

Tobacco Use In Padampur V. D. C. Of Chitwan District



NHRC Library
Accession No... 84
Call No.

SUBMITTED TO:

Nepal Health Research Council
Ram Shah Path, Kathmandu
2002

SUBMITTED BY:

Dr. Gopal Prasad Acharya
Professor and Chairman, Department of Internal Medicine,
IOM, Maharajgunj, Kathmandu

Mr. Shivalal Acharya
Final Year Medical Student, IOM, Maharajgunj Campus, Maharajgunj,
Kathmandu

CONTENTS

Preface	2
Acknowledgements	3
Abbreviations	4
Abstract	5
Introduction	6
Objectives	6
Methods and materials	7
Definition of terminologies	8
Results	9-25
1. Prevalence of smoking-9	
2. Tobacco use in forms other than smoking-11	
3. Behavior of smoking:13-20	
(I) Regular smokers-13	
(II) Occasional smokers-16	
(III) Ex-smokers-18	
4. Knowledge and attitude towards tobacco use-21	
5. Attitude towards smoking-23	
6. Distribution of RS and OS according to ethnicity-24	
7. Distribution of RS and OS according to education-24	
8. Tobacco control programmes-24	
9. Distribution of RS and OS according to occupation-25	
Discussion	26
Summary	27
Conclusion	27
References	28
Annex-I	29
Annex-II	32



Preface

Tobacco use is increasing in developing countries due to aggressive advertisement by tobacco companies. In order to assess the prevalence of tobacco use among school children in the country, Nepal health research council did a questionnaire survey in two secondary level schools in Kathmandu and found the prevalence to be 10.07% in Shivapuri Secondary School and 7.79% in Bhanubhakta Memorial Higher Secondary School.

The present study has been undertaken to assess the prevalence of smoking in adult population in Padampur village in Chitwan district. The prevalence in the present study is 42.61%, which is quite high. It underlines the need to institute extensive health education and other intervention in this village to motivate people to stop smoking. Further studies on prevalence in other parts in the country needs to be promoted in order to collect data which will contribute towards policy formulation to stop the scourge of disease and disability resulting from tobacco use.

G.P. Acharya
S.I. Acharya



ACKNOWLEDGEMENTS

We are grateful to NHRC for supporting our study financially. We are grateful to students of IOM who helped us to bring out this success.

We acknowledge Prof. Chitra Kumar Gurung, assistant campus chief Maharagunj campus, IOM. We also acknowledge Associate prof. Dr. Anand Ballav Joshi. Our especial thanks goes to Mr. Bhimsen devkota , research officer NHRC, for his co-operation and his help.

We also extend our thanks to all the data collectors and analyzers. We are also thankful to Mr. Gopal Krishna Dangol for providing computer work.

ABBREVIATIONS

B/C/D/K-Bote/Chepang/Darai/Kumal

B/C/T/G/P/S -Brahmin/Chettri/Thakuri/Giri/Puri/Sanyasi

ES -Ex- smokers

G/M/T-Gurung/Magar/Tamang

K/D/S -Kami/Damai/sarki

NHRC –Nepal Health Research Council

NS -Non- smokers

OS -Occasional smokers

RS -Regular smokers

R/S –Raya/Shah

VDC - Village Development committee

WHO -World health Organization

Tobacco Use In Padampur V. D. C. of Chitwan district

Acharya G. P¹ and Acharya S. L.²

ABSTRACT

A descriptive study was undertaken to assess the prevalence of tobacco use in a population of above eighteen years in padampur V.D.C. of chitwan district. A questionnaire was developed to fulfill the objectives. The type of tobacco consumed, age of commencement, duration of smoking, quantity consumed per day and age of quitting were studied. Smoking behavior, knowledge and attitude towards smoking were included. The questionnaire also included whether there were any programs related to tobacco control

The study revealed that out of a total of 1584 persons under study, 675(42.61%) were regular smokers. Out of six hundred and seventy five regular smokers, there were 379 male smokers comprising 48.65% of all male population and 296 female smokers comprising 36.77% of all female population. Further breakdown into different age group showed that smoking was most common among population of age group 50-59 years. There were 141 regular smokers comprising 67.79% of population for that age group. The study also revealed that there were seventy five (4.73%) occasional smokers among the study population.

Out of a total of 1584 people, five hundred twenty three (33.02%) were using tobacco in forms other than smoking. Five hundred and eleven of them were (97.70%) using Khaini/surti. Among 511 Khaini/surti users four hundred and sixty five (91.00%) were using daily and 46(9.00%) were using occasionally.

It was also found that one hundred and forty-four people (9.09%) had already quit smoking.

No programs related to tobacco control had been implemented in the area under study¹.

Key –Words

prevalence, non smokers regular smokers, occasional smokers, ex-smokers
pan, pan parag/guthkha, khaini/surti, tambaku, oral and nasal snuff

Address for the Correspondence

¹ Dr Gopal Prasad Acharya, MRCP, FRCP, Professor and Chairman, Department of Internal Medicine, IOM, Maharajgunj, Kathmandu

e-mail: gacharya @ healthnet.org.np

² Shivalal Acharya, Final Year Medical Student, IOM, Maharajgunj Campus, Maharajgunj, Kathmandu

e-mail: acharyasl @ hotmail.com

INTRODUCTION

Tobacco use is increasing in an alarming rate in the developing countries including Nepal. Globally about 4 million people are dying every year due to its use which means around 11,000 deaths everyday. If the current trend persists 10 to 30 million people will die in the next three decades of which 70% of deaths will be in developing countries².

In Nepal prevalence of smoking is very high and many people are suffering from respiratory tract diseases mainly COPD³. Smoking accelerates atherosclerosis and leads to increased incidence of coronary artery disease and peripheral vascular diseases.

To date there have been number of surveys that have estimated the prevalence of smoking in different parts of country. To assess prevalence of smoking in children, we have undertaken the school children and evaluated the prevalence of tobacco use in two schools of Kathmandu (Shivapuri Secondary School, maharajgunj and Bhanubhakta Memorial Higher Secondary School, Panipokhari, Kathmandu). The present study aims to evaluate prevalence of tobacco use in padampur VDC of Chitwan district in an adult population above 18 years was.

OBJECTIVES

(A)General objectives

To assess the prevalence of tobacco use in the padampur VDC of the Chitwan district.

(B)Specific objectives

1. To assess the prevalence of smoking in the population under study.
2. To assess the prevalence of tobacco use in forms other than smoking.
3. To find out the sex difference regarding smoking.
4. To assess the knowledge, attitude, behaviour and feelings towards smoking/ tobacco use.
5. To find out the variation of tobacco use according to ethnicity and educational status
6. To find out whether there are any programs related to tobacco control.

MATERIALS AND METHODS

Study design

This was a descriptive study based on questionnaire.

Tool

A questionnaire was developed to ascertain the tobacco using behaviour of the adult population above 18 yrs of age. The questionnaire included the type of tobacco used, age of commencement, reasons for starting to smoke, number of cigarettes smoked per day, duration of smoking, age of quitting, reasons for quitting and knowledge and attitude towards smoking.

Sampling

The sampling technique for this study was simple stratified random sampling. Strata were made on the basis of ethnicity. Each stratum contained more than 16% of population of above 18 years.

Population distribution of Padampur V.D.C. according to ethnicity

S N	Ethnicity	Male			Female			Total		
		Total	No. of people studied		Total	No. of people studied		Total	No. of people studied	
			No.	%		No.	%		No.	%
1	Tharus	1410	263	18.65	1494	226	15.13	2904	489	16.84
2	B/C/T/G/P/S	1374	308	22.42	1333	358	26.86	2707	666	24.60
3	G/M/T	387	86	22.22	383	82	21.41	770	168	21.82
5	B/C/D/K	250	56	22.40	242	64	26.45	492	120	24.39
4	Newars	144	40	27.78	138	41	29.71	282	81	28.72
6	K/D/S	123	24	19.51	101	32	31.68	224	56	25.00
7	Others (R/S)	8	2	25.00	10	2	20.00	18	4	22.22
	Total	3696	779	21.08	3701	805	21.75	7397	1584	21.41

Subjects of the study

The subjects were people of Padampur V.D.C. The study included population of above 18 years.

Sample size

The sample population was 1584 which included 21.42% of total population of above 18 years. This population was taken purposefully based on Voter-list of VDC. According to this list, the total population above 18 years was 7397³.

The sample size was determined by using a formula which is given below.

$$\text{Sample size: } Z^2pq / D^2$$

- P=0.175 (reference value taken from smoking prevalence of 17.5%⁸)
- q= 1-p=0.825
- Z=1.96 (value lies within 95% confidence interval)
- D=11% of p (Value of D ranges from 10-20% of P)

Based on this formula the sample population to be taken for the study was 1496.

Variables

The variables of this study were of two types : dependent and Independent

Dependent variables: prevalence, regular smokers, occasional smokers, ex-smokers and non-smokers, smoking tobacco and tobacco in forms other than smoking

Independent variables: age, sex, ethnicity,

Data collection methods:

Each person under study was provided a questionnaire and they were oriented prior to interview so as to ensure correct responses. Data collectors interviewed each person and during that period personal confidentiality was strictly maintained.

Methods

(A) In the preparation phase-

1. Proper orientation to the data collectors was given and
2. The variables of the study were defined.

(B) In the study phase

1. Questionnaire was distributed randomly and proportionately according to ethnicity.
2. Each person under study was oriented prior to interview and he/she was interviewed separately.

(C) Data were processed and analyzed using epi-info 6 software programme in computer.

(D) Results were presented in the forms of tables charts and graphs

DEFINITIONS OF THE TERMINOLOGIES (GIVEN BY W.H.O.)

1. Regular smoker: smokes at least one cigarette a day.
2. Occasional smoker: smokes cigarettes but not everyday.
3. Ex-smoker: smoked at least one cigarette a day for at least 6 months before giving up completely.
4. Non-smoker: never smoked before or smoked too little in the past to be regarded as ex-smoker

RESULTS

(1) PREVALENCE OF SMOKING

(A) CIGARETTE SMOKING

Analysis of data regarding the smoking behaviour (table-I) showed that out of 1584 people under study, 690 people (43.56%) were non-smokers, 675 people (42.62%) were regular smokers, 144 people (9.09%) were ex-smokers and 75 people (4.73%) were occasional smokers.

Table-I
Distribution of Population according to smoking behaviour

Smoking behavior	Number of respondents
Non-Smokers	690 (43.56%)
Regular Smokers	675 (42.62%)
Occasional Smokers	75 (4.73%)
Ex-Smokers	144 (9.09%)
Total	1584 (100%)

(B) AGE AND SEX DISTRIBUTION OF REGULAR SMOKERS

Among 675 regular smokers, there were 379 male smokers comprising 48.65% of all male population and 296 female smokers comprising 36.77% of all female population. Smoking habit was most common among the population of age group 50-59 years in which there were 141 regular smokers comprising 67.79% of population for that age group. The most common age group among both male and female was 50-59 years as shown in table-II.

Table -II
Age and sex distribution of regular smokers

S N	Age	Male		Female		Total	
		No. of people studied	Regular Smokers	No. of people studied	Regular Smokers	No. of people studied	Regular Smokers
1	19-29	310	92 (29.68)	308	42 (13.64)	618	134 (21.68)
2	30-39	166	80 (48.19)	201	75 (37.31)	367	155 (42.23)
3	40-49	132	87 (65.91)	115	65 (56.52)	247	152 (61.54)
4	50-59	99	72 (72.73)	109	69 (63.30)	208	141 (67.79)
5	60-69	48	33 (68.75)	56	35 (62.50)	104	68 (65.38)
6	70+	24	15 (62.50)	16	10 (62.50)	40	25 (62.50)
	Total	779	379 (48.65)	805	296 (36.77)	1584	675 (42.61)

(C) AGE AND SEX DISTRIBUTION OF OCCASIONAL SMOKERS

Regarding the occasional smokers, 75 people (4.73%) were found to smoke occasionally. There were 42 males comprising 5.29% occasional smokers in total males and 33 females comprising 4.10% in total females. The smoking habit was most common among the population of age group 30-39 years in which there were 22 smokers comprising 5.99% as shown in table-III.

Table-III
Age and Sex Distribution of Occasional Smokers

S N	Age	Male		Female		Total	
		No. of people studied	Occasional Smokers	No. of people studied	Occasional Smokers	No. of people studied	Occasional Smokers
1	19-29	310	19 (6.13)	308	10 (3.25)	618	29 (4.69)
2	30-39	166	9 (5.42)	201	13 (6.47)	367	22 (5.99)
3	40-49	132	7 (5.30)	115	5 (4.35)	247	12 (4.86)
4	50-59	99	5 (5.05)	109	5 (4.59)	208	10 (4.81)
5	60-69	48	2 (4.17)	56	0 (0.00)	104	2 (1.92)
6	70+	24	0 (0.00)	16	0 (0.00)	40	0 (0.00)
	Total	779	42 (5.39)	805	33 (4.10)	1584	75 (4.73)

(2) TOBACCO USE IN FORMS OTHER THAN SMOKING

(A) PREVALENCE TOBACCO USE IN FORMS OTHER THAN SMOKING

The number of people using tobacco in forms other than smoking was five hundred twenty three (33.02%) as shown in table-IV.

(B) AGE AND SEX DISTRIBUTION OF TOBACCO USERS IN FORMS OTHER THAN SMOKING

The most common age group both for males and female using tobacco in forms other than smoking was 60-69 years. There were 33 males (68.75%) and 21 females (37.50%) in this age group using tobacco in other forms as shown in table-IV.

Table-IV
Age and Sex distribution of tobacco users in forms other than smoking

S. N.	Age	Male			Female			Total		
		No. of people studied	Tobacco users in forms of other than smoking		No. of people studied	Tobacco users in forms of other than smoking		No. of people studied	Tobacco users in forms of other than smoking	
			No.	%		No.	%		No.	%
1	19-29	310	121	39.03	308	17	5.52	618	138	22.33
2	30-39	166	89	53.61	201	22	10.95	367	111	30.25
3	40-49	132	78	59.09	115	30	26.09	247	108	43.72
4	50-59	99	60	60.61	109	31	28.44	208	91	43.75
5	60-69	48	33	68.75	56	21	37.50	104	54	51.92
6	70+	24	16	66.67	16	5	31.25	40	21	52.50
	Total	779	397	50.96	805	126	15.65	1584	523	33.02

(C) TOBACCO USERS IN FORMS OTHER THAN SMOKING ACCORDING TO ITEMS USED

Out of different forms of tobacco being used in forms other than smoking, most common form was khaini/surti by five hundred and eleven (97.70%). Out of 511 khaini/surti users, four hundred and sixty five (91.00%) were using daily and forty six (9.00%) were using occasionally. The second commonest form was pan parag/guthkha which was used by 13 people (2.48%). Out of 13 people, nine (69.23%) were using daily, four (30.77%) were using occasionally. Eight people (1.53%) were found smoking tambaku regularly. It was also found that five people (0.95%) were using pan occasionally as shown in table-V.

Table-V

Distribution of Tobacco Users in forms other than smoking according to items used

Items	Daily		Sometimes		Total	
	No.	%	No.	%	No.	%
	Pan	0	0	5	100	5
Pan Parag	9	69.23	4	30.77	13	2.486
Khaini/Surti	465	91.00	46	9.00	511	97.70
Tambaku	8	100	0	0	8	1.53
Cigar	0	0	0	0	0	0
Oral/Nasal Snuff	0	0	0	0	0	0
Total	472	90.25	51	9.75	523	33.02

(3) BEHAVIOR OF SMOKING

(A) **REGULAR SMOKERS(RS)**

Regarding the behavior towards smoking of RS, the various points studied included the following:

- age of commencement
- reasons for starting to smoke
- duration of smoking
- person with whom first puff smoked
- quantity consumed per day and
- brand name of cigarettes used

(I) AGE OF COMMENCEMENT

Out of 675 regular smokers, four hundred fifty five (67.41%) started smoking at the age of 10-19 years, one hundred thirty three (19.70%) started at the age between 20-29 years, thirty nine (5.78%) started at the age of 30-39 years and seventeen (2.52%) started at the age of 40-49 years. Surprisingly, twenty seven (4.00) started at the age less than 10 years as shown in table-VI.

Table-VI
Distribution of regular, occasional and ex-smokers by age of commencement

SN	Age	Regular Smokers		Occasional Smokers		Ex-Smokers	
		No.	%	No.	%	No.	%
1	< 10	27	4.00	5	6.67	6	4.17
2	10-19	455	67.41	32	42.67	114	79.17
3	20-29	133	19.70	25	33.33	19	13.19
4	30-39	39	5.78	7	9.33	4	2.78
5	40-49	17	2.52	4	5.33	1	0.69
6	50-59	4	0.59	2	2.67	0	0.00
7	60-69	0	0.00	0	0.00	0	0.00
8	70+	0	0.00	0	0.00	0	0.00
	Total	675	100	75	100	144	100

(II) REASONS FOR STARTING TO SMOKE

Table-VII shows that 478 smokers (70.82%) started to smoke due to peer pressure and 113 smokers (16.75%) followed their parents' habit. Sixty one (9.03%) started smoking to relieve tension. Twenty three smokers (3.40%) started smoking to enjoy and to pass time easily.

Table-VII
Distribution of regular, occasional and ex-smokers by reasons for starting to smoke

<u>Reasons</u>	Regular smokers	Occasional smokers	Ex-smokers
Peer pressure	478(70.82%)	44 (58.67%)	116 (80.56%)
Imitation from guardians	113 (16.75%)	11 (14.67%)	12 (8.33%)
To relieve tension	61(9.03%)	13(17.33%)	7 (4.86%)
To enjoy & to pass the time easily	23 (3.40%)	7 (9.33%)	9 (6.25%)
Total	675 (100%)	75 (100%)	144 (100%)

(III) DURATION OF SMOKING

Regarding the duration of smoking, 407 smokers (60.29%) have been smoking for 20 years or more followed by 86 smokers (12.74%) for 15-19 years. Similarly, the number of smoker smoking for 10-14 years was 68 comprising 10.07%, for 1-5 years was 47 comprising 6.97% of total regular smokers and for 6 months -1 year was 11 comprising 1.63% of total regular smokers as shown in table –VIII.

Table –VIII
Distribution of Regular Occasional and Ex-Smokers by duration of smoking

Duration	Regular smokers	Occasional smokers	Ex-smokers
6 mths- 1 yr	11 (1.63%)	7 (9.34%)	3 (2.08%)
1-5 yrs	47 (6.97%)	33 (44.00%)	20 (13.88%)
5-9 yrs	56 (8.30%)	21 (28.00%)	18 (12.50%)
10-14 yrs	68 (10.07%)	10 (13.33%)	29 (20.13%)
15-19 yrs	86 (12.74%)	3 (4.00%)	28 (19.45%)
20 Or more	407 (60.29%)	1 (1.33%)	46 (31.95%)
Total	675 (100%)	75 (100%)	144 (100%)

(IV) PERSON WITH WHOM FIRST PUFF SMOKED

As shown in table –IX, 504 regular smokers (74.67%) smoked first puff with their friends ,104 smokers (15.40%) smoked alone and 67 smokers (9.93%) with guardians

Table-IX
Distribution according to person with whom first puff has started

Person	Regular smokers	Occasional smokers	Ex-smokers
With friends	504 (74.67%)	56(74.67%)	119 (82.64%)
With guardians	67 (9.93%)	2 (2.66%)	8 (5.56%)
Alone	104(15.40%)	17 (11.00%)	17 (11.80%)
Total	675 (100%)	75(100%)	144 (100%)

(V) QUANTITY CONSUMED PER DAY

Table–X shows the number of cigarettes consumed per day. Most of the regular smokers (56.74%) were smoking less than 5 cigarettes per day. One hundred and thirty eight (20.45%) were smoking about 5 -10 cigarettes per day , one hundred and twenty four (18.37%)were smoking 10 –20 cigarettes per day and thirty (4.44%)were smoking 20 or more cigarettes per day

Table–X

Cigarettes/day	Regular smokers	Ex-smokers
< 5 sticks	383 (56.74%)	69 (47.92%)
5 – 10 sticks	138 (20.45%)	24 (16.67%)
10 – 20 sticks	124 (18.37%)	20 (13.89%)
20 sticks or more	30 (4.44%)	31 (21.52%)
Total	675 (100%)	144 (100%)

(VI) BRAND NAME OF CIGARETTES USED

Most of the regular smokers were using Chautari followed by Khukuri then by Bijuli as shown in table -XI.

Table-XI

Brand Name	Regular smokers	Occasional smokers	Ex-smokers
Chautari	390 (57.78%)	35 (46.67%)	36(25.00%)
Khukuri	139 (20.60%)	21 (28.00%)	12(8.33%)
Bijuli	56 (8.30%)	8 (10.66%)	12(8.33%)
Gaida	32 (4.74%)	-	8(5.56%)
Deurali	39 (5.78%)	7(9.33%)	70(48.61%)
Shikhar	17 (2.51%)	2 (2.67%)	2(1.39%)
Yak	2 (0.29%)	2 (2.67%)	4(2.78%)
Total	675 (100%)	75 (100%)	144(100%)



(B) OCCASIONAL SMOKERS(OS)

Regarding the behavior towards smoking of OS, the various points studied included the following:

- age of commencement
- reasons for starting to smoke
- time interval for smoking
- duration of smoking
- brand name of cigarettes used
- person with whom first puff smoked and

(I) AGE OF COMMENCEMENT

Out of 75 regular smokers, thirty two (42.67%) started smoking at the age of 10-19 years, twenty five (33.33%) started at the age between 20-29 years, seven (9.33%) started at the age of 30-39 years, five (4%) at the age less than 10 years and four (5.33%) at the age of 40-49 years as shown in table-VI

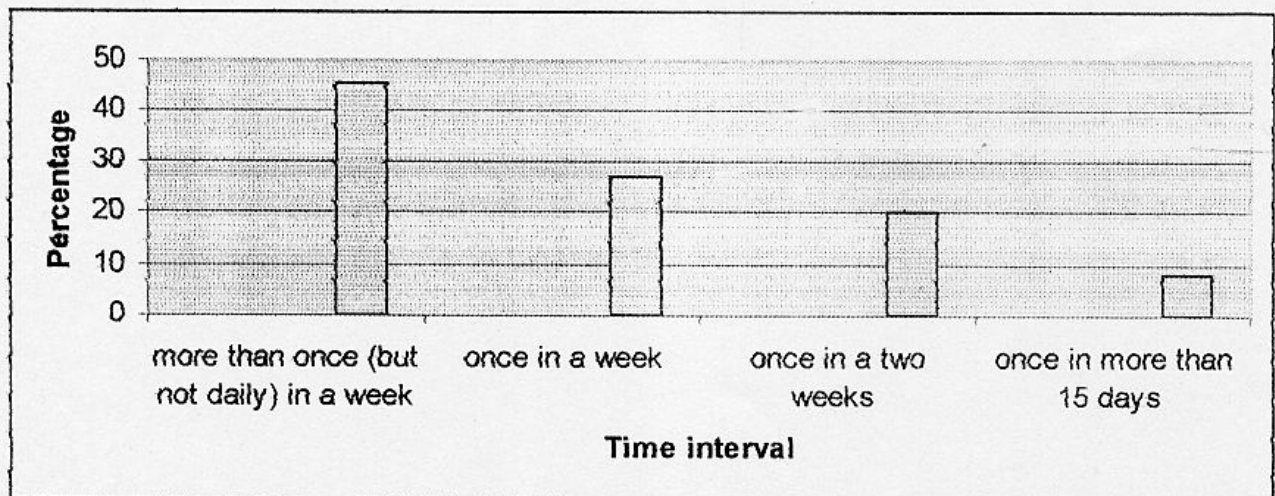
(II) REASONS FOR STARTING TO SMOKE

Table-VII shows that 44 smokers (58.67%) started to smoke due to peer pressure and 13 smokers (17.33%) to relieve tension.. Eleven (14.67%) followed their parents' habit and seven (9.33%) started smoking to enjoy and to pass time easily

(III) TIME INTERVAL FOR SMOKING

It was found that thirty four occasional smokers (45.33%) were smoking more than once (but not daily) in a week, twenty (26.67%) once in a week, fifteen (20%) once in a two weeks and six (8%) once in more than 15 days as shown in graph-I.

Graph-I
Distribution of occasional smokers by time interval for smoking



(IV) DURATION OF SMOKING

Regarding the duration of smoking, 33 smokers (44%) have been smoking for 1-5 years followed by 21 smokers (28%) for 5-9 years. Similarly, the number of smoker smoking for 10-14 years was 10 comprising 13.33%, for 6 months -1 year was 7 comprising 9.34%for 15-19 years was 3 comprising 4% of total regular smokers and for 20 years or more was 1 comprising 1.33% of total occasional smokers as shown in table –VIII.

(V) BRAND NAME OF CIGARETTES USED

Most of the occasional smokers were using Chautari followed by Khukuri then by Bijuli as shown in table -XI

(VI) PERSON WITH WHOM FIRST PUFF SMOKED

As shown in table –IX, 56 occasional smokers (74.67%) smoked first puff with their friends ,17 smokers (11.00%) smoked alone and 2 smokers (2.66%) with guardians.

(III) EX-SMOKERS(ES)

Regarding the behavior towards smoking of ES, the various points studied included the following:

- age of commencement
- reasons for starting to smoke
- duration of smoking
- person with whom first puff smoked
- quantity consumed per day and
- brand name of cigarettes used
- reasons for quitting
- source of inspiration for self motivation
- age of quitting

(I) AGE OF COMMENCEMENT

Out of 144 ex- smokers, one hundred fourteen (79.17%) had started smoking at the age of 10-19 years, nineteen (13.19%) started at the age between 20-29 years, four (2.78%) started at the age of 30-39 years and one (0.69%) started at the age of 40-49 years. Surprisingly, six (4.17) started at the age less than 10 years as shown in table-VI.

(II) REASONS FOR STARTING TO SMOKE

Table-VII shows that 116 smokers (80.56%) started to smoke due to peer pressure and 12 smokers (8.33%) followed their parents' habit. Nine smokers (6.25%) started to enjoy and to pass time easily. Seven (4.86%) started smoking to relieve tension.

(III) DURATION OF SMOKING

Regarding the duration of smoking, 46 smokers (31.95%) had smoked for 20 years or more followed by 29 smokers (20.13%) for 10-14 years. Similarly, the number of smoker smoking for 15-19 years was 28 comprising (19.45%), for 1-5 years was 20 comprising 13.88% , for 5-9 years was 18 comprising 12.50% and for 6 months -1 year was 3 comprising 2.08% of total ex-smokers as shown in table -VIII.

(IV) PERSON WITH WHOM FIRST PUFF SMOKED

As shown in table -IX, 119 ex- smokers (82.64%) had smoked first puff with their friends ,17 smokers (11.80%) smoked alone and 8 smokers (5.56%) with guardians.

(V) QUANTITY CONSUMED PER DAY

Table-X shows the number of cigarettes consumed per day. Most of the ex-smokers (47.92%) had smoked less than 5 cigarettes per day. Thirty one (21.52%) smoked 20 or more cigarettes per day. Twenty four (16.67%) smoked about 5 -10 cigarettes per day and twenty (13.89%) smoked 10 -20 cigarettes per day .

(VI) BRAND NAME OF CIGARETTES USED

Most of the ex- smokers were using Deurali followed by Chautari then by Khukuri and by Bijuli as shown in table -XI

(VII) REASONS FOR QUITTING

Among the total of 144 ex-smokers, one hundred and two (70.85%) had quit smoking due to self motivation, thirty eight (26.38%) due to increased expenditure and initiation of other habits (eg chewing tobacco), three (2.08%) due to request of friends and one (0.69%) due to request of guardians as shown in table-XII.

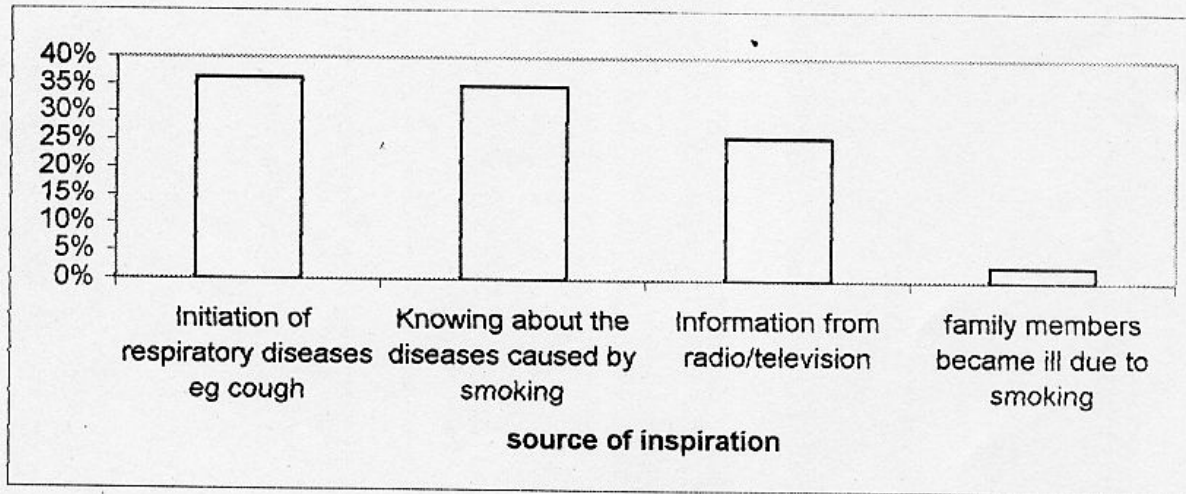
Table-XII

S.N	Reasons	Ex- smokers
1	Request of friends	3(2.08%)
2	Request of parents	1(0.69%)
3	Self motivation	102(70.85%)
4	Others (Increased expenditure, expensive, initiation of other habits eg chewing tobacco)	38(26.38%)
Total		144(100%)

(VIII) SOURCE OF INSPIRATION FOR SELF MOTIVATION

Initiation of respiratory diseases eg cough was the main source of inspiration to quit smoking. Out of 144 ex-smokers, fifty three (36.30%) had quit smoking due to this cause followed by fifty smokers (34.74%) quit due to knowing about the diseases caused by smoking, thirty seven (25.69%) quit due to information from radio/television and four (2.77%) quit because one of his family members became ill due to smoking as shown in graph-II.

Graph-II



(IX) AGE OF QUITTING

Out of 144 ex-smokers, forty one (28.47%) had quit smoking at the age of 30-39 years, thirty two (22.22%) quit at the age between 40-49 years and thirty (20.83%) at the age of 20-29. Twenty one of them (14.58%) had quit at the age of 50-59 years, eleven of them (7.64%) had quit at the age of 60-69 years and two of them at the age of 70-years or above. Seven ex-smokers had quit at the age of 10-19 years as shown in table XIII.

Table-XIII
Distribution of ex- smokers according to age at quitting

SN	Age	Ex-Smoker	
1	< 10	0	0.00
2	10-19	7	4.86
3	20-29	30	20.83
4	30-39	41	28.47
5	40-49	32	22.22
6	50-59	21	14.58
7	60-69	11	7.64
8	70+	2	1.39
	Total	144	100

(4) Knowledge and attitude towards tobacco use (Table-XVII)

(I) Harmful to health

Most of the people knew the health hazards of smoking. 86.12% of people agreed that smoking is harmful to their health. 6.94% of the people did not agree and another 6.94% were unsure or did not know the harmful effects of smoking.

(II) Prohibition of smoking at public places

Regarding the prohibition of smoking at public places, 92.04% of the people agreed, 1.46% did not agree and another 6.50% were unsure or did not know.

(III) Health warnings on cigarette packs

Regarding the health warnings on cigarette packages, 67.67% of the people agreed that warning should be in big print, 10.73% did not agree and another 21.60% were unsure or did not know.

(IV) Tobacco sales to children and adolescents

Most of the people (91.09%) agreed that tobacco sales should be banned to children and adolescents 2.28% did not agree and another 6.63% were unsure or did not know.

(V) Advertisement of tobacco products

Most of the people (74.12%) agreed that there should be complete ban on advertising of tobacco products from different media, 10.10% did not agree and 15.78% were unsure or did not know.

(VI) Sport sponsorships by tobacco industry

Sport sponsorships by tobacco industry should be allowed. Regarding this fact 60.55% of the people were unsure or did not know, 14.52% agreed and 24.92% did not agree.

(VII) Price increment

Most of the people (62.82%) did not agree that the price of tobacco products should be increased sharply 29.10% agreed and 8.08% were unsure or did not know.

(VIII) Passive smoking

90.92% of people believed that passive smoking is harmful, 2.39% did not believe and 6.69% were unsure or did not know

(IX) Parental smoking and respiratory diseases

Regarding the parental smoking and risk of pneumonia and other respiratory diseases to their children. 89.27% of the people agreed, 1.26%% did not agree and another 9.47% were unsure or did not know.

Table-XV!!

Knowledge And Attitude	Agree	Disagree	Unsure/Do not know	Total
Smoking is harmful to your health.	1364(86.12%)	110(6.94%)	110(6.94%)	1584
Smoking in public places should be prohibited.	1458(92.04%)	23(1.46%)	103(6.50%)	1584
Health warnings on cigarette packages should be in big print.	1072(67.67%)	170(10.73%)	342(21.60%)	1584
Tobacco sales should be banned to children and adolescents.	1443(91.09%)	36(2.28%)	105(6.63%)	1584
There should be complete ban on the advertising of tobacco products.	1174(74.12%)	160(10.10%)	250(15.78%)	1584
Sport sponsorships by tobacco industry should be allowed.	230(14.52%)	395(24.93%)	959(60.55%)	1584
The price of tobacco products should be increased sharply.	461(29.10%)	995(62.82%)	128(8.08%)	1584
Breathing in other people's smoke (passive smoking) is harmful.	1440(90.92%)	38(2.39%)	106(6.69%)	1584
Parental smoking increases the risk of Pneumonia and other respiratory diseases.	1414(89.27%)	20(1.26%)	150(9.47%)	1584

(5) ATTITUDE TOWARDS SMOKING

(A) Regular Smokers

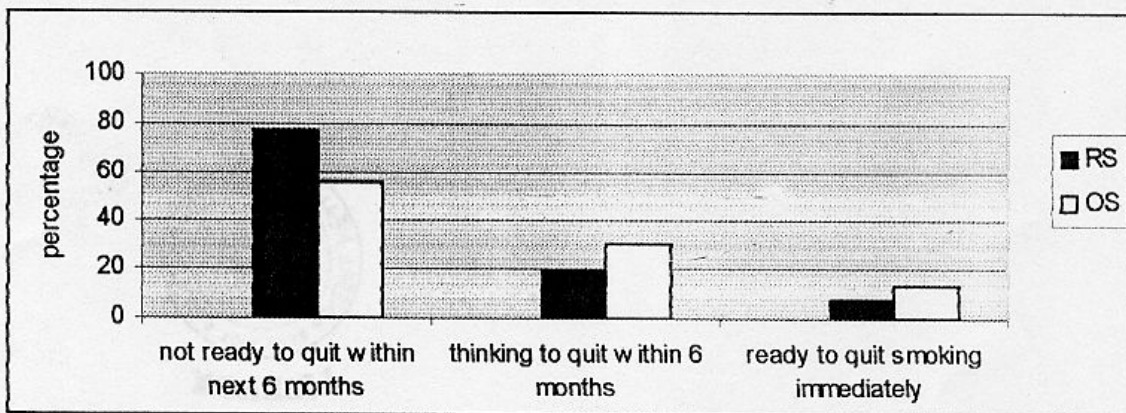
About attitude towards smoking, 495 regular smokers (73.33%) were not ready to quit within next 6 months. One hundred and twenty seven (18.82%) were thinking to quit within 6 months. Fifty three (7.85%) were ready to quit smoking immediately as shown in graph -III

(B) Occasional Smokers

Fourty two occasional smokers (56.00%) were not ready to quit within next 6 months. Twenty three smokers (30.67%) were thinking to quit within 6 months and ten smokers (7.85%) were ready to quit smoking immediately as shown in graph -III

Graph-III

Distribution of Regular and Occasional smokers according to attitude towards smoking



(6) Distribution of the RS and OS according to ethnicity

Ethnic distribution of regular and occasional smokers showed that most of the smokers belonged to Kami, Damai and Sarki followed by Gurung, Magar and Tamang group as shown in table -XIV.

Table-XIV

SN	Ethnicity	No. of people studied	Regular Smoker	Occasional Smoker
1	Tharus	489	200 (40.90%)	21 (4.29%)
2	B/C/T/G/P/S	666	250 (37.54%)	25 (3.75%)
3	G/M/T	168	96 (57.14%)	15 (8.93%)
5	B/C/D/K	120	54 (45.00%)	3 (2.50%)
4	Newars	81	34 (41.98%)	5 (6.17%)
6	K/D/S	56	41 (73.21%)	6 (10.71%)
7	Others (R/S)	4	0 (0.00%)	0 (0.00%)
	Total	1584	675 (42.61%)	75 (4.73%)

(7) Distribution of RS and OS According to Education

It has been observed that the trend of smoking decreased with increase in educational level. This fact was reported from another study⁴. Most of the smokers were illiterate as shown in the table-XV.

S.N.	Education	Total	Regular Smoker	Occasional smoker
1	Illiterate	808	423 (52.35%)	42(5.19%)
2	Primary	439	189 (43.05%)	20 (4.55%)
3	Secondary	240	51 (21.25%)	10 (4.16%)
4	Higher Secondary or above	97	12 (12.37%)	3 (3.09%)
	Total	1584	675 (42.62%)	75 (4.73%)

(8) Tobacco Control programmes

TO find out any tobacco control programmes were implemented in the study area, VDC chairman was interviewed. We found that there were no tobacco control programmes implemented in that area.

(9) Distribution of RS and OS According to Occupation

Occupational distribution of regular and occasional smokers showed that most of them were farmer followed by businessman. Teaching shown to have least number of regular and occasional smokers

Table -XVI

S.N.	Occupation	Total	Regular Smoker	Occasional smoker
1	Agriculture	1355	607 (44.79%)	66 (4.78%)
2	Student	104	23 (22.11%)	4 (3.84%)
3	Business	64	28 (43.75%)	3 (4.68%)
4	Service	46	14 (30.43%)	2 (4.34%)
5	Teaching	15	3 (20%)	0
	Total	1584	675 (42.62%)	75 (4.73%)

Discussion

In the present study, the prevalence of regular cigarette smoking was 42.61% and that for occasional smokers was 4.73%. The prevalence of tobacco users in various other forms (pan, pan parag/gutha, khaini/surti, tambaku, oral snuff and nasal snuff) was 33.02%.

Regarding the prevalence of smoking in Nepal, the results of 1983 survey showed overall prevalence of 73.7% daily smokers, 85.4% male and 62.4% female. The prevalence rate differ by region from 77.7% in high mountain area to 37% in urban Kathmandu⁵. A similar study in 1988 showed prevalence of daily smoking was 84.7% for males and 71.7% for females in high mountain area (Jumla). The rates in the plains (Terai) was 78.7% for males and 58.9% for females while in Kathmandu it is 64.5% and 14.2% respectively⁶. Another study of smoking among adults showed the prevalence of 73% in Kotyang Village in Kavre district and 62% in suburban locality Bhadrakali in Kathmandu⁷. A survey of smoking in Sunsari district in 1994 showed prevalence of 17.5% with 19.6% male smokers and 15.4% female smokers⁸. Our study among school children in Nepal showed 10.07% regular smokers in Shivapuri Secondary School, Maharajgunj and 7.79% regular smokers and 1.52% occasional smokers in Bhanubhakta Memorial Higher Secondary School, Panipokhari, Kathmandu⁹. A similar study in Dhankuta district among the children of the age group 5 to 14 years had reported that 11% children were smokers¹⁰. Among the same age group (5-14 years), the prevalence of smoking was very high in Jumla (51%)¹¹. The educational status, overall socio-economic condition, parents habit and cold climatic conditions of the place may be the possible reasons for this difference.

This study showed the prevalence of smoking was high in adult population. It was increasing with increase in age. In the present study the most common age group for regular smoking was 50-59 comprising 67.79% of population for that age group. The most common age group among both male and female was 50-59 comprising 72.73% for males and 63.30% for females at that age group as shown in table-II. However, most people started smoking in early age. The most common age of starting was 10-19 years of age at which 67.41% of regular smokers started to smoke. Even some people (4%) started to smoke below 10 years of age. It is necessary to have intervention programs directed to all age groups of people especially to children and adolescents because most of the people started to smoke from this period of life. Most of regular smokers (60.29%) already smoked for 20 years or more and 4.44% smokers were smoking 20 or more sticks per day. It is obvious that these people are more vulnerable to the harmful effects of smoking. So it is important to pay attention to this group of people regarding the harmful effects of its use.

Table-V shows 33.02% were using tobacco in forms other than smoking. The particular form of importance is khaini / surti which was used by many.

Regarding knowledge and attitude towards smoking, most of the people had good knowledge but practice part seemed poor. It has shown that 73.33% of regular smokers did not want to quit smoking within next 6 months and 18.82% did not want to quit smoking within 6 months. Only 13.33% wanted to quit smoking immediately. It was also found that 6.94% of the people did not agree that smoking was harmful to health because they thought that many people were smoking cigarettes safely for long period. They also thought that people who did not smoke are also getting diseases like regular smokers.

SUMMARY

This study showed that

- 1) 42.61% people were regular smokers, 4.73% were occasional smokers, 33.02% people were using tobacco in forms other than smoking and 9.09% people were ex-smokers. 48.65% of male among total male population and 36.77% of female among total female population are regular smokers. The age of starting smoking is from 10 years with maximum prevalence in 10-19 years. The smoking habit was most common among the population of age group 50-59 years comprising 67.79% for that age group. The most common age group among both male and female was 50-59 comprising 72.73% for males and 63.30% for females for that age group
- 2) Educational status of people has significantly influenced their smoking habit. Most of the regular and occasional smokers were illiterate comprising 52.35% regular and 5.19% occasional smokers.
- 3) Ethnic distribution showed that most of the regular and occasional smokers belonged to Kami, Damai and Sarki group. This group comprises 73.21% regular and 10.71% occasional smokers.
- 4) There were no programs related to tobacco control.

CONCLUSIONS

This study showed that the prevalence of regular and occasional cigarette smoking in an adult population of above 18 years was 42.61% and 4.73% respectively. The most common age group for starting to smoke was 10-19 years and most of the regular smokers were of 50-59 years. This is a relatively high prevalence of smoking despite most people were aware of harmful effects of smoking on their health. It reflects that attitude and behaviour to give up smoking habit were lacking in these people. This underlines the need to develop effective health education programme and to involve the people in anti tobacco programs especially the youth. It is essential that the MOH and those involved in anti-tobacco programmes in the country (NGO and INGO) work together to implement effective health education programme and anti tobacco programs.

REFERENCES

- (1) V.D.C. office, Padampur, Chitwan
- (2) World No -Tobacco Day, 31st May 2000, WHO Report, South-East Asia region.
- (3) Electoral-Voter list Padampur VDC, Office of Election commission, Bharatpur, Chitwan 2057
- (4) Pandey MR, Neupane, Gautam A. Epidemiological Study Of Tobacco Smoking Behaviour among Adults in a Rural Community of the Hill Regions of Nepal with Special References to Attitude and Beliefs. International Journal Epidemiology 17(3) 1988,535-541.
- (5) Tobacco or Health, A global status report,WHO, Geneva, 1997
- (6) World health Organization, Country profiles of SEAR, in1999 World No Tobacco Day information pack, WHO SEAR office ,New Delhi1999
- (7) Acharya G.P.Kawasaki t et all Investigation of high salt intake in Nepalese population with low blood pressure,Journal of Human Hypertension (1993) 7, 131-140
- (8) Jha, Upadhayay,Lakhey; smoking and smokers in sunsari, Nepal
- (9) Acharya G.P. and Acharya S.L. Tobacco use among School Children of Shivapuri Secondary School, Maharajgunj and Bhanubhakta Memorial Higher Secondary School Panipokhari,Kathmandu
- (10) Shrestha MP, Bhattacharya and Philips PA, Dhankuta District Community Health Survey 1984. Tribhuvan University, Institute of Medicine and Nepal/ Canada, Dhankuta Community Medicine Auxiliary Training Center Project.
- (11) Shrestha MP, Health and Socio-economic Aspects of smoking with Special References to Jumla. National seminar on Smoking and Cardio-Respiratory Diseases, 28-30 Sept, 1983.
- (12) Acharya G.P. Situation analysis of non communicable diseases of T.U.T.H., Report submitted to W.H.O.-SEARO, march 2000.

Annex-I
Tobacco Use in Padampur VDC
Questionnaire

Name: _____ Ward No: _____ Education: a) Illiterate
Age: _____ b) Primary
Sex: _____ c) Secondary
Occupation: _____ d) Higher Secondary
Ethnicity: _____

- 1) Which one of the following best describes your smoking behaviour?
 - a) I have never smoked
 - b) I smoke occasionally
 - c) I quit smoking
 - d) I smoke everyday

- 2) If you are a occasional or regular smoker-
 - a) How old were you when you first started to smoke? years
 - b) How di you start smoking?
 - i) peer pressure
 - ii) imitation from guardians
 - iii) to be smart and energetic
 - iv) to relieve tension
 - v) to enjoy and to pass the time easily
 - c) To whom with you started your first puff?
 - i) friends
 - ii) guardians
 - iii) alone
 - iv) others
 - d) For how long are you smoking?
 - i) > 3 months
 - ii) > 6 months
 - iii) > 1 year
 - iv) > 3 years
 - e) On an average how many sticks do you smoke per day?
 - i) < 5 sticks
 - ii) 5-10 sticks
 - iii) 10-20 sticks
 - iv) 20 sticks or more
 - f) Have you tried to quit smoking seriously?
 - i) yes
 - ii) no
 - g) Which one of the following best describes how you feel about your smoking?
 - i) Not ready to quit within next 6 months
 - ii) Thinking about quitting within 6 months
 - iii) Ready to quit now

3) If you are an occasional smoker, at what interval of time do you smoke?

.....

4) If you had quit smoking -

a) How old were you when you first started to smoke? years

b) How did you start smoking?

- i) peer pressure
- ii) imitation from guardians
- iii) to be smart and energetic
- iv) to relieve tension
- v) to enjoy and to pass the time easily

c) To whom with you started your first puff?

- i) friends
- ii) guardians
- iii) alone
- iv) others

d) For how long are you smoking?

- i) > 3 months
- ii) > 6 months
- iii) > 1 year
- iv) > 3 years

e) On an average how many sticks do you smoke per day?

- i) < 5 sticks
- ii) 5-10 sticks
- iii) 10-20 sticks
- iv) 20 sticks or more

f) Why did you quit smoking?

- i) request of friends
- ii) request of parents
- iii) self motivation
- iv) others.....

g) If you were self motivated, what was the source of inspiration to quit smoking?

- i) Information from radio/television
- iii) Imitation of respiratory diseases eg. cough
- iv) Knowing about the diseases caused by smoking
- v) Family members became ill due to smoking

h) At what age did you quit smoking? years

5) If you use tobacco in forms other than smoking, which one of the following do you use?

Items	Quantity used per day	Age of commencement
a) Paan years
b) Paan parag/Guthkha..... years
c) Khaini/Surti years
d) Oral snuff years
e) Nasal snuff years
f) Tambaku years
g) Cigar years

h) Bidi years

Question to VDC President

Are there any tobacco control programmes in your VDC (question to VDC president)?

a) Yes

b) No

Annex-II

S.N	Particulars		Amount
1	Questionnaire development and printing	1700 questionnaire/copy Rs 3	Rs 5,100
2	Data collection	2 manday x 30 days x Rs600/day	Rs 36,000/
3	Data processing and analysis	2 manday x 10 days x Rs700/day	Rs 14,000/
4	Report development and publication of results		Rs 8,000/
5	Computer work	For the whole period	Rs 2,500/
6	Transportation	For the whole period	Rs 2,000/
7	Stationeries	For the whole period	Rs 2,000/
8	Contingency	For the whole period	Rs2,000/
9		Total	Rs 71,600/

