



## **INSTITUTE FOR RURAL HEALTH STUDIES**

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### ***Cervical Cancer Prevention in Rural Mahbubnagar District Villages using the 'See and Treat' Method of Cervical Cancer Screening***

#### **Background:**

Cervical cancer kills more Indian women than any other disease. Three-quarters of the world's burden of cervical cancer falls on developing countries such as India. Late presentation of women with cervical cancer is predominantly due to both inadequate knowledge and lack of effective screening, especially in rural areas. In developing countries more than three-fourths of these cancers are diagnosed in advanced stages with poor prospects for long-term survival and cure. Although the exact population-based statistics in our region are not available, the hospital-based figures of the Mehdi Nawaz Jung Institute of Oncology (MNJIO) correlate corroborate the above statement. The cost to the state health system is far greater than it would be if women were screened and treated early. The cost of treating a later stage cervical cancer is never cost-effective and involves surgery, radiation or chemotherapy or a combination of these modalities.

Despite deserving great public health importance, effective prevention programmes for cervical cancer control are almost totally lacking in most developing countries, including India. Competing public health priorities and the financial and technical investments that a cytology programme (PAP smears) requires preclude the possibility of organized cytology-based screening in low-resource, high-risk countries such as India. Consequently, a search for alternative low-technology screening methods for women in remote, rural regions was instigated in the 1990's. The Institute for Rural Health Studies (IRHS) took part in this process by validating visual inspection of the cervix for cancer using trained village-level health workers in collaboration with Dr P Jagan Mohan Reddy (formerly with MNJ Cancer Hospital and currently with Presbyterian Hospital, New York) and Dr P Usha Rani Reddy, Dr Jagan's sister, a trained gynecologist, then of Osmania Hospital. This study showed that rural women would voluntarily come forth for screening when motivated by trained local health workers. It also demonstrated that visual inspection of the cervix was an effective and inexpensive method for detection of cervical cancer and far more practical for these remote, rural areas.

In 2001, Drs P Bidinger, Director, IRHS, and Usha Rani Reddy, Asst. Civil Surgeon, now of the MNJ Institute of Oncology were approached by the International Agency for Research on Cancer (IARC) of the WHO to embark upon a large-scale cancer control research programme in a rural area. Using trained ANMs a two-pronged programme of village screening and district hospital-based screening was finalized. Women in rural areas of Mahbubnagar District were screened and treated for cervical cancer and its precursors by visual inspection of the cervix using acetic acid followed by Lugol's iodine. Treatment of positive cases (by biopsy) was either by cryotherapy or Loop Electrosurgical Excision procedure (LEEP) or hysterectomy, if warranted. Those with invasive cancers were referred for

treatment to the MNJ Institute of Oncology, Hyderabad. (Poor women with white ration cards are treated free of charge at this hospital.)

This programme provided an entry point to introduce cervical cancer prevention services in the local health services in Mahbubnagar District and served as a focal point to train appropriate personnel in screening, early detection, treatment and follow-up of cervical pre-cancers in rural villages. This has proven to be a useful platform for expanding future services to other parts of the District and eventually, the State of Andhra Pradesh.

### **Current Work:**

We have expanded this screening programme to other villages of Mahbubnagar district using the same visual methods validated by the health workers in the WHO-funded research project. This is the 'See and Treat' method of early detection and prevention of cervical cancer. It is necessary to understand that all villages are not equal in many characteristics: size, attitude (backwardness), accessibility, etc. Thus, we have not set hard and fast time-oriented targets. For example, during the cropping season when paddy is being transplanted, women have fixed contracts and may not come for screening as readily. Larger villages (2300 - 2700) will need the screening team's presence for a week or more while smaller ones will need fewer days. In our experience, on average there will be no more than 400 eligible women (aged 25-55 years) in a village, but the number may be lower due to migration at certain times. When one considers that only about 50 % of the women will come forward the first year for screening due to apprehension, we could count on an average figure of 200 per village. Two nurses can screen twenty to twenty-five women per day. Working from our outpatient base in the District Hospital, trips to the surrounding villages enable us to screen poor, vulnerable women.

### **Our Project Staff:**

Dr Usha Rani Reddy, Civil Assistant Surgeon, MNJ Institute of Oncology and Regional Cancer Centre, and Dr Patricia Day Bidinger, Director, Institute for Rural Health Studies (IRHS), manage the cervical cancer-screening project. We continue the work initiated by the WHO-funded longitudinal research study. We use the basic equipment already provided by the WHO for the research study, thus saving lakhs of rupees. This includes the following: colposcopes, halogen lamps, examination tables, cryotherapy instruments, LEEP equipment, autoclave drums, specula, other basic gynecological instruments, computer, etc. The provision of this expensive equipment enables us to carry out screening in an extremely cost-effective manner. The IRHS provides its van, but must raise funds each year for diesel, insurance, taxes, repairs and staff. Half the staff of 6 is seconded from the Department of Health at the District level. These Auxiliary Nurse Midwives carry out all day to day work both in the hospital OP and in the villages themselves.