

Interfaculty Chair and Department of Public Health, Medical University of Lublin

TERESA BERNADETTA KULIK, AGATA STEFANOWICZ,  
DOROTA ŻOLNIERCZUK-KIELISZEK, ANNA PACIAN

*Awareness of possibilities to prevent malignant tumours  
within basic health service*

Malignant tumours are the second most frequent cause of death in developed countries, including Poland, accounting for 20% of the total of deaths. At the same time it is estimated that more than 80% of the total number of cases of tumours are caused by external factors, called risk factors, most of which can be prevented (1). The emphasis was thus laid on preventive actions and early detection. Physicians and nurses of the basic health service have an essential role to play in this field being particularly obliged to take large-scale preventive actions, both primary and secondary, aimed at the total population under their care (4, 8). They are supposed to inform their patients about the risk factors, promote health-seeking behaviours as well as take proper and immediate actions in case of the suspicion of a malignant tumour. In order to perform this role in an effective way, family doctors and nurses must have not only appropriate oncological knowledge but also awareness of possibilities and limitations of prevention in basic health service.

Therefore, attempts have been made to evaluate the level of awareness of tumour prevention among the medical staff of the basic health service.

#### MATERIAL AND METHODS

The research technique used was a survey questionnaire, while the method was a diagnostic survey. The questions were concerned with different aspects of tumour prevention. The survey was carried out from January to April 2004 and the participation was voluntary and anonymous. The questionnaires were distributed at the workplace or sent by mail to the physicians families of Lublin voivodship selected at random.

The survey comprised 216 people, including 110 general practitioners and 106 nurses, aged from 25 to 67 (average age – 43yrs ± 8). 86% of the subjects were female and 14% – male. The group under survey varied as far as work experience is concerned: below 5 years – 8% of the subjects, from 6 to 10 years – 11%, from 11 to 15 years – 14%, from 16 to 10 years – 21%, while 46% of the subjects have been working for more than 20 years. The majority of the subjects were physicians and nurses employed in non-public health care institutions or in different forms of individual or group medical practice (91%), while only 9% of the total were employed by public health care service. In the population of physicians under survey, 55% were specialized in family medicine, 19% in general medicine, 11% in internal diseases, while 15% were either without specialization or in progress. The highest percentage among nurses made up nurses who completed environmental nursing training (80%), while only 8% of the total were specialized in family and environmental nursing.

The result underwent statistic analysis on the basis of the computer programme STATISTICA v.5.0. The dependence of variables was estimated by the  $\chi^2$  test at the significance level of  $p < 0.05$ .

## RESULTS AND DISCUSSION

The subjects were unanimous in considering tumours a serious health problem in Poland (100% of the answers). However, their opinions vary as regards the structure of incidence of individual neoplasms. A significant group of doctors and nurses correctly stated that the most frequent malignant tumour in women is breast cancer (82%), while in men – lung cancer (64%), and nearly 100% of all the subjects included these tumours in the group of three most frequent ones (Table 1). Doubts occurred as for the tumours ranked below the ones mentioned above in the statistics of incidence. According to 1999 data, the most frequent cancers in men included: lung cancer, colorectal cancer and prostate cancer, while in women: breast cancer, followed by colorectal cancer and lung cancer (3). The majority of the respondents failed to classify colorectal and lung cancers (respectively 63% and 77%) in the group of the three most frequent tumours in women. Similarly 51% of them did not include colorectal cancer as one of the three major tumours in men. Doctors showed better knowledge of cancer epidemiology as compared with nurses and the difference was statistically significant (Table 1). What raises anxiety is an unsatisfactory level of knowledge about the most frequent malignant tumours as it can result in limited alertness of doctors and nurses of basic health service concerning these cancers which are common in our society.

Table 1. Knowledge of three most frequent malignant tumours

Malignant tumours		Doctors (%)	Nurses (%)	Total (%)	p
Women	breast	99	99	99	ns
	colorectal	43	30	37	p<0,05
	lung	33	12	23	p<0,001
Men	lung	98	89	94	p<0,001
	colorectal	64	33	49	p<0,001
	prostate	94	77	85	p<0,001

p – significance of differences between professional groups of doctors and nurses

What constitutes an essential factor in cancer prevention is the conviction of the effectiveness of prophylactic actions and possibility to cure the neoplasm (5). Nearly all the subjects expressed the opinion that the majority of malignant tumours can be prevented (96%) and treated (98%) in an efficient way, while the most important factor that influences the efficiency of treatment is, according to 96% of the subjects, early detection of the tumour.



Fig. 1. Health service sector that should play most significant part in cancer prevention

Recently, it has been more and more frequently underlined that general practitioners and environmental nurses play an essential part in the guidance, prevention and early diagnostics of cancer (2). This view is also shared by the respondents of this survey. According to 79% of the subjects, mostly with little work experience (<5 years) the most crucial role in the oncological prophylaxis should be played by basic health service. 15% of the respondents opted for the cooperation with the specialist outpatient health service, while 3% of the subjects (with work experience over 20 years) claimed that cancer prophylaxis should be the duty of specialized doctors (Fig. 1). Therefore, doubts can arise as regards the fact of proper cancer prevention by older, more experienced medical staff of basic health service.

The doctors and nurses under survey were asked which of the diagnostic methods they consider the most efficient in cancer detection (Fig. 2). More than a half (53%) claimed that the most effective form in basic health service is a diagnostic examination in physician's surgery or at patient's home during a routine consultation. Such an answer was given considerably more frequently by doctors than nurses (62% vs 42%) and it was a statistically significant difference ( $p < 0.05$ ). This answer was followed by: high risk group examination (e.g. genetic risk) – 40% and active screen examination with individual invitations – 28%. The results obtained by Wróńkowski, Biliński and Komorowska differed significantly (6) as the doctors under survey considered active screen examination with individual invitations the most efficient diagnostic method. The experience of many countries has proved that continuous population screen examination are more efficient in cancer detection as compared to occasional screening carried out as a part of routine action of health service (7).

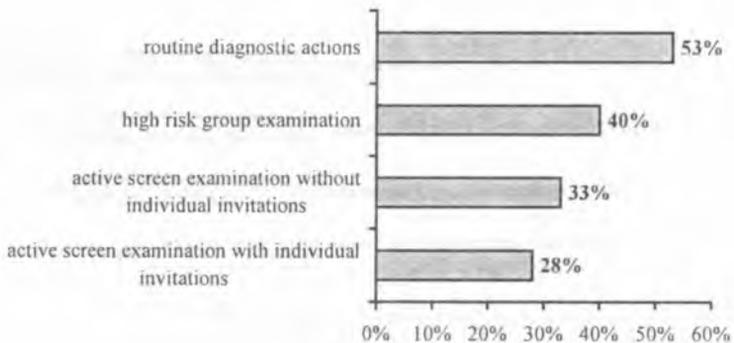


Fig. 2. The most efficient methods of tumour detection in basic health service

Efficient cancer prevention requires coordinated national actions (Fig. 3). Nearly all the population under survey confirmed the necessity to educate patients in the field of healthy lifestyle promotion (92%) and working out long-term preventive schemes and screening examinations (90%). The majority of the respondents also opted for the need to train doctors and nurses of basic health service in the field of prevention and early detection of malignant tumours (83%). It would also be useful, according to the subjects, to organize more prophylactic and informative actions (71%) and to raise the awareness of the society of the dangers of tumours (61%).

The development of cancer prophylaxis at basic health service and other sectors of health service faces numerous difficulties (Fig. 4). A vast majority of general practitioners and nurses admit that the biggest problem is low financial expenditure for preventive actions (71%). The limited process of preventive actions also results from insufficient knowledge about malignant tumours (50%) or unwillingness and lack of motivation of the society to pursue health-seeking lifestyle (46%). The factors that make cancer prevention difficult also include: the lack of national programme of malignant tumour prevention (32%) and unsatisfactory level of education, both pre- and postgraduate, of doctors and nurses of basic health service concerning tumour prophylaxis

(17%). As many as 98% of doctors and 94% of nurses indicated the demand for further training in this field, while not much more than a half (55%) claim they have participated in such a training.

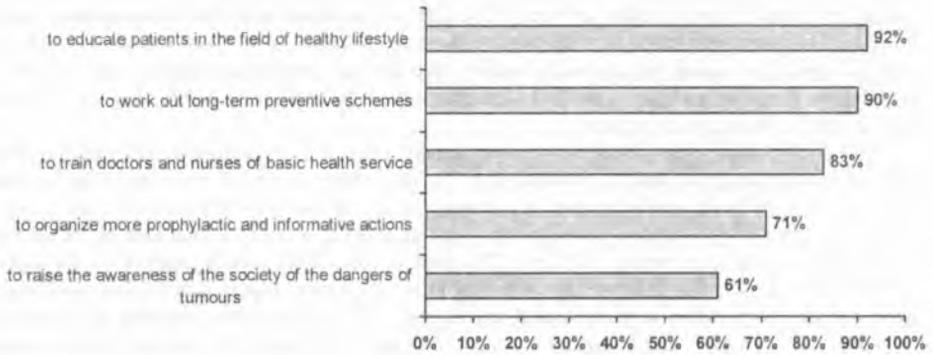


Fig. 3. Actions to be taken in the field of malignant tumour prevention

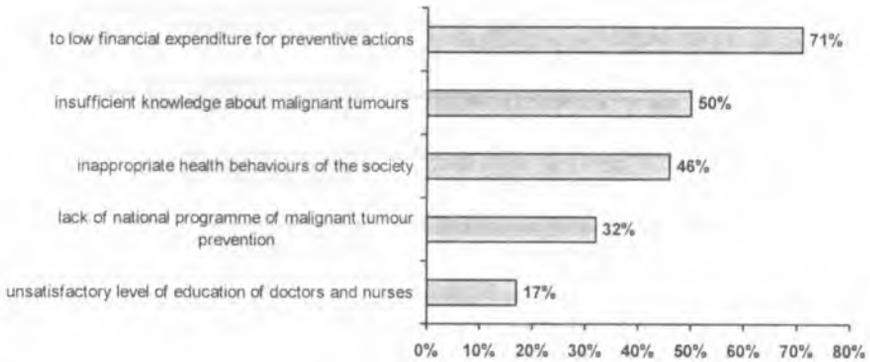


Fig. 4. Limitations in the development of cancer prevention

## CONCLUSIONS

1. Nearly all the subjects are aware of the possibility of efficient prevention and recovery of the majority of cancers provided they are early detected.

2. The most crucial role in the oncological prophylaxis should be played by basic health service.

3. According to the respondents, routine diagnostic actions bring better effects than costly screen examinations.

4. The limitations in primary and secondary tumour prevention in basic health service result mainly from insufficient financial resources and difficulties to raise patients' awareness of the necessity to change their health behaviours.

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## SUMMARY

At the end of the 20<sup>th</sup> century Poland has become a country with high risk of neoplastic diseases which statistically are the second reason of mortality in Poland. It is commonly known that the best method of fighting neoplasms is prevention and early detection. The aim of the study was the evaluation of the awareness of medical personnel on prophylactics of malignant tumours. The questionnaire survey included 216 subjects. 110 primary health care physicians and 106 community nurses, who had contracted work with family physicians in the Lublin region. The respondents unanimously consider neoplastic diseases to be a serious health problem in Poland, and the prophylactic activities aiming at preventing them – to be effective and possible for realization. The biggest role in oncological prophylactics should be played by primary health care. A considerable majority of the respondents confirm the need of patients' education on creating a healthy lifestyle and developing longitudinal prophylactic programmes and screening tests system. At the same time the activities taken up in Poland in this field have been criticized mainly due to insufficient funding assigned to prophylactics.

Świadomość możliwości zwalczania nowotworów złośliwych  
w ramach podstawowej opieki zdrowotnej

Polska stała się pod koniec XX wieku krajem wysokiego zagrożenia chorobami nowotworowymi, które są statystycznie drugą przyczyną zgonów. Powszechnie wiadomo, że najlepszą metodą zwalczania nowotworów jest postępowanie prewencyjne i wczesne wykrywanie. Celem pracy była ocena stopnia uświadomienia personelu medycznego w zakresie profilaktyki nowotworów złośliwych. Narzędziem badawczym był kwestionariusz ankiety. Badaniem sondażowym objęto 216 osób: 110 lekarzy podstawowej opieki zdrowotnej i 106 pielęgniarek środowiskowo-rodzinnych na praktykach lekarza rodzinnego na terenie Lubelszczyzny. Ankietowani jednogłośnie uznają choroby nowotworowe za poważny problem zdrowotny w Polsce, a działania profilaktyczne zmierzające do zapobiegania im za skuteczne i możliwe do realizacji. Największą rolę w profilaktyce onkologicznej, zdaniem badanych, powinna odgrywać podstawowa opieka zdrowotna. Zdecydowana większość badanych potwierdza konieczność edukacji pacjentów w zakresie kształtowania zdrowego stylu życia oraz opracowania długoterminowych programów profilaktycznych i systemu badań przesiewowych. Jednocześnie nisko oceniono działania podejmowane w Polsce w tym zakresie, głównie z powodu niewystarczających nakładów finansowych przeznaczonych na profilaktykę.