Socio-economic changes and the health of the population: Estonia in 1993–2003
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Citation

Abstract
In Estonia like in other East-European countries the transition from centrally planned economy to market economy caused changes in socio-economic life. On the one hand, reforms revealed negative phenomena, which primarily constituted new sources of stress. The greatest problems mentioned were unemployment, the danger of losing job, poverty, and the emergence of new types of risk behaviour – an increase in the use of narcotics and the spread of AIDS. Due to the closed nature of the society many of those aspects were entirely unfamiliar to Estonians in the 1990s. However, also positive changes should be pointed out, such as a wider spectre of choices and opportunities. Unfortunately, very often the price paid for success was an increase in the stress level. Social problems were reflected in the daily life of people, revealing economic hardships creating tensions in family relationships but also loneliness, increasing the consumption of alcohol, causing difficulties in combining work and family life, which in turn was accompanied by higher stress levels.
Closer scrutiny of the proportions of people suffering from stress reveals that there were more women displaying stress-related symptoms whereas the amount of men suffering from stress increased more rapidly in the period from 1993 to 2003. The study is based on the materials of two population surveys “Estonia 1993” and “Estonia 2003” carried out by the family sociologists of Tallinn University.

INTRODUCTION
Similarly to other East-European countries, transition from centrally planned economy to market economy caused changes in socio-economic life of Estonia. Relying on the data of the population surveys in the years 1993 and 2003, we are trying to give an overview of changes in the social environment of Estonia and the influence of the transition period on people’s health.

Analysing the data of medical and demographic statistics since the beginning of the last decade to the present day, researchers have come to the conclusion that health indicators (morbidity, mortality etc.) of Estonian people are poor. For example, the data about the diminishing number of Estonian population is thought provoking. Since 1991 Estonian natural population growth has become negative, i.e. the number of deaths exceeds the number of births. This is the reason why the continuity of Estonian people is in danger: in the period from 2000 to 2003 Estonian population decreased by more than 160 thousand people. This is a noticeable change, especially when taking into account the small number of Estonian population – 1.4 million people. Men and women's average life expectancy at the moment of birth is also an indicator of health, which has undergone significant changes during the period observed. In 1994 the life expectancy in Estonia was at its lowest, 60.5 for men and 72.8 for women. Within a decade, by 2003 the life expectancy of men had increased by more than 5 years (66.0) and that of women by more than 4 years (76.9).
However, the difference in average life expectancy of both genders in Estonia and in Europe has considerably increased since 1980. According to the most recent data, the life expectancy of women is more than five years and that of men more than ten years shorter than the average in the European Union.

In order to observe the connections between socio-economic changes and the health of population, we need to give a more thorough description of the socio-economic changes in Estonia at that period. For example, in 1993 unemployment was only beginning to develop in Estonia, the level being 6.7%. By 2000 it had increased to 13.8% (or doubled) and started to slowly decrease after that, although in 2003 it was still rather high, 10.3%. In 1993 the number of the consulted cases of psychological and behavioural disorders was about 47 thousand, in the period from 1993 to 2003 the number of...
Health and illness are social phenomena since they depend on everyday life and more widely on the life of the society, i.e. they depend on the manifestations of both micro and macro levels. Many researchers have referred to economic hardships caused by the changes as the factors aggravating people’s physical and mental state. It has also been stated that health has become an economic problem and socio-economic inequality is the basis for inequality in health matters.

Hereby it would also be appropriate to recall the thesis outlined by McKeown, Szreter, Ling, Phelan, et al. – beside medical research aiming at improving the health of the population, is it not more important to make an effort to increase social, political and economic resources determining people’s health?

Health and illness are related to the changes in the society. In this respect it is essential to find out about the influence of rapid social processes, such as the transition period in the former member states of the Soviet Union on people’s health. The period of transition challenges people’s coping resources and this often results in the deterioration of their subjective well-being. According to the research by Aldwin and Revenson (1986), economic stress adds up to the stress caused by people’s current problems and those initially more vulnerable and with poorer mental health perceive the economic stress of hard times as more severe (or at least say so) and that undermines their psychological coping even more.

Viewing the influence of critical times on the health of Estonian people, Kutsar’s work (1995) has revealed that one of the factors increasing stress may be the contact with new phenomena, such as market economy, unemployment, competition and poverty and if people are not able to adjust to the rapid changes, it may result in passivity, frustration and dissatisfaction. In Estonia the period of transition first and foremost caused great problems to elderly population.

Relying on the assessments of their economic situation given by the respondents, Estonian researchers have differentiated between two groups of respondents – the “losers” and the “winners” of the years of transition. The “winners” have better than average health (55% of them assess their health as good or very good while only 25% of the “losers” give the same assessment to their health) and they take better care of themselves (36% of the “winners” and only 17% of the “losers” do physical exercise at least once a week).

In order to find out about the factors influencing the state of health at personality level, the concept of life control was applied, according to which the source of mental stress lies in a person’s low self-esteem and little self-confidence, when they do not believe in their abilities and presume that the success of their activities mainly depends on external factors, such as luck, chance and fate. The concept of life control was also confirmed by the analysis of coping strategies of Estonian women at the time of rapid social changes. Women are not a homogeneous group and social change uncovered winners and losers among them, whereby in the latter stress, burnout and pessimism occurred more frequently than average. It appeared that the winners' assessments of their health and life relied on self-confidence and positive orientation of life. Those qualities enable people to use new and wider selection of activities and live and enjoy a richer lifestyle.

Researchers have compared differences between coping levels of people of different countries. Surveys carried out in Helsinki and Moscow in 1991 demonstrated that socio-economic changes that had taken place in the Soviet Union had caused serious adjustment problems to the citizens of Moscow. People felt that they were not coping with their life, were not able to achieve their goals, they thought that life was pointless and there was no hope for the future. In Helsinki estrangement was more frequent among people who were losing their chances in the society – the elderly and the less educated. Among citizens of Moscow estrangement, frustration and pessimism were much more widely spread. Similar phenomena had also been observed in Finland, especially during economic depression, the so-called lama. In Estonia adjustment problems were observed during the transition period.

A comparative analysis has also been carried out in a Finnish-Estonian comparative study “Women, work and stress” where the stress indicators of men/women of the post-Soviet Estonia and the welfare state Finland were compared. The differences in stress levels of Finnish mothers and fathers were considerably lower than those of Estonian parents. In the conditions of rapid socio-economic changes Estonian women experienced the most severe adjustment problems. The researchers have given the
explanation that in comparison with Estonia the Finnish social policy is much more female friendly and supportive of families with children, which allows women more easily to combine their family and work duties. Important stressors for Estonian women were having children (there was no significant correlation between these factors in the Finnish survey) and higher work load. The work load was increased by housework which in both countries was mainly done by women whereas in Estonia the division of work between spouses was even more uneven. At the same time economic hardships of many families in Estonia prevented mothers from using services and household equipment common in Finland.

In the period from 1994 to 1996 Czech researchers observed how the socio-economic changes in the society increased stress levels of family members and influenced their mutual relationships. It appeared that economic pressure made the spouses, both men and women more easily irritable. An increase in stress caused negative behavioural problems (e.g. alcohol consumption and physical violence), instability of the family, divorce and depression. Many other researchers have also claimed that changes taking place in the society influence family life and burden all family members. Studies of Californian families during the Great Depression and the crisis of the Midwest farm confirmed that unemployment and loss of or decrease in the income of a family member, especially if this is the husband, are often accompanied by the state of irritation and violent behaviour.

As could be seen above, many researchers are of the opinion that socio-economic changes in the society are reflected in mental and physical health of the population.

**THE AIM, DATA AND VARIABLES OF THE WORK**

The aim of the current article is to find out whether and to what extent the rapid changes of the transition period in the Estonian society have influenced the satisfaction of Estonian people with the state of their health and if there have been any negative tendencies, what the possible sources could be.

The research question of the work is to find out:

- How the changes in the society have influenced the perceived health status of the population?
- What the most essential social and personal problems of men and women are and to what extent they have contributed to the development of stress?

**MATERIAL AND METHOD**

**HYPOTHESES**

- Based on the literature used, the authors developed an understanding that economic instability in the society may lead to considerable worsening of the perceived health status of the population and cause manifestations of stress.
- The state of stress induces instability, a decrease in working ability and problems in family relationships.
- It is possible to improve the state of health of the population and guide them towards making healthy choices by means of legislation, propaganda and campaigns.

The data used. While observing the changes in the state of health of Estonian population in the period from 1993 to 2003, we are relying on the materials of the population surveys “Estonia 1993” and “Estonia 2003” carried out by the family sociologists of the Institute of International and Social Studies of Tallinn University. The first of the surveys included 1891 respondents between ages 18 to 70. During the second survey “Estonia 2003” 1633 people between ages 15 to 69 were interviewed. The samples of both surveys are representative of the population of Estonia, i.e. they are in keeping with the structure of population in terms of the place of residence, gender, education, age and nationality, see.

In order to be able to compare the data of the two studies we had to standardise the samples in terms of their ages. Therefore the analysis below deals with the age group from 18 to 69, excluding 15 to 17 years old and 70 years old people. Due to the limitations introduced the size of the sample of the population survey “Estonia 2003”, the data of which we observe more thoroughly in our work, is n=1558, 56.2% of whom are women (n=876 people) and 43.8% men (n=682 people).

**VARIABLES**

In order to assess the state of health we have applied the following indicators in our work:

1) The state of health. The satisfaction of the respondents with their health was revealed through their subjective
assessment of their state of health when they answered the question, “Are you satisfied with your health?” The respondents' answers were based on a five-point scale: not at all, generally not, hard to tell, generally satisfied, completely satisfied.

The question and optional answers were the same for other areas of life: Are you satisfied with … your economic situation; … family life; … work and … life in general.

2) In order to better analyse the state of health, a characteristic of psycho-emotional state, the level of stress was employed. 9 stress symptoms were used to describe the level of stress – 1) agitation, 2) (over)fatigue, 3) sleep disorders, 4) depression, 5) abdominal pain, indigestion, 6) headache, 7) dizziness, 8) the feeling of not coping and 9) heart problems. Respondents were asked to mark how frequently they experience those complaints. The frequency of complaints was indicated by the following options – almost every day, once or twice a week, once or twice a month, less frequently, have never experienced. The method applied originates from A.-L. Elo. While discussing the state of stress below, we are going to rely on the cases where out of the nine complaints listed three or more were mentioned by the respondents with the frequency of at least once or twice a week.

To enable researchers to outline social problems, the respondents were asked to assess the most severe problems in Estonia (assessment took place on a 5-point scale: 5 = very severe … 1 = not severe at all). The following problems were listed: not abiding by laws, lack of working habit, spread of crime, unemployment, organisation of health care, inequality of men and women's duties, misuse of official position, corruption, organisation of social welfare, little attention to the development of education and culture, environmental pollution and damage, ethnic relations, alcohol abuse, using narcotics, spread of AIDS.

Similarly, questions about the most severe personal problems were asked, the list including: shortage of money, health of a family member or a close person, relationships in the family, living conditions, loneliness, frequent alcohol consumption of a close person, use of narcotics, fear of falling a victim of crime, danger of losing job, difficulties in combining work and family life. The answers were also given on a 5-point scale: 5 = very severe … 1 = not severe at all.

In order to find out about the changes in the satisfaction assessments of Estonian people in the years 1993 to 2003, the comparison of the means of the assessments was applied. To find out about the effect of social problems on the level of stress, correlation analysis relying on Pearson’s correlation coefficient was implemented. To compare the influence of social and personal problems on the development of the state of stress in different groups (men and women), the ANOVA analysis was used.

RESULTS

In the period from 1993 to 2003 the living conditions, attitudes and behaviour of people had considerably changed. The respondents' assessments of satisfaction with various areas of life give a good overview of the influence of those changes (Figure 1).

Figure 1

Figure 1: Satisfaction with life, economic situation and health – changes in satisfaction assessments in 1993–2003 (the means of the 5-point marks; assessments on the scale to )

Sources: Population surveys “Estonia 1993” and “Estonia 2003”

Figure 1 shows that the beginning of the 1990s can be characterised as the low in the Estonian society. At that time the assessments of satisfaction with life, health and especially with the economic situation were very poor. Objective health indicators were also poor and there were many suicides. During the years that followed the stagnation period was left behind and a rise began, which was also reflected by an increase in the proportion of those satisfied.

By 2003 life had become balanced and the economic situation had improved. At that time 14% of the respondents
were completely or mainly satisfied with their economic situation and 47% with their life in general. Sociological data for the years 1993 to 2003 affirms that the positive transformation of the Estonian society was repeated by an improvement in perceived health status although in somewhat lower tempo: the satisfaction with their health of the Estonian population which reached its low in the years 1992 to 1994 improved in the years to follow – the proportion of those completely or mainly satisfied with their health increased from 36% to 46%.

Looking at the assessment of their health by men and women, Figure 2 reveals that women assessed their health poorer than men at the beginning of the period observed. However, during the following years the changes were so fast that by 2003 the proportion of those satisfied with their health had become almost equal among men and women and that mainly on account of a more rapid increase in women's positive answers.

**Figure 2**

Figure 2: Men and women's satisfaction with their health in 1993–2003 (the means of the 5-point marks; assessments on the scale to 3.67).

Sources: Population surveys “Estonia 1993” and “Estonia 2003”

Although statistical data (morbidity, mortality, etc.) proved that the health of the population was poor, people in their subjective assessments claimed that they were satisfied with their health. Researchers have interpreted satisfaction with health as a welfare indicator, as a resource for achieving the goal of life. However, achieving the goal of life has its price reflected by psycho-emotional health – the level of stress.

The comparison of the 1993 and 2003 survey results in respect of stress indicator revealed that at the time when in the socio-economic life great changes had taken place and also the satisfaction with health had improved, the proportion of people suffering from severe stress had increased in the society (Table 1).

**Figure 3**

Table 1: The occurrence of stress complaints in men and women (three and more stress complaints at least once or twice a week), 1993-2003, %

<table>
<thead>
<tr>
<th></th>
<th>1993</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Men</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>Women</td>
<td>32</td>
<td>37</td>
</tr>
</tbody>
</table>

Sources: Population surveys “Estonia 1993” and “Estonia 2003”

Relying on that indicator we could claim that the crisis in the Estonian society still continues, whereas by 2003 it had even aggravated. A question arises – what had happened in the society by 2003?

**POSSIBLE REASONS FOR AN INCREASE IN THE LEVEL OF STRESS**

We can find clues in the ANOVA analysis explaining the reasons why the changes in the stress indicator did not repeat the transformation tendency of the society. Let us observe how assessments of satisfaction with various spheres of life at those two moments of time predicted whether stress would develop or not.
Figure 4
Table 2: ANOVA analysis of the influence of men and women's satisfaction assessments on the development of their stress level (F, p), in 1993 and 2003

<table>
<thead>
<tr>
<th>Satisfaction assessments</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p&lt;</td>
</tr>
<tr>
<td>1993</td>
<td></td>
<td></td>
</tr>
<tr>
<td>work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>economic situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>family life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>life in general</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R squared</td>
<td>R²=.02</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>work</td>
<td>8.268</td>
<td>.004</td>
</tr>
<tr>
<td>economic situation</td>
<td>3.901</td>
<td>.04</td>
</tr>
<tr>
<td>family life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>life in general</td>
<td>17.469</td>
<td>.000</td>
</tr>
<tr>
<td>R squared</td>
<td>R²=.14</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Population surveys “Estonia 1993” and “Estonia 2003”

We can see in Table 2 that in 1993 not a single area treated acted as a predictor of an increase or decrease in the level of stress in men, whereas in women respective areas were family life, economic situation and satisfaction with life in general.

By 2003 life had generally improved, there were more opportunities for self-realisation and satisfaction of one's needs. Therefore the stress indicator could actually have fallen as compared to the data of the previous survey. However, the data of the survey did not prove that since almost all areas observed facilitated the development of stress. An exception was satisfaction with family life, which influenced the development of stress in women but not in men.

Let us check whether the reason for all those changes could be the new sources of tension and stress being added? In 1993 people were very sensitive towards the spread of crime, incomplete legislation and pollution of the natural environment. In 2003 the list of the most acute problems was complemented by the concern over using narcotics, alcohol abuse, the spread of AIDS, and organisation of health care. In the list of various social problems the respondents seemed to consider least acute the inequality of the rights and duties of men and women and ethnic relations.

Almost all problems mentioned above facilitated the development of stress. The statistically significant correlation coefficients between stress levels and problems of life in both men and women were in the following areas – environmental pollution and damage (r=.19), inequality of men and women's duties (r=.19), ethnic relations (r=.18), unemployment (r=.17), organisation of health care (r=.15), organisation of social welfare (r=.15). In all those cases p=.000.

More than in women the spread of crime was problematic in men (r=.10, p=0.02), although the correlation was relatively weak. In men the following areas also produced significant correlations with stress – misuse of official position, corruption (r=.15, p=.000) and various risk behaviours – alcohol abuse (r=.14, p=.001), use of narcotics (r=.18, p=.000) and the spread of AIDS (r=.14, p=.000).

The fact that stressed people perceive severe problems in the society more acutely than those who do not suffer from stress, is predictable. However, it is much more important to get to know which areas of life act as the most intensive stressors for men/women. For that purpose we applied the ANOVA analysis.
Socio-economic changes and the health of the population: Estonia in 1993-2003

Figure 5
Table 3: The effect of the most severe social problems on the development of stress in men and women in Estonia, ANOVA, 2003, F, p

<table>
<thead>
<tr>
<th>Problems</th>
<th>Men (n=572)</th>
<th>Women (n=753)</th>
<th>F</th>
<th>P</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of working habit</td>
<td>7.31</td>
<td>.007</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>3.86</td>
<td>.05</td>
<td>2.72</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic relations</td>
<td>-</td>
<td>-</td>
<td>14.69</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcotics consumption of close people</td>
<td>5.40</td>
<td>.02</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inequality of men and women's duties</td>
<td>-</td>
<td>-</td>
<td>6.97</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little attention to the development of culture and education</td>
<td>-</td>
<td>-</td>
<td>7.61</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spread of crime</td>
<td>-</td>
<td>-</td>
<td>3.95</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


In Table 3 we have only presented the data of those problems the influence of which on stress is noticeable. It appears that in men those are the lack of working habit, unemployment and narcotics consumption of people close to them. In women those areas primarily are ethnic relations, unemployment, the spread of crime, inequality of men and women's duties and the fact that little attention is paid in the society to the development of culture and education. All those problems in sum total predict the development of stress in 10% of men and 9% of women.

Until now we have been dealing with the society level but let us get closer to an individual and observe what personal problems were mentioned by the respondents. Some of the aspects overlapped in men and women, some were different. The correlation analysis revealed that personal problems were more closely connected to stress levels than the sore points occurring in the life of the society. For example, the correlations between stress indicators and various concerns of personal life were the following: for shortage of money r=.27, personal health r=.32, loneliness r=.23 and the danger of losing job r=.23, etc. (In all those cases p=.000). The ANOVA analysis (Table 4) also indicated the stronger effect of personal problems on changes in stress levels – thus 25% of the variation in stress levels in men and 26% in women were explained by the difficulties of personal life listed in the questionnaire.

In both men and women the most important stressor in personal life was the lack of money and their own health, to a lesser extent the health of family members and people close to them. In men also narcotics or alcohol consumption by people close to them and the fear of falling a victim of crime came to the forth. In women more essentially than in men the development of stress was influenced by experiencing loneliness and problems in family relationships.

The fear of losing job did not occur as a stressor in men whereas in women this fear correlated with stress considerably more significantly. As compared to women men changed jobs more often (in the last 5 years 18% of men and 8% of women had changed jobs more than once) and they were more confident that if they lost their job they would have good prospects of finding a new job (the answer given by 22% of men and 12% of women). Women experienced especially strong tension because of the complications of trying to combine work and family life.

Figure 6
Table 4: The effect of the most severe personal problems on the stress levels of men and women in Estonia, ANOVA analysis (F and p), 2003

<table>
<thead>
<tr>
<th>Problems</th>
<th>Men (n=208)</th>
<th>Women (n=659)</th>
<th>F</th>
<th>P</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of money</td>
<td>17.589</td>
<td>.000</td>
<td>5.478</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My health</td>
<td>22.725</td>
<td>.000</td>
<td>33.457</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health of family members or close people</td>
<td>4.116</td>
<td>.05</td>
<td>3.55</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family relationships</td>
<td>4.802</td>
<td>.02</td>
<td>12.552</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>-</td>
<td>-</td>
<td>10.707</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohold consumption of a close person</td>
<td>7.996</td>
<td>.005</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcotics consumption of a close person</td>
<td>5.677</td>
<td>.01</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of falling a victim of crime</td>
<td>4.292</td>
<td>.03</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danger of losing job</td>
<td>-</td>
<td>-</td>
<td>8.428</td>
<td>.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combining work and family life</td>
<td>-</td>
<td>-</td>
<td>13.009</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Thus in 2003 the people of Estonia were facing the situations
completely new for them – unemployment, competition, sharp stratification, poverty, etc. That general social situation was reflected in the sphere of personal life, causing problems in family life, influencing mutual relationships, also the economic side of the life, and especially the difficulties women experienced while trying to combine work and family life, etc.

**DISCUSSION**

Health has been viewed as a floating iceberg, only the tip of which is visible – that indicates the health of the population at the given moment. In Estonia in 2002 the tip of the iceberg (i.e. the health of the population) was characterised by early mortality and extensive morbidity. As a concerning indicator Estonian health specialists mentioned the life expectancy of Estonian people, which in comparison to that of the West-European countries was 6 to 7 years shorter. During the last fifty years the birth rate has continuously decreased and mortality has increased in Estonia. And this has created a gap due to which the population of Estonia is constantly decreasing.

According to the population surveys “Estonia 1993” and “Estonia 2003”, the assessments of satisfaction with various areas of life, including health, of Estonian population have significantly improved within the decade under observation. In 1993 the satisfaction with their health of Estonian people was at its low, followed by an upsurge, which tendency continued through the years to come although at somewhat lower tempo. It may be stated that after surviving the shock therapy accompanying the transition to market economy the situation has somewhat stabilised and people are gaining a balance again.

A rapid increase in the number of those satisfied with their health among women is especially noticeable. While trying to find the reason for the improvement in women’s assessments, it may be said that on the one hand people’s health essentially depends on how they spend their leisure time, the way of life they lead. Research has proved that the differences in men and women's lifestyles are also reflected by their state of health. It has been emphasised that men's lifestyle is overwhelmingly characterised by risk behaviour, including smoking and alcohol abuse, etc. (alcohol consumption has become somewhat more frequent among men in recent years), at the same time women have applied the principles of healthy eating more often than men.

Although physical activity is equally low among men and women, it has become increasingly more popular among women to participate in aerobics and body-building groups. That has created a basis for improvement in the perceived health status of the population. Researchers who have studied coping strategies in the period of social changes have claimed that the transition in the society more frequently than average reveals stress, burnout and pessimism, primarily among women. Apparently with the stabilisation of the situation in the society also women’s satisfaction with their health has improved.

According to researchers, subjective assessment of one’s health first and foremost describes the general well-being, social health and potential, enabling people to achieve life goals set for themselves, and fulfil their roles at work and in the family. However, as researchers also emphasise, people may fulfil their various roles well but the price they pay to achieve their goal is also very significant. In order to describe that aspect of health, we observed in our work the answers respondents gave about their psycho-emotional health and stress levels during that decade, i.e. the price of the effort made to achieve well-being. That indicator allows us to claim that many Estonian people faced difficulties in 2003 in order to adjust to the dramatic social and economic changes taking place in the society. It appears that more than every third respondent experienced three or more stress complaints at least once or twice a week (depression, fatigue, sleep disorders, the feeling of not coping, etc.).

The above is also confirmed by the fact that in the period from 1993 to 2003 among the values of Estonian people traditional and family related values gained importance. As proved by several studies, people begin to appreciate friends, colleagues, close people and family more and seek their support when they perceive the state of the society as economically and socially insecure.

Our study found that there were more people with stress complaints among women than among men. However, the differences in the stress levels of men and women were not surprising since a similar result had also been received by other researchers. Yet it is interesting to observe the influence of various aspects of everyday life on the stress levels of men and women at various moments of development of the society, which is expressively revealed by the ANOVA analysis.

The data given in Table 1 allows us to describe the beginning of the 1990s as follows – it was a hard and dramatic time in Estonia, after the collapse of the Soviet Union we were all equally poor, since the monetary reform
had nullified the savings of many people and thus Estonian people had to find a way to protect their mental and physical existence. They survived due to their optimism, great expectations and ideals (during the “Singing Revolution” promises had been made even to eat potato peels in the name of gaining freedom), accepting the situation, and also by setting very low demands. That was the only way to be satisfied with one's life and that was accompanied by a lower stress level. The data of the analysis shows that in 1993 not a single area listed predicted an increase or decrease in stress levels in men whereas in women respective areas were economic situation, family life and satisfaction with life in general.

Why then material situation only came forth as a stressor in women? One explanation could be the fact that at that time beside the shortage of money even a more serious problem was the availability of things/products since shop shelves were empty. While it was mainly women who had to go through the trouble of obtaining clothes and food for their families, exploiting all kinds of contacts, standing in queues, etc., it is quite understandable that such situation caused stress. Men mainly had the role of a breadwinner, the provider of material resources for their family.

Family life was a source of stress for women in both 1993 and 2003.

The sphere of work did not appear as a predictor of stress in 1993. However, by 2003 satisfaction with professional work had become an important predictor of stress, especially in men. According to researchers, a problem for many men is a desire to move on in their career, to stay competitive and gain success even if, as a result, they need to seek doctor's assistance for their stress. Another reason may be that due to market economy the essence of many jobs seriously changed. As the most important changes the decrease of professional autonomy (an opportunity to independently decide what and when to do), computerisation of work places and work becoming fast and strenuous have to be emphasised. Researchers have stressed that fast and strenuous work without independent opportunities of decision making is an essential source of stress for an employee. Women were also affected by this problem – primarily through the fear of losing their job and the problems they experienced while trying to combine work and family life.

In order to find the reasons for an increase in stress levels we searched for clues in people's assessments, which aspects they had outlined as severe social and personal problems. In 2003 Estonian people had to face situations that were completely new for them – the use of narcotics, the spread of AIDS, unemployment, competition, sharp stratification and poverty. Although people's satisfaction with their material situation had increased, it cannot be considered a satisfactory indicator because only every seventh respondent was satisfied with their economic situation. Women's stress level was also linked to an inequality in men and women's duties (this obviously refers to women's greater work load in the family) and taking into account that women are more active consumers of culture, it is understandable that another source of stress for them was when, according to their assessments, little attention was paid to the development of culture and education. All the above could stand as an explanation for the deteriorating psycho-emotional health of Estonian people in the years from 1993 to 2003, i.e. why stress levels so significantly increased.

Similar dynamics in people's assessments of their own health, stress level and over-fatigue is revealed by the research on health behaviour of the adult population of Estonia in 1990–2006: self-ratings of health were continuously improving while the perceived stress and over-fatigue were increasing until 2002, after which, in the period from 2004 to 2006 they decreased to some extent.

It is important to note that the changes and economic pressure that have existed in the society have also been transferred to family life. Other studies have revealed that in the conditions of economic strain spouses become easily irritable, the tension also grows in the family relationships and this provokes negative behaviour (alcohol abuse, physical violence, one of the family members leaving) . Our research also produced similar evidence. In the women's group especially it could be noticed that personal problems were the factors facilitating an increase in stress. The most prominent were the shortage of money, their own health or that of their close people, relationships in the family, loneliness and questions of combining work and family life. The women's situation was aggravated by the fact that Estonian women generally want to work. Even in the situation of a hypothetical material security where there is no need to go to work they would not agree to stay at home. The reason for that is a high level of education which has developed a need in Estonian women for professional self-realisation. According to researchers, an Estonian woman with a higher education will not assent to dedicate herself to the role of a housewife cooking and doing the laundry.
While viewing the problem of combining work and family life, it was observed that success in one sphere means that a woman has to suffer setbacks in the other \(^44\) and as we could see above, Estonian women have encountered such impediments. Unfortunately women are more often than men threatened by the loss of their job. The fear of losing their job did not occur as one of stressors in men. They are aware of the influence of unemployment but as compared to women, men more often change jobs and are more convinced than women that should they lose their job, they have good opportunities for finding another.

Since there are many severe problems and they all facilitate the rise in stress levels, we consider it proper to claim that for improving the health of the population, it is not sufficient to only change the health care system or to make efforts at the level of individual people to limit smoking and alcohol consumption and follow the healthy lifestyle, which undoubtedly greatly contributes to their better health, but an improved social environment and better living standards are getting increasingly more important.

Therefore, relying on the data of the sociological survey, we consider it appropriate to agree with the thesis by McKeown et al., according to which extensive effort is needed to improve the health of the population by increasing social, political and economic resources determining people's health \(13\)\(^44\), \(13\)\(^45\). We consider the strength of our work the fact that we have outlined the specific features of the well-being and assessments of the population at various moments of the development of the society and that we have managed to prove their connection with health indicators. It is not less important that we have found out about the differences and similarities in the severe problems of men and women, especially the factors causing an increase in stress. Material problems of life are in the first place for both men and women. In addition men pay more attention to the shortcomings related to professional work. They are disturbed by risk behaviours in the society – the occurrence of crime, the use of alcohol and narcotics and the spread of AIDS. Unfortunately men themselves very often practice risk behaviours. Women's topical questions tend to be more related to their immediate environment. They have been more often exposed to negative relations in family life, loneliness, they feel that in housework and caring they have too extensive role to play, which also has been called “the second shift” \(^45\). However, women also encounter trouble in the sphere of work, since they perceive the danger of losing their job and face difficulties while attempting to combine the requirements of work and family life.

On the one hand we have viewed general tendencies of the influence of the transition period, on the other also the narrower aspect – the gender pattern. The following and immensely necessary step would be to expand our research and include age, educational, ethnic and regional aspects.

**CONCLUSION – WHERE ARE OUR RESOURCES?**

Since our work has mainly focused on the influence of the transition period, it would be important to view the effect of the practical steps of health improvement taken today alongside with general improvement in people's standard of life.

The principles of influencing the health of Estonian people have changed. Anu Kasmel (2005) \(^44\) emphasises that the reason for the “sick society” lies in the incorrect interpretation of health, i.e. when speaking about the health of the population primarily illnesses and their treatment is kept in mind and hence an opinion has spread that the key to solving the health problems of the population is medical assistance and the system of health insurance alone. Other authors have similarly stated that health care systems of many countries exaggerate the attention to taking care of sick people while much better results could be achieved by preventing illnesses and promoting health \(46\)\(^47\).

In gaining good health some of the responsibility definitely falls on the person: whether he or she attempts to follow a healthy lifestyle, behaves safely in the traffic, curbs alcohol consumption and smoking, improves eating habits. The state, though, is responsible for creating all necessary conditions for people to lead a healthy life.

Today positive steps in that direction have been taken in Estonia – the development plan of the health of the population for 2008-2020 has been introduced \(^48\). On 25 to 27 June 2008 the European Ministerial Conference “Health Systems, Health and Wealth” took place in Tallinn \(^49\). Jobs of health promoters have been created in local governments and since 2007 respective bachelor's and master's programmes have been launched by Estonian universities. Since 1990 health behaviour studies of the adult population have been conducted every two years \(^43\).

In recent years many different campaigns have been carried
out: move to be healthy, healthy food, smoke-free classes, promotion of HIV testing; on the Internet information about preventing infections transferred by blood (HIV, hepatitis) is available, the dangers of hemp to health have been thoroughly explained on the web. Active work with legislation is going on (in June 2007 Tobacco Law was introduced, restrictions on alcohol sale have come into effect).

All those measures have been targeting health promotion of people. The results of that work are tangible by now. The average lifespan of people has increased (from 1996 to 2006 the average lifespan of men in Estonia has increased from 64 to 67 years and that of women from 75 to 78 years), the number of abortions had decreased, the birth rate has increased, the number of deaths caused by heart disease has decreased, eating habits of the population have improved, etc. 4-6.

Those changes collectively have resulted in the fact that when in 1996 35% of the 16 to 64-year-old Estonian people assessed their health as good or relatively good, in 2006 the same assessment was given by 46% of the respondents. 43 It is predictable that those results are also reflected in people’s mental health. In 1996 28% of the population claimed about their stress level that “there is more stress than usual” or that “the stress is almost intolerable”. In 2006 that percentage was 17. The number of suicidal people has also decreased – in 1996 their proportion was 13%, in 2006, 5.7% of the population.

Although people are able to do quite a lot to improve their health, the health of the population can only improve in the future when the state, the whole society invests in it. Since the resources allocated to health care are continuously insufficient, researchers refer that states should devote significantly larger share of its national income to health care and to public health and prevention. They also emphasise the importance of partnership: “Partnerships are key to tackling health challenges. Many partners need to be involved. This includes, for example, governments, the health service, food and catering industry, and the fitness industries as well as transport planners in local government” 47.

In conclusion, we can confirm that our hypotheses were proven in respect that an economically unstable society causes deterioration of health status of the population and manifestations of stress. Stress in turn is the reason for a decrease in people’s life energy and working ability as well as problems in family relationships. It is essential that by means of social programmes it is possible to ensure health promotion of the population.

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