#### PAP SCREENING IN AUSTRIA

#### G. GERSTNER (\*) - B. GREDLER (\*\*)

(\*) Department of Obstetrics and Gynecology - Stockerau Hospital (Austria) (\*\*) Institut für Sozialmedizin der Universität Wien (Austria)

Summary: In view of the efficacy of the pap-smear, particularly little advantage is taken of this early detection test: only 35% of Austrian women (over 20 years of age) go to at least one gynecological-cytological check-up per year.

Previously when low participation in the pap-test program was analysed, mostly socioeconomic and psychosocial factors were taken into consideration, whereas less attention was given to what local preventive and curative services are being offered in this field.

Hereby a structural lack of services offered to the target group of older women results in urban areas, because the elderly population primarily takes advantage of curative medical services offered through general practitioners, of whom, however, only 8-27% take smear tests. Regional low participation can also be found in rural areas, due to the lack of preventive behaviour of the rural population regarding prevention.

Based on these results, increasing health information through the physician and improving his motivation to take the smear test seem to be a purposeful strategy for increasing participation

in the pap-test program.

Key words: pap-test, cervical, cancer, early detection, screening.

Preventive medicine has played a more important role in gynecology than in almost any clinical speciality: whereas in the early fifties gynecologists were involved in almost entirely curative activities, today most of their works is concerned with preventive medicine, with respect to time as well as number of patients (10).

The efficiency and effectiveness of the fight against carcinoma of the cervix in Austria has been chosen as an example from among the different possibilities of prevention in gynecology and will be discussed below.

Significance of the Early Detection Among Measures to Combat Carcinoma of the Cervix

Since still no useable form of primary prevention exists, the fight against carcinoma of the cervix is mainly based on early detection.

Secondary prevention measures can only take priority within a general concept of cancer control if the criteria "acceptability", "reliability" and "economic efficiency" are fulfilled; this means that certain basic conditions must be met concerning

the disease to be detected, and the methods therefore prescribed must be met in order to justify wide use of early detection methods for asymptomatic persons (4):

The disease:

- should cause serious consequences for the individual and for society;
- should have a preclinical phase which can be recognized in time with straightforward methods and have high prevalence among the population in question;
- should be easier to treat successfully when discovered in this preclinical phase than after onset of typical symptoms.

Furthermore, the method of detection:

- must be simple, cause little discomfort and not ask too much of a clinically healthy person besides entailing no complications;
- must be able to be performed repeatedly and must be largely independent of special (pre) conditions and give reproduceable results when performed by different
  - must be as inexpensive as possible;
  - must be highly valid.

The validity of a test is an expression of how frequently its results are confirmed by a qualified diagnostic technique, and of its

capacity for differentiating persons with the disease suspected from healthy ones (4).

The most common gynecological carcinoma, carcinoma of the cervix, meets these conditions in every respect.

#### Incidence of Disease

Currently about 1,600 new cases of cervical carcinoma are being reported in Austria each year, which is about 11.5% of all cases of cancer among women.

Because early detection is possible and therefore chances of recovery are better, the number of deaths is much lower: annually 250-300 women die of cervical carcinoma.

#### Screening Method

Furthermore, the cervical smear examination has proved the most effective of all cancer detection methods. This technique hardly troubles the patient and allows the detection of malignant cells at a very early stage at which complete recovery is almost always possible. In addition, the gynecological-cytological smear is relatively cheap and highly accurate as compared to other early detection methods.

For all other gynecological tumors extensive use of early detection methods is limited for various reasons, either because the prevalence of the disease is lower or because the screening method is too expensive, too dangerous or not valid enough.

## Effectiveness of the Pap-Test

The effectiveness of a screening test is measured by how much it reduces the mortality rate. Such an effect can only be expected when substantial participation of the female population is given in the early detection programs.

If it were possible to get all women to have a gynecological-cytological check-up regularly, carcinoma of the cervix could be discovered as a precancerous lesion and invasive cervical cancer could actually become an avoidable disease (2).

#### FLASH BACK

Behaviour towards prevention, which is part of the general behaviour pattern of each individual, has a specific connection with knowledge and attitudes concerning health (5), which, however, is not yet exactly defined by psychosocial research (8).

The Federal Ministry of Health and Environmental Protection investigated how much Austrians know about cancer in general and cervical carcinoma in particular for the first time in 1977, within the scope of a concept for intensifying and improving the fight against cancer.

The results of this investigation show (9):

- that knowledge of the importance of early detection is relatively widespread: 83% of Austrians consider early detection to be the most important factor for surviving neoplastic disease;

- that on the other hand from knowledge and attitudes no conclusion can be drawn that appropriate behaviour of the patient would follow. Thus 40% of all Austrian women have never had a gynecological smear test made, among the rural population this percentage is as high as 57% (°).

Consequently, analyses were made in various regions in order to isolate certain social characteristics of women who had participated in cytological screening and those who had previously neglected to do so. The aim was to draw conclusions from possible differences, and derive a baseline for positively influencing this behaviour.

The results of these investigations may be summarized as follows: a large proportion of women with low educational status, no professional qualifications and low income is to be found among the non-participants.

#### THE CURRENT SITUATION

Most of these investigations describe and analyse preventive behaviour depen-

ding on socioeconomic conditions and psychosocial disposition, such as, for example, fear of cancer (7).

The pap-test program has been analysed relatively rarely with respect to regional availability of medical services. This means that investigations have been omitted, with the question whether a sufficient number of doctors performing the paptest are available for the different age groups, when their habits concerning medical check-ups are taken into consideration.

The following is an attempt to fill this gap for Austria.

## Availability and Partecipation

According to the legally regulated Mother & Child Pass examinations every pregnant women must have a pap-test made. Beyond this, the preventive gynecological cancer screening program for which the Social Insurance has covered the cost since 1974, completes the curatively undertaken gynecological smear tests; all women over 19 years of age are eligible (5).

Aside from the possibility of making use of this examination at the various outpatient clinics contracted by public health insurances, this test can of course be made at all gynecologic and obstetrical specialists' offices.

However, women who do not or no longer consult a specialist only have the possibility of undergoing a smear test at about every second general practioner's practice, in urban areas at about every fourth, and in Vienna, (which has a particularly large proportion of older persons), at only every thirteenth doctor.

These data (table 1) were collected by Fessel GfK-Institute for Market Research on their own initiative in a multiclient study and were placed at the author's disposal and which is gratefully acknowledged; the study is based on a random sample of 168 general practitioners' representative of the whole of Austria.

Table 1. — Proportion of GPs performing Paptests.

	in %
Total	45
Age	
-40 yrs.	42
-60 yrs.	40
61+ yrs.	49
Size of the office	
Only private patients	18
<ul> <li>500 health insurance notes</li> </ul>	53
-1000 health insurance notes	44
1001+ health insurance notes	51
Province	
Wien	8
Niederösterreich/Burgenland	40
Steiermark/Kärnten	65
Oberösterreich/Salzburg	57
Tirol/Vorarlberg	80
Topography	
Large Town	27
Provincial Town	44
Rural Areas	59
Dispensary	
Yes	71
No	39

The results of this inquiry show that whether gynecological cancer prevention is performed by general practitioners depends first and foremost on the location of the practice: in rural areas particularly many general practitioners (59%) take pap-tests; this is even more obvious in view of the fact that 71% of general practitioners with dispensaries take smear tests.

In this way the lack of gynecological specialists in rural areas is partially compensated by the larger proportion of general practitioners taking pap smears.

On account of the fact that elderly women mainly take advantage of curative services at their general practitioners' office, we may call this a structural availability deficit (7).

## Participation in the pap-test

Secondary prevention services are not being utilized to their full extent; which is unfortunate considering their effectiveness.

The fact that the number of pap-tests made in recent years has only risen slightly and currently, is of particular importance with regard to public health. Presently only about 35% of all women over 20 years of age have at least one pap-test made per year, whereby the proportion of 30% for Eastern Austria (Vienna, Lower Austria and Burgenland) is below average (3).

Detailed analysis of this data suggest that during recent years the frequency of examinations of only a small collection of continuous participants has increased.

#### Problem definition

Therefore, the emphasis of future work should be first of all on:

- reaching those women who have never had a gynecological smear test;
- establishing and maintaining continuous participation in gynecological preventive programs.

## PROSPECTS: STRATEGY FOR INCREASING PARTICIPATION IN THE PAP-TEST

An essential point in the work towards intensifying and improving practical early detection at the primary health care level is to get practicing doctors to emphasize the importance of gynecological-cytological tests independently of the reason for consultation. Within the scope of their various contacts with the population, advantage can be taken of this "system-contact" principle for the purpose of performing more pap-tests; particularly through improved management preventive medicine could become a more important factor in physicians' daily activities.

In this context we would like to quote the province of Vorarlberg for the success achieved there in the fight against cervical cancer: it has for the most part been due to reorganization and is therefore exemplary for the way in which medical services can be coordinated with their target groups; for "instead of building out-patient clinics, as is usually done, the existing structure of physicians' practices was mobilized for purposes of medical prevention. Specialists and general practitioners likewise became involved in cancer prevention" (1).

# Planning and Management of Local Programs - Stockerau as a Model Project

The importance of local programs for early detection of cervical cancer can be demonstrated using Stockerau, a district of Lower Austria, bordering the City of Vienna, as an example (6).

The great number of cancer cases treated at the obstetrical and gynecological department at Stockerau's hospital confirms the commonly acknowledged fact that poorer general health, greater health risks, and less readines to make use of, and more difficult access to medical facilities lead to greater morbidity and mortality and shorter life expectancy respectively.

The striking lack of gynecological care provided for the population in this area is reflected by the fact that only three gynecological offices (of which only two accept patients on Public Health Insurance), are available for 21,954 women over 20 years of age.

Therefore much interest has been shown in this area in a project aimed at reducing cervical carcinoma mortality, which may even bring about a far greater improvement in the health of the population than originally hoped for.

A comprehensive analysis of why the pap-test has not been used to its full extent is essential for planning and successfully managing local programs for early detection of cancer of the cervix.

As mentioned above, most comparable analyses in other countries agree with regard to important social and psychological

factors determining how much use is made of preventive gynecological tests.

The solution for organizational and management questions, however, is not transferable, as it is determined by the respective medical infrastructure. The women themselves should be interviewed in order to find the best solution.

830 interviews undertaken in a pilot study have already shown that certain types of intervention in use in other countries are not being accepted by Austrian

The following answers were given to the question "Where should pap-screening be made?":

	70
at the gynecologist's office	50
at the general practitioner's office	11
at medical check-up centres	15
in hospitals	19
at work	4

So Austrian women prefer preventive tests to be made at the gynecologist's office, followed by a hospital and at medical check-up centres, whereas only 4% would undergo a pap-test at work and 11% at a general practitioner's office.

"Lack of professional competence" was most often given as the reason why the general practitioner's office was so seldom chosen for the preventive tests.

An information campaign to increase acceptance of general practitioners by older women is particularly needed in urban areas.

The following reasons were given for not making use of special cervical cancer early detection programs, in the order of their frequency: physician is consulted

regularly; no symptoms; afraid of the procedure (discomfort); uninterested; don't want to know if I'm sick; am too old / still too young; dislike programs made for the masses.

The fact that the women interviewed wish to receive from their physicians more and better information about the importance and technique of the early detection test of carcinoma of the cervix is of great relevance for increasing participation, and must be taken into considera-

This situation has been confirmed by physicians themselves in a study made in the Federal Republic of Germany (7) and should be well received by physicians in Austria.

#### BIBLIOGRAPHY

- 1) Arbeitskreis für Vorsorge- und Sozialmedizin (Ed.): "Bericht über 12 Jahre Krebsprophylaxe im Bundesland Vorarlberg zur weiblichen Genital-Früherkennung des karzinoms". Bregenz, 1983.
- Bayer R.: Öst. Ärzteztg., 38, 422, 1983.
   Breitenecker G., Holzner J. H.: Gynäk. Rdsch., 24, Suppl. 2, 174, 1984.
   Ebeling K.: Zbl. Gynäkol., 105, 1225, 1983.
   Gredler B.: "Gesundheit Krankheit Le-
- bensstil. Daten zur epidemiologischen Situation in Österreich sowie Anmerkungen zur Intervention". Facultas. Wien, 1984.
- 6) Gredler B., Gerstner G.: Gynäk. Rdsch., 25, Suppl. 2, 189, 1985.
- 7) Kirschner W.: "Krebsfrüherkennungsuntersuchungen in der Bundesrepublik Deutschland". Deutsche Forschungs- und Versuchsanstalt für Luft- und Raumfahrt e.V., Bereich Projektträgerschaften. Köln, 1985.
- 8) Kunczik M.: "Massenkommunikation". Böhlau. Köln-Wien, 1977.
- 9) Kunze M.: Öst. Ärzteztg., 33, 1283, 1978. 10) Richter K., Frank S.: Ö.M.f. ärztl. Fortb., 1, 15, 1979.