

## Original Research Article

# Knowledge, attitude and behaviour towards seasonal influenza: a community based study in rural Vadodara

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## ABSTRACT

**Background:** Seasonal influenza, though contagious, is preventable, provided the community and its people are aware of its mode of transmission and basic steps of prevention.

**Methods:** This was a cross-sectional descriptive study conducted in the rural field practice area of a Medical College Baroda in the month of February 2019, when the seasonal influenza cases were at its peak. A house to house survey was carried out to enquire about the knowledge, attitude, behavior related to seasonal influenza and its source of information. The structured questionnaire was based on the information, education and communication material displayed by the Health Department for the General Public. Respondents between the age of 15-60 years were interviewed after informed consent. Data-entry and analysis was done in Epi-Data software.

**Results:** Out of 633 respondents, two-thirds of the respondents (427, 67.5%) were aware about seasonal influenza (swine flu). They were aware about common symptoms of flu such as cough, running nose and fever (43.8%, 43% and 41.4% respectively). Majority of those who knew about the flu were aware of it being preventable (59%); 37% knew it could be prevented by using a handkerchief, while 30% were aware about avoiding crowded places. Source of information was television (33%), followed by health care provider (14%) and newspaper (12%).

**Conclusions:** Two-thirds of the respondents in the rural area were aware about seasonal influenza as a disease; majority of them knew that it could be prevented. The source of information was mainly media and health care providers. Attempts to improve the dissemination of information and behavior change communication is the way forward.

**Keywords:** Seasonal influenza, H1N1, Behavior change communication, Knowledge attitude practice

## INTRODUCTION

Seasonal influenza is a global public health problem and India is no exception. It is one of the most important causes of acute respiratory infections in India.<sup>1</sup> Seasonal influenza spreads very rapidly due to high human to human transmission rate and inter country or state travel.<sup>2</sup> There was sudden rise of seasonal flu cases reported in India in 2015, with nearly 1800 cases and 1000 deaths. Gujarat, one of the states of India, reported high number of deaths.<sup>3</sup>

Seasonal influenza is a health concern in high risk people, patients with co-morbid conditions and pregnant women. Seasonal influenza is a preventable disease. Though seasonal influenza vaccine, considered to be the best preventive measure to prevent complications arising out of seasonal influenza, is available; the uptake is poor in India.<sup>1,4</sup> It is lower as compared to other countries. The actual efficacy and use of vaccine in developing countries is still debatable.

Seasonal influenza, though contagious, is preventable, provided the community and its people are aware of its mode of transmission and basic steps of prevention. Research suggested that H1N1 swine influenza is about as contagious as the usual human influenza. If one person in a household gets seasonal flu, around 8% to 19% of household contacts are likely to get infected.<sup>3</sup> Primordial, primary and secondary prevention plays an important role in avoiding complications of seasonal influenza. Education is a powerful tool that can bring a developmental change in the life of individual group of people and society at large. Knowledge refers to understanding of a give topic by a group of people. Attitude refers to their feelings towards the subject, while practice refers to the ways in which the demonstrate their knowledge and attitude through their actions.<sup>5</sup> As a part of the protocol from the health department, several interventions for health education such as posters, rally, newspaper supplements and role plays were undertaken. As a feedback to these interventions, we decided to conduct knowledge, attitude and practice (KAP) of the rural community.

## METHODS

This is a cross-sectional descriptive study conducted in Sokhda village, the rural field practice area of Medical College Baroda and SSG Hospital, a tertiary care hospital, a tertiary care hospital in Central Gujarat, India in the month of February 2019, when the seasonal influenza cases were at its peak. A house to house survey was carried out to enquire about the knowledge, attitude, practice related to seasonal influenza and the source of information regarding the same. The structured questionnaire was based on the information, education and communication (IEC) material displayed by the Health Department for the General Public. To make the study results more specific the single most appropriate answer was considered, though we got multiple answers to a question.

Respondents between age group of 15-60 years were selected residing from the field practice area attached to Rural Health Training Centre (RHTC) of our Medical College were included in the study.

### Inclusion criteria

All the people residing in Sokhda village, between 15-60 years and consenting to take part in the study were included.

### Exclusion criteria

Respondents less than 15 years or more than 60 years of age or not consenting to take part in the study.

Data collection was done using pre-tested structured questionnaire which included questions related to awareness of seasonal flu and source of information. The

collected data were entered in Microsoft Office Excel 2007. Descriptive (proportions) and analytical statistics (for associations) done using Epi-Info 7.0.8.0.

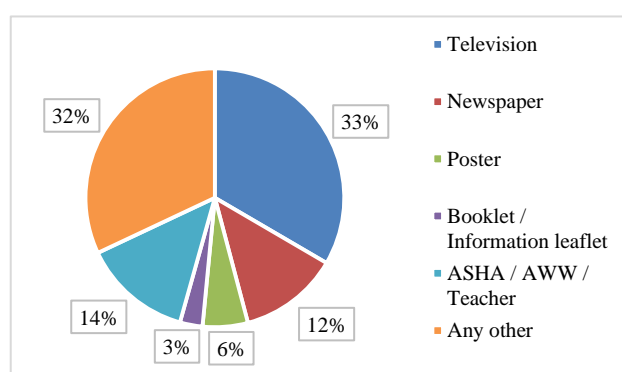
## RESULTS

### Knowledge and attitude

We inquired about whether respondents had knowledge about seasonal influenza disease symptoms, preventive measures and the correct health seeking behavior as suggested in various IEC materials by Health department.

A total of 633 participants were interviewed in 400 households. Out of them, 427 participants responded that they have heard about seasonal flu. On further questioning regarding symptoms of seasonal influenza, only 43% of respondents answered cough, running nose and fever as symptoms of seasonal influenza, whereas only 22% knew that sore throat can be a symptom of seasonal influenza. Breathlessness was considered as a symptom of the infection by 46% of respondents. There were 33% of respondents who did not know about any of the symptoms of seasonal influenza. Adopting healthy hygienic behavior can prevent disease transmission was believed by 59% of respondents. Thirty seven percent of the respondent knew that using handkerchief would be helpful for prevention of influenza transmission, while only 19% of the respondents knew that washing hands can prevent influenza transmission.

Health education messages broadcasted over television were the main source of information in 33% of respondents who were aware about seasonal influenza. The information printed in newspapers to raise awareness was read by 12% of respondents. Active efforts done by ASHA, Anganwadi worker and school teachers were remembered by 14% of people (Figure 1).

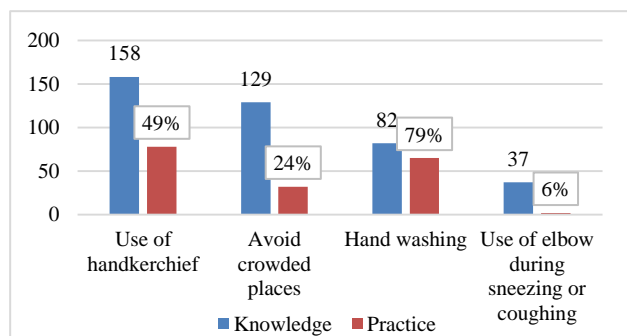


**Figure 1: Source of information regarding seasonal influenza among rural respondents (n=427).**

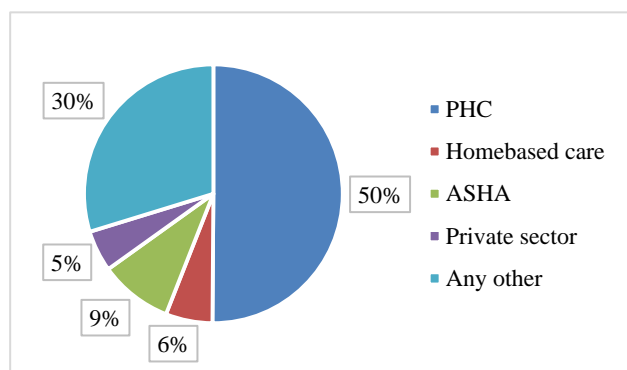
### Comparing knowledge with behaviour

Out of the respondents who had knowledge that using handkerchief would prevent the transmission of virus either way, 49% of them practiced the same. Only 32% of

those who knew that avoiding crowded places prevent the disease could practice it, while the rest of them answered that they could not avoid social functions and some social rituals like attending marriages and funerals. Amongst respondents who had knowledge, 79% of them were practicing hand hygiene (Figure 2). Seven respondents believed that drinking home-made Ayurvedik preparation made of tulsi, pepper would prevent the disease. They used to have it in morning daily.



**Figure 2: Comparison between knowledge regarding seasonal influenza and practice to prevent it among the study respondents in rural community (n=252).**



**Figure 3: Health seeking attitude regarding seasonal influenza among the study respondents in rural community (n=427).**

Primary health centre (PHC) was the choice of 50% respondents for consultation if they would have any symptoms of the disease in their knowledge. Ayurvedik herbs (tulsi, pepper) based homemade drink would be preferred by 35% of respondents. Five percent would like to go to private health facility nearby for diagnosis and treatment of the disease (Figure 3).

## DISCUSSION

Seasonal influenza, a viral respiratory infection, characterized by symptoms of upper respiratory tract infection like cough, running nose, sore throat, may progress to breathlessness and mortality.<sup>6</sup> Globally, India contributes 5-10% of all acute respiratory infection and every tenth children is affected by influenza.<sup>6</sup> Seasonal influenza is a highly contagious disease, spreads through

respiratory droplets, coughing and touching contaminated objects, and the risk of transmission increases in crowded places. Primordial and primary prevention has great role in prevention of transmission of disease agent in community.<sup>1</sup> Raising awareness regarding disease symptoms, transmission and preventive measure was one of the interventions done by Department of health to control the disease in area. The posters were displayed, pamphlets were distributed, rally was conducted and health talks were organized in schools. The study was one of its kinds, as it is community based and the questionnaire was based on the Information Education Communication literature made by Department of Health. The study was conducted to have some feedback by measuring their level of knowledge, attitude and behavior change. Globally, there have been limited studies regarding knowledge, attitude and behavior in communities regarding seasonal influenza, and this study paves the way to look into effect of health interventions among general public, more so in the rural areas.

The study results revealed that 67% of the study participants had 'ever heard' about seasonal influenza. The findings were lesser than a hospital based study conducted in Surat, in which 71% of participants were aware and study conducted amongst college students of Valsad 79%.<sup>7,8</sup> However, the community, which is at major risk of infections due to exposure; and at the same time lack of awareness multiplying this risk, needs to have greater awareness regarding the disease. This implies the importance of health awareness through mass media and government interventions.

Seasonal influenza is a highly contagious disease, and the risk of infection increases by close contacts, respiratory droplets spread through sneezing, coughing and touching contaminated objects. Fortunately, seasonal influenza is a preventable disease. Prevention plays a key role in avoiding complication of the disease.<sup>1</sup> Imparting knowledge would not be sufficient. The behavior modification is the key to success for prevention of disease. In this study, only half of those who had knowledge were using handkerchief whereas lesser than these could avoid going to crowded places. The findings were similar to the study done in Surat (38%) and higher than the study done in Valsad (5%).<sup>7,8</sup>

Mass media plays an important role in disseminating health information.<sup>9</sup> Television being the most pervasive mass media, the messages broadcasted on it was the main source of information amongst the respondents (33%).<sup>9</sup> Similar findings were found in the hospital based study of Surat (37%) and Valsad (32%).<sup>7,8</sup> Almost one tenth of the respondents read the information in daily newspaper which was lesser than the study conducted among college students (68%). Fourteen percent of people were educated by the active efforts of ASHA, Anganwadi worker and school teachers. In our study, only five of respondents came to know about the disease from the posters and pamphlets, the finding were similar with the study

amongst college students of Valsad, whereas almost found double in hospital based study of Surat.<sup>7,8</sup>

Half of our study respondents answered that they would prefer to go to PHC in case of symptoms of seasonal flu, whereas in the study by Baria et al only 9% students preferred to go to doctor for treatment.<sup>8</sup> Many had shown faith in Ayurvedik therapy and herbs and home based care with (ukalo) Tulsi, tea and pepper. Nearby private health facility was the option availed by only a few of the respondents, if they would have symptoms of seasonal influenza. This shows the need to create a general awareness regarding the primary prevention for seasonal influenza, as well as improving the health seeking behavior, so as to prevent the spread of the disease in the community.

## CONCLUSION

Two-thirds of the respondents in the rural area were aware about seasonal influenza as a disease; majority of them knew that it could be prevented. The source of information was mainly media and health care providers. Thus, the level of knowledge dissemination in the rural area is satisfactory. Attempt to improve the dissemination of information and behaviour change communication is the way forward.

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