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A Study on Prevalence of Non-Communicable Diseases of Lodha Primitive Tribe in Mayurbhanj District, Odisha

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Abstract: According to Health WHO, "Health as a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. Non- Communicable Diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. Non-Communicable diseases mainly include cardio vascular diseases, stroke, diabetes mellitus, cancer, chronic lung diseases etc. The tribes constitute around 8 per cent of the total population of the country, in Odisha, their share is 22.13 per cent. Primitive tribes are extremely backward and their socio-economic and cultural trait and have been retained due to their in accessible abodes situated in extremely difficult terrain.PTG are now called PVTGs. In India 75 and in Odisha 13 types PVTGs are present. Lodha primitive tribe is one of the ancient tribes in India. The non-Communicable disease presents in Lodha tribe basically due to their food habits. Non-Communicable diseases seen in study area are Diabetes, Hypertension, Night blindness, Fluorosis, Asthma etc.

Keywords: Lodha primitive tribe, Non- Communicable Diseases, Food habits,

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Introduction

Health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1948).Disease as a disorder arising from abnormalities at the cellular level, where disturbances in cell structure or function lead to clinical manifestations(Virchow Rudolf,1858).A disease is an abnormal condition of the body or mind that disrupts normal structure or function, causes impairment or

discomfort and is typically associated with identifiable signs, symptoms or measurable physiological changes. Based on etiology- Diseases are two types Communicable (Infectious) Disease and Non- Communicable (Non-Infectious) Disease. Non-Communicable Diseases are Diseases of long duration and generally slow progression, that are not transmitted from person to person and typically result from a combination of genetic, physiological, environmental and behavioural factors(WHO, 2025).The main types of NCDs are Cardiovascular diseases(like heart attacks and stroke),cancers, chronic respiratory diseases(such as chronic obstructive pulmonary disease and asthma) and diabetes, contributing 82% of all Non-Communicable Diseases deaths. Non-Communicable Diseases contribute to around 38 million (68%) of all the deaths globally and to about 5.87 million (60%) of all deaths in India (WHO,2014). The majority of NCD deaths occur among low- and middle-income countries such as India, which is undergoing an epidemiological health transition owing to rapid urbanization, which in turn has led to an overall economic rise, but with certain associated risk factors (Chakma and Gupta,2014). People of all age groups, regions and countries are affected by Non-Communicable diseases. These conditions are often associated with older age- groups, but evidence shows that 15 million of all deaths attributed to NCDs occur between the age group of 30 and 69 years. Of these premature deaths, over 80% are estimated to occur in low and middle –income countries. Children, adults and elderly are all vulnerable to the risk factors contributing to NCDs, whether from unhealthy diets, physical inactivity, exposure to tobacco smoke or the harmful use of alcohol. These diseases are driven by forces that include rapid unplanned urbanization, globalization of unhealthy lifestyles and population ageing. Unhealthy diets and a lack of physical activity seen among people leads to raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors that can lead to cardiovascular disease, the leading NCD in terms of premature death.

Review of Literature

Daar Et Al (2007)-In his study, Chronic Non-Communicable diseases are defined as diseases or conditions which affect individuals over extended period of time and for which these are known causative agents that are transmitted from one affected individual to another.

WHO (2008)-A recent report by WHO indicates that the global disease profile is changing an astonished rate, with deaths and disabilities from non-Communicable diseases exceeding those from infectious diseases and nutritional deficiencies.

Mendes Et Al(2007)-According to Mendes Chronic diseases of lifestyle which include heart diseases,stroke,type-2 diabetes, cancer and chronic obstructive pulmonary diseases(COPDS),account for almost 60% of global deaths and 47% of the global burden of diseases. Approximately 80% of the global chronic diseases of lifestyles deaths occur in low income and middle-income countries. If this situation persists, it may present a major challenge to global health development.

Lkeda Et Al (2003)-In his study, through the life expectancy of the Japanese are not affected by the high rates of smoking and high blood pressure at present, it is anticipated to risk for their economic development in future.

Jayewardene Et Al (2004)-His study demonstrated that there is a rapid increase in the prevalence of diabetes in South Asian region and several modifiable and non-modifiable risk factors played a major role in the development of diabetes.

Objectives

There basic objectives of the study are:

- To study the ethnographic profile of the Lodha Tribe and special reference to health and diseases.
- To have an understanding about the non-communicable disease of Lodha Tribe of Suliapada block.
- To examine the awareness of the Government policies of the Lodha Tribe.

Methods of Data Collection

Social research begins with the selection and formulation of the research problems and ends by drawing some conclusion about the research findings. In between there are number of other stages involved in research such as preparation of design, data collection, data processing and data analysis. All stages are important in conducting social research. The researcher reviewed some published and unpublished literature related to concerned topic. The Researcher has followed the methods such as: Observation, interview schedule, primary and secondary data collection and random and purposive sampling methods and Case Study method.

District Profile: At a Glance

Mayurbhanj, a district in the northern Odisha historically famous as the" land of Maharajas", is also known for it's dominant tribal population, vibrant culture, the famous

Similipal forest, *Chhau* dance, beautiful temples, stone, Dhokra and tasar work and of course "Mudhi", among other things. The district gets it's names from the continuous reign of two ancient kingdoms for over a thousand years- the "Mauryas" and "Bhanjas" until it got merged with the State of Odisha on January 1,1949.

This is the largest district of Odisha in terms of area and area under forest. Mayurbhanj is a heavenly place covered with river Budhabalanga, waterfall Barehipani and mountain Meghasana.It is also recognised for its irrigation and power project named Sunei. Mayurbhanj district is famous for horn works, stone and clay works, Tussar silk, jute mills and spinning mills. Mayurbhanj is a land locked district with a total geographical area of 10,418 Sq K.m and is situated in the Northern boundary of the state with district head quarters at Baripada. The district lies between 21*16' and 22*34' North latitude and 85*40' and 87*11' East longitudes. The district is bounded in the North East by Midnapur district of West Bengal, Singhbhum district of Jharkhand in the North West, Balasore district in the South East and by Keonjhar district in the South West.

Population

The Tribes constitute 57.67% of the total population of this district. Though the population of Mayurbhanj is only 6% of the State's total population, the tribal population shares a 15.42% of the state's total ST population. The tribals are popularly known as Adivasis. Chief among them being "BHUMIJA" and "KOLHAS". They live scattered throughout the district. Their concentration is more in Khunta, Bijatala, Jamda, Tiring and Thakurmunda blocks which varies from 70% to 80% of the total population of the respective blocks. There are different tribal groups found in the district and they differ in their skill, aptitudes, habits, culture and custom. So, the socio-economic panorama of the tribals of the district is extremely complex. Though they are socially, educationally

Table 1: Population of Mayurbhanj (As per 2001 Census)

Category	*Persons*	*Rural*	*Urban*
Total	2223456	2067756	155700
Male	1123200	1041057	82143
Female	1100256	1026699	73557
SC (Scheduled Caste)-Total	170835	154440	16395
Scheduled Caste-Male	85844	77436	8408
Scheduled Caste-Female	84991	77004	7987
Scheduled Tribe-Total	1258459	1230583	27876
Scheduled Tribe-Male	631149	616673	14476
Scheduled Tribe-Female	627310	613910	13400

and economically backward they have their own distinctiveness. They are almost dependent on settled cultivation bearing a segment of tribals who draw their substance from hunting, collecting minor forest produce and others being landless are engaged as labourers in mines and small industries etc.

The Khadia, Mankirdias and Lodha are primitive tribals of special mention in the district. The Khadia and Mankirdias are nomadic food gatherers and hunters, found in the hilly areas of Similipal hill ranges in Panchipir, in sub-division particularly in Jashipur block areas. On the other hand, the Lodha are a criminal tribe who need special attention for their socio-economic rehabilitation. They are found in Suliapada and Morada blocks of Baripada sub-division. The Santals ,another tribe are mostly marginal farmers and agricultural labour.

Table 2-a: Suliapada and Morada Block Profile

Village	*Gram Panchayat Name*	*Total Lodha Family*	*Male*	*Female*	*Total Population*
Patharnesa	Kantisahi	169	268	266	534
Dhabani	Baghada	62	119	104	223
Sansole	Uphalgadia	43	67	53	120
Nakundgunja	Baghada	32	59	53	112
Total		306	513	476	989

Table 2-b: Morada Block Profile

Village	*Gram Panchayat Name*	*Total Lodha Family*	*Male*	*Female*	*Total Population*
Chikitamatia	Chikitamatia	62	104	95	199
Ghadaabandhaa	Ajan	76	45	38	83
Tiansi	Barkand	101	181	144	325
Gadigan Lodha colony	Gadigan	87	122	135	257
Handibhanga	Ajan	77	135	124	259
Bhadrasal	Ajan	29	46	50	96
Purnachandrapur	Jualibhanga	136	233	223	456
Samaidihi	Haldipal	50	91	85	176
		618	957	894	1851

Lodha: Ethno-History of The Particular Vulnerable People of Mayurbhanj District

As per the mythology of Mahabharat, Lodha communities are the successor of Jatra Sabar community. There is a saying of Lodha community that once the lord Srikrishna

was plucking fruits on the Siali lata in the jungle. During that time Jara Sabar was roaming inside the deep forest for hunting. He saw Siali lata is shivering, with deep keenness he saw the foot of the Srikrishna, which he felt that it might be the ears of deers taking rest inside the Sialilata. He aimed with bow and arrow and shoot it. Then Lord Srikrishna shouted because of pain. When Jara Sabar came to know that his arrow shoot at the foot of Lord Srikrishna, he tried to escape from that place because of getting afraid. But the Lord Srikrishna took a word called "NA-DHA", which means, do not get afraid of me, and ran here and there, but come to me. Since that time onwards they treated them as successor of the Jara Sabar generation. They took it as a chanting of lord Srikrishna. This word Na-Dha transformed to Lodha tribes in the eyes of the society.

Lodha primitive tribe is one of the ancient tribe in India. As per history of Odisha, Lodha are the Sailodbhab. Lodha tribe is one of the ancient tribe in India. As per history of Odisha, Lodha are the of Sailodbhab dynasty. In the course of time with several wars and invasion of different kinds of different domain in Odisha the Sailodbhab regime became weak and they took shelter in jungle and hilly region. But they became thief and stealing became one of their professions. This would have started as the Gorilla war and life style of jungle did not suit this Sailodbhab dynasty. Probably in the way to take revenge they brought in to the profession of stealing. During British regime in the year of 1916 this tribe was declared as Criminal tribe. In 1957 after independence of India, Lodha tribe became Scheduled tribe and many development policies were implemented for the upliftment of this tribe to bring them to the main stream. The Govt. of Odisha considers Lodha as primitive tribe and formed Lodha development agency for multi dimensional development of this tribe.

Food Habits

The Lodha are by profession hunter and food gatherers and they collect minor forest products. So their staple food is mainly Rice. Generally, they eat twice daily. They usually take both boiled rice and dried rice in their meal. The female are awake in the early morning and food is cooked by 7.00 AM to 8.00 AM. In the morning they take watered rice with the green sag available in their courtyard (Badi) boiled with water and salt. Sometimes they also often take vegetable curry with boiled rice. It is observed that during pregnancy the pregnant women are not taking non-vegetarian food for the safety of the baby grown in the womb, but the pregnant lady are often taking small fish with their meal in the pregnancy period. It is also observed that during the death of any person of their family they need not take non-vegetarian food. They are mainly

very much fond of dried fish in their meal as this is available in the village. Secondly their curry is changed during summer and rainy season, green leaves and Mushrooms are eaten. Fish is available in summer season. In winter and summer, they get banana, lemon, jackfruit, mango on ceremony and festival they eat goat and cocks' meat. When they prepare curry they do not use spices, onions and oil etc. Salt and rice paste are the only condition used for preparing curry. Green chilly is added generally green leaves are cut by knife than simple washed cooked.

Drinking and Smoking

The Lodha people prepare a drink of homemade rice beer(locally known as Handia) every day they drink handia two to three times. In ceremonies, festival and ritual works both male and female drink handia. The beer prepared from Mahua is also a favourite drink of the Lodha. A drink locally known as "Ranu", which is prepared from the roots some jungles shrubs, which help in the fermentation of the cooked rice and handia is prepared. Sometimes they use local wine and foreign liquor also smoke "Bidi".

Family Structure

Family is the smallest form of society. It is the centre of social, economic, political and religious activities. The Lodha family is nuclear in structure. Joint family is rare. In the nuclear family of the Lodha, father, mother and unmarried children reside together. The married children establish their own families and started cooking food separately. The aged parents are looked after by the families having sons. The daughters have to go to the village of the husband after marriage. The property is inherited by the sons only. Daughters do not get property of the father through inheritance.

Table 3: Family Structure of the Study Area

Sl. No	*Type of Family*	*No.of Household*	*Percentage*
01	Nuclear Family	57	57.57
02	Single Family	24	24.24
03	Extended Family	12	12.12
04	Broken Family	6	6.06
05	Grand Total	99	99.99

This table shows that the family structure of the Lodha people of the study area, there are various types of family exist such as: nuclear family, extended family, broken family and single family. There are approximately about 57(57 per cent) number of

families coming under the Nuclear family, 24 number of families (24.24 per cent) are single family, 12(12.12 per cent) number of families are found extended family and about 6(6.06 per cent) families are of broken family. This table shows highest number of nuclear family that exists in the study area. A lower number of broken families exist in the present study area of Pathernesa village, Suliapada block of Mayurbhanj district.

Dance and Music

Lodha are said to be the great dancers. Youth of both sexes dance together. Sometimes they form two groups each of males and females and sing one after the other. It is like a conversion that is going on between boys and girls in the form of the songs. Chhangu dance and Madal dance are famous among the Lodha tribe.

House Type and Settlement Pattern

Table 4: Types of House on The Study Area

Sl. No	*Types of Houses*	*Number of Houses*	*Percentage(%)*
1	Albaster	51	51.51
2	Tiled	36	36.37
3	Thatched	12	12.12
4	Other	0	0
5	Total	99	100

Above table shows the house type of Lodha tribe. There are about 51(51.51 per cent) having alabaster house, 36(36.37 per cent) people reside in tiled house and only 12(12.12 per cent) in thatched house. The total number of household of the villages is 99, covered by randomly sampling method. This table presents the more houses are provided by Government aid yet very less number of houses are constructed on their traditional pattern in the study village.

Life Cycle Rituals

Birth Related Rituals

Saadkhia

Saadkhia is basically celebrated when the pregnant lady is on the mid days of pregnancy rather saying this Saadkhia is celebrated before the due date. This is done between 5th to 9th months of pregnancy. In Saadkhia the maternal family used to bring different well prepared foods for the lady who is pregnant and this is celebrated in a very holy manner.

The foods are first offered to the God who is worshipped in home and then eaten by the lady and by whole family. They bring rice, chicken meat, sweets, khiri and different sweets. Rice and chicken is cooked and served to all. The significance of women can be observed from these all rituals that first after offering the foods to God the lady only eats and then the villagers are called for that party, the wife of village headman is served first as an tradition for showing respect. After the party is over all villagers blesses the lady for her well being. There are few food restrictions and taboos imposed as compulsory for Lodha women.

- They don't eat fish which are trapped in dhaudi.
- They don't eat eggs.
- They don't drink alcohol or handia.
- They don't eat fish caught by bansi.

Lodha people don't take the lady to hospital ever for delivery. They are not aware at all about hospital. Somehow they are afraid of hospital. They call a village lady popularly known as Dhai for delivery. The Dhai takes care of mother and newborn baby during the initial days. Mother of new born baby takes bath after 9th day of delivery. This is known as *narta ghar*. Dhai used to do regular massage for the new born baby and they believe that the body massage makes the baby strong. After the birth of baby the mother has to follow few rituals and taboos like:

- They are not supposed to take water from well.
- They don't eat broiler meat.
- They don't eat fish curry till 4th or up to 6th day.
- Till 9th day after delivery they don't work at home.
- They eat only in a day

After 9th day of delivery and also after taking bath the mother can take water from the well after worshipping the well by putting sindur tika well. The very next day they eat food in brass plate. They usually eat meat this day or fish.

Naming of New Born Baby

The Lodha tribe does not have any specific rituals for naming the new born baby. But their names are mostly related to the time or day of the birth. Their names are the name of days or of festivals. They also name the baby by the name of any animals, birds, flower etc. For example if the baby born in the Makar festival and baby is male then they call him MAKARAA and if the baby is a girl child they name her MAKRI.

Marriage (*Behaa*)

In Lodha tribe marriage is done between the age of 18 to 25 years for boys and between the age of 12 to 18 years for girls. After marriage the girl comes to boys home. Different types of marriage in Lodha tribe includes:

- Arrange Marriage
- Love Marriage
- Widow Marriage
- Sangha Marriage
- Marriage more than once
- Sindur ghusaa marriage

Lodha marriage is one of the richest tradition among the rituals and tradition performed by any other marriages. Lodha says "Beha ghare may raajaa" which means the mother of bride or groom are the head of the function of marriage. They sing various songs during marriage. They say "salasagune behaa" means the Lodha marriages gets complete by performing 16 rituals. These are-

- *Sagunsata*
- *Aade ulte dekha*
- *God dhuaa*
- *Bar dekha*
- *Aam behaa*
- *Mahul behaa*
- *Pon diaa*
- *Sindraa daan*
- *Baandapan*
- *Haldi maakhaa*
- *Ghati lukaa*
- *Naghandi sajaa*
- *Sinaan*
- *Nakh bhaangaa*
- *Ghuraa feraa*
- *Bidaay*

Table 5: Marital Status of the Study Area

Sl No	*Marital Status*	*Male*	*Percentage (%)*	*Female*	*Percentage*	*Total*	*Percentage*
01	Married	91	50.27	91	52.29	182	51.26
02	Unmarried	87	48.06	70	40.24	157	44.22
03	Widow	1	0.57	13	7.47	14	3.96
04	Divorce	2	1.10	0	0	2	0.56
05	Total	181	100	173	100	355	100

This table shows about 91(50.27 per cent) males and 91(52.29 per cent) females are married, 87(48.06 per cent) males and 70(40.24 per cent) females are unmarried,1(0.57 per cent) male and 13(7.47 per cent) females are widow, about 2(1.10 per cent) males and no female have taken divorce in Lodha Village.

Death Rituals

Last ritual after death is performed in a complete traditional way like any other rituals. Four male members especially the son or son in law of the person who died carry the dead body to the Smashan where the body is burnt. When husband dies the wife becomes widow and she stops wearing red sindur in her forehead also she does not wear lahar khaadu. Death makes the family unholy and they perform rituals till 10th day. On the 3rd day they eat titaa bhaat and in curry prepared without oil or any masalaa. On 10th day all relatives and the people of the same clan take bath and completes the rituals and from 10th day onwards they are allowed to eat usual foods.

Restrictions and Taboos

- They don't use oil in head till 10th day.
- Son does not wear sleepers till 10th day.
- They don't comb hair till 10th day.
- Only boiled food they eat.
- They don't go for barber till 10th day.
- If anyone dies in Tuesday or Saturday the Lodha tribe also burns a black cock with the dead body.

In many aspects, Lodhas follow certain rituals which are similar to the larger Hindu society.

Economic Life

Table 6 : Occupational Status of the Study Area

Sl. No	*Occupation*	*Male*	*Percentage (%)*	*Female*	*Percentage (%)*	*Total*	*Percentage (%)*
1	Agricultural Labour	33	18.24	27	15.52	60	16.90
2	Daily Labour	67	37.02	76	43.68	143	40.28
3	Agriculture	2	1.10	1	0.58	3	0.85
4	Business	2	1.10	-	-	2	0.56
5	Service Holder	4	2.20	-	-	4	1.14
6	Students	43	23.77	35	20.11	78	21.97
7	Other	30	16.57	35	20.11	65	18.30
8	Total	181	100	174	100	355	100

Above table shows the occupation of Lodha tribe. There are about 33(18.24 per cent) males and 27 (15.52 per cent) females working as agricultural labour, 67(37.02 per cent) males and 76(43.68 per cent) females are working as daily labour, about 2(1.10 per cent) males and only 1(0.58 per cent) female depends on Agriculture. 2(1.10 per cent) males are doing business there are no one of females doing business. 4(2.20 per cent)males are working as service holder and on the other hand no female, work as service holder in the village. 43(23.77 per cent) males and 35(20.11 per cent) female are students and 30(16.57 per cent) males, 35(20.11 per cent) female are doing other occupation which is un recognised. This table shows that the highest number of Lodha people working as daily labour.

Table 7: Monthly Income Level of the Study Area

Sl No	*Monthly Income*	*No. of Household*	*Percentage (%)*
1	500-1000	5	5.05
2	1100-3500	56	56.57
3	3600-5000	24	24.24
4	5100-7500	4	4.04
5	7600-9000	5	5.05
6	9100-10,000	3	3.03
7	10,100-15,000	2	2.02
8	TOTAL	99	100

This table shows the monthly income of the Lodha people of Patharanesa Village, Suliapada block in Mayurbhanj district. The table reveals that the monthly income of Rs.500-1000 is 5.05 per cent, Rs 1100-3500 is 56.57 per cent, Rs 3600-5000 is 24.24 per cent, Rs.5100-7500 is 4.04 per cent, Rs 7600-9000 is 5.05 per cent, Rs 9100-10,000 is 3.03 per cent, Rs.10,100-15,000 is 2.02 per cent. The data shows that there is lowest per cent of Rs.10,000-15,000 and highest per cent of Rs.1100-3500 as monthly income.

Educational Status of Study Area

Table 8: Status of Education on the Study Area

Sl No.	*Educational Status*	*Male*	*Percentage (%)*	*Female*	*Percentage (%)*	*Total*	*Percentage (%)*
01	Illiterate	40	22.09	75	43.10	115	32.40
02	Literate	71	39.23	37	21.26	108	30.42
03	Primary(1^{st}-4^{th})	20	11.06	28	16.10	48	13.52
04	M.E(5^{th}-7^{th})	13	7.16	7	4.02	20	5.60
05	High School (8^{th}-10^{th})	4	2.22	4	2.29	8	2.30
06	Intermediate (+2)	-	-	-	-	-	-
07	Graduation (+3)	-	-	-	-	-	-
08	Anganwadi	18	9.94	7	4.04	25	7.04
09	0 to 3yr	15	8.30	16	9.19	31	8.72
10	Other	-	-	-	-	-	-
11	Total	181	100	174	100	355	100

This table shows that near about 40(22.09 per cent)males and 75(43.10 per cent) females are illiterate in study area, 71(39.23 per cent) males and 37(21.26 per cent) females are literate, about 20(11.06 per cent) males and 28(16.10 per cent) females are studying in primary class, 13(7.16 per cent) males and 7(4.02 per cent) females are going to M.E School, 4(2.22 per cent) males and 4 (2.29 per cent) females are going to high school, there are no one studying the Intermediate and Graduation,18(9.94 per cent) males and 7(4.04 per cent)females are going to Anganwadi. The new born babies of the age of 0 to 3 year are 15(8.30 per cent)males and 16(9.19 per cent) females. This table shows that the illiterate people in Lodha tribes are more.

Results

There were 67.76 million people belonging to scheduled tribes and about 7.95% of total population usually living in remote and ecologically diverse climates and areas where modern medicine has not yet been accepted in most tribal areas. The magico-religious

health care systems still prevails. Health conditions in tribal areas have been described as deficient in sanitary conditions, personal hygiene and health education. The challenge of inaccessibility to health services and their health care seeking behaviours seem to dominate the discourse in tribal health. Non-Communicable diseases also known as chronic diseases does not transmit from person to person. They are of long duration and generally slow in progression. The tribal people are suffering from some specific non-communicable diseases such as: Hypertension, Cancer, Diabetes, Mental Illness, illness that requires surgery and heart diseases.

Lodha in India are one of the primitive tribe living mainly in the forest covered border district of Midnipur (West Bengal), Mayurbhanj (Odisha) and Singhbhum (Jharkhand). Their number in Odisha is about 5000 and they are living in Mayurbhanj district of Odisha. Majority of them are found in Morada(about 400 families) and Suliapada(about 200 families) block of this district. From the very beginning this tribe has been regarded as a criminal tribe, as imposed by British Government. As this community indulges in rubbery and theft most of the time. The Non-Communicable disease present among the Lodha tribe is basically due to their food habits. Rice is the main food grain for the Lodha tribe but Daal (pulses) in rare in their meal. They collect honey from jungle risking their lives but cannot consume as they need to earn money by selling this honey. The non-vegetarian food which they take regularly lacks in fibre whereas vegetarian food is rich in fibre. These fibres help in providing vitamins and minerals to the body. The fibres also protect human body from heart diseases and formations of stones by mutual action of cholesterol and bilirubin. With regular intake of fibre foods, they could avoid constipation and other related diseases like: appendicitis, piles, hepatitis, hernia and varicose veins. Regular intake of animal flesh and birds increase the risk of heart diseases and cancer due to the saturated fat contents in it. Whereas meal should not be more than 10% of total daily calories, the Lodhas 90% food is non-vegetarian. They also don't clean the meat properly before cooking as they don't have idea about proper hygiene. This may lead to other diseases.

Non-Communicable Disease in Lodha Tribe

Due to growing change in the diet of the village of Lodha people to more "easy" foods like: ration rice, vegetables grown and fruits the health of the people is deteriorating fast and many new diseases are evolving. The cases of diabetes, hypertension and other lifestyle diseases have dramatically increased. There are various types of non-communicable disease found in Lodha tribes which are described below.

Diabetes Mellitus

The researcher observation indicates that prevalence of diabetes in Lodha village is 3.5% -5.7%. Analysis of food intake patterns show the prevalence of diabetes is more meat eaters (7.2 %). It is most among pork eaters (7.6%), intermediate among chicken eaters(6.4%) and lowest among those who consume goat/sheep(6.1%). Among the vegetarian it is 5.8%. So about 20% people suffer from diabetes mellitus in study area.

Case Study

Fig. 1: Showing Diabetes Patient

A Man in the study area who suffers from diabetes, his name is Sumanta Dehuri of age 55 yrs. Although he has diabetes but he does not focus on his health and not interested for knowing what food he must consume. By neglecting his diet he becomes weaker and weaker. The researcher came to know that high intake of pork meat and low intake of vegetables and fruits is the cause of diabetes.

Hypertension

Hypertension is another name for high blood pressure. It can lead to severe complications and increases the risk of heart disease, stroke and death. Blood Pressure is the force exerted by the blood against the walls of the blood vessels. Medical guidelines define

hypertension as a blood pressure higher than 130 over 80 milimeters of mercury. Lodha people in the study area suffer from hypertension basically due to intake of alcohol and tobacco use. They are also highly dependable on meat rather than green vegetables and fruits. That's why they suffer from hypertension. About 50% people between 45-60 age groups suffer from hypertension in study area according to VLW Report.

Table 9: Showing the ranges of Blood Pressure according to American Heart Association

Stages	*Systolic(mmHg)*	*Diastolic(mmHg)*
Normal Blood Pressure	Less than 120	Less than 80
Elevated	Between 120 and129	Less than 80
Stage 1 Hypertension	Between 130 and 139	Between 80 and 89
Stage 2 Hypertension	At least 140	At least 90
Hypertensive crisis	Over 180	Over 120

Anemia

Anemia, a manifestation of under-nutrition and poor dietary intake of iron is a public health problem, not only among pregnant women, infants and young children but also among adolescents. Anemia in India primarily occurs due to iron deficiency and is the most wide spread nutritional deficiency disorders in the country today. Adolescent girls in particular are more vulnerable to anemia due to rapid growth of the body and loss of blood during menstruation. Iron deficiency anemia adversely affects transport of oxygen to tissues and results in diminished work capacity and physical performance. Iron deficient adolescent girls in study area have higher risk of preterm delivery and having babies with low birth weight. Regular consumption of iron folic acid supplement is therefore considered essential for prevention of iron deficiency anemia. Anemia is three types such as: mildly anemia, moderate anemia and severe anemia. According to ASHA Report, about 56% of adolescent girls in study area suffer from anemia. About 39% adolescent girls(15-19 years) are mildly anemic while 15% and 2% suffer from moderate and severe anemia respectively.

Night Blindness

Nyctalopia or night blindness is the experience of reduced night vision. It typically causes people who are unable to see well in the darkness but are able to see without problem when it is not dark. This condition, unless accompanied by eye pathology, is not true blindness, even at nighttime, the eye is not blind but occurs because the rods of the photoreceptor cells which are needed for dim light are not functioning

correctly. It may exist from birth or be caused by injury or malnutrition(lack of vitamin A). Vitamin A is the most clearly researched deficiency associated with nightblindness. Diets containing vitamin A are: Orange, Green vegetables, Carrots, Pumpkin, Squash and Spinach. In the study area the researcher found some people who suffer from night blindness. From the report of Auxillary Nurse Midwife(ANM), there are about 10% people who suffer from Nightblindness.

Fluorosis

Fluorosis is a public health problem in India where approximately 62 million people including six million children suffer from fluorosis because of the consumption of water containing high fliuoride concentrations. Due to it's strong electro negativity, fluorosis is attached to positively charged calcium in teeth and bone, resulting in dental and skeletal fluorosis. Report from NM, reveal that there are about 5% children who suffer from fluorosis.

Asthma

Asthma is a common long term inflammatory disease of the airways of the lungs. It is characterized by variable and recurring symptoms like: reversible airflow obstuction and bronchospasm.

Prevalence of Individual Health Risk Factors

A risk factor refers to any attribute, characteristic or exposure of an individual which increases the likelihood of developing non-communicable disease. In the public health context, risk factor measurement is used to describe the distribution pattern of future diseases in a population (WHO,2001).There are various risk factors by which non-Communicable disease are there.

Physical Inactivity

Low physical activity is defined a <150 minute of physical activity per week. Among Lodha it is a risk factor by which non- communicable disease occur. There are about 50% people having physical inactivity.

Smoking

High prevalence of smoking and the use of smokeless tobacco is observed among study area in all age groups except 15-24 groups. About 80% people smoke in the study area.

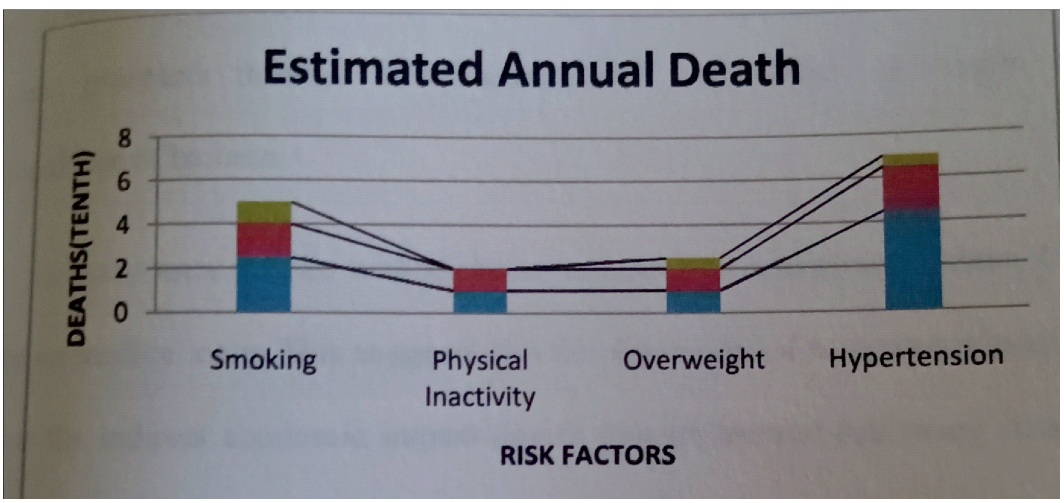
Overweight

Overweight is defined as BMI equal to or more than 25kg/m^2. Waist-circumference >= 94cm in men and >=80 cm in women was taken as cutoff point to define central obesity. Low consumption of fruits at less than five serving per day(one cup of raw leafy vegetable or half cup of other vegetables(cooked) was considered one serving). About 30% people in the study area suffer from non- communicable disease due to overweight or obesity.

Table 10: Showing Death of Lodha People due to Risk Factors

Name of the Risk Factor	*No of death in Lodha people due to Risk Factors*
Smoking	50
Physical Inactivity	20
Overweight	30
Hypertension	70

This table shows, there are 50, 20, 30,70 persons death take place due to risk factors such as Smoking, Physical Inactivity, Overweight, Hypertension respectively.



Estimated Annual Death of Lodha People in Study Area due to Major Risk Factors (Primary Health Center, 2017)

The Impact of Non- Communicble Diseases

Health Impact

The lives of too many people are being blighted or cut short by chronic diseases in Lodha tribes in the study area such as: diabetes mellitus, hypertension, asthma, chronic respiratory disease etc. This is a very serious situation by which individuals, societies, public health and economies are affected. The health impact of chronic non-communicable diseases are estimated in terms of mortality rate and the burden of diseses attributable to them.

Socio- Economic Impact

Chronic diseases and poverty are inter- connected in a vicious cycle. The poorest quintile in almost all countries is more vulnerable to chronic diseases for several reasons, including greater exposure to health risk living conditions and decreased access to good quality health care services. Chronic diseases represent a major cost and a profound economic burden to individuals, families, health systems and societies. Chronic disease may cause poverty by running a family's economic prospects through direct catastrophic expenditure on health care services and prolonged loss of income. In study area people with diabetes seem to spend more than 25% of their annual income on medical care.This suggests that the direct cost of non-communicble diseses are high and that the indirect economic impact due to loss of income following disability or premature death warrants serious consideration.

Programmes Implemented By Government for the Prevention of Non-Communicable Disease

There are a lot of programmes implemented by state as well as central Government for prevention of non-Communicable disease. Amongst them some are given below-

- National Program for prevention and control of Cancer, Diabetes, Cardiovascular Disease and Stroke.
- National Programme for Health Care of Elderly
- National Blindness Control Programme
- National Filarial Control Programme
- National Iodine deficiency Control Programme
- Integrated Nutrition and Health Programme
- Rashtriya Kishore Swasthya Karyakram Programme(RKSK)

- Accredited Social Health Activist(ASHA)
- Anganwadi

Ethno Medicinal Use of For Non-Communicable Disease

Medicinal plants have an enormous contribution in the primary healthcare systems of local communities, particularly in developing countries like India.The World Health Organization estimates that up to 80% of the world's population in developing countries depends on locally available plant resources.The conventional pharmaceuticals are often expensive or inaccessible and toxic too. Among the diversity of medicinal plants, Khardal(Brassica nigra)is one of the medicinal plants used extensively in various non-communicable/chronic and degenerative diseses. It is an annual weedly plant which has immense edible as well as medicinal value. The use of Khardal has been in practice right from pre- historic period in the form of mustard plaster which was first described by Dioscorides. Khardal also finds it's mention in the holy Quran.The Unani physicians recommended khardal in a number of ailments. In the light of current scientific literature, the pharmacological actions of Khardal in various non-Communicable diseases such as: diabetes, cardiovascular diseases, neurological disorders, respiratory diseases, joint diseases, cancer, vitiligo and alopecia have been revalidated. A review on Khardal has been undertaken, especially in order to establish its role in NCDs.

Common Name-Khardal
Botanical Name-Brassica nigra
Family-Brassicaceae

Parts used-seed
Medicinal Use-Diabetes,Cardio vascular disease,Vitiligo,Cancer etc

Common Name-Amla
Botanical Name-Emblica offcinalis
Family-Euphorbiaceae
Parts Used-Fruits
Medicinal Use-Diabetes,Hyperacidity

Common Name-Grit Kumari
Botanical name-Aloe vera
Family-Liliaceae
Parts Used-Leaves
Medicinal Use-Ulcer,Wound healing

Common Name-Harida
Botanical Name-Terminalia Chebula
Family-Combretaceae
Parts used-seed
Medicinal use-Wound,Ulcer,Leprocy

Common Name- Bahada
Botanical Name-Terminalia BellericaFamily-Comretaceae
Parts Used-Bark,Seed
Medicinal Use-Cough,Vomiting,Ulcer

Conclusion

The Non-Communicable disease present among the Lodha tribe basically is due to their food habits. Rice is the main food for the Lodha tribe but daal(pulses) in rare in their meal.They collect honey from jungle risking their lives but cannot consume as they need to earn money by selling this honey. The non-Vegetarian food which they take regularly lacks in fiber whereas vegetarian food is rich in fibre.These fibres help in providing vitamins and minerals to the body.The fibres also protect human body from heart diseases and stones by mutual action of cholestorol and bilirubin.With regular intake of fibres foods,they could avoid constipation and other related diseases like: appendicitis, piles, hepatitis, hernia and various veins.

Suggestions

On the basis of the findings of this study,the following recommendations are suggested by the r esearcher to the various stakeholders.

- Cleanicians,including medical doctors, physiotherapists and nurses in both public and private health care sectors, should incorporate enquiries on modifiable health risk behaviours in order to ensure early detection at the primary health care level.
- The Education Department, in collaborations with the ministry of Health, should introduce health promoting schools,to make healthy behaviour an easier option among students.
- Providing Social and Economic incentives and support for combating the common prevalent non-communicable diseases in study area.
- A mass awareness and preventive programme about common prevalent diseases should be launched at weekly markets in study area with increased interaction of Health workers with the paricipation of local people.
- For nutritional deficiencies, localized research should be directed towards the easily or cheaply available food items, which could provide necessary nutrients with change of dietary practice to the vulnerable families and segments of the society.

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