

Preventive Health Care for Women in Croatia: Ongoing Trends from 1995 to 2012

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ABSTRACT

The privatization of gynecological services and the introduction of additional reimbursements to capitation fees are ongoing mini reforms in Croatia. In order to evaluate the outcomes of this, study was performed with the main aim of determining trends in preventive activities carried out in public and private gynecological practices from 1995 to 2012. The Croatian Health Service Yearbooks served as the basis for data collection. Data were collected on the number of general check-ups, the number of targeted check-ups, and the number of follow-up check-ups. The results indicate a trend of continuous decline in the number of general and follow-up check-ups, as well as breast examinations and Pap smears, in public gynecological practices even after the introduction of contractual obligations and additional reimbursements and fee-for-service payments. One important note is that many resources were invested in general check-up interventions, which proved to be ineffective, while fewer resources were invested in the more effective Pap smear interventions.

Key words: women's health, prevention, gynecological service, Croatia

Introduction

In accordance with health care laws, primary health care for women is organized as a separate service, led by gynecologists as team leaders. Traditionally, dispensaries were responsible for the provision of health care for women in a particular area, and they have been part of health centers. After 2006, primary health care doctors, including some gynecologists from previous dispensaries, became private practitioners, while some remained as health center employees¹. However, both groups were burdened with an obligation, which still stands, to contract with the Croatian Health Insurance Fund (CHIF) for the provision of primary health care to women who have chosen them as their personal physicians. Due to the Plan and Programs of Health Care Measures, Croatian standards for health care delivery, primary health care includes curative and preventive activities².

Although the Plan and programs of Health Care Measures have changed several times, preventive measures remain almost unchanged. These include family plan-

ning, prenatal care, early detection of malignant diseases, health education, and the prevention of sexually transmitted diseases. These measures do not specifically define what will be included in examinations, nor in what time intervals. For breast cancer, individual consultations and education on risk factors, as well as education on self-examination and breast examination, are the defined standard. Completing a Pap smear every three years is the defined standard for women aged 25–64 at average risk. In women with increased risk, more frequent Pap screening is recommended, as well as in women who have had previous abnormalities. The standard also includes the early detection of chorio-carcinoma, ovarian cancer, endometrial carcinoma, vulvar cancer, and vaginal cancer, with a special focus on high-risk women². For this purpose, the standard even calls for one gynecological ultrasound per year. Furthermore, in 2004, a general check-up, including a Pap smear, was intro-

duced for women aged 25–64 who had not had them in the last three years.

According to the CHIF contract, gynecological service, including preventive activities, was reimbursement as capitation-fee until 2004. In contractual obligations for the year 2004, some preventive activities became obligatory and reimbursed separately. In the beginning it was fee-for-service reimbursement, addition to the capitation-fee, and afterwards a share to the capitation fee, usually 5–10%, regardless of the years³.

In addition to the gynecologists under contract with CHIF, some gynecologists provide gynecological services on a private basis. In this paper, gynecologists who practice under the CHIF contract will be called public gynecologists; the others are private gynecologists.

There is almost no research to answer the question as to how the changes in the organization and functioning of primary health care for women influenced the number and structure of preventive check-ups. Therefore, the main aim of this study was to determine trends in preventive activities carried out in primary health care for women from 1995 to 2012 and to make a link to the previously mentioned changes.

Materials and Methods

This was an observational and longitudinal study based on routinely collected data. The Croatian Health Service Yearbooks, published by the Croatian Institute of Public Health, were used as the basis for data collection⁴. Data on women’s health care provision were collected, separately presented in the yearbooks, for both public and private gynecological services, for the period 1995–2012.

Data were collected on the number of general check-ups, the number of targeted check-ups, and the number of follow-up check-ups. According to the instructions for data collection, the term general check-up refers to a general gynecological examination, Pap smear, bimanual, and with a speculum, in healthy women who had no symptoms of any illness. Control examinations followed general check-ups in cases in which the results of an intervention, diagnostic procedure, or therapeutic procedure needed to be double-checked. Targeted check-ups were done in cases in which only part of a general check-up was required, such as only a Pap smear needing to be done. Data were also collected on the numbers of breast examinations and Pap smears done, along with how many had abnormal findings⁵.

All data were collected for all of Croatia and for each follow-up year, with the exception of 1995 and 1996, when data on private gynecological services were missing in the Yearbooks. In order to estimate the potential number of covered women, the percentages were calculated based on the numbers of breast examinations and Pap smears done on women of fertile age and women older than 15; the data were also collected from the Yearbooks.

The collected data were analyzed using Microsoft Excel and Microsoft Access. The results are presented in a

graphical frequency table, and trends are displayed as line charts.

Results

The number of general check-ups in public gynecological practices shows a growing, stable trend, with minor fluctuations, from 2001, with around 250,000 visits a year. The number of targeted check-up examinations increased until 1997, then declined. The lowest number was in 2011, with only 11,684 examinations. The number of follow-up check-ups initially slightly decreased, then began a mild upward trend until 2011, which saw on 135,264 check-ups (Figure 1).

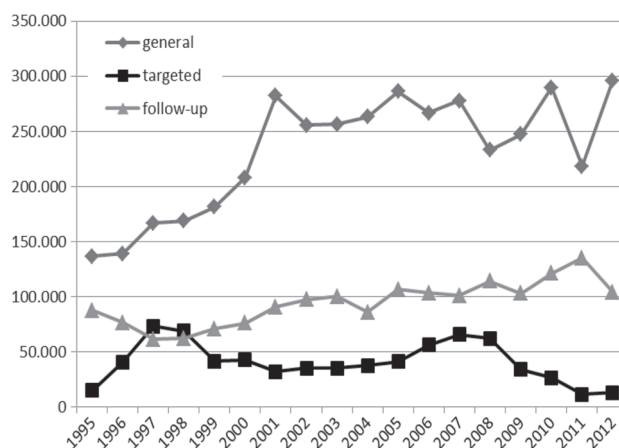


Fig. 1. Trend in the number of general, targeted, and follow-up check-ups in public gynecological practices in Croatia, 1995–2012.

With minor fluctuations, the number of general check-ups in private gynecological practices was stable until 2004, after which it began to see continuous growth, increasing nearly 300% by 2012. There was also a significant increase (about 500%) in follow-up check-ups after 2006, but with larger annual fluctuations. The trend of targeted check-ups was relatively stable throughout the reporting period, with 6,121 check-ups in 1997 to 2,602 in 2004 (Figure 2).

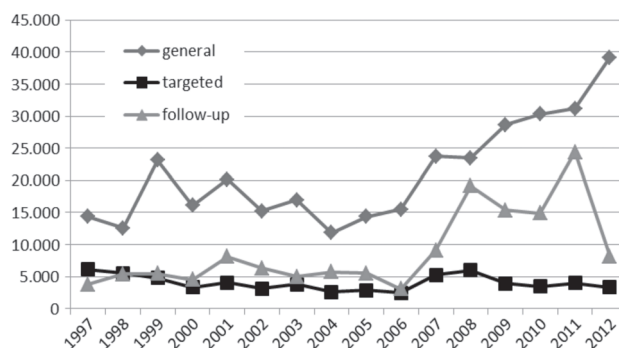


Fig. 2. Trend in the number of general, targeted, and follow-up check-ups in private gynecological practices in Croatia, 1995–2012.

The percentage of general check-ups carried out in all gynecological practices (public and private) increased until 2001; it was around 25% fertile women and 15% women over the age of 15. Both trends were relatively stable after 2001 (Figure 3).

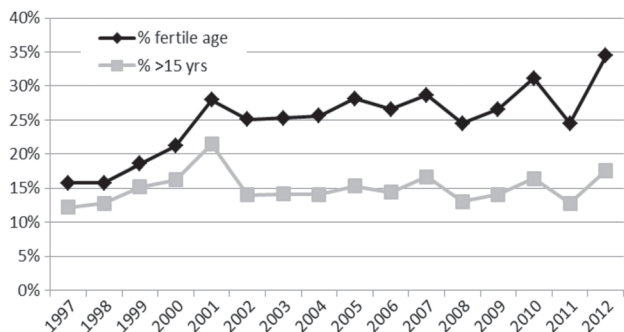


Fig. 3. Trend in the percentages of general check-ups performed on women of fertile age and women older than 15 in public and private gynecological practices in Croatia, 1995–2012.

The number of breast examinations at public gynecological practices increased to around 120,000 examinations a year until 2007. It then decreased rapidly, to only 43,637 examinations in 2012. The number of abnormal findings was relatively stable, ranging from 3,475 to 7,803. The highest rate was recorded in 2003 (11.3%) and the lowest in 2004 (4.7%, Figure 4).

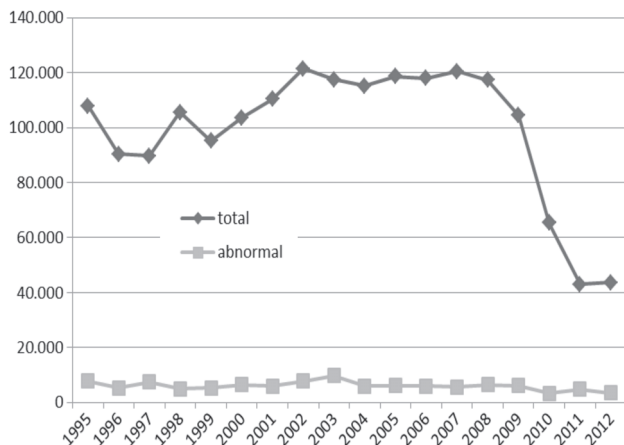


Fig. 4. Trend in the number of breast cancer examinations and the number of abnormal findings in public gynecological practices in Croatia, 1995–2012.

The number of breast cancer examinations at private gynecological practices steadily decline, especially after 2007. The percentage of abnormal findings ranged from 3.6% to 13.4% (Figure 5).

The percentage of breast examinations performed in all gynecological practices in relation to the number of women of fertile age has always been low, ranging from 8% to 12%. After 2007, the percentage decreased rapidly

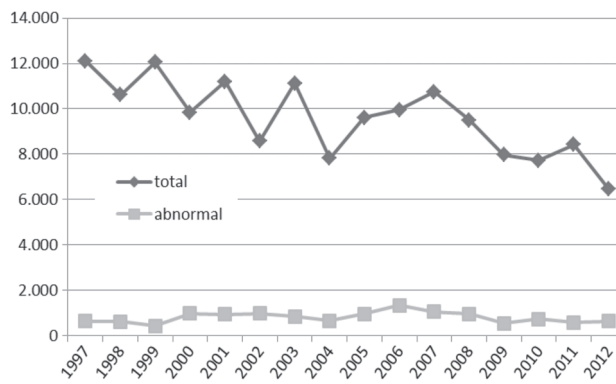


Fig. 5. Trend in the number of breast cancer examinations and the number of pathological findings in private gynecological practices in Croatia, 1995–2012.

to 5%. A percentage of breast examinations in relation to the number of women over 15 was even lower and declined sharply, to 2.5% in 2012 (Figure 6).

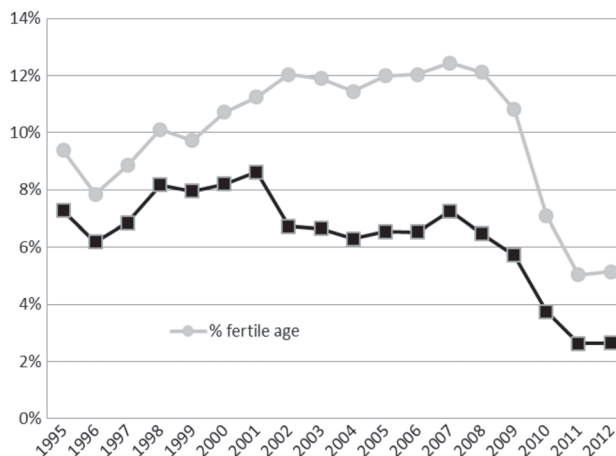


Fig. 6. Trend in the percentage of breast examinations at public and private gynecological practices in relation to women of fertile age and women older than 15 in Croatia, 1995–2012.

The number of Pap smears done at public gynecological practices continuously increased until 2006 (417,336 Pap smears). It declined thereafter, to only 282,032 in 2011. The percentage of abnormal Pap tests ranged from 6.6% to 10%, and was relatively stable (Figure 7).

The number of PAP smears done at private gynecological practices was similar until 2005, before increasing by approximately 200%. The percentage of abnormal Pap smears ranged from 6.8% to 20% (Figure 8).

The percentage of Pap smears from gynecological practices (public and private) of women of fertile age trend upward until 2009, increasing from 20% to 42%. The trend then took a sudden downward turn. The percentage of Pap smears from women over 15 was even lower, ranging from 15% to 28%, and also shows a continuous downward trend since 2001 (Figure 9).

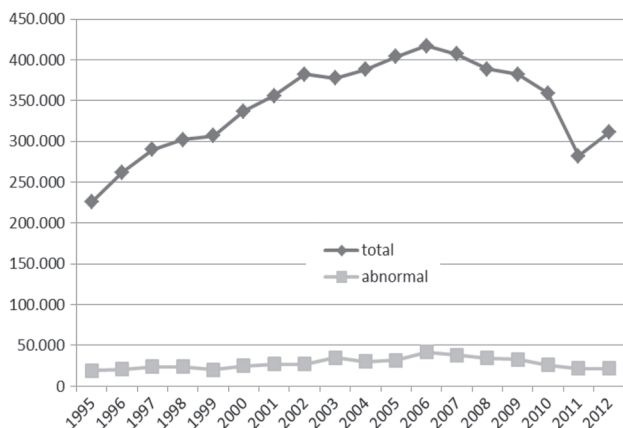


Fig. 7. Trend in the number of Pap smears and the number of abnormal findings in public gynecological practices in Croatia, 1995–2012.

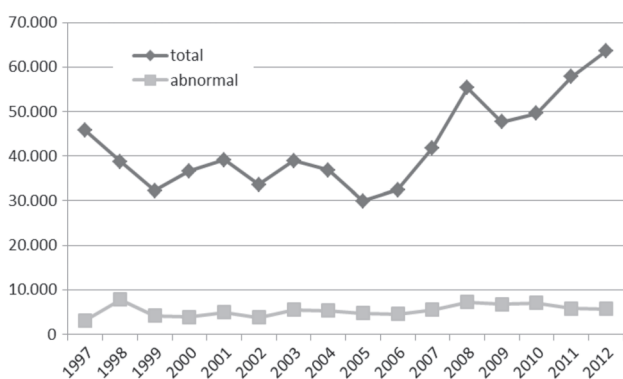


Fig. 8. Trend in the number of Pap smears and the number of abnormal findings at private gynecological practices in Croatia, 1997–2012.

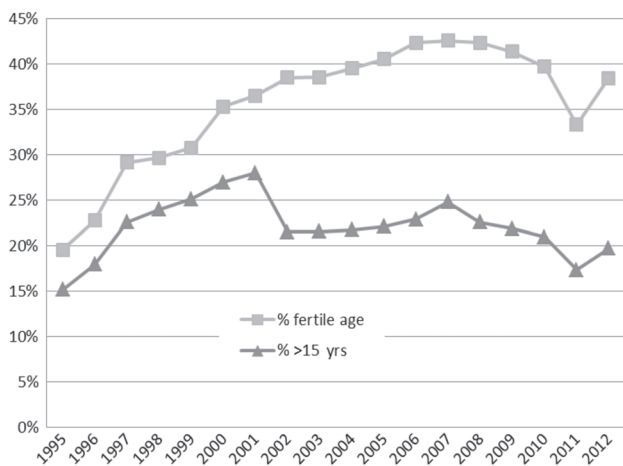


Fig. 9. Trend in the percentage of Pap smears from gynecological practices (private and public) for women of fertile age and for women over 15 in Croatia, 1995–2012.

Discussion

The results indicate a trend of continuous decline in the number of general and follow-up check-ups, as well as breast examinations and Pap smears, in public gynecological practices. There have been no major changes in this trend, even after the introduction of contractual obligations and additional reimbursement in 2004. At the same time, the number of general and follow-up check-ups and the number of Pap smears being done in private practices have been increasing, especially since 2004. It is difficult to say what causes women to switch from public practitioners to private practitioners. The findings of Topolovec-Nizetic and colleagues indicate that the average number of women on public gynecologists' lists is outside defined standard, and that the average number of visits per day is high⁶. Furthermore, almost all public gynecological practices are located in the major cities. All these elements contribute to less accessibility of primary care for women.

On the other hand, the effectiveness of general health check-ups has long been the subject of professional and scientific debate^{7–9}. Krogsboll and associates did analysis and a meta-analysis of 14 randomized trials of 182,880 patients over 9 years. They found no difference between the experimental and control groups in relation to general mortality, hospitalization, disability, the number of visits to doctors, or the rate of sick leave. However, in the experimental groups, the number of new diagnoses increased by 20%, as well as the number of people subjectively reporting ill health. In particular, they pointed out that the biggest drawback of these studies is that the adverse effects of general health check-ups or of the increased use of health care resources were not explored or reported¹⁰. Unfortunately, according to Heleno and associates, we do not possess a consistent amount of knowledge about the adverse effects of screening programs, because this problem is rarely reported¹¹.

This cumulative knowledge would be a reason for serious reflection on the Plan and Programs of Health Care Measures, Croatian standards for health care delivery, especially the part relating to the prevention of malignant disease, because most of the recommended measures proved ineffective². Although the opinion that annual gynecological check-ups are required to maintain good health is widely present in Croatia, the available literature does not support it. Only targeted check-ups, such as taking Pap smears, have proven effective¹². Although it was believed that mammography would save a large number of women's lives, recently published studies do not support this notion^{13,14}.

Even if the effectiveness of breast examinations is not being questioned, the results of this study indicate that they were performed in only 8% to 12% of women. As was to be expected, after the introduction of a national mammography screening program in 2006, the number of breast examinations was significantly decreased in both groups of gynecological practices. It seems that the national program has replaced gynecologists' daily work

routines and should be seriously reconsidered. In a recently published study from Canada, over the course of five years, around 90,000 women were followed; only half underwent mammography screening. Clinical examination was done in both groups. The results showed that mammography screening does not contribute to a more significant reduction in mortality than do ordinary clinical examinations¹³. Gøtzsche and Jørgensen concluded that, in seven trials with 600,000 women, after 20 years of follow-up, there was no observed decrease in mortality from cancer. However, the number of full or partial mastectomies was significantly higher in the experimental groups¹⁴. Observational studies suggest an even greater occurrence of over-diagnosis in women who have undergone screening¹⁵. The experiences of some European countries, particularly France, indicate that it is more important to invest in new methods of treatment than in new screening methods^{15–17}. Since the knowledge and prejudices about the value of mammography are widespread among women and doctors, experience from Switzerland warns that it takes a time to implement this knowledge into the practice¹⁸.

Unlike in breast cancer, previous studies have proven the effectiveness of Pap tests in the early detection of cervical cancer¹⁹. On these findings are based the Canadian Task Force recommendations for preventive health service of having a Pap test in women aged 25–69 years every three years²⁰. According to data from the UK's NHS, 78.6% of invited women had a Pap test in 2010/2011. It is believed that, over the long term, mortality would decrease by 95% if 8% of women aged 25–64 years were covered by Pap tests^{21,22}.

The findings of this study point to modest coverage of women with Pap tests, between 15% and 28%, again with a tendency to fall in public practices and grow in private practices. This percentage is probably even less, because it is not clear if some Pap tests, in same women, were done as follow-ups after treatment. Poor coverage and the high mortality of cervical cancer were the reason for the introduction of the national cervical cancer screening program in late 2012^{23–25}. Unfortunately, it is again a vertically organized program outside the public service, and it will be difficult to achieve the target coverage of about 80% of women.

The belief that annual gynecological check-ups are required to maintain good health has also come under scru-

tiny. Westhoff et associates stated that »Excessive use of gynecological examinations only contributes to increasing health care costs, with no health benefits. If, bimanual examination would not have worked in any of a woman who has no symptoms of the disease, and speculum examination in only a small number of women, then it would free up resources, human, material and time, for those interventions that have proven effective«²⁶. However, according to Henderson et al., routine gynecological examinations are not just the reality in Croatia, but also in the United States²⁷. It will probably take time to change such attitudes and to replace general check-ups with targeted, periodic check-ups²⁸.

The strengths of this study come from the fact that the results are based on data obtained from official statistics, which are also used as a basis for other decisions being made at the local and national levels. The data collection method allows for long follow-up periods, which are important to investigating trends. However, the data are not sufficient for deeper understanding of the issue of preventing hazards to women's health. Therefore, studies designed in a different manner are needed in the future.

Conclusion

The result indicated that the number of preventive check-ups in primary health care for women was relatively modest. In particular, it is even modest numbers of the check-ups have been proven effective, such as Pap tests. However, many resources were invested in relatively ineffective interventions, such as general check-ups. This should be taken into serious consideration when establishing future standards of preventive care for women. The »escape of services from public to private« should also be taken in consideration, especially in complex economic situations, such as in Croatia.

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TRENDovi KRETANJA PREVENTIVNIH PREGLEDA ŽENA U PRIMARNOJ ZDRAVSTVENOJ ZŠŠTITI U HRVATSKOJ U PERIODU OD 1995–2012 GODINE

SAŽETAK

U Hrvatskoj je u tijeku mini reforma privatizacije ginekoloških usluga te uvođenje dodatnog financiranja pored glavarine. Cilj istraživanja je bio utvrditi trendove kretanja preventivnih aktivnosti koje se provode u primarnoj zdravstvenoj zaštiti žena u javnim i privatnim ginekološkim ordinacijama od 1995. do 2012. godine. Kao izvor podataka služio je Hrvatski zdravstveno-statistički ljetopis. Prikupljeni su podaci o broju obavljenih sistematskih, ciljanih i kontrolnih pregleda. Rezultati ukazuju na trend kontinuiranog pada broja sistematskih i kontrolnih pregleda, kao i pregleda dojki i Papa testova, u javnim ginekološkim ordinacijama, čak i nakon uvođenja ugovornih obveza i dodatnog plaćanja preventivnih pregleda te plaćanja dijagnostičko-terapijskih postupaka kroz cijena puta usluga. Važno je napomenuti da su mnoga sredstva uložena u opće sistematske preglede, koji su dokazano neučinkoviti, dok se manje sredstava uložilo u dokazano učinkovite intervencije kao što je Papa test.