# Geomedical Study on Distribution of Incidences in Bhiwani District, Haryana

## Dr. Promila

Principal, Pragati Kisaan PG College, Chandgothi, Churu.

Abstract: As far as geographical position point of view that District has extension from  $27^{\circ}$  57' N to  $28^{\circ}$  53' N latitude but from longitudinal extension it lies in between 75° 13' E to 75° 58' E. In this way the state has its location somewhat in North-western part of our country. The location of Bhiwani District in India, than Haryana. The state has 19 districts in all in which Bhiwani is one of them. The district is located in south western part of the state. Location of Bhiwani district revealed than in the west direction of the district – the state of Rajasthan lies, in the south – Mahendergarh district is located, in the east it is covered by two district boundaries i.e. Rohtak and Jhajjar district, respectively. In this way the district Bhiwani is surrounded by four district and the interstate boundary of Rajasthan in the western direction.

### 1. Study Area

If one compare the district's population of Haryana state than one can observe that Faridabad district ranks first in maximum population where as Panchkula district has lowest population while Bhiwani district covers 6.7 percent population of the state's total. Similary from total area point of view, it is quite obvious that Bhiwani district ranks first in the state with 10.8% area and again Panchkula district stands at last by minimum area point of view. As far as density is concerned – Bhiwani district has 298 persons per square kilometer which is above from the average of state's density value. It revealed from the overall observations point of view that comparatively Bhiwani district's covers more than one-tenth area of the state's total but low in comparison from population point of view.

# 2. Objectives

Specific study for the dominant diseases at least district level in relation to the natural environment which give rise to the occurrence of higher concentration of incidences in certain years.

# 3. Introduction

Incidence is a work use to apply for the person suffering from any kind of disease i.e. psychologically, physically, mentally or biologically. Thus, all kind of patients "Medically are known as incidence." Incidence word is applied for both kinds i.e. for outdoor patient and indoor patient. On the basis occurrence of incidences in any area or country – one can determine the density of incidences, isomorb of incidences, death aspect of incidence, fluctuation of incidences percentage, rate of incidence etc. The following paragraphs of this research paper deals about a general distribution of incidences whether it may be – annually, disease-wise and Tehsil-wise.

# 4. Tehsil Wise Annual In Door Patients

The number of incidences of In Door Patients Tehsil-wise of Bhiwani district which covers three years duration that is 2002, 2003, 2004. The study includes six tehsils of Bhiwani District in which the data of male and female are reported. As far as Bhiwani tehsil is concerned the total number of incidences 2002 year ranks at first place which following by 2003 and lowest represented by the year of 2004. Among male incidences the year 2004 ranks at first place which followed by 2003 and lowest by 2002, respectively. At the part of female incidences of Bhiwani tehsil the year 2003 ranks at first place which followed by 2002 and lowest by 2004, respectively.

Bawani Khera tehsil number of incidences point of view 2004, ranks at first place which followed by 2003 and lowest by 2002. As far as female incidences of Bawani Khera is concerned the 2003 ranks at first place which is followed by the year 2004 and lowest in the year of 2002.

From total number of incidences in Dadri tehsil is concerned the year 2003 ranks at first place which is followed by 2002 at second place and lowest by 2004, respectively. At the part of male incidences 2003 again ranks at first place but 2002 at second place and lowest is covered by the year of 2004. If we observe the number of female incidences in Dadri tehsil than we find that 2004 year rank at first place which followed by 2003 at second place and lowest is covered by the year of 2002.

In Loharu tehsil the total number of incidences the year 2002 ranks at first place which followed by 2003 at second place and lowest is covered by the year 2004. At the part of male incidences the year 2004 ranks at first place, 2002 at second place and naturally 2003 at third place. Where as at the part of female incidences 2003 leads other years in Loharu tehsil that is 2002 at second and 2004 at third place.

Siwani tehsil of Bhiwani district in number of In Door Patients the year 2002 ranks at first place which followed by 2003 at second and 2004 at third place. As far as number of male indoor incidences is concerned 2002 year ranks at first place which followed by 2003 at second place and lowest is covered by 2004 at third place. At the part of female incidences the data revealed that the representation is similar and followed the system of male incidences.

Tosham is the sixth tehsil of Bhiwani district, the data of total number of incidences revealed that the year of 2002 ranks at first place followed by 2003 at second place and lowest is covered by 2004 at third place. As far as the number of male indoor incidences the similar pattern is followed as mentioned earlier. At the part of female indoor incidences the similar pattern is followed that 2002 year rank as first place which followed by 2003 of second place and lowest is covered by 2004 at third place.

As far as the Bhiwani district as a whole, the data revealed that in total number of indoor incidences 2002 ranks at first place which is followed by 2003 at second place and lowest is represented by the year of 2004. It is very interesting that among male indoor incidences the year 2004 ranks at first place where as among female indoor incidences the year 2002 ranks as first place in Bhiwani district.

## 5. Tehsil Wise Annual Out Door Patients

The tehsil-wise data of number of out door incidences of Bhiwani district of three years duration that is 2002, 2003 and 2004. It covers the comparative account of outdoor incidences in Bhiwani district. Among sixth tehsil Bhiwani tehsil ranks at first place in total number of outdoor incidences where as Bawani Khera tehsil is placed at the last in Bhiwani district by keeping the lowest total number of outdoor incidences. Bhiwani tehsil total number of outdoor incidences the year 2002 ranks at first place which is followed by 2004 at second place, naturally 2003 at third place. As far as the male out door incidences is concerned and female outdoor incidences are concerned both followed the same pattern in which 2002 ranks at first place which is followed by 2004 at second place and by lowest number 2003 at third place.

Bawani Khera tehsil in total number of outdoor incidences 2002 year ranks at first place which is followed by 2003 at second and 2004 at third place, respectively. At the part of male out door incidences in Bawani Khera tehsil year 2002 ranks at first place but at the part of female out door incidences 2003 year ranks at first place.

As far as Dadri tehsil is concerned in total number of outdoor incidences the year 2004 ranks at first place which is followed 2002 at second place and naturally 2003 at third place. In 2003 male and female outdoor incidences in total number more or less similar where as in 2002 and in 2004 the number of male outdoor incidences are lesser than the total number of female outdoor incidences.

Loharu tehsil of Bhiwani district shows that in total number of outdoor incidences 2004 ranks at first place which is followed by 2003 at second and naturally 2002 at third place. As far as total number of male outdoor incidences are concerned these are comparatively much lesser than the total number of female outdoor incidences. Loharu tehsil ranks at fifth place in total number of outdoor incidences in Bhiwani district.

Siwani tehsil of Bhiwani district ranks at third place in total number of outdoor incidences. In this respect 2004 ranks at first place which followed by 2003 at second place and naturally 2002 at third place. In 2004 male outdoor incidences are comparatively more where as in 2002 female outdoor incidences are more in number. Tosham tehsil in total number of outdoor incidences ranks at forth place in Bhiwani district. The year 2004 ranks at first place in total number outdoor incidences which is followed by 2002 at second place and naturally 2003 at third place. In 2004 number of outdoor male incidences are comparatively more rather than in 2002 number of female outdoor incidences are more. In this way overall Bhiwani district is concerned in total number outdoor incidences 2004 ranks at first place, 2002 at second place and naturally 2003 at third place. It is interesting to mention here that in all three duration that is 2002, 2003 and 2004 the number of female outdoor incidences are more than the number of male outdoor incidences.

#### 6. Tehsil Wise Annual Death Cases

It is well known fact that all communicable dominant diseases have different nature of their causes of origin and spread. In spread, the spatial distribution of dominant communicable disease, some diseases get favourable environmental conditions whiles others not. More spread of any communicable disease occupies more area under it's impact. The incidences of death by such diseases depend on the frequency and intensity of the disease particular. The spatial distribution of death incidences were observed different in each tehsil of Bhiwani district. Death cases in number was observed different in different tehsil of the district.

The tehsil-wise annual distribution of number of incidences of death cases in Bhiwani district for 3 years duration i.e. for 2002, 2003 and 2004. The nature of data revealed that overall all six tehsils of Bhiwani district show their hetrogenous nature of annual distribution of death cases. In total number of annual distribution of death cases Bhiwani tehsil ranks at first place which is followed by Dadri tehsil at second place in Bhiwani district. In lowest number of annual distribution of death cases Loharu tehsil stands at first place which is followed by the Bawani Khera tehsil at second place in Bhiwani district, Haryana.

In Bhiwani tehsil, the total number of death cases was found maximum in the year 2003 which ranks at first place and it is followed by 2002 at second and 2004 at third place, respectively. Further in this context it is observed that in 2002 the total number male incidences death cases were observed more in comparison to the female incidences death cases, whereas in 2003 and 2004 females incidences death cases were observed more in number rather than the male incidences death cases. It is revealed from the data that about 80 percent of number of death cases in Bhiwani district is covered alone by the tehsil of Bhiwani.

Bawani Khera tehsil ranks at fifth place from total number of death cases in Bhiwani district. It covers about one percent only the total number of death cases of Bhiwani district. Further in this context, 2002 year ranks at first place which is followed by 2004 at second and naturally 2003 year at third place. Overall it is observed that among death cases, male incidences are comparatively found more rather than that of female incidences.

Dadri tehsil ranks at second place in Bhiwani district in reference to the total number of incidences of death cases. The tehsil contributes about 13 percent of death cases of district's total. In annual distribution of death cases, 2004 ranks at first place which is followed by the year 2002 at second and naturally 2003 at third place. It is interesting to mention here that in 3 years duration, death cases of male incidences in Dadri tehsil observed comparatively more than that of female respectively.

Loharu tehsil ranks at last i.e. sixth place in number of incidences of death cases in Bhiwani district. It contributes only one percent hardly in Bhiwani district from total number of death cases point of view. In annual distribution, the year 2004 ranks at first place followed by 2002 at second place whereas it is very interesting to mentioned here that the year 2003 remained free from any kind of death case from communicable diseases of Bhiwani district. Female incidences death cases are observed more in number rather than that of male incidences during 3 years of observation.

Siwani tehsil stands at forth place in number of incidences of death cases in Bhiwani district. Siwani tehsil contributes about 2 percent death cases of the district's total. In annual distribution, the year 2004 ranks at first place which is followed by 2003 at second and naturally 2002 at third place. Further in this context it is observed that the overall death cases of male incidences were found more in Siwani tehsil rather than that of female incidences, respectively.

Tosham tehsil ranks at third place in Bhiwani district from number of incidences of death cases. Tosham tehsil contributes about 3 percent death cases of the district's total. In annual distribution, the year 2004 ranks at first place which is followed by the year 2002 at second and naturally 2003 at third place in this aspect. Further in this context it is observed that death cases of female incidences was more in number in the year of 2002 but during the years of 2003 and 2004 death cases in male incidences were observed comparatively more in number.

Overall, the district as a whole, in annual distribution of total number of incidences of death cases, 2003 year ranks at first place which is followed by 2004 at second and 2002 naturally at third place.

#### 7. Results

It is very interesting that among male indoor incidences the year 2004 ranks at first place where as among female indoor incidences the year 2002 ranks as first place in Bhiwani district.
It is interesting to mention here that in all three duration that is 2002, 2003 and 2004 the number of female outdoor

incidences are more than the number of male outdoor incidences.

3. Overall, the district as a whole, in annual distribution of total number of incidences of death cases, 2003 year ranks at first place which is followed by 2004 at second and 2002 naturally at third place.

#### References

- Akhtar, R. (1978). Goitre Zonation in Kumaon Region A Geomedical Study, Social Science and Medicine, 12:157-163.
- 2. Bhatt, L.S. and Learmonth, A.T.A.(1973). Medical Geography : A Trend Report, A Survey in Geography-Popular Pakistan Pvt. Ltd. Pp-244.
- 3. Choudhary, A. (2000). Geography of Health Disease Aspect of Jhunjhunu district, Rajasthan (unpublished).
- 4. Census Hand Book-(2001). District Census Hand book of Bhiwani District, Haryana.
- 5. Dubos, R. (1968). Man, Medicine and Environment. Harmondsworth, Pelican.
- 6. Gulati, S. (2001). Provisional Population Totals. Director of Census perations, Chandigarh (Haryana).
- 7. Kumar, M. (1995). Environmental pollution and Health Hazards Assessment in Khetri Nagar, Rajasthan. Ph.D. Thesis, UOR, Jaipur.
- 8. Kumar, R. (1999). Medical Geography of Mahendergarh District, Haryana . (Unpushished).
- 9. Kasturia, R. (2002). Medical Geography of Water Borne Diseases in Shekhawati Region, Rajasthan (unpublished).
- 10. Mathur, H.S. (1969). Geographical factors of incidence of Smallpox in Rajasthan. Ind. Jour. Geography, 4-6:36-46.
- 11. Mishra, R.P. (1970) Medical Geography of India. National Book Trust, New Delhi.
- 12. Raghav, R. (1986). Geogenic aspects of Water borne diseases in Marusthali Region of Rajasthan. Ph.D. Thessis, University of Rajasthan, Jaipur.
- 13. Singh, M. (2005) Seasonal Diseases of Rewari District, Haryana (Ph.D. Thesis, UOR, Jaipur).
- 14. S.Pacholi (1993). Medical Geography of Malaria in Madya Pradesh. Northern Block Center, New Delhi.
- 15. Stamp, L.D.(1994). Some Aspects of Medical Geography. Oxford University Press. Pp-71.