Background:

Cervical cancer is the second most leading cause of cancer deaths in India, which mostly occurs in women of the age of 35 years and above. To eliminate cervical cancer by 2030, WHO proposed a global strategy which says that 90% of girls must be fully vaccinated with HPV vaccine by the age of 15 years; 70% of women must be screened with a high-performance test by 35 years of age and again by 45 years of age; and 90% of women identified with cervical disease must receive treatment.

The disease is preventable through vaccination and screening. However, in India, HPV vaccination is yet to be included in National Immunization Programme (NIP). The availability of this vaccination is limited to private health facilities. Moreover, as per National Family Health Survey India (NFHS, 2019-20), only 3.1% eligible women have undergone screening.

To understand the reason for this gap, SWACH undertook a study in the form of an APW, (PO Number 2027553424) supported by WHO, SEAR. The study aimed to explore the current awareness level of cervical cancer amongst the various community stakeholders.

Methodology:

Review of situation of cervical cancer in different states of the country was undertaken to assess the progress of work and plans for elimination. On the basis of the literature reviewed it was concluded that there is a paucity of data on the knowledge and awareness of the community as well as the health care providers regarding cervical cancer.

Four knowledge and awareness screening assessment tools were developed to assess the knowledge and awareness of the community, teachers, the health care providers and the readiness of health facilities. These tools are:

I) A tool to assess the willingness of community (women of age above 35 years) to participate in prevention program.

II) A tool to assess the readiness of school to participate in prevention program.

III) A tool to assess the readiness of the health facilities to provide services such as diagnostic and treatment facility and facilities to participate in vaccination program.

IV) A tool to assess the knowledge and competence of the providers to participate in cervical cancer elimination program.

These tools helped to address the readiness of community, school, facility and health care providers to participate in the national cervical cancer elimination programme. The focus of these tools was on current knowledge, practices, attitudes towards vaccination, early recognition and prompt treatment amongst the clients and the providers. The focus of the study was on the basic health care providers.

The tools were pretested on a sample collected from the four groups, namely the community including women more than 35 years of age, teachers, health care facilities and the health care providers. The pre-testing of the tools helped to refine the tools.

Consent was obtained and the targeted groups were interviewed after briefing them about the purpose of the study. It was ensured that the respondent is able to understand the question. The responses were noted down by the investigator. The collected data was entered in MS excel sheet and was analysed.

The results showed that women from the community were aware of the local term used for cervix. They were not aware about the underlying causes; and the specific signs and symptoms associated with cancer cervix. Most of the respondents were not aware of vaccination to prevent cervical cancer. The awareness and knowledge of the community regarding cervical cancer was not satisfactory.

The teachers were also not aware of the symptoms as well as the mode of transmission of HPV virus. Only a few knew that a vaccine is available for cancer cervix but they did not know the name of the vaccine, the age

requirements and dose of vaccination. The teachers were however, willing to participate in a vaccination drive if there is a government directive.

Though the private facilities provided various services like PAP smear test, visual examination by acetic acid, colposcopy, biopsy, etc. However, these services were not available in any of the basic health care facilities.

Professional Health care providers working in the field of medicine were aware about the specific cause as well as the signs and symptoms of cervical cancer but the basic health care providers were neither aware of the cause nor the signs and symptoms of the disease. The professional health care providers were aware that some vaccine to prevent cancer cervix is available but none of the basic health care providers knew the details of the vaccine.

The study suggested that awareness needs to be developed amongst the community and the basic health care providers. To generate awareness, a package is required and effective means of rolling it out in the targeted population needs to be assessed.

The awareness package covering important aspects of cervical cancer related to its elimination was developed in simple, easy to understand language. The package was prepared in Hindi and English.

The package consisted of the following:

a) Audio's on the following topics were prepared:

- Introduction to cervical cancer
- Vaccination for prevention of cervical cancer
- Risk factors for cervical cancer and their control
- How to recognize cervical cancer (symptoms and screening)
- Lifestyle as a preventive measure, and
- Treatment

b) Synchronized audio-visual power point presentation

c) Frequently asked questions

d) Pre and post evaluation questionnaire

The awareness package was rolled out among women from the community and the basic health care providers virtually and onsite.

Virtual mode: The virtual mode included 6-session and 2-session course. The target audience included the basic health care providers.

For 6-session course, the course meetings were organized on six consecutive days, where the audios were played, followed by the discussions. Also, the pre-evaluation as well as the post-evaluation questionnaires in the form of Google forms were administered before and after the course, respectively.

With the intention of aligning and integrating the course with Government NCD program, an alternate model was developed in the form of a condensed course of 2-hour duration.

A total of 5 batches of basic health care providers were trained during 6-session course, while a total of 7 batches of the basic health care providers were trained during 2-session course.

Increasing awareness in women from the community- Onsite meetings

Onsite meetings were organized to generate awareness in women from the community. The meetings were facilitated by the ASHA workers who were trained during the 6-sessions. Each meeting started with the administration of pre-evaluation questionnaire followed by playing the selected audio. After the completion of the course, participants were asked to fill the post evaluation questionnaires. The pre and post evaluations questionnaires were collected by the field investigators. A total of 20 batches of women from the community were

trained (Table-1). To ensure good quality of the meetings, a trained filed worker assisted the ASHA. Each awareness meeting was monitored by a supervisor from SWACH virtually.

Table-1: Number of meetings conducted

	Online		Onsite
	6-session	2-session	
Total number of participants	128	139	556
No. of Batches	5	7	20
No. of meetings per batch	6	2	6
Total no. of meetings	30	14	120

Statistical analysis: The data collected in the study was subjected to suitable statistical analysis using SPSS version 18 and Microsoft Excel.

Comparison of Pre and Post evaluation of 6-session and 2-session course: In both the courses (6-session and 2-session) the knowledge of participants about cervical cancer increased significantly (Fig-1 and 2).

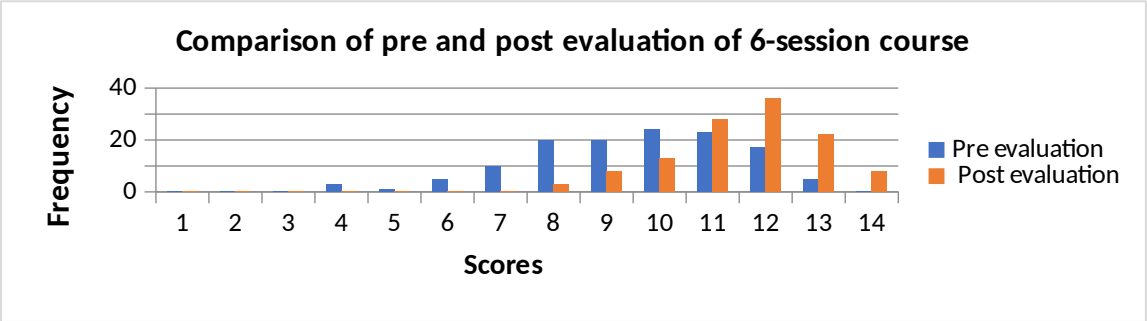

Fig.-1. Comparison of pre and post test scores of 6-session course for basic health providers

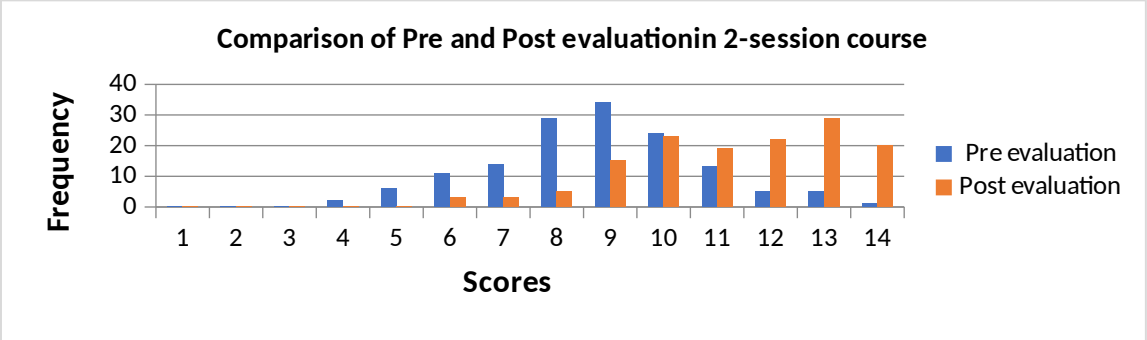

Fig.-2. Comparison of pre and post test scores of 2-session course for basic health care providers

Comparison of two approaches used in virtual mode: In order to compare the two approaches used during the virtual mode, the pre-evaluation and the post-evaluation data of 6-session course was compared to the 2-session course. The findings are summarized in Figure 3 and 4.

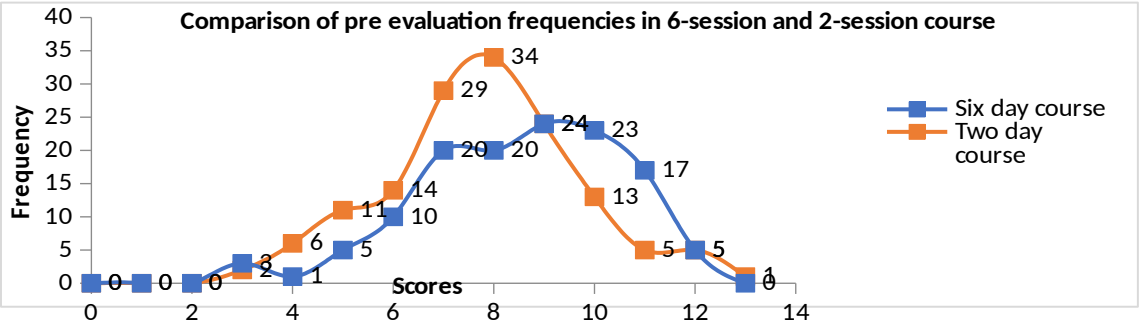

Fig.-3: Comparison of Pre-evaluation data of 6-session course and 2-session course

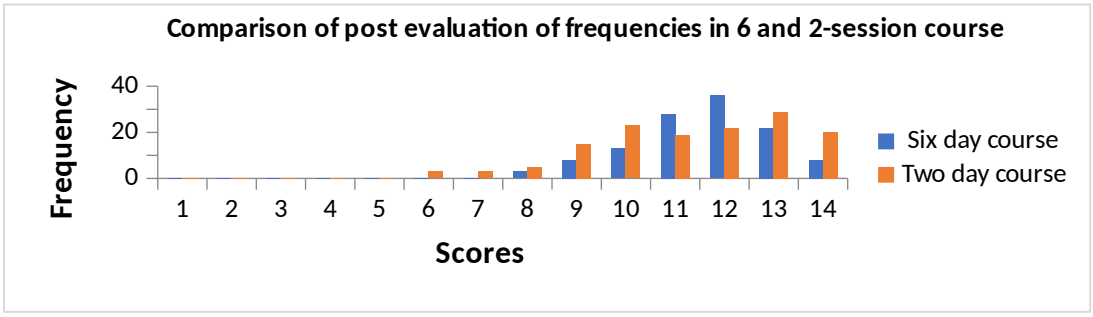

Fig.-4: Comparison of Post-evaluation data of 6-session and 2-session course

The assessment showed higher level of knowledge amongst the participants in 6-session course as compared to 2-session course before training. This may have been due to differences amongst the two groups before the training was undertaken. However, following the completion of training, there was no significant difference in the performance of participants after completing the 6-session and 2-session courses.

II. Onsite mode (Women from the community):

The knowledge and awareness of the participants increased significantly during the onsite course (Fig.-5).

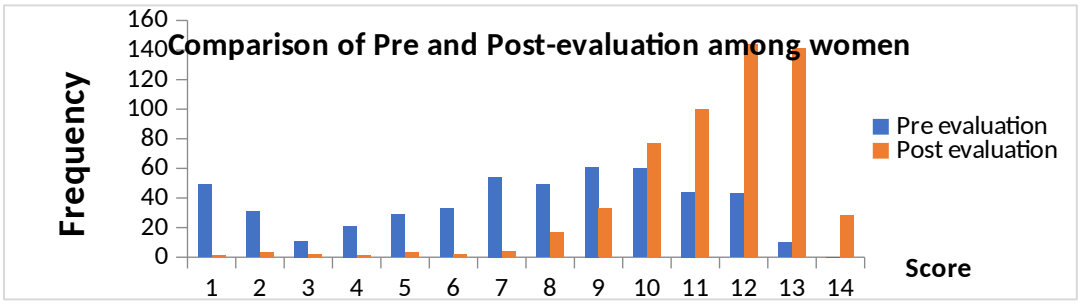

Fig-5: Comparison of Pre and post-evaluation results for women in the community (onsite course)

A similar attempt was made for the teachers. However, the teachers did not participate in the awareness programme.

Conclusions and way forward: In both the models, there was a significant increase in knowledge amongst basic health care providers as well as women in the community.

Since, prevention and control of cervical cancer may not be an independent programme in many countries, an abridged package was developed which can be used as a part of Non-Communicable Disease Control programme. This shortened version developed was found to be as effective as a 6-session awareness package.

Since awareness, timely screening and vaccination will be the mainstay of cervical cancer elimination programme, priority should be given to provide guidelines and methodology including different options for accelerating the process of implementation.

Way forward: Awareness coupled with timely screening and vaccination is an important component of the programme. Further work is required in the following areas to accelerate the implementation of elimination of cervical cancer strategy:

a) Digitization of the awareness package which can be introduced through Android and IOS platforms.
b) Awareness generation through the use of BOTS technology.
c) Increasing awareness through Twitter space.
d) OPED and newspaper column
e) Brand ambassadors at national, sub national and local level.
f) Engagement of mass media.