was found that while visiting the CHC they were exploited in terms of buying medicines from dedicated medical stores outside or simply denying the services. It was also found that they are not sure that they will get treatment if they reach hospital as most of the time doctors are either busy in COVID related services or simply absent. This fear increases the dependency on Raudiya. Secondly they also feel that if they go to hospital it will get dark in the evening so how will they return back or where will they stay. However these concerns are missing in the case of Raudiya. For example a woman got bitten by a snake while collecting the wood in the forest.

She directly went to Raudiya without any further arrangement and stayed there for two days until she got treated fully.

The snakebite is a health concern that has also not got much focus from Government and health departments. Only CHC is equipped to treat the cases. This is also not part of the government program, It really should have been. The Sahiya or ASHA did not get any kind of training or information related to snake bite. This has also created a barrier for the people to access hospitals or Healthcare because of lack of knowledge. Large number of people have responded that they were not aware that the hospital can also treat snake bite related cases. The lack of knowledge was very rampant earlier but it was reduced marginally with the effort by ASHAs by asking people to go to hospitals directly.

## **IMPLICATIONS**

The issue barely gets attention in the realm of public policy, avenues of research and public discussions, therefore the study attempts to understand the issue from multifaceted dimensions. The research in the area has barely touched the socio-economic determinants of community health in the context of snakebite and tribal population. Therefore the study expands the knowledge not only about the cultural beliefs, practices, health seeking behavior in relation to snakebite but also showcases the failure of public health programmes/services and health system failure to incorporate such a larger health concern in policy and priority agenda.

Secondly, Though the study cannot be used for larger policy advocacy due to inherent lacunae such as time constraint or absence of resources including human resources, it gives fair idea about the socio-economic determinants of health among the Hos of Manoharpur block. This little understanding can be used to plan and prioritize the issue in local actions and programmes. For example, it is clear on the part of the study that the healthcare system in the region is not strengthened enough to cater the needs of the local population especially for health concerns like Snakebite with moderately high amounts of mortality cases. We as students of public health cannot emphasize more the fact that decentralized decision making can bring about in the health system while ensuring equity and social justice.

Thirdly, the study also attempts to fill the research gap in the sense of what are the requirements as well as the emerging concerns related to snakebite issue. For example

we don't find the papers that explain why tribal populations especially Hos are unable to access the healthcare system. In this case lack of transportation emerged as a major barrier.

## **REFLECTIONS/WAY FORWARD**

Mapping of health care systems/ health facilities became crucial to start the project as we know the health seeking behavior of the population are dependent or at least influenced by the available health services, mapping of public health systems provided opportunities to understand the accessibilities and its associated problems and challenges. It was also important to understand how far the health centers are located. Does it have proper facilities? Do all communities access the facilities in the same manner? (For example, in my case tribal and non- tribal) Do these health facilities are connected by any kind of transportation? How much population do they serve? Etc.

Secondly, the learning from the entire process also includes the basic understanding of research such as there is difference between public forums and FGDs, of which I was earlier not aware. Further, it was clear how biases and prejudices can give wrong pictures of entire reality.

Thirdly, for research to proceed and the respondents to provide data in an unbiased manner, it becomes crucial to understand the culture, ethics, ethos, and customs and practices of the community. I spent almost 2 weeks amongst the manner of the communities before I could commence formal interview processes. I was participating in festivals, marriage ceremonies, community dancing and music, etc. There I learned also how the informal attitude of a researcher bridges the gap between the researcher (often the outsider called 'Dikus' among tribal communities) and community members. I used to make jokes out of Swachh Bharat Abhiyan, the government policies, and the government itself. Further the attire of a researcher including style of clothing can also affect the work. For example, I realized that when I wore camouflage military pants, children used to call me police and members were a little skeptical about my work and objective. In short, how one behaves, how one interacts, where one sits and what you wear, all become part of the research process.

Lastly, for data collection especially for qualitative data among tribal and those who are interacting seldom with outer communities, the role of gatekeepers becomes extremely significant. In my case, data collection would not have been possible without guidance

and facilitation of an organization working extensively for Panchayat reforms and community awareness. I remember when I was looked skeptically when I entered the village deep inside the forest without being accompanied by any member of the gatekeeper. It was not simply their fault or shortsightedness but the result of a larger political economy. They have been marginalized to a very short position of land and livestock. They are also losing their identities. These changes were in fact brought about by the interactions of 'Sahukars' and money lenders with local population. One can easily identify the development process where an outsider is living in multistoried buildings and ab- originals are exploited to an extent they are losing their identities. Their homes itself have become a source for snake bites and ultimately death. "Arey bhaiya hum apne ghar mai bhi surakshit nahi hai ", a young male said to me with a decent smile. The smile was hiding the dark side of the development process there and the reality of political economy. For researchers, understanding of this political economy therefore, becomes crucial. It may not be an easy task without intervention or facilitation of gatekeepers, especially organizations working on grassroot level. This understanding of the local political economy would guide us to understand the health concerns from a systematic approach rather than reductionist approach. In health policies/research, I believe the latter only gives either the wrong picture or half picture of a vast reality.

## **Way forward**

1. Important to include the snakebite in local disease priority.
2. The treatment should be available in local PHCs.
3. Improve the capacity of the health workers to bridge the social distance.
4. Better public transport for better referral services.

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