# Survey on numerous seasonal infectious diseases in Durg, Chhattisgarh.

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#### **ABSTRACT:**

The seasonal pattern of the vast majority of infectious diseases promotes the spread of microorganisms that infect people. Infections can be made worse by a sudden climatic shift in the winter and summer. The goal of the study is to figure out how common winter and summer illnesses are in Durg. to gain knowledge about the causes, prevention, symptoms, management, and other effects of seasonal diseases. A self-created English questionnaire was used to conduct interviews with residents of Durg City. Regarding domicile, education, socioeconomic status, awareness of winter and summer illnesses, and other topics, a questionnaire was provided. Out of a total of 70 participants, 45% of men and 65% of women responded to the poll, and the most prevalent diseases among these individuals were allergies, stomach flu, the common cold, influenza, skin conditions, asthma, croup, and sore throats, urinary tract infection, and enteric fever. etc. The results of the knowledge exam about prevalent seasonal diseases in the winter indicate that 15% of participants know a lot, 66% of participants know something, and 19% of participants overall know nothing about these common diseases. In this survey, there were an overall 70 participants, of those 15% were extremely knowledgeable, 66% were only averagely knowledgeable, and 19% were unaware of these prevalent seasonal disorders. This study demonstrates that there is a lack of understanding and awareness of seasonal diseases. Even among young people, information is lacking. This study was conducted using questionnaires on individuals who were chosen at random in Durg, Chhattisgarh from January 2023 to May 2023. The survey reveals that the most and least infectious diseases in winter were flu, and seasonal depression whereas in summer it was urinary tract infection and enteric fever. during the period of Jan 2023 to May 2023 at Durg, Chhattisgarh.

Keywords: season. disease. regions, infection, drug.

#### **INTRODUCTION:**

Despite the near universality of this phenomenon, the causes and consequences of seasonal variations in incidence are not well understood. Seasonal infections of humans range from diseases that affect children, such as measles, diphtheria, and chickenpox, to fecal-

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oral infections, such as cholera and rotavirus, vector-borne diseases, including malaria, and even sexually transmitted gonorrhea (Hethcote & Yorke 1984).

This survey provides an overview of seasonal infectious illnesses by looking at their causes and effects. There are three parts to it. The origins of seasonal trends in the occurrence of human infectious diseases and their links to various mechanisms of transmission are briefly examined in the first part. The second section gives a general overview of the epidemiology of seasonal infectious diseases and looks at how seasonality affects threshold factors including illness outbreaks, endemic dynamics, and persistence. These findings are examined, and opportunities for more empirical and theoretical investigation are pointed forth. (Siddiqui, S.2023) such as fungi, bacteria, and protozoa, are small, simple living beings found worldwide, some of which can be harmful pathogens to animals and humans. (Siddiqui, S., & Singh, S 2021), Protozoans are single-celled, heterotrophic, eukaryotic organisms found worldwide, with many genera acting as pathogens for both humans and animals. Establishing the identification of pathogenic protozoan species from various ponds in Bhilai, Chhattisgarh is crucial.

The seasonal cycle of the majority of infectious illnesses increases the transmission of germs and human infection. Infections can be made more serious by a sudden climatic shift in the winter and summer. The goal of the study is to figure out how common seasonal diseases are in Durg (C.G.). to gain knowledge about the causes, symptoms, treatments, effects, and other aspects of seasonal disease. A self-created English questionnaire was used to conduct surveys with residents of Durg City. The questionnaire covered issues like, awareness of winter and summer diseases, etc.

A large number of infectious illnesses have seasonal patterns that are suited to providing conducive conditions that allow germs to proliferate and infect people. Although the winters are mild, a sudden shift in weather can frequently cause various disorders. The climate of Chhattisgarh is included in The Chhattisgarh Geography due to its location. The state's climate is primarily arid and hot. The state frequently experiences dust storms in the summer, when temperatures are particularly high. The state has extremely chilly winds during the winter.

The purpose of the study is to determine whether common illnesses are more prevalent among Durg city residents throughout the hottest and colder months of the year. how to learn about risk factors, how they are handled, whether or not there are treatments available, and other effects of these seasonal disorders. The primary objective of the research is to raise participants' knowledge so they may take precautions and avoid or reduce risk factors.

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The purposes of this study are to determine the number of seasonal diseases and the process by which they are treated over the selective season in Durg City.

- 1. To search for solutions and information regarding
- The total number of affected persons;
- The level to which people are aware of medications;
- The occurrence of the most prevalent diseases during both seasons.
- 2. To evaluate the study's broad implications
- 3. To show and distribute the data collected.
- 4. To examine the available medications.

# **MATERIALS AND METHOD:**

A method for collecting information was developed. By asking questions in a predetermined way, we gathered information. We gathered information from the survey. The questionnaire was primarily created based on the gestational age at birth, weight, and gender of the patients, as well as their occupation, region of residency, underlying conditions, and their understanding of those disorders as well as their use of drugs. There was qualitative research with 70 participants.

# Methodology of the Study:

The study was survey-based. In this study, the population at the study location included people of various ages. Seventy participants were included in the study, who came from various locations within Durg city. People from Durg with typical seasonal illnesses in the winter and summer made up the research population. The trial lasted for approximately five months, from January 2023 to May 2023.

In Durg City, Chhattisgarh, this study aimed to show the number of cases of, knowledge regarding, and awareness of prevalent seasonal illnesses over the winter and summer. We created the questionnaire and went to several locations to collect data. We questioned them in the form of seasonal disease-related inquiries and saved the information for further analysis. The primary objective of this study was to determine the prevalence of seasonal illnesses among residents of Durg City throughout the winter and summer.

Table 1. Disease prevalence among the participants from January -May 2023.

NAME OF DISEASE	JANUARY	FEBRUARY	MARCH	APRIL	MAY
POLIO	3	3	2	1	1
HEPATITIS B	1	1	2	3	3
HEPATITIS A	1	1	2	3	3
TYPHOID	1	1	2	3	3
HEAT STROKE	1	1	2	3	3
URINE TRACT INFECTION	1	2	2	3	3
DIROHHOEA	1	1	2	3	3
CHIKEN POX	1	1	2	3	3
ENTERIC FEVER	1	1	2	3	3
CANDIASIS	1	1	2	3	3
HEAT RASHES	1	1	2	3	3
HEAT CRAMPS	1	1	2	3	3
STOMACH FLU	1	1	2	3	3
SUN BURN	1	1	2	3	3
DEHYDRATION	1	1	2	3	3
RHEUMATOID ARTHRITIS	3	3	2	1	1
VIRAL INFECTION	3	3	2	1	1
STRAP THROAT	3	3	2	1	1
TUBERCULOSIS	3	3	2	1	1
HEART DISEASE	3	3	2	2	1
RESPIRATORY DISEASE	3	3	2	1	1
CONJUNCTIVITIS (PINK EYE)	3	3	2	1	1
PNEUMONIE	3	2	2	1	1
ALLERGY	3	3	2	1	1
ACUTE EAR INFECTION	3	3	2	1	1
SINUTIS	3	3	2	1	1
ASTHMA	3	3	2	1	1
SEASONAL DEPRESSION	3	3	2	1	1

seasonal disease prevelance 3.5 2.5 1.5 0.5 SINUTIS JRINE TRACT INFECTION ALLERGY DIROHHOEA CANDIASIS RHEUMATOID ARTHRITIS **TUBERCULOSIS** PNEUMONIE POLIO HEPATITIS A TYPHOID CHIKEN POX NTERIC FEVER **HEAT RASHES HEAT CRAMPS** TOMACH FLU **SUN BURN** DEHYDRATION VIRAL INFECTION HEART DISEASE ESPIRATORY DISEASE CONJUNCTIVITIS (PINK. ACUTE EAR INFECTION ASTHMA SEASONAL DEPRESSION HEAT STROKE STRAP THROAT ■ MARCH JANUARY ■ FEBRUARY APRIL

Figure 1: Demographic analysis among the participants.

# **RESULT AND DISCUSSION:**

#### **Population Analysis**

In the comprehensive survey conducted in Durg, Chhattisgarh, involving a total of 70 participants, with 45% comprising men and 65% women, the participants, both male and female, fell within the age range of 20 to 50 years old and 50 and over. All seventy individuals were individually questioned, each providing their responses, yielding valuable insights into the population's health dynamics. The findings of the survey highlighted that during the period from January 2023 to May 2023, the most prevalent winter diseases were flu and seasonal depression, while in summer, urinary tract infection and enteric fever were reported as the most and least infectious diseases, respectively. This survey not only sheds light on the prevailing health conditions but also underscores the diverse demographic characteristics of the surveyed population.

# **Understanding of typical Seasonal Disease**

Within the parameters of this survey conducted, encompassing a total of 70 participants, it was discerned that the participants exhibited varying levels of knowledge regarding prevalent seasonal disorders. The breakdown of participants' knowledge levels revealed that 15% could be categorized as having an extremely high level of knowledge, demonstrating a comprehensive understanding of seasonal disorders. Meanwhile, a substantial majority,

constituting 66% of the participants, exhibited an average level of knowledge in this regard. Additionally, 19% of the participants were found to be entirely unaware of these prevalent seasonal disorders, signifying a noteworthy gap in awareness within the surveyed population. This nuanced analysis of participants' knowledge levels not only contributes to a more detailed understanding of health literacy within the surveyed cohort but also emphasizes the need for targeted educational efforts to address the observed disparities in awareness.

#### **REFERENCES:**

- Hethcote H.W, Yorke J.A. *Lecture notes in biomathematics*. vol. 56. Springer; Berlin, Germany: 1984. Gonorrhea transmission dynamics and control. p. 105.
- Siddiqui, S., & Singh, S. STUDIES OF SOME FREE-LIVING PROTOZOANS FROM DIFFERENT PONDS OF BHILAI (CHHATTISGARH). In National Conference on (p. 182).
- Akompab DA, Bi P, Williams S, Grant J, Walker IA, Augoustinos M. 2013. Awareness of and attitudes towards heat waves within the context of climate change among a cohort of residents in Adelaide, Australia. International Journal of Environment Research Public Health. 10(1), 1-17.
- Siddiqui, S. (2023). MICROORGANISM STUDIES FROM VARIOUS AQUATIC AREAS IN BHILAI, CHHATTISGARH. International Journal of Futuristic Innovation in Engineering, Science and Technology (IJFIEST), 2(2), 1-7.
- Chowdhury FR, Ibrahim QSU, Bari MS, Alam MMJ, Dunachie SJ, Rodriguez-Morales AJ, Patwary MI. 2018. The association between temperature, rainfall, and humidity with common climate-sensitive infectious diseases in Bangladesh. PLoS One 13(6). http://doi.org/10.1371/journal.pone.0199579
- Dr Smitha TM, Sahyadri N. 2020. Winter Diseases: Guide to protect yourselves. Narayana Health.
- Nelson DI. 2003. Health impact assessment of climate change in Bangladesh. Environment Impact Assessment Review 23, 323-341.
- Hamiduzzaman M, DeBellis A, Abigail W, Kalaitzidis E. 2018. Social determinants of rural elderly women healthcare access: A systematic review of qualitative literature. The Indian Journal of Social Work 79, 469-496.
- Hamiduzzaman M. 2018. The world is not mine: Factors and issues of rural elderly women's access to modern healthcare services in Bangladesh. Doctoral Dissertation,

Flinders University of South Australia. https://theses.flinders.edu.au/view/a4e08c8f-ae46- 4c0b b7c8-47d54276a448/1

- Rahman A. 2008. Climate and Health 8th International Congress of Bangladesh Society of Medicine; March 23–24, Dhaka: Bangladesh Society of Medicine 1-33.
- Rahman A. 2018. Climate change and its impact on health in Bangladesh. Regional Health Forum 12, 16-26.
- Soper H.E. The interpretation of periodicity in disease prevalence. *J. R. Stat. Soc.* 1929;**92**:34–73.
- Sturrock R.F, Diaw O.T, Talla I, Niang M, Piau J.P, Capron A. Seasonality in the transmission of schistosomiasis and in populations of its snail intermediate hosts in and around a sugar irrigation scheme at Richard Toll, Senegal. *Parasitology*. 2001;**123**:S77–S89.
- Sultan B, Labadi K, Guégan J.-F, Janicot S. Climate drives the meningitis epidemics onset in West Africa. *PLoS Med.* 2005;**2**: e6
- Trapman P, Meester R, Heesterbeek H. A branching model for the spread of infectious animal diseases in varying environments. *J. Math. Biol.* 2004; **49:553**–576
- Williams B.G, Dye C. Infectious disease persistence when transmission varies seasonally. *Math. Biosci.* 1997; **145:77**–88.
- Shaheen A, Zahir M. 2014. Health Status of the Female Workers in the Garment Sector of Bangladesh; Journal of the Faculty of Economics 4(1), 43-58.
- Shamsuddin S. 2009. Probable Impacts of Climate Change on Public Health in Bangladesh; Asia-Pacific Journal of Public Health http://doi.org/10.1177/101 053950 9335499
- Uddin MN, Hamiduzzaman M. 2010. The problems and prospects of a decentralized rural health services system in Bangladesh. SUST Journal of Public Administration 2, 47-75.