

# A Study to Assess the Awareness Regarding Influenza A (H1N1) Among Adults at Selected Community in Rishikesh, Uttarakand

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## Abstract

**Objectives:** To assess the awareness regarding influenza A (H1N1) among adults at selected community in Rishikesh, Uttarakand". **Method:** The present quantitative cross-sectional, descriptive study was conducted in the month of April to June 2015 among the adult population those who visit to AIIMS OPD, Rishikesh., A total of a 400 (40%) samples was selected based on non-probability convenient sampling technique and a structured self administered questioner was prepared to collect the data's. The subjects selected for the study were contacted personally during the time period of data collection. A written consent from each subject was taken and the respondent was counselled to provide correct information. The information collected was kept strictly confidential and anonymity was maintained. A descriptive and inferential statistics was used to analyse the data. **Result:** the result shows that around 327 (81.7%) had no awareness regarding influenza A H1N1 and 73(18.3%) samples were having awareness regarding cause, spread, treatment and prevention of Influenza A (H1NI). The mean score was 8.5 with the standard deviation of 3.7. So it was concluded that adult population have no awareness regarding Influenza A (H1N1).

**Keywords:** Influenza A H1N1; Adult; Epidemics; Infectious Diseases; Outbreak; and Strain of Swine Flu.

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## Introduction

The Constitution of India makes health in India the responsibility of state governments, rather than the central federal government. It makes every state responsible for "raising the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties" but at present Indian government faces the challenge of a range of infectious diseases. Every fifth new tuberculosis case in the world lives in the Indian subcontinent according to the Deutsche Lepra-und-Tuberkulosehilfe. Japanese Encephalitis

is present in many areas of India and has caused serious epidemics in recent years. India has been less severely affected by the HIV epidemic than many other countries, despite early predictions of disaster, but still has almost three million people living with the virus. Bacterial resistance is a growing threat because of the widespread misuse of broad-spectrum antibiotic. The outbreak of swine flu that claimed more than 1500 lives in February of 2015 may have been the result of a new mutated strain, according to the Massachusetts Institute of Technology. The H1N1 virus has begun to cause concern in India this year. Since Jan. 1, 2015, In Dec. 2014, positive cases of swine flu were first reported. Currently, more than 10 other states in India have reported H1N1 infections with a few deaths. Because India has such a dense population and since H1N1 can be spread through the air via droplets, the Indian Health Ministry has asked their state officials to ensure sanitation and hygiene in all public places and to bring about awareness to

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people about the symptoms of swine flu. The concern is that rising numbers of swine flu infections may be the beginning of another H1N1 epidemic, although the current strain may not be as deadly as the 2009 H1N1 strain.

On April 6<sup>th</sup> Critics of India's response to the 2014-2015 swine flu outbreak suggest that besides a prolonged winter, a combination of inadequate testing facilities, inadequate Tamiflu availability, and lack of private hospitals' cooperation with local governments were reasons that swine flu was not effectively contained in India. The number of deaths recorded is 2,123 while the number of infected individuals is reported to be 34,656, according to the Health Ministry. The purpose of the study is to assess the awareness of the adult population about cause spread, treatment and prevention of swine flu.

A new strain of swine flu, (H3N2) virus was detected in 2011; it has not affected any large numbers of people in the current flu season. However, another antigenically distinct virus with the same H and N components (termed H3N2 (note no "v") has caused flu in humans; viral antigens were incorporated into the 2013-2014 seasonal flu shots and nasal spray vaccines.

The World Health Organization (WHO) is closely monitoring cases of swine flu globally to see whether this virus develops into a pandemic. Because it's a new virus, no one will have immunity to it and everyone could be at risk of catching it. This includes healthy adults as well as older people, young children and those with existing medical conditions. Tamiflu (Oseltamivir) and Ralenza (Zanamivir) can treat the H1N1 swine flu strain still which is not danger if we take some protect against it such as a wear three layer mask on nose, wash the hands after coming home, not involve at place where big crowd attended.

### *Objective of the Study*

To assess the awareness regarding influenza A(H1N1) among adults at selected community in Rishikesh, Uttarakant"

### **Method**

The present quantitative cross-sectional, descriptive study was conducted in the month of April to June 2015 among the adult population those who visit to AIIMS OPD, Rishikesh. Total

estimated out patient's is 1000 per day as per information from the hospital Administrative office, A total of a 400 (40%) samples was selected based on non-probability convenient sampling technique and a structured self administered questioner was prepared to collect the data's, the questioner includes 10 demographic data's and 24 multiple choice questions which included cause, spread, treatment and prevention of Influenza A (H1N1). The subjects selected for the study were contacted personally during the time period of data collection. A written consent from each subject was taken and the respondent was counselled to provide correct information. The information collected was kept strictly confidential and anonymity was maintained. A descriptive and inferential statistics was used to analyse the data.

### **Result**

The frequency and percentage distribution of the demographic variables of this current study was as follows

From the table-1 it was found that 19.8% of sample was aged below 25 years. 30.5% samples were aged between 26-35years, 19% samples were aged between 36-45 years, 15.7% samples were aged between 46-55 years And only 15% were aged above >55 years.

Around 43% of samples were male population and 57% samples are females.

Table-1 also describes the place of living of samples, that is around 59.8% sample were live in rural area, and 24.5% samples are living in urban area, were as only 15.7 % were lining is semi urban area.

From the descriptive statistics it also found that 10.8% had primary education, 44.5% samples had secondary education, 26% has completed higher secondary education, only 12.2% samples had degree, and 6.5% samples had other forms of education.

The occupational status of the samples shows that 21% sample were health care professionals, 15.7% samples were teaching professionalism, 22.2% samples were daily labour, samples with unemployment also equal to samples of teaching professionals and 25.3% samples were doing some other kind of job.

As concern with the type of family, majority were live as joint family (66.2%), only 24% were living as nuclear family, remaining samples (9.8%) were

living as other types of family.

More than half of the samples (59.8) were middle class, 14% samples were from low class, around 17.2% samples were from upper middle class, and only 9.0% samples were belongs to upper class.

As long as the we concern about the sources of health information, 34% of samples received information about influenza(H1N1) from TV, 19.8% from newspaper, 21.2% from internet, only 8.8% samples received information from Friends and

neighbours, 16.2% samples received information from some other sources.

It inferential statistics shows that around 327 (81.7%) had no awareness regarding influenza A H1N1 and 73(18.3%) samples were having awareness regarding cause, spread, treatment and prevention of Influenza A (H1N1). The mean score was 8.5 with the standard deviation of 3.7. So it was concluded that adult population have no awareness regarding Influenza A (H1N1).

**Table 1:**

S. No	Demographic variables	Frequency	Percentage (%)
1.	Age		
	a) <25 yrs	79	19.8
	b) 26-35 yrs	122	30.5
	c) 36-45 yrs	76	19
	d) 46-55 yrs	63	15.7
	e) >55 yrs	60	15
2	Sex:		
	a) Male	172	43
	b) Female	228	57
3	Place of living		
	a) Rural area	239	59.8
	b) Urban area	98	24.5
	c) Semi urban	63	15.7
4	Educational status:		
	a) Primary	43	10.8
	b) Secondary	178	44.5
	c) Higher secondary	104	26
	d) Degree	49	12.2
	e) Others	26	6.5
5	Occupation		
	a) Health care professionals	84	21
	b) Teaching profession	63	15.7
	c) Daily Labour	89	22.2
	d) Unemployed	63	15.8
	e) Others	101	25.3
6	Types of family:		
	a) Joint family	265	66.2
	b) Nuclear family	96	24
	c) Others	39	9.8
7	Economic status:		
	a) Low class	56	14
	b) Middle class	239	59.8
	c) Upper middle class	69	17.2
	d) Upper class	36	9.0
8	Sources of health information:		
	a) News papers	79	19.8
	b) TV	136	34
	c) Internet	85	21.2
	d) Friends and neighbours	35	8.8
	e) Others	65	16.2
9	Previously affected with influenza A (H1N1):		
	a) Yes	34	8.5
	b) No	366	91.5
10	Presently affected with influenza A (H1N1):		
	a) Yes	11	2.8
	b) No	389	97.2

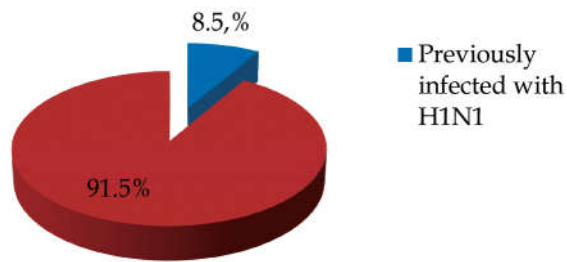


Fig. 1: Previously affected with influenza A

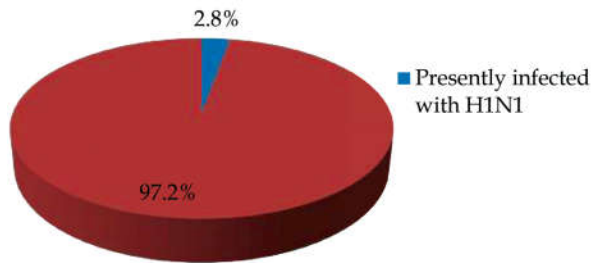


Fig. 2: Presently affected with influenza A

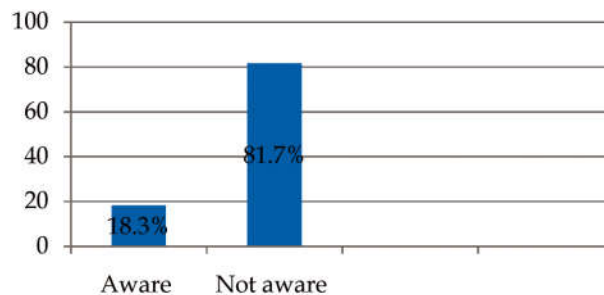


Fig. 3: Awareness regarding influenza A (H1N1)

## Discussion

Influenza A viruses causes recurrent outbreaks at the local or global scale, with potentially severe consequences for human health and the global economy. Swine influenza virus infections in humans have been reported in the United States, Canada, Europe and Asia. There are no unique clinical features that distinguish swine influenza in humans from typical influenza. Although a number of the case patients have predisposing immunocompromising conditions, healthy persons are also clearly at risk for illness and death from swine influenza. Sporadic cases of swine influenza in humans, combined with seroepidemiological studies demonstrating increased risk of swine influenza in occupationally exposed workers, highlight the crucial role that this group may play in the development of new strains of influenza virus. Persons who work with swine should be considered for sentinel influenza surveillance, and may be an important group to include in pandemic planning.

Rubin *et al.* conducted a study among the general population to assess whether perceptions of the swine flu outbreak predicted changes in behaviour among members of the public in England, Scotland and Wales. Here, it had been seen that 37.8% of the participants ( $n=377$ ) reported performing any recommended behaviour change over the past 4 days because of swine flu.

A cross-sectional (descriptive) study was conducted in, 2009 among the doctors and nurses working at Guru Teg Bahadur Hospital associated to UCMS, Delhi. To study the knowledge and practices regarding swine flu and to study the attitudes and practices of health care providers toward the prevention of the swine flu epidemic. Around 75% of the health care providers were aware about the symptoms of swine flu. Mostly, all study subjects were aware that it is transmitted through droplet infection. Correct knowledge of the incubation period of swine flu was known to 80% of the doctors and 69% of the nurses. Knowledge about high-risk groups (contacts, travellers, health care providers) was observed among 88% of the doctors and 78.8% of the nurses. Practice of wearing mask during duty hours was observed among 82.6% of doctors and 85% of nurses, whereas of the total study population, only 40% were correctly using mask during duty hours. Behaviour modification is an important preventive strategy to contain the spread of H1N1 infection was demonstrated by a majority of the health care providers. Statistically significant differences were observed among doctors and nurses regarding knowledge of mode of spread of infection, PPEs, medicine for swine flu treatment and availability of vaccine ( $P < 0.001$ ).

In the present study, 81.7 % samples had no awareness and 18.3 % samples were awareness regarding influenza A (H1N1).

## Conclusion

significant gaps observed among adult population regarding swine flu need to be filled by appropriate awareness programmes. Data indicates that samples were having inadequate knowledge and poor awareness.

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