A STUDY INVESTIGATING FACTORS MOTIVATING A SELECTED SAMPLE OF WOMEN TO PARTICIPATE OR NOT TO PARTICIPATE IN A CYTOLOGY PROGRAM FOR EARLY DETECTION OF CANCER OF THE UTERUS

by

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CHAPTER I

INTRODUCTION

The effort to accomplish early diagnosis through public education in recognizing the first signs and symptoms of cancer, is now accepted in the United States as a reasonable and enlightened enterprise. This project dates back to 1912, an outgrowth of the frustrations expressed by gynecologists who had the effective tools of radium and x-ray for their use, but who were still losing most of their patients who had cancer of the cervix. The answer to their pleas for greater general awareness by women of the significance of any abnormal vaginal bleeding was a volunteer group who, in 1913, formed what is now the American Cancer Society. The cornerstone of this organization was public education to disseminate knowledge concerning the symptoms, treatment and prevention of cancer. This educational program has grown from a single pamphlet in 1914 to an ever-increasing supply of booklets, displays, films, and pamphlets all directed toward the dual objective of informing the individual about cancer and at the same time, motivating use of the information when it is needed.

The seven danger signals of cancer have for many years been the clarion cry of the Society's program in the control of this affliction. This is as it should be, for there is reason to believe that these seven statements have a profound influence in reducing the death rate despite the rising incidence of cancer. The recorded increase can be attributed

to a population expansion and the lengthening span of life due to more and better medical diagnosis and care, improved nutrition, good public health practices, and widespread disease-preventive measures.(8) Recognition of these danger signals (unusual bleeding or discharge, a lump or thickening in the breast or elsewhere, a sore that does not heal, change in bowel or bladder habits, hoarseness or cough, indigestion or difficulty in swallowing, and change in a wart or mole) represents the best weapon that has been devised to aid in detecting a formidable and effective cancer salient: the delay from the appearance of the first symptom or sign to the first appointment with a member of the medical profession.(9)

There is no panacea, but for certain common forms of cancer, there are simple accurate techniques by which cancer can be detected very early when the opportunity for control is at its greatest peak. These three are breast self-examination, mass x-ray surveys for early cancer of the lung, and the cytologic method or the Pap smear named after Dr. George Papanicolaou, the Greek master cytologist who first developed this procedure. This technique is based on the fact that cells on the surface of an organ are constantly shedding and falling off. This is true of the normal cells as well as the abnormal ones. These cast-off cells are obtained in the normal fluid secretion from the vagina, the cervix, and the interior of the uterus. Since there are more or less constant structural differences between cancer cells and normal cells, the malignant can be identified in the pathology laboratory by a specified procedure.(2)

The Papanicolaou method has certain unique advantages:

1. speed and ease with which a smear can be obtained from the vagina make it an ideal method for screening or testing large numbers of women for cancer of the uterus.

2. it can point to the presence of cancer of the uterus before any signs or symptoms have appeared. It can establish the need for the more certain biopsy and can make diagnosis possible long before it would otherwise be established.(8)

The value of the cytology method as a detection tool has been proven; it is effective and of great value. Each woman might literally hold her own life in her hands as she makes the decision whether or not to take advantage of this examination.

Statement of the Problem:

The purposes of this study were:

1. to investigate factors motivating a selected sample of women to respond or not to respond to a cytology program for early detection of cancer of the uterus.

2. to endeavor to evaluate how well a direct health approach was received by those who participated in the program.

3. to elicit information that would be helpful in planning further health information programs.

4. to report the laboratory results of those women who participated in the clinic.

Definitions:

For the purpose of this study, the following definitions are accepted:

1. cancer detection clinic--facilities where uterine cell examinations were made.

2. uterine cell examination, cervical smear, and Pap smear are synonymous in meaning.

3. cytology--the scientific study of cells--their origin, structure, and functions, deals with the morphological, chemical, and functional aspects of the basic unit of tissue structure.(36)

4. exfoliate--the separation from tissue in thin layers.

5. biopsy--the removal of a small piece of tissue for study under the microscope.

Limitations:

This study was limited:

1. to a selected sampling of women who were registered in housing facilities at a religious conference for a period of ten days.

2. to data that were obtained by means of guided interviews for one hundred women who did not participate in the cytology program.

3. to data that were obtained by means of a mailed questionnaire sent to 225 women who participated in the cytology program.

4. by the fact that the results of this study should be interpreted as applying only to the opinions expressed by the participants at the time and place of the study.

Assumptions:

For the purpose of the study, it was assumed that:

1. the exfoliative cytology technique is effective for mass screening.

2. questioning by guided interview and mailed questionnaire elicits information useful in planning future health promotion programs at the conference.

3. the interview is a reliable means of obtaining information despite the tendency of individuals to make favorable responses when talking to an interviewer.

4. the responses given on the mailed questionnaire are the honest opinions of those writing them.

Importance of the Problem:

Cancer of the cervix could be cured in nearly 100% of cases if all women would seek a medical examination once a year for observation, uterine smear, and a biopsy if it is indicated.(8) This goal can only be reached as the uterine cell examination for early detection of cancer of the uterus is brought to the attention of the public through the efforts of the American Cancer Society, by members of the medical and nursing professions, and through various educational media. As women accept this test as a routine in medical examinations, not only will a great step forward have been taken in conquering one form of cancer, but also early detection of other kinds of malignancy will be made easier.

President Kennedy designated 1962 as Cancer Progress Year. He stated:

> The struggle for better health for the people of this country rests upon the efforts of us all. Participation of our people in any one issue, and this is true of the fight against disease as well as the struggle against our other national challenges, depends upon the individual effort that each of us will put into it. (26)

Because this was cancer progress year, in the program planning for the church conference, time was set aside to present health promotion information to those in attendance. It was decided that a positive approach would be used, making it possible for personal participation by women in attendance at the conference. Attention would be focused on the importance of the uterine cell examination for early detection of cancer of the uterus. The program was planned and arranged by a committee of physicians and nurses from a near-by hospital operated by the same church group. The major planning aspects were as follows:

1. doctors, professional nurses, and student nurses would donate their time for the conducting of the clinic.

2. secretarial assistance would be provided through the hospital's medical auxiliary or clerical assistants.

3. a charge of $1.50 would be stipulated to help defray the cost of the test and encourage more women to take advantage of the clinic facility.

4. the clinic would be conducted on the conference grounds as a convenience for those women in attendance.

5. on July 8, an hour's program would be presented at the designated time set apart for health education. Those taking part would be:

   a. the hospital administrator, who would give a general report of the hospital and explain why the committee of doctors and

nurses had planned and arranged the cytology program.

b. a general practitioner who would discuss how, through the use of the Papanicolaou smear and subsequent follow-up care of atypical cases, cancer of the cervix could be 100% curable. The more common questions asked by women about this type of cancer would be answered.

c. a pathologist who would give details of the examination and its great value in the early detection of cancer of the uterus.

6. The film, "Time and Two Women," would be introduced, and the time of showing arranged when the majority of people in attendance at the conference would have the opportunity to see it. This film is part of the program by the American Cancer Society to alert all women to their own personal responsibility in the problem of uterine cancer which is the second major killer from cancer among the female population. Of this film it is said:

> It is scientifically accurate, realistically convincing, yet presented with dignity and good taste. Its purpose is to inform and motivate women, not to frighten or dishearten them. The film was carefully prepared under the guidance of American Cancer Society officials, Audio Productions, and the consulting gynecologist, Dr. Joe V. Meigs. Always the emphasis remains on accuracy and good taste . . . The photomicrographs used in the film were personally selected by Dr. George N. Papanicolaou. The film deals with a most intimate and serious subject with clarity and good taste. Its purpose is to explain how cancer of the uterus may eventually be eliminated as a cause of death. Its theme is that TIME may be a woman's ally, or enemy, and the choice is, in large part, up to the woman herself. An important medical story is told through the experiences of two women, each faced with cancer. "Time and Two Women" stresses the importance of a pelvic examination as a part of the annual health check-up for all adult women, and urges that it include the

cell examination for uterine cancer. (30)

Plan of the Study:

The design for this study may be described in the following steps:

1. After reviewing the literature, questions were designed to elicit expressed reasons why women chose to participate or not to participate in a cytology program for early detection of cancer of the uterus. Independent variables such as income, education, age, and cancer concern would be investigated to see if any of these variables might affect the rate of participation or non-participation in the clinic. Questions were constructed to form an interview guide for those who did not go to the clinic. A questionnaire was devised to be mailed to those who did participate in the clinic. The questions were similar in nature in all areas except in the specific reasons for participation or non-participation.

2. The tool was reviewed by four experienced professional nurses, two of whom had done research studies, and by one physician. Their suggestions were incorporated and the tool was revised.

3. Permission to conduct the study was obtained from the hospital administrator, the director of nursing service, and the president of the conference in which the ten day session was held.

4. There was no way of knowing who would or would not go to the cytology clinic, but the tool was tested on seven individuals who definitely stated they would not attend the clinic. Their responses were not used in the study.

5. From this small pilot study corrections were made in the tool,

and the interview guide and questionnaire were developed into the final form.

6. The interview guide was used by accidental sampling until one hundred interviews were completed. There was no way of knowing who had or had not participated, so the individual was approached and polled.

7. The mailed questionnaires were sent to 225 women the week following the close of the conference, and a time limit for the replies was set at three weeks.

8. The information was then tabulated.

9. The study was summarized, conclusions drawn and recommendations made.

Possible Outcomes:

It is anticipated that this study may reveal significant information for the planning of a similar cytology program at some future time or areas of interest that would be of value in the programming of health topics at future conferences. In addition, those with positive slide results will have treatment available sooner than the symptoms would otherwise indicate. Some who did not participate may be encouraged to seek more extensive health examinations in the future.

Overview of Subsequent Chapters:

The remainder of this study has been divided into three chapters. Chapter II is a Review of the Literature and Related Studies, Chapter III is a Report of the Study, and Chapter IV contains the summary, conclusions, and the recommendations. These are the conclusions drawn as a result of the responses and the recommendations based on the data obtained.

CHAPTER II

REVIEW OF LITERATURE AND RELATED STUDIES

Twenty-five years ago, uterine cancer was the leading cause of death from cancer among women in the United States. The American Cancer Society in early educational programs put great emphasis on the importance of the pelvic examination for women. In 1937, the death rate was 26.4 per 100,000 women; by 1962, this figure had been reduced fifty per cent; of the 40,000 women who develop cancer of the uterus annually, about three-fifths are being saved.(2) The great drop in the mortality rate of cancer in this site can be attributed to several factors: the more frequent checkups by women, more speed in seeking medical advice when irregular bleeding occurs, and more frequent use of the simple, painless test for early cancer of the uterus developed by the late Dr. George N. Papanicolaou (1883-1962).

Dr. Thomas Carlile, former President of the American Cancer Society, paid tribute to the late doctor in this appropriate statement:

> In achieving one of the greatest cancer breakthroughs in our time, Dr. 'Pap' has won immortality and everlasting gratitude of all humanity.
> This one man has done more than any man in this century to accelerate cancer detection. His name will live with those of Jenner and Lister and Pasteur and Koch as one of the all-time greats of medicine. (10)

He came to the United States from his native Greece in 1913 and affiliated with Cornell University Medical College in 1916 where he remained until his death. In 1917, Dr. Papanicolaou and Professor

Charles B. Stockard discovered the value of vaginal smears as a way of determining the sequence of certain changes in the reproductive organs of the female guinea pig, but it was not until 1923 that this method was first used in the diagnosis of uterine cancer. Dr. Papanicolaou began a comprehensive study of human vaginal fluids at the Women's Hospital in New York City. The theory of exfoliative cytology as a method for detection of cancer of the uterus was introduced in 1928. These findings were ignored by the members of the medical profession until 1943, when Dr. Papanicolaou and Dr. Herbert Trout published their impressive research study. The prolonged and detailed experience of the examiner using the simple vaginal technique obtained only a 3% error in diagnosing demonstrable cancer of the cervix and a 9% error in diagnosing hidden cancer of the uterus.(33) These findings were soon confirmed and readily endorsed by the staffs of Harvard Medical School, the New York Post-Graduate Medical School, and the Vincent Memorial Laboratories in Boston. This endorsement was the turning point in the attitude of the medical profession toward the uterine cell examination as a diagnostic approach to the detection of cancer of the cervix and uterus.(1)

In 1948, the American Cancer Society sponsored the first National Cytology Conference. At this meeting the Papanicolaou method was endorsed as being unique in the early detection of uterine carcinoma and a new door of hope for women was opened.

A review of the literature concerning reasons motivating individuals to participate or not to participate in a cancer detection clinic as such is very limited. However, many studies have been done establishing the value of the smear technique. Prior to the 1954 scientific session of

the American Cancer Society's annual meeting when the potential of the cytological method was the outstanding topic, pilot projects for mass cytological screenings had already begun in order that an epidemiological study might be made as to the effectiveness of the uterine cancer cell examination. The Toledo, Ohio program began in 1947, and by 1959, 120,000 smears were completed on 54,000 women. The key to the success of this pilot project was the enthusiastic support of 400 of the 650 physicians in Toledo and the educational program conducted for pathologists, technicians, the doctors, and the public. Statistical analysis of the program suggested it might be possible to estimate on the basis of one smear, in conjunction with a complete physical checkup including a pelvic examination, whether a woman is likely to develop uterine cancer within the next several years. Hammond states:

> The Pap smear as part of the health checkup, if universally applied, could eliminate uterine cancer as a cause of death. Already there has been a 50% drop in the death rate over the past generation. We have, nevertheless, been faced with a large gap between the theoretical possibilities and the practical application. (25)

At the Toledo-Lucas County Unit press conference in 1961 it was learned that of the women examined prior to 1960, 3,000 were known to have died or developed uterine cancer. The number remaining, for purposes of the study project, were asked to return to their doctors for re-examination. By January, 1960, 15,000 had done so, leaving approximately 30,000 to be persuaded to return or at least traced. Tracing this number is important in order to determine how frequently it is necessary for women to have the smears and to identify those women, presently free of cancer, who may be likely to develop a uterine

carcinoma at some later date. Whether or not these hopes are realized, those women and doctors will have helped vanquish what in the beginning of the present century was believed to be a deathless enemy.(25)

Shimkin points out that laboratory research on cancer is sterile unless some of its results can be applied and these applications in turn generate problems that need to be brought back to the laboratories and clinics for further study.(41)

Perhaps the best known study was the one made at Memphis, Tennessee by the National Cancer Institute in cooperation with the University of Tennessee Medical School, the Shelby County Health Department, and the physicians of the areas. The project was designed to apply the cytologic method to a population of 165,000 women. Among the first 108,000 tested, approximately 800 cases of cancer were diagnosed--nearly one per cent. Half of these cancers were found in the pre-invasive state; the other half were invasive. Ninety per cent of the intraepithelial cancers and 30% of the invasive cancers were totally unsuspected. The study found almost 400 cases of hidden cancer. A summary is now being written to report the follow-up of these cases.

A year later, one-third of those 108,000 women received a second cytologic examination and 83 additional cases of cancer were diagnosed. But now instead of the division of cases being half and half, pre-invasive and invasive cancer, almost 90% of the cancer cases found on the second examination were in the pre-invasive category.(15)

Erickson, reporting on the results of this study, points out three important factors:

1. exfoliative cytology technique on a mass screening basis, is a practical and efficient test.

2. detection by this method must be coordinated with a follow-up investigation and biopsy.

3. the greatest hope for increasing the five-year survival rates lies in detection while the lesion is still confined to the cervical area.(15)

Dunn states it became apparent during this study that the public was not overly conscious of cancer as a personal problem and that more aggressive educational methods were needed to promote the program.(14)

The preliminary data gathered from the Memphis study encouraged the establishment and operation of several other uterine cytology projects. To develop new methods and techniques, investigate pathogenesis and improve epidemiology procedures, clinics were established at Columbus, Ohio, Louisville, Kentucky, Madison, Wisconsin, New York, New York, Philadelphia, Pennsylvania, San Diego, California, Washington, District of Columbia, Providence, Rhode Island, Detroit, Michigan, and Charlotte, North Carolina. These have been established by the cooperative endeavors of the National Cancer Institute, university and medical school grants, and with individual physicians and pathologists. From a goal of 700,000 women, 600,000 have been examined.(24)

The Papanicolaou test is based on the principle that all epithelial membrane in the process of normal growth and development, undergoes continual exfoliation or the shedding of cells. Thus, tumors which reach the lining surface may exfoliate cells which fall into the vagina and become mixed with normal secretions. Obtained by aspiration or

removal by means of an applicator, a smear is made and examined microscopically to disclose details of cellular make-up which may be of diagnostic significance to the pathologist. The value of this test as a means of early diagnosis is due to:

1. ease of access to the organ
2. simple method of obtaining a specimen
3. accessibility for follow-up study by biopsy to confirm a cancer diagnosis. (7,8,28,45)

Statistics show that 18% of all cancer of the cervix occurs in women below the age of thirty, 57% below age forty, and more than one woman in every two hundred has an unsuspected cancer of the cervix. The average age of women with early localized cancer of the cervix is thirty-eight, and the average age of women with cervical cancer spread beyond the local tissues is fifty.(38) If these statistics are to be changed, two requirements must be fulfilled. Women must see their doctors regularly for periodic pelvic examination, and the physicians must be aware of and apply the scientific aids in the performance of routine vaginal examinations.

The use of exfoliative cytology to detect cancer of the uterus is now a generally accepted technique in most areas of the country. Eight years ago only a few thousand women were receiving an annual 'Pap' smear, but now it is estimated that more than four million women receive cytological examinations annually. However, this is not a sufficient number. If cancer of the uterus is to be eliminated, universal application to all women over twenty years of age, and to those younger ones who have been pregnant must be done, but this requires patient cooperation and general use of the method by practicing physicians.(29)

It has been established that pre-invasive cancer exists for several years before clinical evidence of disease appears. When a carcinomatous lesion of the uterus manifests symptoms, it is often no longer in the early stages. Early diagnosis is essential if cancer of this organ is to be cured.(17) This calls for continuing and stepped up educational programs and for investigation as to why there is a delay or refusal of women to have this test.

Porterfield's speculations lead to several possible answers; the attitude of the women themselves. Modesty might account for lack of interest; others may have the misguided attitude that "it can't happen to me". The majority of insurance companies do not have prevention methods such as the Pap smear covered in the policies, and women wait until symptoms are present before seeking medical advice so that their bills will be covered by the insurance. Another reason may relate to the technical requirements for any adequate cytology program. Physicians and technicians need to be adequately trained and have necessary laboratory equipment to examine the results of the screening procedure. Whatever the problems might be, they are surmountable. The necessary requirement is community leadership--the members of the medical profession and the health agencies are the logical sources for initiative, but it is possible that even the public can be a primary source of stimulation. Attitudes can be changed. Financial aid, technical help, literature for the public as well as the professional members, educational materials and programs are available from various sources to endeavor to motivate all levels within a community to act in stamping out cancer of the uterus.(35)

The leadership of the health agencies is reported by Robbins. The Public Health Service's concern with the question of what is cancer control led to the integration of the research resources of the National Cancer Institute with the resources for developing state and local programs of the Bureau of State Services. The result of this integration in 1957 was the Cancer Control Program which is the sum total of efforts to prevent cancer, to diagnose early carcinoma, and to treat cancer adequately. The major activities of the Cancer Control Branch are:

1. grants to the states for the control of cancer. The money is given by Congressional appropriation.
2. cancer registers for the compilation of information on tumor patients.
3. physician education.
4. screening for cancer of the cervix of those who are eligible for public medical care.
5. funds to allow study to aid communities to reach their theoretical potential in the control of cancer.
6. cooperative endeavors by the Public Health Service and physicians in the primary control of cancer such as mass cervical screenings and chest x-rays for lung cancer. (37)

One of the recent studies of a mass cytology screening was done in January, 1960, in Dade County, Florida. The Florida State Board of Health in cooperation with the State Welfare Department began a project that envisioned screening women throughout the entire state who receive funds under the aid to dependent children program. The magnitude of their concern was measured by the recent number of deaths from uterine cancer. Of the 469 women who died of uterine cancer in 1960, 293 were attributed to primary cancer of the cervix. The three principal objectives of the study were:

1. to demonstrate the feasibility of screening large numbers of medically indigent women for cervical cancer and to obtain

treatment for those with the disease.

2. to inform practicing doctors and other responsible people in the community of the need, possibility, and benefits of routine cytological screening.

3. to improve communications and operations among local tumor clinics and laboratories providing cytological and pathological services. (18)

As part of the study, a follow-up was done with those who did not keep their appointments, and the investigation showed they were fearful of cancer, had had hysterectomies, were in the last trimester of pregnancy, or expressed sociological fears.

Of the 2,387 women on ADC in Dade County, 1,039 volunteered; the greatest participation was between the ages of 30-45. It was felt that this group was not only more prone to develop uterine cancer, but seemed to know more about cancer than women in the younger or older age groups. Abnormal cytology was found in 8% or 85 women. Followed in the clinic, 34 or 32.7% per 1,000 were diagnosed histologically as having cervical cancer, while 91% of the cases were intraepithelial cancer of the cervix. The belief that the target population was at a high risk of having uterine cancer and that a mass screening was worthwhile was amply demonstrated.(18)

James relates program planning and evaluation in terms of lives and dollars. By 1960, the New York Health Department had a full scale cytology program operating in two large municipal hospitals which service the Harlem community. Every female inpatient and outpatient was screened in this high risk group, and a rate of 5.5 per 1,000 women was found. It has been estimated that a single case of fatal cancer of the cervix costs the City of New York $10,000 from time of discovery to the time of death.

From the statistical records, one half of the cases detected would not have been found without the cervical smear being done. It is expected that each year approximately 75,000 women will be tested at each of the two hospitals. If the current yield rates stand, about 825 cases of cervical cancer will be detected and save an estimated 275 lives. The cost saving from the care of this group would be $2,750,000 for a program whose estimated cost is less than one-tenth of that amount.(23)

Breslow points out that multiple screening is fast becoming universally recognized as a contribution to preventive medicine and to good medical practice. It not only represents a practical means for the early detection of important diseases and impairments but also provides an excellent opportunity for health education, the development and strengthening of patient-physician relationship; because of achieving better understanding and acceptance, unions, club groups, and other consumer organizations are actively seeking multiple screening as a preventive health service.(5)

The American Cancer Society in cooperation with the General Federation of Women's Clubs adopted as the 1961 educational program, "Conquer Uterine Cancer". The ultimate goal was the saving of the lives of 14,000 women who die annually of uterine cancer. The two immediate objectives were to persuade more women to take advantage of the Pap smear as a life-saving procedure and to recruit more cytotechnologists who assist the pathologist in interpreting the smears. It was hoped to increase the examination rate to eleven million women per year.(25) As doctors and nurses become more enthusiastic over cancer

prevention, this cancer consciousness will most surely relate to the patients with whom they come in contact.(3)

Carson Pirie Scott and Company in Chicago, with a philosophy changed from first aid to an emphasis on health maintenance, health counseling, cooperation with the family physician and community agencies, and health and safety education, showed the film "Time and Two Women." Much publicity was given in the local papers and at the store. Eleven hundred people attended. From the enthusiastic response it was obvious those in attendance had an undeveloped sense of responsibility for their own health, and their request for more programs of this caliber created a challenge by the industrial nurses for improved motivation, improved communication, and an improvement in participation.(21)

The Vanderbilt University School of Nursing sponsored the film "Breast Self Examination" for the 1,200 employees of the medical center. The film was shown to groups of not more than forty at a time with a total attendance of 675. Thirty minutes was allotted after the showing for discussion, and the questions raised were classified according to cause, location, signs and symptoms, and incidence. The hundred questions were categorized as follows:

cause	38
incidence and site	16
signs and symptoms	12
operation	10
childbearing and breast cancer	8
pain	4
comments on film	4
other	8
	100

Further questions for study were, what per cent of the women who saw

the film were motivated to practice its teaching, would the effectiveness of the picture be improved by follow-up, and would teen-age girls benefit by such a program?(19)

Dunlop reports a study done in 1949 and repeated in 1953 in the city of Waltham, Massachusetts that compared cancer knowledge among its 50,000 residents. Prior to 1949, no long-term intensive educational campaign on cancer control had been conducted. Information was sought that consisted of identifying data, knowledge of contagion and curability, best methods of treatment, the seven danger signals of cancer, knowledge of cancer-control agencies, and sources of information regarding cancer. After the initial survey, an educational campaign was carried on on six fronts: newspapers, radio, organizations, industry, leaflets, and an information center. In 1953, a repeat survey was made to determine whether improvement had occurred in the participants' knowledge during the four years of intensive educational activity. The results of the surveys were compared and some of the answers were also compared with a newspaper report of a nation-wide Gallup Poll. The second survey showed marked improvement. More women than men knew the danger signals and more people over the age of sixty knew less of the symptoms than those in the younger age groups. Women did not exceed the men in their knowledge of the curability or contagion but they were better informed regarding accepted treatment. Ninety per cent of those participating in the study expressed they would not be adverse to people knowing of cancer in their family. A small per cent knew what organizations were working in cancer control. Of the various educational media, the study showed lectures, magazine articles, books and pamphlets

were the best sources of information, whereas radio, movies, and posters were of much less importance.(13)

Early public health workers, although aware of values, customs, beliefs in determining health action, still assumed all that had to be done was to inform and enlighten the people in health matters and they would act in an appropriate manner. It was not that simple. The human factor is much more complex than was originally assumed. Future advances will need the cooperation and consent of the people, and will be dependent on the manner of approach, motivation, and aid in assisting them to recognize and help solve the problem in which they are asked to participate.(39)

Nicholson relates that considerable research has been instigated to solve factors which delay cancer patients in seeking treatment. The following are some of the elements that are statistically significant: lower socio-economic groups, older age group, people without high school education, general emotional instability and poor doctor-patient relationships.(31)

Brotherston says that health education, to be successful, must be based upon an understanding of the people to whom it is addressed. People act on their wants as they perceive them, rather than on the health needs as seen by health workers.(6) Therefore, health education must be developed with the specific aim of helping people make choices about health more wisely.

Paul points out that program assessment can be done according to effort criterion which measures the energy and action of the health team and asks, what was done by the team and did it make a difference; the

effect method which specifies the objectives of the project undertaken and asks what changes occurred, if any; was the change the one that was intended; and was the program the cause of the change? The project specifies what it aims to accomplish, what changes in incidence or attitude or organization it wants to induce and the process criterion assesses the reception of the program and the way the effect desired was accomplished.(34)

The health of the people of the United States has been found to be associated with income, schooling, living conditions, place of residence and other indices of social class standing. One of the most intensive studies to ascertain relationship of health and medical care to social class, was conducted over a four-year period by Dr. Earl L. Koos, and called "The Health of Regionville". Data were collected from 514 families four times a year. These families were divided into social classes I, II, III, from high to low. Class I gave the impression they were happy with achievement, conscious of their pre-eminence in the affairs of the town, and looked to a secure future. In Class II less than 2% had gone beyond high school, they were fully occupied with the present, recognized subordination to the "big people" in the community. Class III appeared to have little hope in the present and none in the future. Dr. Koos found that Class III had more illness and Class I the least. Class III had the smallest proportion of their illnesses taken care of by doctors and Class I, the largest. Major reasons for not seeking treatment were that conditions were considered temporary or not important enough for a doctor to see, the cost could not be afforded, and cultural values and group influences were against seeking treatment.(27)

A study of a national sample of the adult urban population indicated that four basic sets of attitudes and beliefs were demonstrated to be more closely related to examination behavior than personal characteristics. These were:

1. underlying attitudes and beliefs on health.

    a. importance of good personal health as an objective in life.
    b. interest and concern in health matters.
    c. belief of personal susceptibility to illness.
    d. belief of the need for professional diagnosis and care of illness.
    e. belief in the ability of modern medicine to cure or help illness.

2. beliefs as to the potential personal benefits to be derived from the health examination.

    a. dissatisfaction with personal efforts to care for their health.
    b. recognition of some personally unmet health needs which are susceptible to medical care.
    c. confidence in the skill and personal approach of their own doctor or doctors in general.

3. beliefs as to the importance of furthering medical research.

    a. recognition of the need for additional medical research effort.
    b. recognition of the responsibility of the government in maintaining the nation's health.
    c. recognition of personal responsibility in assisting medical research programs.

4. beliefs as to the reasonableness and appropriateness of the examination procedures and arrangements.

    a. arrangements such as travel time, duration of examination, time of appointment, place of examination, type of doctors giving examination, kinds of tests and procedures used all reflect on cooperation. Arrangements which make the least demands upon a person were likely to produce the greater degree of cooperation.

    b. desire to behave in a socially approved manner. Co-operators more often indicated approval of the health examination by their spouse, friends, doctors or other prestige

> groups influenced their decision to participate in the examination. Nonco-operators were more indifferent to the approval of the examination by their peer or prestige groups. (44)

These attitudes can be accounted for to a major degree by the fact that knowledge of causes and treatment of illness is greater than it used to be. Over the years, the validity and amount of information which the lay people have in their possession has increased through the combined efforts of public health workers, volunteer community agency activities and medical writers. There is considerable evidence that the ease with which diseases are controlled is directly related to the amount and accuracy of the information about these problems that the people have. Along with these various informational facts is the expectation that modern scientists will be able to come through with ways of combating serious diseases.(4)

Deasy and Clausen bear this belief out in the study on Parent Attitudes Toward Participation of their Children in Polio Vaccine Trials. Conducting interviews with mothers of second-grade children in five schools participating in polio vaccine trials in a single Virginia county, one generalization showed that persons of higher educational status tend to be favorable toward programs that employ scientific methodology to the end of improving the public health; whereas, people with less education have difficulty in assembling objectives of a program and seem less inclined to seek information that might help them to come to a logical decision. It was also found that mothers who had given consent to have their children participate, were found to be better informed about the nature of the trials, having read more and

consulted more widely with medical and nonmedical sources about the vaccine. Most of the differences in attitude and general orientation of parents who gave consent were associated with a very considerable difference in educational level and general socio-economic status between the two groups.(11,12)

Hovland presented a hypothetical model of what happens when a person is influenced by a highly effective threat appeal by stating that the person is first exposed to relatively neutral content cues, such as those which define a topic of communication and relate to self-reference, "this might happen to me". In this emotional state, ways are presented of how to avert the possible threat, and this reassurance operates as re-enforcement to place the person in a position of drive state to make a decision. He establishes these facts in the following formula: Content cues (C)= Emotional Reaction (E)= Reassuring Recommendation (R).(22)

The Role of the Film "Time and Two Women" in Cancer Control, an unpublished Master's thesis at Reed College, Portland, Oregon in 1962 by Estelle F. Singleton, endeavored to evaluate such a formula by the showing of the film to a selected audience of 234 women to determine its effectiveness in motivating viewers to secure a pelvic examination and a cervical cytological smear. A questionnaire before the showing of the film solicited descriptive and identifying data. A follow-up questionnaire showed how many women secured a pelvic examination and a "Pap" smear, those who intended to secure one, and to what degree the film had brought about this behavior. Usable data were obtained from 172 subjects. The sample was representative of organizations who requested cancer programs from the local Cancer Society. Twenty-eight

secured a cytology examination following the film showing, ten for the first time. Thus the film played a minor role in motivating the women. The film played a more impressive role in explaining and supporting a cancer control technique. Recommendations of the study were:

1. the Oregon Cancer Society should recognize cost as an important factor in the public acceptance of the examination as a preventative health practice and encourage the control or range of this item. The study showed the cost range to be from $2.50 to $25.00.

2. the cost of the test be stressed as a health insurance expenditure.

3. the professional educational program of the Oregon Cancer Society put more emphasis on the responsibility of the physicians to encourage women to have an annual physical examination including a "Pap" smear.

4. the local society must assume responsibility for selecting speaker doctors who support and supplement the philosophy and recommendations presented in the film program.

5. planned programs to meet the lower socio-economic groups and women who are not organization joiners.

6. the professional education program needs to put more emphasis upon the physician encouraging women to have regular pelvic examinations and cytology tests. (42)

Orr states that ignorance about cancer will be eradicated by knowledge communicated to the public by an enlightened medical profession, fear will vanish as doctors reach out to their patients in a better doctor-patient relationship and instill confidence and a clear understanding of cancer to them, apathy will die only after enthusiasm is implanted among members of the medical profession and patients by a vigorous, never-ending program of cancer consciousness and education, and quackery will be trampled by an honest and determined campaign on the part of organized medicine.(32)

As Tupper as aptly states it:

> If we are to increase our survival rate in cancer, the most potent weapon we have at hand is early detection. By education, we can guide the public so that the fear of cancer will lead to strong and useful action, rather than panic. By education we can overcome the second cause of delay, which is ignorance of the early signs of cancer and ignorance of what can be done to aid and cure cancer. In this we must all--doctor, nurse, and patient--play a part. (43)

CHAPTER III

REPORT OF THE STUDY

General Description

The purpose of this study was to investigate factors motivating a selected sample of women to respond or not to respond to a cytology program for early detection of cancer of the uterus; to endeavor to evaluate how well a direct health approach was received by those who participated in the program; to elicit information that would be helpful in planning future health programs; and to report the laboratory results of those women who participated in the clinic.

The study was done during the summer of 1962. The cytology program was sponsored by the medical and nursing staff of a private hospital which is owned and operated by the same religious organization which also sponsored the ten day church conference. The hospital is one of ten located in the city of Portland, Oregon, and is a 244-bed general hospital which has medical, surgical, obstetrical, and pediatric divisions which are approved by the American Medical Association for an intern training program and by other accreditation organizations for the education of collegiate student nurses, x-ray technicians, and laboratory technicians.

The American Cancer Society designated 1962 as Cancer Progress Year, and in cooperation with this timely theme, a positive health approach was planned by the committee for the church conference scheduled

in the month of July. The planned cytology program was presented in a late afternoon meeting on July 8, 1962. A minister conducted the preliminary service and introduced the hospital administrator who gave a report of the hospital activities in building and services during the past year since the previous church conference and told of the cytology program the hospital was sponsoring. The cost would be only $1.50, so that more individuals might take part in the clinic. A general practitioner discussed the general topic of cancer of the uterus and cervix, and the hospital pathologist discussed the subject in detail and what could be done to reduce the mortality rate by talking of the Pap smear and by examination to discover a possible early carcinoma of the uterus or cervix before symptoms were present. The film, "Time and Two Women" was shown after the evening service. The clinic began on Monday, July 9, and was conducted from 9-11 A.M. and 1-4 P.M. each day throughout the week. Periodic announcements were made in some of the regular services to remind the women in attendance at the conference of the opportunity given to them to rule out an early cancer of the uterus. The clinic was conducted in the regular medical building which is used yearly to treat any individual who might become ill during attendance at the conference. It is located a short distance from the main pavilion. This conference is held yearly, as are similar conferences throughout the United States. It is for the edification of residents of the state of Oregon, but any church member from any state may attend and visitors are welcomed. Reservations must be made in advance to secure housing, and the maximum charge for the total length of stay is approximately $25.00. There are four hundred cabins and eight hundred

framed tents, trailer accommodations, and a camp ground for a family's own equipment within a seventy-two acre tract. Daily attendance is approximately four to five thousand, with the week-end total attendance reaching fifteen thousand. Advance notice of the conference and the cytology clinic to be conducted, was printed in the North Pacific Union Gleaner and reached each church member in the states of Montana, Idaho, Washington, Alaska, and Oregon.

This study was limited to:

1. women who were in residence on the conference grounds for the ten day meeting.

2. information that could be obtained by interview from one hundred women who did not attend the cytology clinic.

3. information that could be obtained by mailed questionnaire from 225 women of the 852 who participated in the program. The questionnaires were mailed one week after the close of the clinic and a limit of three weeks was set for the returns.

The assumptions on which this study is based are:

1. the exfoliative cytology technique is effective for mass screening.

2. questioning by guided interview and mailed questionnaire will elicit information that may be useful in planning future programs at the conference.

3. the interview is a reliable means of obtaining information despite the tendency of individuals to make favorable responses when talking to an interviewer.

4. the responses given on the mailed questionnaire are the honest opinions of those submitting them.

Preliminary to initiating the study, a tool was developed which would elicit information pertinent to the purposes for which the study was conducted. Festinger and Katz say that the questionnaire serves two major purposes; it must translate the objectives of the study into specific questions, the answer to which will provide the necessary data to test the hypotheses, and be of such a caliber that the respondent will desire to answer the questions asked.(16) Good and Scates point out there is no such thing as an ideal questionnaire but in the construction, the following questions should be considered by the person developing the tool:

1. Are the trivial questions weeded out?
2. Are the responses simple?
3. Do the questions avoid unnecessary details?
4. Is the purpose clear and within definite limitations?
5. Are the questions clear cut to the reader?
6. Are the items phrased to facilitate easy tabulation on the returns? (20)

The questionnaire has usually been defined as a form that is sent through the mail, and the schedule method as a form filled by the investigator or completed in his presence.(20) The questionnaire is particularly useful as it supplies a method to reach a large group of individuals from any range of territory. However, one of the limitations of this method is lack of communication of ideas with the respondent. This may be due to poor question construction or lack of ability of the individual answering to understand the items asked, or both of these reasons. In the schedule or interview method, after favorable rapport is established and the purpose of the interview established, any question

that might arise can be adequately made clear and usually supplies complete and usable data. However, Rummel mentions some of the limitations of the interview method:

1. it is expensive in time, energy and cost to the researcher. This was not the case in this study, for all the participants were in residence within the conference grounds, and the time-consuming aspect was in polling women to find those who definitely did not plan to go to the clinic.

2. it is dependent upon the willingness of the interviewee to answer the questions.

3. it is influenced by strains, stresses, and other factors affecting either the interviewer, the interviewee, or both at the time of the interview.(40)

The tool developed was a combination of check-list questions which could be answered with yes, no, or don't know; a short-answer form; open-end questions; and multiple choice items. In discussing the various methods, Rummel says all item forms divide into main classes:

1. items to which the respondent supplies the words, numbers, or other symbols.

2. items to which the respondent selects responses from among those presented with the item. They may be classified as free-response, open-end which represent the supply type, and the yes-no, true-false, or multiple-choice, which represent the selection type.(40)

The closed form of question seeks check answers or short responses. It is essential to place the word "other" as part of a category or supply a space for free response. This enables the respondent to answer

what might be a most significant and important reason.(46)

The open form supplies an opportunity for the individual to express an opinion in his own words. This can provide for a greater depth in a response but may create a problem in establishing categories for this type of reply. The last two questions of the participants' questionnaire offered this opportunity by seeking to find how the women liked this type of health education program and asked their suggestions for improvements if such a program should be repeated.

Good and Scates list nine criteria for the development of questionnaires, some of which the writer attempted to incorporate into the tool. These were:

1. the questionnaire should not be lengthy or too time consuming to answer.

2. it must be of sufficient interest and have enough face appeal so the individual will be inclined to respond.

3. the questions should be of such depth as to avoid as many superficial replies as possible.

4. the questions should avoid being suggestive.

5. the questionnaire should elicit responses which are definite but not mechanically forced.

6. questions should be asked in such a manner as to allay suspicion on the part of the person answering.

7. the questionnaire must not be too narrow, restrictive, or limited in its scope or philosophy.(20)

The tool was developed and reviewed by four registered nurses, two of whom had done research studies, and by one physician. Their suggest-

ions were incorporated and the tool revised. Since there was no predetermined way to know who would or would not participate in the clinic, a pilot study was done on seven individuals known to the investigator who stated they definitely did not plan to go to the cytology clinic. This study was done by interview using the questionnaire designed for non-participants. The respective questionnaires were similar in nature except in the areas establishing reasons for participation or non-participation. The responses of the pilot study were not incorporated in the returns. Necessary revisions were made and the tool developed in final form. See Appendices B and D.

Procedure for the Study

The cytology clinic for early detection of cancer of the uterus began July 9, 1962, and was conducted each day from 9-11 in the morning and 1-4 in the afternoon through July 13. It was administratively impossible to establish who would or would not participate; therefore, data for the study were obtained by two separate methods; the interview method and by mailed questionnaire.

There was a predetermined goal of one hundred interviews of the non-participants. These began July 11 and were obtained by July 13. The interviews were done by accidental sampling. This consisted of standing at any one of five locations for thirty minutes each in the morning and in the afternoon, and polling women as they passed, asking if they had or had not participated in the cytology clinic. See Appendix C for the introduction to the interview guide.

The five locations chosen were the main pavilion areas where all

the meetings for the adult population were held, the areas in and around the cafeteria, snack stands and general store, two drinking fountains in separate locations, and near the rest room closest to the main pavilion. If the women had not participated in the clinic and did not plan to, their cooperation was sought and the interview guide completed. See Appendix D.

During the week following the close of the conference, names of 225 women were obtained from the pathology department of the hospital where the laboratory studies were completed. These were among the 852 respondents to the cytology clinic. Selection was accomplished by drawing the number six from a container which held numbers from one to ten. Every sixth name and address was recorded until 225 names were on the mailing list. The questionnaire with a letter of explanation and a self-addressed stamped envelope was mailed to the 225 women, and a limit of three weeks set for the return answers. See Appendices A and B.

At the termination of this time limit, the data from the interview guide and questionnaire were tabulated.

Findings

The master tables of responses for the two groups of participants in the survey are in Appendices E and F.

Questionnaires were mailed to 225 women who participated in the clinic. Table I shows that 202 usable questionnaires were returned or 89.8%. The nursing office of the hospital sponsoring the clinic was used for a return mailing address and this factor probably influenced

the above average return. Cards with the women's names and addresses were filled out by them at the time they came to the clinic for the test. Three of these cards, chosen by random sample, had questionnaires sent to the address indicated and were returned because of insufficient address information. This 1.3% indicates that the element of human error is always present. Twenty, 8.9%, did not respond to the questionnaire.

TABLE I

RESPONSE TO QUESTIONNAIRE MAILED TO 225 WOMEN WHO PARTICIPATED IN A CANCER DETECTION CLINIC

	Number	Percentage
Questionnaires Returned	202	89.8
Questionnaires Returned—Insufficient Address	3	1.3
No Response	20	8.9
Total	225	100.0

One hundred sixty-five, 81.7%, were married; four, 2%, were single; twenty-four, 11.9%, had been widowed; seven, 3.4%, divorced or separated; and two, 1%, did not respond. The average number of children born to the participant group was two.

The geographic spread of place of residence of the participants was eight states as shown in Table II.

TABLE II

STATES REPRESENTED BY 202 PARTICIPANTS
IN A CYTOLOGY SURVEY FOR UTERINE CANCER

State	Number	Percentage
Oregon	158	78.2
Portland 38--18.8%		
Other Cities 120--59.4%		
Washington	32	15.8
California	6	3.0
Idaho	2	1.0
Arizona	1	.5
Hawaii	1	.5
Louisiana	1	.5
Texas	1	.5
Total	202	100.0

The largest returns came, as expected, from Oregon since the conference was held, in the main, for church members from this state. Of the Oregon residents, 18.8% came from the city of Portland, and 59.4% from other cities within the state. Washington state had a 15.8% representation, and these returns came from cities along the Columbia River. The Oregon conference was apparently more convenient for them to attend than a similar religious gathering, held simultaneously, twenty-five miles from the city of Seattle.

The non-participating group of one hundred, showed 74% married, 10% single, 9% widowed, 7% divorced or separated, and the average number of children born to this group of also two.

All 302 women in the survey were white. There is a large colored church in the city of Portland and no restrictions as to race are practiced in housing accommodations on the grounds, but in the random sampling, apparently none was of other than the white race, and in the

interviews conducted, no persons of other races were polled as non-participants.

The questionnaire and interview guide data were divided into three main sections: evaluation of effort, evaluation of effect, and evaluation of the process.

Evaluation of Effort

Question: Did you read about the cancer detection clinic in the Gleaner? The article was published in the June issue, vol. 57:25:5, of the North Pacific Union Gleaner and reads as follows:

> Special Health Feature of the 1962 Oregon Campmeeting
>
> The Oregon Conference and the _____ Hospital will provide a special health service for women who will attend the campmeeting at _____ July 5-14. With the cooperation of the hospital medical staff and other _____ doctors in the conference, a pilot educational service, the first of its kind in the Oregon conference for the detection of malignancy in the reproductive organs, will be conducted. The service requires not only the help of medical doctors, nurses, and clerical help, but also the facilities of a pathology laboratory and a pathologist. A small charge (a fraction of ordinary fees) will be used to cover cost of materials. This is the same test as announced by our medical college for women attending the General Conference session in San Francisco. Further information will be given at the conference prior to the test from Monday through Friday, July 9-13. It will not be necessary to make arrangements before arrival at _____. Every woman who has not taken the Pap smear test recently should take advantage of this provision for her protection. Although the few moments necessary for the test is not a guarantee, it may be a life saving opportunity.
>
> _____
> Hospital Administrator

As indicated in Figure 1, of the 202 participants, 118, 58.4%, read the advance notice while 82, 40.6%, had not. It is interesting to note, of

the 100 women who did not participate, only 39% read of the clinic, while 61% had not seen the article.

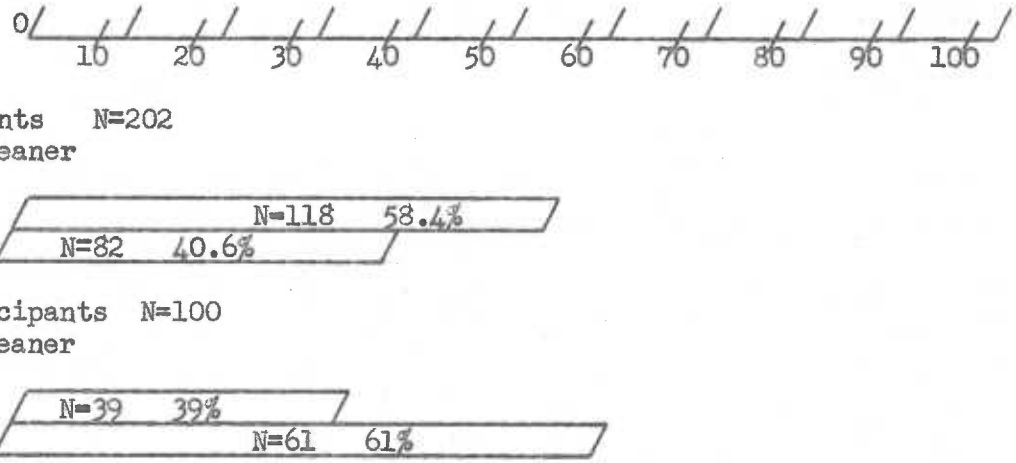

Figure 1. Response to Advance Published Notice in the North Pacific Union Gleaner by 202 Participants and 100 Non-Participants in a Cytology Survey for Uterine Cancer.

Question 2: Did you see the movie, "Time and Two Women," presented Sunday, July 8?

Figure 2 indicates 135, 66.8%, of the participants saw the film and 67, 33.2%, gave a negative reply. In the non-participating group, 66% had not seen the film and 34% saw the showing.

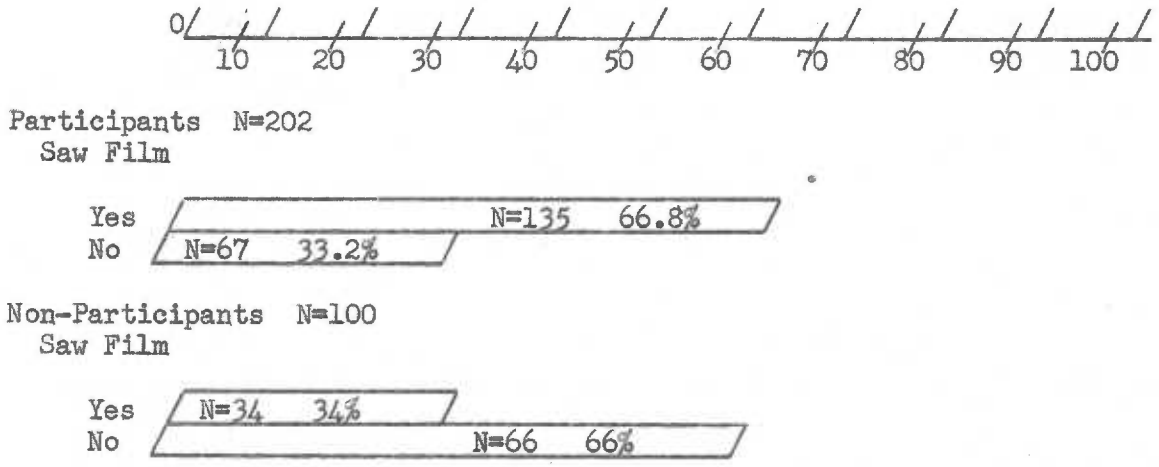

Figure 2. Attendance at Film "Time and Two Women" Reported by 202 Participants and 100 Non-Participants in a Cytology Survey For Cancer of the Uterus.

This is further explained in Table III. The age groups of the respondents in the uterine cancer cytology survey show that of the participant group of 202 women, the greater percentage fell in the age brackets above forty-five, while in the non-participant group of 100, the largest number of women polled were in the forty-four and below age groups. The film had to be shown after dark because of the later sunset schedule plus daylight saving time in the month of July, and was shown at 9:00 P.M. at the conclusion of the evening conference. In the non-participating group, 66% were in the classification forty-four years of age and under, and it can be assumed that many probably had young children to put to bed and therefore did not stay for the showing of the film.

TABLE III

NUMBER AND PER CENT OF AGE GROUPS OF 202 PARTICIPANTS AND 100 NON-PARTICIPANTS IN A UTERINE CANCER CYTOLOGY SURVEY

Age Groups	Participants		Non-Participants	
	Number	Per Cent	Number	Per Cent
15-29	19	9.4	25	25.0
30-44	52	25.8	41	41.0
45-59	61	30.1	23	23.0
60 and over	68	33.7	11	11.0
No response	2	1.0		
Total	202	100.0	100	100.0

Question 3: Did you talk to anyone about going to the clinic or seeing the movie? If the answer is yes, check one of the following: husband, relative, friend, other.

This question was asked to ascertain if those not seeing the film or the advance notice in the North Pacific Union Gleaner, would seek information from the clinic personnel or ask someone about the clinic or film, and thus begin to think about making some decision for participation or non-participation. However, when the return questionnaires were tabulated, there was a conflict of interpretation between the two groups of respondents, hence the question was eliminated from the data.

Question 4: Was this the first time you have heard about the Pap smear for early detection of cancer of the uterus? If the answer is no, specify source of information.

The percentages for the respective groups were approximately the same as indicated by Figure 3.

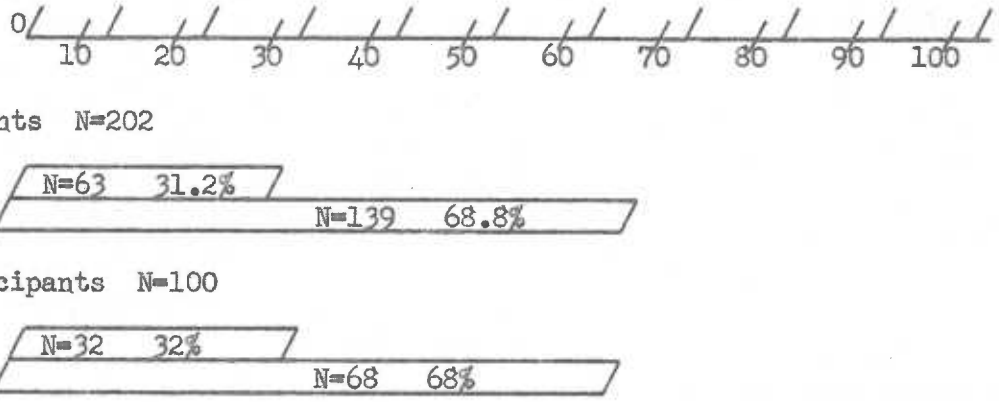

Figure 3. Response of a Selected Sample of Women Reporting First Information about the 'Pap' Smear for Early Detection of Uterine Cancer.

The essence of health education is to disseminate knowledge and stimulate individuals to use this information in order to remain in a state of positive health. It is a co-operative effort involving administrative and technical teamwork and a specific community. Without administrative planning and expenditure, a program cannot be developed. Unless medical science contributes the principles of ways to achieve and maintain a healthy way of life, the teaching can be wrong. In order for a program to succeed, there needs to be active participation by the recipient, whether individual or a group.

Between those who have heard of the Pap smear before and those hearing of this for the first time, a certain amount of this information will be disseminated, by those who have attended, and be passed on by what might be termed "informed gossip". This is valuable, provided the information initially imparted was well presented and fully understood. The presentation of the program and film to stress the importance of a yearly Pap smear and what this simple test can do to help save the lives of women from cancer of the uterus, aimed at the objective of enabling

the listener to make her own choice and decision about the matter of her personal health. Health education can influence the lives of people for years to come and this program had been planned and conducted with this thought in mind: the dissemination of information, and the taking of the Pap smears to aid in saving of lives by the early detection of cancer of the uterus.

Sources of previous information about the Pap smear are indicated in Table IV. Multiple sources were checked by some respondents who were participants in the clinic. However, for both groups it is interesting to note that most of the information had been received from a member of the medical or the nursing profession, with the printed page being second, the pamphlets from the American Cancer Society as the third most frequent source of information. These three sources must continually strive to put into effect the hypothetical formula recommended by Hovland, C (content cues)= E (emotional reaction)= R (reassuring recommendation).[22] The Pap smear is the reassuring recommendation that yearly examinations by the family physician will continue to reduce the mortality rate from this dreaded killer of women.

TABLE IV

SOURCES OF PREVIOUS INFORMATION ABOUT THE 'PAP' SMEAR INDICATED BY 139 PARTICIPANTS AND 68 NON-PARTICIPANTS IN A CYTOLOGY SURVEY FOR UTERINE CANCER

SOURCE	Participants N=139		Non-Participants N=68	
	Number	Per Cent	Number	Per Cent
Doctor or Nurse	50	35.9	21	31.0
Newspaper or Magazine	47	33.8	16	23.5
Pamphlet--American Cancer Society	38	27.3	13	19.1
Television or Movie	15	10.8	7	10.2
Friend	15	10.8	4	5.9
Relative	10	7.2	6	8.8
Radio	8	5.7	0	0
Other	3	2.2	1	1.5
No Response	6			
Total	192*	137.9*	68	100.0

* Multiple sources checked by some respondents

Questions 5, 6: Would you say you think about cancer fairly often, once in a while, hardly ever? If any member or members on your side of the family have had cancer, please list relationship.

The results of these questions are tabulated in Table V.

TABLE V

RESPONSES OF 202 PARTICIPANTS' AND 100 NON-PARTICIPANTS' CONCERN ABOUT CANCER AND THE PRESENCE OF CANCER IN MEMBERS OF THEIR FAMILY

CANCER CONCERN N=302	Participants N=202 Cancer in Family*				Non-Participants N=100 Cancer in Family*		
	Immediate	Gen.	None	N.R.	Immediate	General	None
HIGH P= N=96 47.5% NP= N=51 51.0%	mother= 23 father= 9 sister= 4 brother= 2	49	17	7	mother= 7 father= 3 sister= 2 brother=2	31	12
	38	49	17	7	14	31	12
	% 39.6	51.0	17.7	3.5	% 27.4	60.8	23.5
MEDIUM P= N=82 40.6% NP= N=29 29.0%	mother= 6 father= 10 sister= 4 brother= 0	37	24	9	mother= 3 father= 3 sister= 1 brother=1	15	8
	20	37	24	9	8	15	8
	% 24.6	45.2	29.3	4.4	% 27.6	51.7	27.6
LOW P= N=23 11.4% NP= N=20 20.0%	mother= 4 father= 4 sister= 1 brother= 1	8	8	2	mother= 1 father= 0 sister= 0 brother=0	9	11
	10	8	8	2	1	9	11
P=No response-1	% 43.4	34.8	34.8	1.0	% 5.0	45.0	55.0

* Multiple listing
P=Participant NP=Non-Participant

Of the 302 women in the survey, 96, 47.6% of the participants and 51% of the non-participants, reported a high concern about the disease. The respective groups also reported a higher rate of cancer in their immediate and general family groups, 39.6% and 51%; 27.4% and 60.8% respectively. It is interesting to note that in the low cancer concern participating group, 43.4% reported cancer in their immediate family and 34.8% in their general family. Perhaps this lack of concern for them-

selves might be as Porterfield speculates, that the attitude "it can't happen to me" has a great deal to do with delay or refusal to have an examination.(35)

Only one person did not respond to the question relative to her cancer concern and from the percentages indicated in reporting cancer in their families, the respective groups would support the findings of the Waltham, Massachusetts, survey which found that people no longer have any appreciable amount of hesitancy in having others know of cancer in their families.(13)

Question 7 in the participant questionnaire states: Have you had a pelvic examination prior to going to the clinic during the week of July 8 within the last six months, one, two, three plus years? Was a Pap smear done?

Twenty, 9.9%, had an examination within the past six months; 31, 15.3%, within a year; 49, 24.2%, within the past two years; and 76, 37.7%, three years or over. The uterine cancer cell examination had been taken for 55, 31.3%; 96, 54.5%, reported no Pap smear as part of their examination, and 25, 14.2%, did not know whether or not the test had been taken. The 54.5% figure of no Pap smear being taken as part of a pelvic examination, supports the Singleton thesis findings. In that study, many of the women who saw the film "Time and Two Women" were motivated by its message and went to a doctor asking for the examination, only to be told the test was not necessary, or was not too valuable in his professional opinion. As a result of these findings, one of her recommendations was that more emphasis be placed on professional education which is provided for in the budget of the American

Cancer Society.[42] However, the maintenance of a positive state of health is a continual program of health education on the part of agencies, the medical and the nursing professions to assist people to make positive decisions for themselves to achieve this goal.

Evaluation of Effect

Participating group of 202 women:

Questions 8, 9, 10: Did the cost, film, and convenience of the clinic influence your decision to go to the clinic? Figure 4 shows the responses.

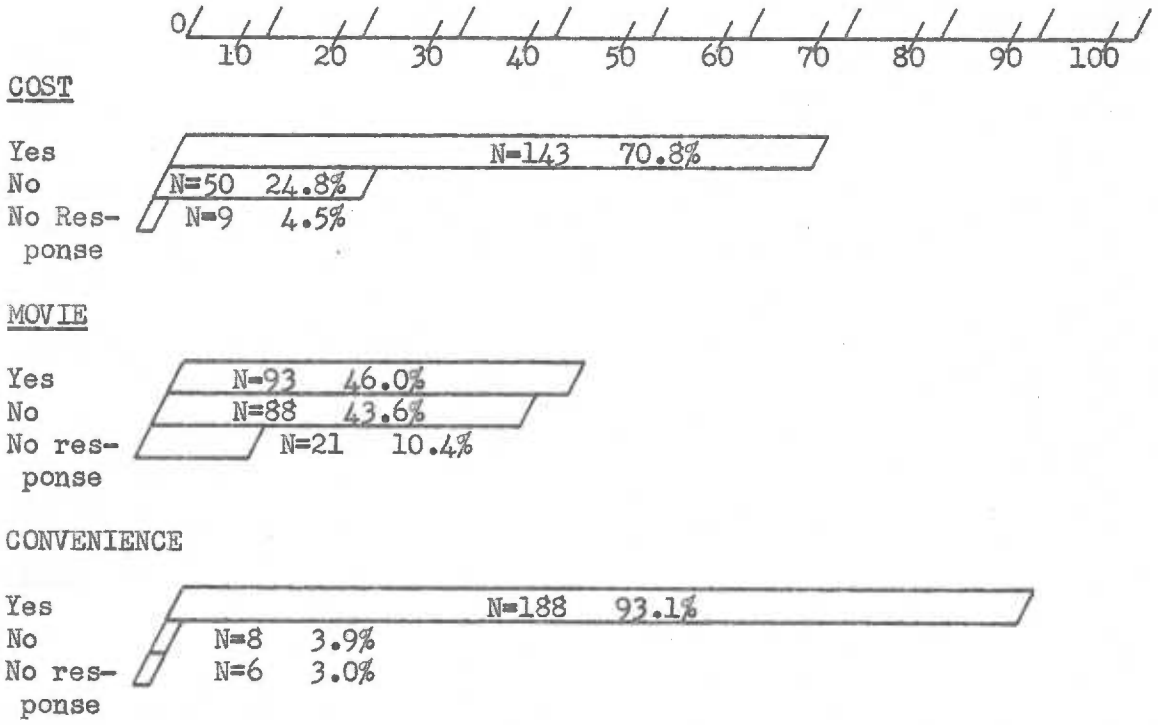

Figure 4. Reports of 202 Participants in a Cytology Clinic for Early Detection of Uterine Cancer Concerning Cost, Movie, and Convenience as Factors Motivating Participation.

A fee of $1.50 was charged to help delete the cost of the clinic. On the question of cost, 143, 70.8%, were affirmative; 50, 24.8%, said cost was not a factor. The movie, "Time and Two Women" aided 93, 46%, in their decision, but 43.6% said this was not pertinent. The largest number, 188 or 93.1%, said the convenient location of the clinic made the opportunity for participation almost effortless. This finding correlates with that of the U.S. National Health Survey report in the section on beliefs as to the reasonableness and appropriateness of the examination procedures and arrangements. It had been found that travel time, duration of examination, . . . and place all reflected on individual cooperation.(44)

Question 11 attempted to narrow the most motivating factor in the participants' decision to go to the clinic. Which do you believe was the most important factor in your decision to have a Pap smear: the movie, the cost, the convenience, other? Figure 5 shows the tabulation of this question.

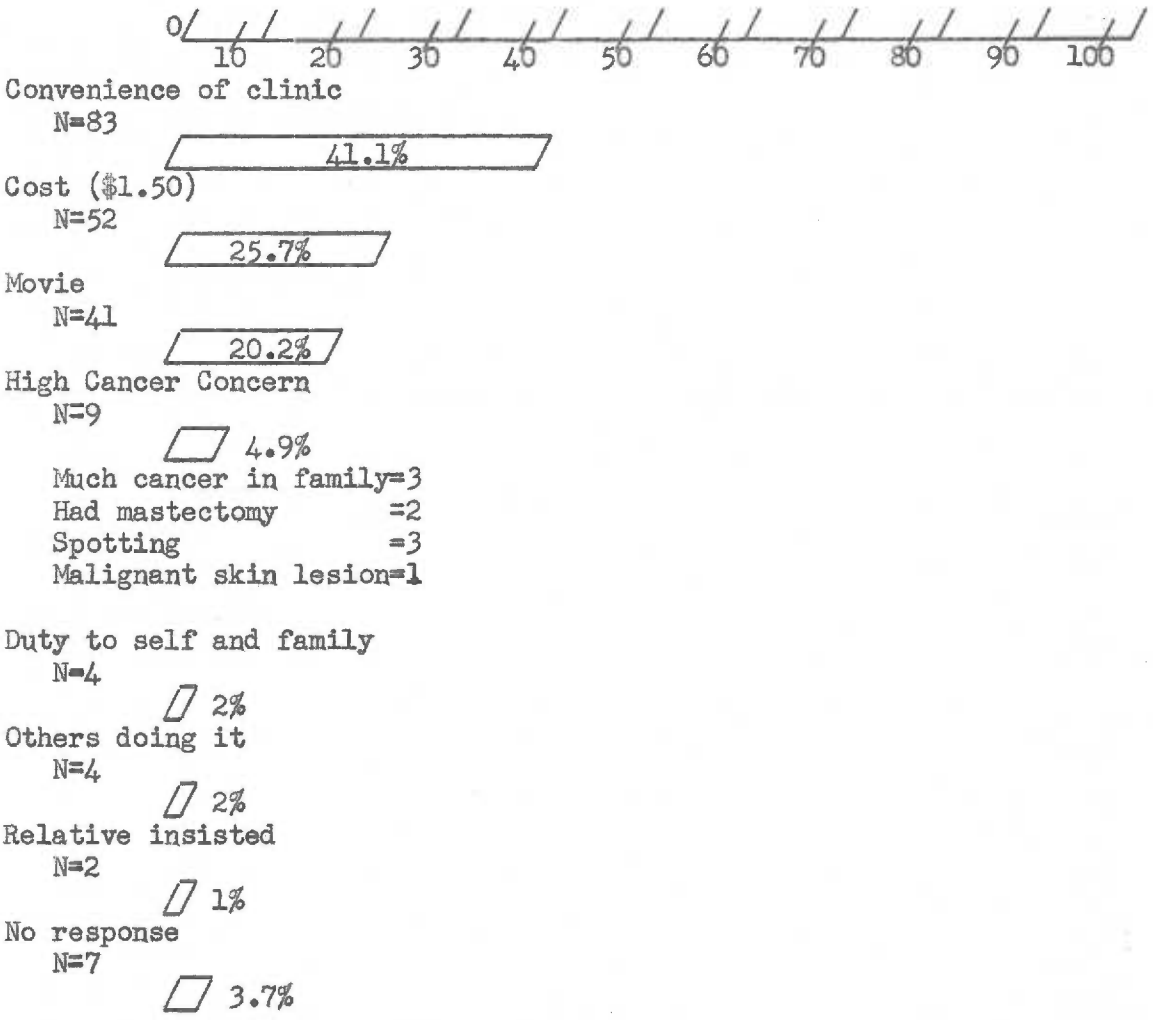

Figure 5. Motivating Factors in Order of Importance as Expressed by 202 Participants in a Cytology Program for Early Detection of Cancer of the Uterus.

Eighty-three, 41.1%, had the test because the clinic was so conveniently located and forty-one, 20.2%, stated the movie was the major factor in their decision.

Nine, 4.9%, expressed that a high cancer concern led them to participation in the clinic. Three indicated there was much malignancy in their respective families, two had had mastectomies, three reported spotting between periods, and one had had multiple malignant skin lesions

removed. A desire to maintain health as a duty to themselves and their families was indicated by four, 2%, and four also indicated they participated because they saw others doing it. Two, 1%, stated a relative insisted they go, and there was no response from seven.

Fifty-two, 25.7%, said the $1.50 charge was the deciding factor in their decision. Table VI shows the yearly family income for the entire survey group and Table VII indicates the relationship of those 52 who mentioned cost motivating them to go to the clinic to their yearly incomes.

TABLE VI

INCOME OF 302 RESPONDENTS IN A CYTOLOGY SURVEY FOR UTERINE CANCER

YEARLY INCOME	Participants N=202		Non-Participants N=100	
	Number	Per Cent	Number	Per Cent
Under $3,000	67	33.2	16	16.0
$3,000-$4,999	68	33.7	39	39.0
$5,000-$6,999	31	15.3	24	24.0
$7,000-$9,000	15	7.4	14	14.0
Over $9,000	5	2.5	6	6.0
No Response	16	7.9	1	1.0
Total	202	100.0	100	100.0

TABLE VII

RELATIONSHIP OF FAMILY INCOME TO 52 RESPONDENTS WHO LISTED COST AS MOST MOTIVATING FACTOR FOR PARTICIPATION IN A CYTOLOGY CLINIC

Family Income	Number	Per Cent
Under $3,000	22	42.3
$3,000-4,999	15	28.8
$5,000-6,999	7	13.5
$7,000-9,000	4	7.7
Over $9,000	1	1.9
No Response	3	5.8
Total	52	100.0

Thirty-seven of the women had incomes under $5,000 with 22, 42.3%, reporting an income under $3,000. In referring to Table III, the age group of participants over the age of 60 was 68, 33.7%, of the total participant group. It is highly probable that most of these reporting cost as influencing their decision, live on Social Security payments.

Non-participants:

Of the one hundred women who did not go to the clinic for a Pap smear, 28 stated they had had previous Pap smears while 72 remarked they had never had this examination.

Table VIII shows their reasons for not participating.

TABLE VIII

REASONS EXPRESSED BY 100 WOMEN FOR NOT PARTICIPATING IN A CYTOLOGY CLINIC FOR EARLY DETECTION OF CANCER OF THE UTERUS

Reason	Number	Per Cent
Hysterectomy	23	23
Felt test not important to me Last physical examination: under 2 yrs=0 2 yrs =3 3 yrs =4 4 yrs =2 over 4 yrs =6 15		
Afraid of doctors and/or examinations	14	14
Prefer own doctor	14	14
Physical examination within one year Pap smear: yes=4 no=9	13	13
Need more information	6	6
Prefer woman doctor	5	5
Cost a factor	5	5
Menstruating	2	2
Recent conization of cervix	1	1
Having hysterectomy in six weeks	1	1
Could not find friend to go with her	1	1
Total	100	100.0

Almost one fourth of those interviewed had had hysterectomies and one was scheduled for surgery within six weeks. It is interesting to note that of the fifteen per cent reporting they felt the test not important to them, none had had a physical examination within two years. Fourteen women said they were fearful of doctors and/or examinations and several remarked they were afraid of being hurt in the examination process. Of the five reporting the $1.50 as a cost factor to them, their respective incomes were under $5,000 a year and all had over two children. Nineteen per cent stated they preferred their own doctors or a woman doctor. The six individuals who remarked they needed more information had not read the advance notice, seen the movie, or talked

to anyone about the clinic. They had heard nothing about the cytology clinic being conducted until they were interviewed.

Questions 10 and 12 in the respective questionnaires sought to ascertain whether the motivation had been adequate enough that the survey respondents would have gone or would go in the future, for a Pap smear in their own communities. Table IX shows 52% of the participants said they would have sought the test from their doctors while 42.6% said no. Of these 86 negative replies, convenience and cost were the two factors mentioned most frequently by thirty-one of the women, twelve others said they would procrastinate and probably never would have the test, eight felt their home routines were too busy to allow time for the test, six expressed fear of doctors and followed others' examples at the conference, ten would wait for their doctors to mention it. Although the film specifically emphasized when symptoms of cancer of the uterus arise, the disease is often far advanced, it is interesting to note that eleven stated they would wait for symptoms before they would go to the doctor. Of these eleven, five had seen the film.

In the non-participating group, only 27% said they would seek a Pap smear, while 73% said they would not or were undecided. Of the 73%, 23% had had hysterectomies, 14% would if their doctors recommended it, 21% could express no reason, although the writer endeavored to explore their negative replies. Six per cent said they would ask their doctor about the necessity for the examination and 9% said they would wait for symptoms to develop before seeking the examination. Of this 9%, three had seen the film.

TABLE IX

MOTIVATIONS RESULTING FROM PAP SMEAR PROGRAM PRESENTATION AS EXPRESSED BY RESPONDENTS IN A CYTOLOGY SURVEY

	Participants		Non-Participants	
	Number	Per Cent	Number	Per Cent
Test Importance Realized: Would have Will have test in own community				
Yes	105	52.0	27	27
No*	86	42.6	**40	40
Undecided	7	3.5	***33	33
No response	4	1.9		
Total	202	100.0	100	100.0

Rationale for negative responses designated above:

*N=86

1. Had examination because of convenience, would not have in own community	16
2. Cost more than could afford in own area	15
3. Would procrastinate and not go	12
4. Optimistic--would wait for symptoms	11
5. Wait for the doctor to suggest having the test done	10
6. Home routine too busy to take time to go	8
7. Afraid of doctors--followed others' example here	6
8. Too old to bother	5
9. Never see a doctor unless pregnant	3
	86

**N=40

1. Had hysterectomy	23
2. Would if own doctor felt test necessary	14
3. No reason expressed	3
	40

***N=33

1. Could not express reason for indecision	18
2. Optimistic--would wait for symptoms	9
3. Will ask doctor about test sometime	6
	33

Questions 9 and 13 of the respective questionnaires asked: If you had a chance to talk to your doctor for a half hour, at no cost to you, about the topic of cancer in general, are there any things about the subject you would like to ask him? If the answer is yes, what would you ask? If no, why?

The non-participating group was equally divided on this question. The fifty who expressed a desire to talk to their doctor, asked questions that fell into four major areas: cancer in related organs, 13; the desire to know how to do breast self-examination, 16; is cancer contagious, infectious or inherited, 11; and what is the latest research being done with the disease, 5. The other five questions were, "why do they give experimental drugs to cancer patients?", "how do they stain Pap smears and what do normal and abnormal slides look like?", "I have been treated for cancer and would like to ask what the reoccurring symptoms are", and "what can be done aside from surgery in the early stages of the disease?".

Twenty-nine of the fifty negative replies indicated the informants felt they had read and inquired widely enough to be well informed, eleven said they were not interested in the topic of cancer, four stated there was no cancer in the family and thus they felt secure, and the other six answers were, "I see the doctor regularly; if there was any danger of cancer, I think he would talk to me","not interested in discussing cancer of the uterus. I saw both this film and the one on breast cancer. As far as I'm concerned that's the most dangerous for women", "have taken care of patients with cancer and feel I know enough", "I know the seven symptoms and that is enough", "have the

answers to all the questions I'm curious about", and "I'm superstitious. Let dead dogs lie".

For the participating group, the question was poorly constructed with the addition of the category, 'don't know'. This offered a way of dismissing an opinion of yes or no and why. The returns indicated this flaw in question construction for 55, 27.2%, gave the answer, 'don't know'. Eighteen, 8.9%, did not respond, while 63, 31.2%, said they would like to talk to their doctor. The topics again fell into four major categories; questions about cancer in related organs, 16, 25.4%; how to do breast self-examination, 18, 28.6%; symptoms of specifically named carcinomas, 14, 22.2%; and the infectious, contagious, and hereditary aspects of the disease, 7, 11.1%. Two would ask the doctor about diet in relation to cancer; two would ask, "Are there any preventive measures against cancer besides these special tests; and one wanted to know why so many have cancer without realizing it. Another would ask the doctor, "other than lung cancer, will cancer show on an x-ray"; one would seek an answer to, "can you have cancer and not lose weight?", and one woman wanted to ask, "will giving hormones during menopause possibly cause cancer?".

Sixty-six, 32.7%, said they would not talk to the doctor. Fifty-five, 83.3%, felt they had asked questions or read sufficiently to answer any questions they might have. One respondent mentioned the May issue of Good Housekeeping magazine which discussed the Pap smear. In the August, 1962, issue of the aforementioned periodical, this letter was published in the Sincerely Yours column:

> Thank you for saving my life . . . A month ago I had a medical check-up and as the doctor was finishing, I mentioned the Pap test which I had read about in your cancer article (May, The Better Way). As you can guess, the test was positive, and I had to have surgery . . . I am now looking forward to a healthy, normal life . . . The doctor told me that my cancer would not have shown up a year ago, and that a year from now, it would have been too late . . . .
>
> Mrs. R. D. Webb, Jr.
> Tulsa, Oklahoma

Eight, 12.1%, felt their health fine and would not take a doctor's time, one stated she was not concerned, another remarked she was superstitious and did not want to talk about the disease, and one felt doctors in general did not take time to talk to patients about any questions they might have.

Deasy and Classen found one generalization in their study. Persons of higher educational status tend to be favorable toward programs that employ scientific methodology to the end of improving health; whereas, people with less education have difficulty in assembling objectives of a program and seem less inclined to seek information that might help them come to a logical decision.

This finding does not seem to be significant for the survey group. The educational background of the 202 women was as follows: 36, 17.8%, had a grade school education. Sixty-eight, 33.7%, of these individuals were sixty years of age or over. The stress on education was not as intense a number of years ago as in this generation, and grade school might be considered an adequate education for that age group in that period. Forty, 19.8%, had some high school, and 49, 24.3%, were high school graduates. Forty-nine, 24.3%, had been to college and eleven,

5.4%, were college graduates. Four, 2%, reported doing graduate study and thirteen, 6.4%, did not respond.

The non-participating group had 9% reporting grade school education, 19% had been to high school, and 32% were high school graduates. Twenty-five per cent had attended college and 12% were college graduates, with 3% reporting graduate study.

Evaluation of Process

Questions 19 and 20 were open-end questions seeking to ascertain how the participants accepted the more positive approach of health education than had been followed during previous conferences, and to seek suggestions for improvement if this type of clinic should be conducted at some future time.

Responses ranged from good to excellent were expressed by 181, 89.6%. Quoted below are but a few of the comments.

> I was impressed by the kindness of the nurses and doctor and by the large number of women who took part. Also by the low cost. Bills for tests are usually so high.
>
> This was a real Christian service to people like myself, constantly wondering if all is o.k. but afraid to take the step to find out. The nurses and doctor were very kind and considerate. My sincere thanks to you all.
>
> It was very educational, plain, and helpful and made me feel the importance of having the Pap smear yearly. I want to thank you for bringing it before us.
>
> An excellent idea and I'm sure it reached many persons who would not otherwise have had such a test and made it available to those who are not financially able to permit a test without symptoms.

Nineteen, 9.4%, did not respond and two, 1%, did not approve of the clinic. One remarked she felt it was experimental and the other stated she did not like the film being shown so openly that children might see it.

Table X shows the suggestions given for clinic improvement. Fifty-eight per cent, 117, thought the clinic fine and offered no suggestions; 19, 9.4%, did not respond. Fourteen, 6.9%, indicated more specific instruction was needed in the various processes of the clinic; 9, 4.5%, felt more advertisement should have been done while 8, 4%, felt literature should have been made available. Twelve, 5.9%, expressed a desire for breast examination for possible cancer of this area. Five, 2.5%, would have liked a limited time to talk to the doctor, and other suggestions were a woman doctor for those preferring one, definite appointment time, more privacy, waiting facilities improved, a report of the results at the next conference, doctors should take the test with more care, tissues supplied, and health education programs of this high calibre to be continued in the future. The answers to these questions emphatically showed the clinic approved by the women who participated in the program, and some expressed concern that more of the conference attendees did not avail themselves of the opportunity to have a Pap smear for early detection of cancer of the uterus.

TABLE X

SUGGESTIONS FOR IMPROVEMENT OF A CYTOLOGY CLINIC AS EXPRESSED BY 202 PARTICIPANTS

Suggestions	Number	Per Cent
Thought clinic fine--no suggestions	117	58.0
More specific instruction	14	6.9
1. filling out cards		
2. prior to test		
3. availability of test results		
Breasts examined for cancer at same time or clinic to teach how	12	5.9
More advertisement	9	4.5
Literature about test made available	8	4.0
Limited time given to talk to doctor	5	2.6
Report of results at next conference	3	1.4
More programs of this high caliber	3	1.4
Woman doctor for those who prefer one	3	1.4
Doctors more careful--too painful	2	1.0
Tissue supplied after examination	2	1.0
Definite appointment time	2	1.0
More privacy	2	1.0
Waiting facilities improved	1	.5
No response	19	9.4
Total	202	100.0

The pathologist in charge of the test results indicated the results were about what was expected for the number who participated in the survey and the respective age groups well represented. Table XI gives the cytologic interpretations of the 852 women who went to the clinic. A follow-up study has been limited at the time. However, the physician who is chairman of the tumor board of the hospital sponsoring this survey remarked that a more conclusive follow-up of the atypical slides would be more complete in six months.

The findings in the survey are in relation to the report by Dr. Roberts.[38] He has stated that more than one woman in every two

hundred has an unsuspected cancer of the cervix and that the average age of women with early localized cancer of the cervix is thirty-eight, and the average age of women with cervical cancer spread beyond the local tissues is fifty.

TABLE XI

CYTOLOGIC INTERPRETATIONS OF 852 WOMEN PARTICIPANTS IN A DETECTION CLINIC FOR CANCER OF THE UTERUS

Papanicolaou Smear Results	N=852	Age	Per Cent	Follow-up
Positive	1	62	.12	Smear only as of 10-10-62
Very suspicious	1	42	.12	
Suspicious	3	26		
		36	.36	Biopsy positive
		41		
Atypical	6	25	.7	
		25		
		30		
		32		
		34		
		41		
Negative	841		98.7	
Total	852		100.0	

The results in the cytology survey at the church conference showed one definite positive, age 62, and as of October, 1962, there had been no treatment reported. There was one very suspicious result, age 42. The request for a follow-up report from the family physician was not answered. Of the three suspicious slide results, ages 26, 36, and 41, the 36 year-old woman had had a biopsy that proved positive and she is now under treatment.

There were six atypical slide results, ages 25-2, 30, 32, 34, and

41. There were 841 negative results, 98.7% of the slides examined.

These findings are consistent with the Memphis study where there was a one per cent incidence of positive results, and in this survey the atypical findings were 1.3%.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate factors motivating a selected sample of women to respond or not to respond to a cytology program for early detection of cancer of the uterus; to endeavor to evaluate how well a direct health approach was received by those who participated in the program; to elicit information that would be helpful in planning future health education programs, and to report the laboratory findings of the study.

After reviewing the literature to develop a frame of reference, a questionnaire was formulated to be used for those participating and an interview guide constructed to use for those not participating. A combination of check-list and open-end questions was used to obtain the data.

Data were obtained by interviewing one hundred women who did not go to the clinic and by mailed questionnaire sent to 225 of the 852 women who participated in the program. Returns were received from 202. Data were analyzed and reported in three sections; evaluation of effort, evaluation of effect, and evaluation of process.

The data showed more of the participants saw the printed notice of the clinic published in the North Pacific Union Gleaner and attended the movie, "Time and Two Women" than the non-participants. The most

motivating factor expressed most frequently by the participants, precisely 83 or 41.1%, was the convenient location of the clinic within the conference grounds. The movie accounted for a 20.2% opinion and cost as 25.7% of the total. Nine, 4.9%, expressed high cancer concern as their reason for going. Of the nine, three reported much malignancy in their respective families, two had had mastectomies, three had spotting between periods, and one had had multiple malignant skin lesions removed.

The percentage of women who heard of the Pap smear for the first time was divided by only eight tenths of one per cent between the participant and non-participant group, 31.2% and 32% respectively.

Nearly a fourth, 23%, of the non-participating group had had hysterectomies, 14% expressed a fear of doctors and examination, 19% stated they preferred their own physicians. It is pertinent to note that of the 15% reporting they felt the test not important to them, none had had a physical examination under two years ago.

There were 181, 89.6%, of the participating group who rated the clinic from good to excellent and expressed what a great value it was to them. There were two negative remarks.

The pathologist reported of the 852 slides read in the hospital laboratory, there was one positive, one very suspicious, three suspicious, six atypical, and 841 negative results.

Conclusions

1. The purposes of this study were fulfilled in:

   a. obtaining reasons why women did or did not participate in a

cytology program for early detection of cancer of the uterus.

b. disseminating knowledge of the Papanicolaou smear to those who had never heard of the test previously.

c. finding a direct health approach was acceptable to the group of 202 women who participated in the survey.

d. finding that breast self examination was expressed as being the most needed health information for a future program.

e. the test results enabling those with a positive follow-up biopsy having treatment earlier than what might have been had not the examination been done.

2. Regardless of the type of program being conducted, the environmental and family culture of the person have definite bearing on reasons why an individual will or will not seek health information or accept health services.

3. A "captive group" such as might be found in a church camp conference, displays a high degree of conformity to pre-planned arrangements; this may account for the high per cent of participation in the clinic program.

Recommendations

The following recommendations pertain to the conduct and content of future health education plans:

1. In conjunction with future church camp conferences, other health information programs be planned. There should be one to include the film on breast self-examination and small clinics to show a group of women how to examine their breasts properly for early detection of

possible tumors.

2. Literature should be made available for disseminating health information on a variety of topics.

3. Clerical assistance should be more abundant if a cytology clinic should be repeated, to facilitate cards being filled out more accurately, and to assure that more specific instruction be given participants as to what to do, where the results of the tests will be sent, and the approximate time before the reports will be forwarded to the office of their private physician.

4. A woman physician should be part of the volunteer staff taking slides to encourage the more reticent individuals to take advantage of the clinic.

5. A sign should be placed on the outside of the conference medical clinic indicating what program is being conducted, the purpose, and the time tests will be taken.

6. If another cytology program is conducted at the church conference, this study should be repeated with a larger random sample being taken from records in the location office. The same questionnaire should be used to ascertain if this study is valid.

7. A survey be taken among the men attending the church conference to ascertain if they would be interested in programs of a more positive health approach, such as a cancer detection program for rectal cancer, diabetes screening, and glaucoma.

It is recommended that further study be done:

1. To determine the reasons some persons express fear of physicians. Such a study may reveal reasons for lack of success of some

health education programs. Ascertaining the reasons would be a first step toward more effective health education.

2. To determine the reasons why some physicians do not consider a Pap smear to be an essential component of the physical examination of a woman patient.

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APPENDIX A
COVER LETTER FOR PARTICIPANT QUESTIONNAIRE

932 SE Belmont
Portland 15, Oregon
July 13, 1962

Dear Mrs.

The Cancer Detection Clinic has served two purposes during the week of July 8. First, as a personal service to you and secondly, to inform individuals of the importance of the uterine cancer cell examination.

We are most anxious to evaluate how effective this health service has been, and you have been selected to help. Please assist by filling out <u>each</u> item in the enclosed questionnaire and returning it <u>immediately</u> in the self-addressed stamped envelope. To make this information completely confidential, do not sign your name.

Thank you for your needed cooperation in this matter.

Sincerely,

Frances G. Fox, R.N.

FF:li
Enclosures

APPENDIX B

QUESTIONNAIRE FOR THOSE PARTICIPATING IN THE CLINIC

1. Did you read about the cancer detection clinic in the Gleaner? Yes___ No___

2. Did you see the movie "Time and Two Women" presented Sunday, July 8? Yes___ No___

3. Did you talk to anyone about going to the clinic or seeing the movie? Yes___ No___
   If answer is yes, check one of the following:
   - husband ___
   - relative ___
   - friend ___
   - other (specify) ___

4. Was this the first time you have heard about the Pap (cervical) smear for early detection of cancer of the cervix? Yes___ No___
   If answer is no, specify source of information:
   (check one):
   - television or movie ___
   - radio ___
   - newspaper or magazine ___
   - doctor or nurse ___
   - pamphlet of the cancer society ___
   - relative ___
   - friend ___
   - other (specify) ___

5. Would you say you think about cancer (check one):
   - fairly often ___
   - once in a while ___
   - hardly ever ___

6. If any member of members on your side of the family have had cancer, please list relationship. ___

7. Have you had a pelvic examination prior to going to the clinic during the week of July 8 within the past (check one):
   - six months ___
   - one year ___
   - two years ___
   - three plus years ___

   Was a Pap smear done? Yes___ No___ Not known___

APPENDIX B (continued)

8. Did the cost for the service given influence your participation? Yes___ No___

9. Did the film "Time and Two Women" influence your decision to go? Yes___ No___

10. Did the convenience of the clinic influence your decision to go? Yes___ No___

11. Which do you believe was the most important factor in your decision to have a Pap (cervical) smear: (check one)
movie _____
cost _____
convenience _____
other reason (specify) _____

12. Do you feel you would have had a Pap (cervical) smear done in your own community by your doctor if you had not participated in the clinic during the campmeeting? Yes___ No___

If the answer is no, please give reason why:

13. If you had a chance to talk to your doctor for a half hour, at no cost to you, about the topic of cancer in general, are there any things about the subject you would like to ask him? Yes___ No___ Don't know___

If answer is "yes," what sort of things would you ask him about?

If answer is "no," why is that?

14. Marital status: (Check one)
married _____
single _____
widowed _____
divorced _____
separated _____

How many children have you borne? _____

APPENDIX B (concluded)

15. Check the space in which your last birthday occurred: (check one)

under 21 yrs.____	30-44 yrs.____	60 plus yrs.____
21-29 yrs. ____	45-59 yrs.____	

16. Education: (check one)

grade school	____	some college	____
some high school	____	college graduate	____
high school graduate	____	graduate study	____

17. Check the space which contains your family income for last year:

under $3,000 _____	$7,000-9,000 _____
$3,000-5,000 _____	over $9,000 _____
$5,000-7,000 _____	

18. Race:

White _____
Non-white _____

19. What was your general impression of the clinic?

20. If there were another opportunity for a clinic, do you have any suggestions for improvement? (list suggestions)

APPENDIX C

INTRODUCTION TO INTERVIEW GUIDE

Excuse me, may I have a moment of your time?

I am Frances Fox, a graduate student at the University of Oregon School of Nursing. I am doing a study on the cytology clinic for early detection of cancer of the uterus. May I ask if you plan on going to the clinic for the test? (No)

Is there any possibility that you might change your mind? (No)

I am taking a survey of those not planning to attend the clinic. Would you mind answering a few questions for me? Thank you. (Proceed)

APPENDIX D

INTERVIEW GUIDE FOR THOSE NOT PARTICIPATING IN THE CLINIC

1. Did you read about the cancer detection clinic in the Gleaner? Yes___ No___

2. Did you see the movie "Time and Two Women" presented Sunday, July 8? Yes___ No___

3. Did you talk to anyone about going to the clinic or seeing the movie? Yes___ No___

   If answer is yes, check one of the following:

   husband_____
   relative____
   friend_____
   other_____

4. Was this the first time you have heard about the Pap smear for early detection of cancer of the cervix? Yes___ No___

   If answer is No, check source of information:

   Television or movie _____
   Newspaper or magazine _____
   Radio _____
   Doctor or nurse _____
   American Cancer Society Pamphlet _____
   Relative _____
   Friend _____
   Other _____

5. Would you say you think about cancer: fairly often _____
   once in a while _____
   hardly ever _____

6. Has any member of your immediate family had or has cancer? Yes___ No___
   Relationship: _____

7. Have you ever had a Pap smear? Yes___ No___

APPENDIX D (continued)

8. Was your reason for not participating in the clinic program:
   1. fear of doctors and examinations _____
   2. have had uterus removed _____
   3. cost is too high ($1.50) _____
   4. would prefer own doctor _____
   5. felt test not important for you _____
      last physical examination:
      one year ____
      two years ____
      three years ____
      four or over years ____
   6. have had a physical examination during the last year including a pelvic examination _____
      Was a Pap smear done?
      Yes ____ No ____
   7. other:_____

9. If you had a chance to talk to your own doctor for a half-hour at no cost to you, about cancer, are there any things about the subject you would like to ask him?
   Yes ____ No ____ Don't know ____

   If answer yes, what sort of things would you ask him?

   If answer no, why is that?

10. Do you plan on having a Pap smear done in your own community by your own doctor within the next six months?
    Yes ____ No ____ Undecided ____

11. Marital Status:
    Married ____
    Single ____
    Widowed ____
    Divorced or Separated ____

12. Are you between ages
    18-29 ____
    30-44 ____
    45-59 ____
    60 or over ____

APPENDIX D (concluded)

13. How far did you go in school?

Grade School	_____
Some high school	_____
High school	_____
Some college	_____
College graduate	_____
Graduate study	_____

14. Was your family income last year:

Under $3,000	_____
$3,000-5,000	_____
$5,000-7,000	_____
$7,000-9,000	_____
Over $9,000	_____

15. Race:

White	_____
Non-white	_____

APPENDIX E

MASTER TABLE OF RESPONSES OF 202 WOMEN PARTICIPATING IN A CYTOLOGY CLINIC FOR EARLY DETECTION OF CANCER OF THE UTERUS

Ques. 1: Did you read about the cancer detection clinic in the Gleaner? Yes--118 No--82

Ques. 2: Did you see the movie "Time and Two Women" presented Sunday, July 8? Yes--135 No--67

Ques. 3: Eliminated--Question misinterpreted by respondents.

Ques. 4: Was this the first time you have heard about the Pap smear for early detection of cancer of the uterus? Yes--63 No--139

Source of Information:

Television or movie	--15
Radio	-- 8
Newspaper or magazine	--47
Doctor or nurse	--50
Pamphlet of cancer society	--38
Relative	--10
Friend	--15
Other	-- 3
No response	-- 6

Ques. 5: Would you say you think about cancer:

Fairly often	--96
Once in a while	--82
Hardly ever	--23
No response	-- 1

Ques. 6: If any member or members on your side of the family have had cancer, please list relationship.

Mother	--33
Father	--23
Brother	-- 3
Sister	-- 9
General family	--94
No response	--18
No Ca in family	--49

APPENDIX E (continued)

Ques. 7: Have you had a pelvic examination prior to going to the clinic during the week of July 8 within the past:

Six months --20
One year --31
Two years --49
Three or over years--76
No response --26

Was a Pap smear done?
Yes--55 No--96 Not known--25

Ques. 8, 9, 10: Influence of Cost, Movie, and Convenience on Participation.

Cost:	Yes--143	No--50	No Response-- 9
Movie:	Yes-- 93	No--88	No Response--21
Convenience:	Yes--188	No-- 8	No Response-- 6

Ques. 11: Most Motivating Factor:

Cost: 52
Movie: 41
Convenience: 83
High Cancer Concern: 9
Duty to Self and Family: 4
Others Doing It: 4
Realtive Insisted: 2
No Response: 7

Ques. 12: Do you feel you would have had a Pap smear done in your own community by your doctor if you had not participated in the clinic during campmeeting?

Yes--105 No--86 Undecided--7 No Response--4

Ques. 13: If you had a chance to talk to your doctor for a half hour at no cost to you about the topic of cancer in general, are there any things about the subject you would like to ask him?

Yes--63 No--66 Don't Know--55 No Response--18

Ques. 14: Marital Status:

Married--165
Single-- 4
Widowed-- 24
Divorced or Separated-- 7
No Response-- 2

Children:

None--34
One--23
Two--44
Three--37
Four--26
Five--15
Six-- 8
Seven-- 7
Over-- 6

APPENDIX E (concluded)

Ques. 15: Check space in which your last birthday occurred:

15-29:	19	30-44:	52	60 or over:	68
		45-59:	61	No response:	2

Ques. 16: Education:

Grade school--36	Some high school--40	High school graduate--49
Some college--49	College graduate--11	Graduate study-- 4
		No response--13

Ques. 17: Family Income Last Year:

Under $3,000--67	$7,000-9,000--15
$3,000-5,000--68	Over $9,000 -- 5
$5,000-7,000--31	No Response --16

Ques. 18: Race: All white responded.

APPENDIX F

MASTER TABLE OF INTERVIEW RESPONSES FOR 100 WOMEN WHO DID NOT PARTICIPATE IN A CYTOLOGY CLINIC FOR EARLY DETECTION OF CANCER OF THE UTERUS

Ques. 1: Did you read about the cancer detection clinic in the Gleaner? Yes--39 No--61

Ques. 2: Did you see the movie "Time and Two Women" presented Sunday, July 8? Yes--34 No--66

Ques. 3: Eliminated--Question misinterpreted by 202 women clinic participants.

Ques. 4: Was this the first time you have heard about the Pap smear for early detection of cancer of the cervix? Yes--32 No--68

Source of Information:
- Television or Movie --7
- Radio --0
- Newspaper or magazine --16
- Doctor or nurse --21
- Pamphlet of cancer society--13
- Relative -- 6
- Friend -- 4
- Other -- 1

Ques. 5: Would you say you think about cancer:
- Fairly often --51
- Once in a while--29
- Hardly ever --20

Ques. 6: Has any member of your immediate family had or has cancer? Yes--77 No--23

List relationship:
- Mother --11
- Father -- 6
- Brother -- 3
- Sister -- 3
- General --55
- None --23

Ques. 7: Have you ever had a Pap smear? Yes--28 No--72

APPENDIX F (continued)

Ques. 8: Was your reason for not participating in the clinic program:

Fear of doctors and examinations--14
Have had uterus removed --23
Cost a factor -- 5
Would prefer own doctor --14
Felt test not important to you --15
Last physical exam: one year--0
two years--3
three years--4
four or over years--8

Have had a physical examination during the last year including a pelvic examination --13
Was a Pap smear done?
Yes--4 No--9
Prefer woman doctor -- 5
Other --11

Ques. 9: If you had a chance to talk to your own doctor for a half-hour at no cost to you about cancer, are there any things about the subject you would like to ask him?

Yes--50 No--50

Ques. 10: Do you plan on having a Pap smear done in your own community by your own doctor within the next six months?

Yes--27 No--40 Undecided--33

Ques. 11: Marital Status: Married--74
Single--10
Widowed-- 9
Divorced or separated-- 7

Children: none--19
1-- 9
2--25
3--21
4--11
5-- 1
6-- 3
7-- 1
over seven-- 0

Ques. 12: Are you between the ages of: 18-29: 25 45-59: 23
30-44: 41 60 or over: 11

Ques. 13: Education: Grade school-- 9
Some high school--19
High school graduate--32
Some college --25
College graduate--12
Graduate study -- 3

APPENDIX F (concluded)

Ques. 14: Family Income:

Under $3,000--16
$3,000-5,000--39
$5,000-7,000--24
$7,000-9,000--14
Over $9,000 -- 6
No response -- 1

Ques. 15: Race: All white.

Typed by

Gwendolyn M. Dunning