

PROJECT REPORT

<p>Women's Cancer Screening Pilot Project for Chandigarh City HEALTHY WOMEN PROJECT [Pilot phase] (Organized population based screening)</p>

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Date of Commencement of Project : 16th May 2008

Date of completion of Project : 15th May 2009

Background

One of the major causes of mortality and morbidity in women is cancer with breast and cervix s the two leading sites. The minimum age adjusted incidence of cancer as per the National Cancer Registry programme [ICMR, 2004], Cancer Atlas project [www.canceratlasindia.org] is 28 per 100,000 women for cancer breast and 22 per 100,000 women for cancer cervix. The mortality from cervical cancer is higher than for cancer breast. Thus together, cancer of the cervix and breast form the major burden of cancer in women. It has been amply shown in several developed nations that both cancer cervix and cancer breast can be prevented by an organized population-based screening program. Screening aims to detect the disease at a pre-cancer stage when it is easily amenable to simple treatment and cure.

In November 2005, the Department of Cytology & Gynecological Pathology held an Expert Committee meeting which brought together experts from the various disciplines of community medicine, nursing, gynecology, pathology including cytopathology as well as international organizations including IARC and WHO. Based on the extensive discussions, the "Guidelines for Cervical Cancer Screening Programme" was brought forth as a booklet. It was proposed that Cancer Screening program should be undertaken initially in demonstration settings which can take up the load of screening women in large numbers. It was also proposed that such a screening program should be started using the existing health infrastructure with minimal inputs that can be made available through the existing District Cancer Control programs. Hence the primary objective of this proposal was to start a cancer screening program for women of Chandigarh keeping PGIMER as the center. This demonstration project would then

serve as a model that can be replicated across the country in other medical colleges to begin with and also in District Hospitals.

Keeping in mind that the target population is women, and that one can screen for both cancer of the cervix as well as breast in the same sitting, an INTEGRATED approach was proposed which will also be cost-effective from a public health point of view. It was proposed that in a 'SINGLE VISIT' the women will be effectively screened for the two common cancers.

OBJECTIVES:

To develop an organized Population Based Screening of women of the city of Chandigarh for cancer cervix and breast cancer.

Methodology:

The screening program was undertaken in three sectors in a phased manner starting initially with Sector 12 and later extending it to Sector 24 and Sector 23 which are adjoining PGI. The local civil dispensary already existing in these sectors were made an active partner in the project.

Target Population were women in the age group of **35-60** years.

In the pilot phase of this project, three sectors were covered, namely, Sector 12, Sector 24 and sector 23 in a phased manner. The project was started first in sector 12 and later extended to sector 24 and then to Sector 23.

Preparation of IEC material: IEC material included poster, pamphlet and screening cards. The pamphlet prepared provides complete information about cervical and breast cancers in women, their incidence in India, the symptomatology and methods available for screening. Self Breast examination was explained in detail and information was provided as to what exactly would be done by the nurse when a woman came to get herself screened. The location, timing of the screening center was also provided. The entire preparation of this material took about 4-5 weeks. [Annexure 1]

Training of Screening personnel: The ANM and the Community Health Nurse employed were given intensive training for 3 weeks in VIA the Gynec OPD by Dr. L.K. Dhaliwal and Dr. V. Suri and their competency was ensured. They were trained in Clinical Breast examination in the FNA clinic and Surgery OPD by D Dr.Rajwanshi Dr. Radhika, and Dr.R.Singh and their competency assured. Periodic field checks were also performed by the trainers.

Field activity:

Community sensitization: Community was sensitized by holding group discussions.

Listing of population: In the identified sectors, listing of population will be made available from electoral rolls. All women in the target age group were listed and this database was entered into the computer. From this list, the list of all women, from which the target population i.e. women between 30-60 years was prepared. Thus in Sector 12, 24 and 23, the target population to be screened was 4200 (approximately).

IEC activities in the Field; The initial field visit was carried out by the ANM, community health nurse and the data entry operator (working as a social worker). The IEC activities were carried out, wherein the health education pamphlet [Annexure 1] was given to the women and they were informed about breast and cervix cancer. The importance of screening normal 'healthy' women was also explained. They were then given an appointment for visiting the dispensary in the respective sectors [Sector 12-PGI, OPD, Sector 24 dispensary and Sector 23 Civil Dispensary]. The screening procedure was also explained to them with the assurance that it was absolutely painless and that it would not take much time either.

Establishment of screening clinics in Sector 12, Sector 24, Sector 23:

Administrative approvals: Administrative approval was formally obtained from the Director, PGIMER and from the Director General of Health Services, Chandigarh for using the premises for the screening program.

For sector 12, the screening was arranged in R.No.2052-4, 2nd floor C Block, Gynaec OPD, New OPD block. The infrastructure of examination table and lamp was already available. However, arrangement had to be made for examination gloves and 10 additional speculum. In sector 24 and Sector 23, the examination room and table were

available. The remaining infrastructure in the form of examination lamp, Cusco's speculum, examination gloves and a sterilizer had to be provided.

Screening process: The 'pink' or Women's cancer screening card [Annexure 2] was filled out (in duplicate) and a unique ID was given by the data entry operator. Screening was carried out by the ANM and the Community Health Nurse in the examination room with full privacy and confidentiality. Initially a thorough clinical breast examination was performed followed by VIA. The findings were recorded in the Pink card. If the woman was negative for CBE and VIA, she was assured that all was fine and that she needed a screening test after an interval of 3 years. If either of the screening tests was positive, i.e., if CBE or VIA was positive, the woman was counseled and was referred to PGIMER for further management. Here, a day in the week was designated [Thursday] when the social worker (cum data entry operator) co-ordinated the follow-up in the regular OPD of the Dept. of Obstetrics and Gynecology for the VIA+ women and in the Dept. of Surgery for the CBE+ women. In addition, if the woman did complain of any other symptoms related to her breast or gynecological system, she was again provided with assistance to seek appropriate advice from the specialists in PGI.

Staff employed:

Cytoscreener/Cytotechnician	1
Data entry operator cum Social worker	1
Community Health Nurse	1
Auxillary Nurse Midwife	1

Quality checks on screeners: the trainers carried out surprise visits to the screening clinics and rechecked about 10% of the the screened women to ensure quality of the screening process. Additionally, the Pap smear and colposcopy and biopsy provided us with secondary quality assurance .

Results:

Table 1: Data of the Field Activity

Field Activity Record	SEC- 12	SEC- 24	SEC- 23	TOTAL
Targeted houses	676	1071	2229	3976
Target eligible women	727	1292	2235	4254
Houses visited	956	1158	420	2534
total visited houses with eligible women	894	930	349	2173
Appointment given	438	553	280	1271
Pamphlets distributed to	1046	1192	482	2720
Women contacted	747	884	353	1984
Contacted women above 60years	40	59	62	161
Contacted women below 30years	214	256	146	616
Pap smear already done	83	87	9	179
CBE done in field	83	87	9	179
Refused screening	26	21	13	60
House locked	117	47	51	215
House vacant	29	17	20	66
Contacted eligible women	658	743	308	1709
Percent contacted eligible women in 1 year				40.1
Revisit Field Record				
Houses Re-Visited	755	434	75	1264
Women Re-Contacted	582	442	76	1100
Re-appointment given	394	377	54	825

Table 2: Data of primary screening performed in Sector 12, 24 and 23 civil dispensaries

<u>Screening for Cervical Cancer</u>				
	Sec		Sec	
	12	Sec 24	23	Total
Eligible women for screening	364	340	131	835
Percentage women screened / contacted eligible women	55.3	45.7	32.1	48.8
Percentage women screened / total eligible women	50	26.3	13.7	19.6
Screening for cervical cancer not possible in	101	112	31	244
Refused Screening	21	17	4	42
Pap Smear already Done	49	63	6	118
Hysterectomy	31	32	21	84
Eligible women screened for cervical cancer	263	228	100	591
VIA +ve	69	77	25	171
Percent VIA +ve by Primary screeners	26.2	33.7	25	28.9

<u>Screening for Breast cancer</u>				
	Sec		Sec	
	12	Sec 24	23	Total
Eligible women screened for breast cancer	364	340	131	835
CBE +ve	32	35	10	77
Unsatisfactory	1	1	1	3

Table 3: Cervical Cancer Screening - Follow-up of VIA positive women

	Sec 12	Sec 24	Sec 23	Total
Eligible women screened for cervical cancer	263	228	100	591
VIA +ve	69	77	25	171
Percent VIA +ve by Primary screeners	26.2	33.7	25	28.9
VIA +ve confirmed by gynecologist in	52	61	17	130
Percent VIA +ve by gynecologist	19.7	26.7	17	21.9
Pap smear taken at PGI	46	43	9	98
NILM				90
AGUS				1
ASC-US				6
LSIL with HPV associated changes				1
HSIL				0
Invasive cancer				0
Colposcopy performed	14	11	0	25
Biopsy taken	10	10	0	20
CIN 3				1
Chronic inflammation				8
Polyp				2
No abnormality				9

Table 4: Breast Cancer screening Follow-up

	Sec		Sec	
	12	Sec 24	23	Total
Eligible women screened for breast cancer	364	340	131	835
CBE +ve	32	35	10	77
Unsatisfactory	1	1	1	3
CBE confirmed by Clinician / Trainer	29	30	10	49
Percent CBE +ve	7.9	8.8	7.6	5.8
FNAC performed	11	11	0	22
Invasive cancer	0	0	0	0
Fibroadenosis / Benign aspirate / Cyst	11	11	0	22
Mammography in CBE + women	12	10	8	30
BIRADS 4 or above	0	0	0	0
Mammography performed by invitation (Sector 12 only)	72			

From the data presented in Table 1, we may infer that with a staff of 2 nurses/ANM and 1 social worker cum data entry operator, approximately 1800 women may be contacted. Thus out of 4254 target eligible women, 1709 could be contacted or 40% target was achieved. The actual duration of field work was 9 months as the first 3 months were taken in preparation of IEC material and training of the employed staff. The project was also started initially in Sector 12 and later extended to Sector 24 and 23 as experience built up. In fact, it was not possible to cover Sector 23 significantly in the time allotted to the project.

Care was taken to introduce screening without disturbance of their other activities including Polio drive, weekly immunization, family planning services , etc. Effort was made to involve and impart training to the ANM posted in these dispensaries.

From Table 2, the most significant observation is that out of the women contacted and given appointments for screening, only 48.8% [835/1709] attended the screening center. There are several reasons for this figure. One is refusal for screening which was observed in 42 women [out of 1709 women] or 2.4% which can be considered negligible. Second reason was that in Sector 12, as women were from families of PGI staff members, they had already undergone a Pap test [118 women]. The third reason was that they had undergone hysterectomy [84 women]. This left only 591 women eligible for cervical cancer screening. Overall, VIA positivity was seen in 28% of women. This was more than what was expected. In the secondary screening by the gynecologist, VIA +vity was confirmed in 21% women which is consistent with previous observations in other screening programs.

In Clinical breast examination, the initial CBE positivity of 9.2% could be confirmed in 5.8% women indicating overcall by the primary screener. This is difficult to avoid in a screening program as the nurses/ANMs were repeatedly under instruction to avoid false negatives.

Out of 130 VIA + women, initially pap smear was taken and colposcopy appointments. All women attended the regular Gynec OPD where the doctors attended to these women. It was not feasible for them to perform immediate colposcopy given the busy OPD schedule and so appointments for colposcopy were given. This may have resulted in the lower than expected colposcopy rates and is an important aspect to be taken into consideration while integrating screening services into the already busy schedule of the Gynecologists in the district hospitals and referral centers. The Pap smears showed ASC-US / LSIL in 7% cases and failed to detect the single case of HSIL which was picked up on colposcopy and biopsy.

As may be seen from the above table, that there was just a single case of CIN 3 detected by the Screening program. The Pap smear of this woman was satisfactory and reported as Negative for intraepithelial lesion or malignancy. Colposcopy was performed in somewhat lesser number of women. All women with ASC-US, AGUS and LSIL were followed up with colposcopy and biopsy and none had any significant abnormality on the biopsy.

From Table 4, it is seen that no case on invasive breast cancer or even a BIRADS 4 and above lesion was detected in the CBE + cases. More women need to be screened however.

Problems encountered:

1. Enumeration and house visits: The electoral rolls were taken as the basis for determining the target population and also the number of houses to be visited. However, there were several houses which were not recorded in the electoral rolls. Further, names that were present in the electoral rolls could not be traced as they may have moved out from that area.

2. Compliance: The compliance rate was around 48% [No. of women screened /No. of appointments given]. Re-visits were carried out for those women who did not come and they were given re-appointments. Upon questioning as to why they did not come, the responses were

- i) forgot
- ii) attending guests who arrived unexpectedly
- iii) have small children who could not be left at home
- iv) had some other work at home.

In some cases, where women were working, their phone numbers were taken from the other members of the household or from the neighbors and they too were contacted and appointments that suited them were given.

Appointments could not be given to about 30% women. The reasons included

1. Undergone hysterectomy
2. Pap smear already done (mainly staff members of PGI)

3. Not eligible for screening (<30 or >60 years). These women attended screening clinics in spite of being counseled regarding eligibility for screening. Some had gynecological complaints and wanted special attention.

The **lack of print media and audio-visual publicity** could be another reason for the somewhat lower than expected numbers of women who participated in the program. We deliberately refrained from using the print and audio-visual media for publicity because this project was limited to only 3 sectors of the entire city. If the entire city is to be screened, the media can be effectively employed to generate mass interest in the program.

3. Refusal for screening:

In spite of counseling we encountered refusal to be screened in 2.4% women – these women said that as they were absolutely fine, they did not require to undergo any test. Some were staff members of PGI who refused screening.

4. Staff attrition and shortage: The trained ANM employed in the project resigned after 6 months as she found permanent employment elsewhere. Hence another nurse had to be employed and trained which also contributed to the delay in completion of project as per scheduled 1 year. The staff employed are always on the lookout for 'permanent jobs'. Precious time is spent in training the ANMs and nurses in this activity and the temporary nature of this project is a hindrance to employ and retain trained human resources.

Summary: The major gain of this pilot phase study was the kickstarting of an Organized Population based Cancer screening program in an urban setting. The feasibility of starting such a program using the existing infrastructure with minimal inputs has been demonstrated. The problems encountered have been enumerated.

Future Directions: This project needs to be consolidated in the sectors where it has already been started. We also need to demonstrate the feasibility in a rural / semi-urban setting.

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