

# Knowledge of Swine Flu by Anganwadi Workers: An Overview

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## Abstract

**Context:** Swine flu is an emerging disease in India and it is a major and high risk Viral Infection, whose preventive measures is needed to prevent spread of this infection. Moreover anganwadi workers should gain knowledge and should spread information about causative organism, its sign and symptoms and its prevention. **Aims:** (1) To assess existing knowledge of prevention & control of Swine Flu among Anganwadi workers in selected Anganwadi centers in Bhopal. (2) To evaluate the effectiveness of Structured Teaching Program on knowledge regarding prevention and control of Swine Flu among Anganwadi workers in selected Anganwadi centers in Bhopal. **Settings and Design:** structured teaching programme using different teaching methods and materials including the definitions of high risk, causes, signs and symptoms, treatment, management and complications and preventive measures of swine flu have been included in the study. **Methods and Material:** One group pre-test- post-test design was selected for this study. O1: Pre-test knowledge scores on prevention and control of swine flu. X: STP on prevention and control of swine flu. O2: Post-test knowledge scores on prevention and control of swine flu. **Setting of the Study:** Setting refers to the area where the study is conducted. This study was conducted on Selected Anganwadi centers in Bhopal. **Sample:** Anganwadi workers in selected Anganwadi centers in Bhopal. **Sample size:** A total number of 100 Anganwadi workers who met in the inclusion criteria were selected by using purposive sampling technique. **Statistical analysis used:** Scoring and Interpretation. The questions were phrased in a multiple choice form with 4 options as distracters and 1 correct response. The correct response is given a score of one mark and the wrong response is given a score of zero. The resulting knowledge score ranged as

- Adequate knowledge (76% to 100%)
- Moderate knowledge (51% to 75%)
- In adequate knowledge ( $\leq 50\%$ ).

**Structured Teaching Program:** The structured teaching program was developed based on the topic of the study, review of the related research publications, and non research literature. The following steps were adapted to develop the Structured Teaching Program.

- Development criteria check list
- Preparation of STP
- Establishment of Content Validity of STP



- Development of Teaching Plan
- Translation of STP into Hindi language.

*Results:* Level of Knowledge-pre-test. The level of knowledge is categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having inadequate knowledge belongs to 58 and obtained a percentage of 96.7%. Moderate category shows 3.3% with 2 respondents. Workers are not adequate in the knowledge prevention and controls of swine flu are evidenced by 0% level of knowledge. Level of Knowledge-post-test. The level of knowledge is categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having adequate knowledge belongs to 24 and obtained a percentage of 40%. Moderate category shows 60% with 36 respondents. Anganwadi workers with inadequate knowledge regarding prevention and control of swine flu are evidenced to 0% level of knowledge. *Conclusions:* Knowledge on Prevention and control of swine flu among Anganwadi workers was inadequate before the administration of STP.

**Keywords:** Anganwadi workers STP effectiveness Swine flu.

## Introduction

Respiratory tract infections are major causes of morbidity among people worldwide, particularly in developing countries. While the mortality due to acute respiratory tract infections is about 32-40% per 1,00,000 live births. In developing countries one person dies every seven seconds because of respiratory tract infections due to bacterial pathogens. Severe contagious diseases and viral agents are primary causative agents for respiratory infection. With recent outbreak of respiratory infections swine flu within the human population has caused a great deal of concern for health officials in India and abroad and now become a much publicized disease. The centre for disease control and prevention was the first to use the term "Swine Flue" after an initial analysis showed the virus had many of the first time Swine flue.<sup>1</sup>

For the first time swine flu was identified in Mexico on June 11<sup>th</sup> 2009. the world health organization identified that swine flue was a disease transmitted worldwide. The WHO had proclaimed H<sub>1</sub>N<sub>1</sub> as a universal epidemic in June 2009, with H<sub>1</sub>N<sub>1</sub> having been culpable for approximately 17,000 deaths till the commencement of 2010. American President, Barack Obama, had pronounced H<sub>1</sub>N<sub>1</sub> to be a national crisis in October 2009. So, swine flue is considered as a pandemic disease. Swine flu influenza also called pig influenza, swine flu, pig flue is an infection by any one of the several of swine influenza virus (SIV) or S-OIV (swine-origin influenza virus) is any strain of the influenza family of viruses that is endemic in pigs. As of 2009 the known SIV strains include influenza and the subtype of influenza is known as H<sub>1</sub>N<sub>1</sub>, H<sub>1</sub>N<sub>2</sub>, H<sub>3</sub>N<sub>2</sub> and H<sub>2</sub> H<sub>3</sub>.<sup>2</sup>

Swine influenza virus is common throughout pig populations, worldwide transmission of the virus from pigs to humans, often resulting only in the production antibodies in the blood. It transmission does cause human influenza, it is called zoonotic swine flu. People who are in regular exposure to pigs are at increased risk of swine flu infection. The meat of an infected animal poses no risk of infection when properly cooked. During the mid 20<sup>th</sup> century, identification of influenza subtype become possible allowing accurate diagnosis of transmission of humans. Since then only 50 such transmissions have been confirmed. These strains of swine flu rarely pass from humans. Symptoms of zoonotic swine flu in humans are similar to those of influenza and of influenza like illness in general, namely chills, fever, sore throat, muscle pains, severe headache, coughing, weakness and general discomfort.<sup>3</sup>

Today the world is facing one of the dreadful disease which is swine flue. Swine flu caused by H<sub>1</sub>N<sub>1</sub> virus. The H<sub>1</sub>N<sub>1</sub> virus is a new influenza virus causing illness in people. This was first detected in April 2009 in the United States and other countries, including Mexico, Canada etc. Now in India it is spreading very fast day by day and is increasing the affected cases and deaths.<sup>4</sup>

The virus is spreading from person to person, as much the same like regular seasonal influenza viruses spread. To be specific, swine flue is a respiratory disease caused by a type. A which reflects pigs, until now not infected humans but later it dearly showed it spreads from person to person probably through respiratory route by droplets from coughing and sneezing.

The swine flue for this because laboratory testing showed many of gems in the H<sub>1</sub>N<sub>1</sub> viruses were very similar to influence viruses that normally

occur in pigs in North America. But further study has shown two genes from virus that normally circulate in pigs in Europe and Asia those are avian genes quadruple reassortant virus. The outbreak intensified rapidly from that time and work and more countries have been reporting cases of illness from this virus.

With recent outbreak of respiratory infections swine flu within the human population has caused a great deal of concern for health officials in India and abroad and now become a much publicized disease. Anganwadi workers who are in direct contact with the community should have basic knowledge of swine flu as she will have to identify the sign and symptoms and she must ensure preventive measures of spread of swine flu. Swine flu is an emerging disease in India and it is a major and high risk Viral Infection, whose preventive measures is needed to prevent spread of this infection. Moreover anganwadi workers should gain knowledge and should spread information about causative organism, its sign and symptoms and its prevention.

## Materials and Methods

One group pre-test-post-test design was selected for this study.

- O<sub>1</sub>: Pre-test knowledge scores on prevention and control of swine flu.
- X: STP on prevention and control of swine flu.
- O<sub>2</sub>: Post-test knowledge scores on prevention and control of swine flu

The variables for the present study are as follows,

### *Independent Variables*

Is considering being the variable that is believed to cause or influence the dependent variable. In the present study, the independent variable is the structured teaching program on prevention and control of swine flu.

### *Dependent Variables*

In this study, the dependent variable is knowledge level of Anganwadi workers regarding prevention and control of swine flu.

### *Extraneous Variables*

Age, religion, education, marital status, type of family, year of experience and previous knowledge regarding swine flu

## *Population*

The target population for this study was Anganwadi workers in selected Anganwadi centers in Bhopal.

## *Setting of the Study*

Setting refers to the area where the study is conducted. This study was conducted on Selected Anganwadi centers in Bhopal.

## *Sample*

Anganwadi workers in selected Anganwadi centers in Bhopal.

## *Sample size*

A total number of 100 Anganwadi workers who met in the inclusion criteria were selected by using purposive sampling technique.

## Results

### *Level of Knowledge pre-test*

The level of knowledge is categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having inadequate knowledge belongs to 58 and obtained a percentage of 96.7%. Moderate category shows 3.3% with 2 respondents. Workers are not adequate in the knowledge prevention and controls of swine flu are evidenced by 0% level of knowledge.

### *Level of Knowledge post-test*

The level of knowledge is categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having adequate knowledge belongs to 24 and obtained a percentage of 40%. Moderate category shows 60% with 36 respondents. Anganwadi workers with inadequate knowledge regarding prevention and control of swine flu are evidenced to 0% level of knowledge.

## Discussion

The present study was conducted to evaluate the effectiveness of STP on knowledge regarding knowledge regarding prevention and control of swine flu among Anganwadi workers in selected Anganwadi centers in Bhopal. In order to achieve the objectives of the study, one group pre-test and post-test design was adopted. Purposive sampling

technique was used to select the sample. The data was collected from 60 respondents before and after the STP by structured questionnaire. The finding of the study have been discussed with reference to the objectives, hypothesis and with the findings of other studies.

#### *Description of demographic characteristics*

Description of socio demographic variables reveals that maximum number of Anganwadi workers 46 (46.7%) belongs to 20–30 years, 24 (40%) belongs to 31–40 years, 14 (13.3%) are above 40 years. Most of them are Hindu 35 (58.3%), Muslim 25 (25%), Christian 10 (16.7%) others are 0 (0.00%). About education 3 (5.00%) are below 10<sup>th</sup>, 36 (60%) had 10<sup>th</sup> and 21 (35%) had PUC and above. Here, 44 (73.3%) Anganwadi workers belong to nuclear, 16 (26.7%) belong to joint family, 0 (0.00%) belong to extended. Most of the workers are married 38 (63.33%), Bachelors 15 (25.00%), divorced 3 (5.00%) and widower 4 (6.67%). Regarding years of experience in steel industry majority 35 (58.3%) had below 1 year, 21 (35%) had 1–3 years, 4 (6.7%) had above 3 years.

#### **Conclusion**

The conclusion drawn on the basis of the findings of the study includes

- Knowledge on Prevention and control of swine flu among Anganwadi workers was inadequate before the administration of STP.
- The STP was effective in increasing the knowledge of Anganwadi workers, i.e. overall and in all aspects in the post-test scores were high compared to pre-test scores.
- A paired *t*-test result (36.67\*) indicated a statistically significant difference between the pre-test and post-test knowledge score on Prevention and control of swine flu for all the knowledge aspects under investigation ( $p < 0.05$ )
- A statistically significant association was observed in educational status with knowledge level of respondent on health hazards and its prevention, at 0.05 level of significance.
- Whereas there was no significant association between Age, religion, type of family, marital status and years of experience in Anganwadi.

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**Conflict of Interest:** None

**Key Messages:** Appropriate knowledge of swine flu is necessary for the anganwadi workers who serve and care the patients in the community.

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