# ECONOMICS
## & Sociology

# PERCEIVED HEALTH STATUS AND ECONOMIC GROWTH IN TERMS OF GENDER-ORIENTED INEQUALITIES IN THE OECD COUNTRIES

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**ABSTRACT**. Health affects both individual and economic life, and this fact is undeniable. Reducing health inequalities in socioeconomic groups is a proclaimed topic, not only in scientific discussions, but also in the discussions of the international organizations dealing with public health. The main aim of this article is to assess the relations between gender inequalities in perceived health status and economic growth in the OECD countries. The analyses include the variables of economic growth and self-rated health status in terms of gender-oriented inequalities in the period of 2010-2017. The analytical data processing was carried out using the methods of descriptive analysis, analysis of differences and the methods of causal relationships - regression and correlation analyses. The findings confirm that gender inequalities in perceived health status have a significant impact on economic growth. The findings also reveal that men report better health than women. The present study emphasizes that policy makers should focus on reducing gender health inequalities and recommends the actions in the area of health prevention and health education. Reducing health inequalities between men and women can lead to a reduction in gender inequalities in perceived health status, which will be reflected in increased economic growth, based on the results of this study.

## Introduction

Health is a value in itself, health of population affects economic performance in terms of productivity, labour supply, human capital and public spending (EC, 2013). Good health of population is an important factor in economic and social development; on the other hand, poor health is associated with a reduction in human potential and other resources (Dryglas & Lubowiecki-Vikuk, 2019). The economic impacts of health can be considered from different perspectives (Verikios et al., 2015; Monterubbianesi et al., 2017; Mihalache, 2019; Rasticova et al., 2019). At the same time, there are clear health inequalities between different groups of population around the world (Olsen & Dahl, 2007; Beckfield et al., 2013; Adler et al., 2016; Pinillos-Franco & Somarriba-Arechavala, 2019). Health inequalities are the result of various

determinants of health, which represent personal, social, economic and environmental factors that affect the conditions in which people work and live.

Based on this, it is necessary to focus on health inequalities from the economic point of view. The present study verifies the assumption about the existence of relations between gender-oriented inequalities in perceived health status and economic growth. Regarding the economic dimension, several studies have focused on health inequalities between population groups with different socioeconomic status, but gender inequalities in health have been overlooked.

The structure of the study is as follows: the section with literature review is focused on theoretical background, which points to the current summary of research activities in the examined issue, including the findings of international studies. Based on this research overview, we have formulated the objective of the research as well as we have defined the data and methodological procedures. These were applied into the analytical part, in which descriptive analysis, analysis of differences, regression and correlation analyses were used. In the conclusion part, we summarize the research findings and we compare them with those of other studies. Last but not least, we define the political implications and the possibilities for subsequent research in this area.

## 1. Literature review

Evaluating the quality and efficiency of health care is very important for health management at all levels (Stefko et al., 2016; Rajiani et al., 2018) and each health management should aim to achieve health improvements. Health improvements can lead to economic benefits in terms of economic prosperity in OECD (Organization for Economic Co-operation and Development) countries (Madsen, 2018). Many researchers have agreed that good health plays an important role in supporting economic condition, as evidenced by the findings that health has a positive impact on various aspects of countries' economic life, including income, economic growth or development (Bloom et al., 2004; Weil, 2007; Husain, 2010; French, 2012; Sharma, 2018; Rakauskienė, Volodzkienė, 2017). The health of the population can be described using many health indicators, and the self-rated health status of the population is a commonly used indicator that expresses the perception of people's own health on a scale of "good/very good"; "fair"; "bad/very bad" (Freidoony et al., 2015). The level of perceived health of the population is crucial, poor self-rated health status was associated with an increased risk of mortality and can be determined by lifestyle, socio-demographic, somatometric, but also economic factors (Moreno et al., 2014; Bamia et al., 2017; Moreno et al., 2017; Szybalska et al., 2018). At the same time, this health outcome affects various aspects of economic life. The link between a socio-economic status and self-rated health was examined in several specific dimensions (Andersson and Lundin, 2015; Pinillos-Franco & Kawachi, 2018; Wachtler et al., 2019), and income, education and occupation were identified as the main factors that affect self-rated health (Gueorguieva et al., 2009; Alvarez-Galvez et al., 2013; Yu et al., 2019). The significant negative impact of unemployment on self-rated health was also confirmed in several studies (Urbanos-Garrido & Lopez-Valcarcel, 2015; Ronchetti & Terriau, 2019). On the other hand, Seubsman et al. (2011) revealed that socio-economic factors have a greater influence on self-rated health of women than men. In terms of gender differences in health, the gender gap is evident (Zhang et al., 2015). Gorman & Read (2006) found that gender disparities are the smallest in terms of life-threatening medical conditions and that women have a clear disadvantage in terms of functional limitations and self-rated health. On the other hand, the authors confirmed that men are more likely to report excellent health at a younger age, but with increasing age, this gap closes and female disadvantage disappears. This finding is consistent with the results of the

study by Zajacova et al. (2017). Zunzunegui et al. (2009) also identified that women show poorer health outcomes as compared with men for all analysed health indicators, including self-rated health. There is other evidence that the self-rated health of women is worse compared to that of men (Gerritsen & Deville, 2009; Singh et al., 2013; Caroli & Weber-Baghdiguian, 2016). Spiers et al. (2003) confirmed that women reported more frequent health problems that were disabling but not life-threatening; and men had a predisposition to report potentially life-threatening problems. In addition, more than half of those who reported a potentially life-threatening problem considered their health to be good. Other findings revealed that a mix of biological factors and societal gender inequalities are major contributing factors to gender gap in self-rated measures of health (Boerma et al. 2016). In another aspect, Macintyre (1993) highlighted that lower thresholds may affect the perceived health of women. Despite these facts, there are some inconsistencies, when women report worse health but live longer. This phenomenon is called the male-female health-survival paradox based on biological, behavioural and social differences between men and women (Oksuzyan et al. 2010). On the other hand, several authors confirmed that women's longevity (or mortality) advantage translates into a health disadvantage (Van Oyen et al., 2013; Luy & Minagawa, 2014). The health inequalities can affect the economic life of countries from different perspectives, underlining the importance of research in this area (Engelgau et al., 2019). Mackenbach et al. (2011) and Pacáková & Kopecká (2018) examined the economic costs of socio-economic inequalities in health in Europe and the authors stated that the monetary value of health inequality related welfare losses is estimated to be 980 billion per year or 9.4% of GDP. Politzer et al. (2019) also highlighted a significant economic impact of health inequalities that may have negative effect on GDP. These findings were supported by LaVeist et al. (2011) who confirmed that racial-oriented inequalities in health lead to the high direct or indirect economic costs, particularly in terms of increasing health spending and decreasing productivity. Kroll & Lampert (2013) also examined health inequalities in economic dimension and revealed that direct costs for health care due to health inequalities were increased by approximately 2 billion to 25 billion EUR per year. From the opposite view on this issue, Schoeni et al. (2011) empathized the economic benefits of improving the health of disadvantaged groups. Based on the above-mentioned, the efforts to examine the issue of gender-oriented inequalities in health and its impact on economic growth have a high level of importance. It is clear that the perceived healthstatus and the gender differences in this indicator have been overlooked in the economic dimension.This study emphasizes the importance of this indicator and the findings answer how the gender inequalities in perceived health status affect the economic growth of countries.

## 2. Methodological approach

The above-mentioned findings provide the evidence of the existence of gender inequalities in perceived health status (Gorman & Read, 2006; Zunzunegui et al., 2009; Gerritsen & Deville, 2009; Singh et al., 2013; Caroli & Weber-Baghdiguian, 2016). At the same time, the effect of health inequalities on economic condition was confirmed (LaVeist et al., 2011; Mackenbach et al., 2011; Kroll & Lampert, 2013; Politzer et al. 2019). Despite these findings, it remains unanswered whether there is a relation between gender inequalities in perceived health status and economic growth. The main aim of the present study is to assess the relations between gender inequalities in perceived health status and economic growth in OECD countries. This was achieved using several analytical procedures. In addition to the descriptive assessment of selected indicators, the first step was to assess the significance of the differences between men and women in self-rated of health status in order to identify the gender inequalities. Subsequently, a regression analysis was used to assess the

impact of gender inequalities in individual categories of self-rated health status on economic growth. The next step consisted of assessing the relationship between gender inequalities in self-rated health status and economic growth.

The analytical process included the data collected from the OECD database, where the Health sub-database was used to collect health indicators and the Productivity sub-database was used to collect economic indicators (OECD, 2020a).

The health indicators are represented by perceived health status, which expresses the self-rated health status of the population. This indicator consisted of 3 variables (each in the male and female variant), namely good/very good health (GOOD), fair (not good, not bad) health (FAIR), bad/very bad health (BAD). All indicators include a population older than 15 years and are reported as a percentage. These indicators can be defined as the percentage of the population, aged 15 years old and over who report their health to be 'good/very good' (or excellent) (all positive response categories), 'fair' (not good, not bad), 'bad/very bad' (all negative response categories) (OECD, 2020b). The economic indicators were represented by GDP per head of the population USD current prices PPPs, GDP per hour worked USD current prices PPPs and GDP per person employed USD current prices PPPs. All OECD countries (with the exception of Mexico - which does not show indicators of perceived health status for the selected period) have been included in the analyses (years 2010-2017).

The above-mentioned objective was fulfilled by several successive analytical steps. In the first analytical steps, the descriptive analysis and the analysis of difference were applied. In the next analytical steps, the causal relationship analysis and the correlation analysis were used. The descriptive analysis and the analysis of difference provide a closer look at the analysed data. The basic statistical characteristics of the descriptive analysis were used for this purpose. Subsequently, a normality was tested using the Royston's multivariate normality test and the analysis of difference was applied using the non-parametric Wilcoxon Rank Sum Test. In the part of proving relationships, the regression and correlation analysis were used in order to determine the impact and the association of the analysed constructs. The most appropriate model of the regression analysis was selected based on the fulfilment of several assumptions that were tested (the significance of the time effect – the Bonferroni Outlier Test, the presence of significant multicollinearity of independent variables – the Variance Inflation Factors (VIF), the presence of significant heteroscedasticity – the Breusch-Pagan Test). The multiple linear regression model was used to estimate the impacts, and the White's HC3 and the Arellano estimator was used if the significant heteroscedasticity occurred. The Spearman $\rho$ coefficient was used to determine the correlation. For data processing was used statistical software R-studio as a platform of programming language R v. 3.6.2

## 3. Conducting research and results

This section is devoted to the process of applying analyses leading to the fulfilment of the main aim. The first part includes descriptive analysis, the second part deals with the assessment of disparities in self-rated health status between men and women, the third part contains the regression analysis determining the impact of gender inequalities in health on economic growth and the last part is devoted to the analysis of relationships between gender inequalities in health and economic growth.

### 3.1. Descriptive analysis

*Table 1* provides the results of descriptive statistics on health indicators. Descriptive analysis outputs show characteristics for both men and women.

Table 1. Descriptive statistic - perceived health status

| Descriptive statistic | Self-rated health status - females | | | Self-rated health status - males | | |
|---|---|---|---|---|---|---|
| | GOOD | FAIR | BAD | GOOD | FAIR | BAD |
| N of observation | 262 | 262 | 269 | 262 | 262 | 269 |
| Mean | 65.65 | 23.35 | 10.65 | 70.69 | 20.83 | 8.20 |
| Median | 68.50 | 22.20 | 9.60 | 72.20 | 19.30 | 7.70 |
| Standard deviation | 14.41 | 10.13 | 5.73 | 12.56 | 9.60 | 4.12 |
| Skewness | -0.63 | 0.46 | 0.30 | -0.83 | 0.79 | 0.14 |
| Kurtosis | 0.04 | 0.80 | -0.76 | 0.44 | 1.24 | -0.89 |
| Minimum | 25.60 | 0.00 | 0.00 | 31.50 | 0.00 | 0.00 |
| Maximum | 91.50 | 55.00 | 23.90 | 91.30 | 52.00 | 18.00 |
| First quartile | 58.20 | 17.30 | 6.40 | 63.35 | 14.88 | 4.65 |
| Third quartile | 74.70 | 28.63 | 14.95 | 79.43 | 25.53 | 11.50 |

Source: *own compilation*

By comparing the GOOD and BAD variables in the previous table, it is apparent that men generally report their health better than women (mean GOOD – females: 65.65; males: 70.69). Variability is less in indicators that express the perceived health of men, i.e. male values differ less from the average, these values are more consistent and have a higher degree of credibility (Standard deviation GOOD – females: 14.41; males: 12.56). In this way, it is possible to consider other statistical characteristics in the variant of men and women. In general, it can be concluded that men acquire more positive and consistent outputs of the perceived health indicator in all its categories.

### 3.2. Gender inequalities in perceived health status

This part evaluates the significance of differences between men and women in selected health variables.

Table 2. Assumption testing (normality) and Difference testing – selected health indicators between men and women

| Statistic | GOOD | FAIR | BAD |
|---|---|---|---|
| Royston's H | 183.24 | 187.36 | 178.81 |
| p value | <0.000 | <0.000 | <0.000 |
| Wilcoxon W | 26816 | 38895 | 43190 |
| p value | $1.48 \times 10^{-5}$ | $1.26 \times 10^{-4}$ | $3.10 \times 10^{-7}$ |

Source: *own compilation*

*Table 2* provides the results of Royston's multivariate normality test. Deviations from the normal distribution are considered acceptable, if a p-value is higher than 0.05. Based on the above results of the p-values that are less than 0.05, the assumption of normality was not met in any case. The significance of disparities in health variables was assessed using the Wilcoxon Rank Sum Test (Mann-Whitney U Test) as a non-parametric method. Table 2 also provides the results of the difference test. If the p-value, as the most important indication for the assessment of this test, is higher than 0.05, no significant difference is confirmed. Based on the results, all analysed health variables show differences between men and women. This negative fact indicates that there are gender inequalities in perceived health status, which means a certain disadvantage of one sex. The output in Table 2 provides information only on the existence of difference, but it is not focused on significance. By focusing on the outputs in

Table 1, the central tendency characteristics clarify whether the difference value is higher for men or women. It can be seen that women show more negative outcomes in most selected health variables.

### *3.3. The impact of gender inequalities in perceived health status on economic growth*

This part of the analytical process assesses the impact of gender inequalities in perceived health on the economic growth of OECD economies. Each following model contains the same independent variables, thus the verification of multicollinearity, as one of the main assumptions for applying the OLS model, was carried out for all three models in this point. By using the VIF method, the multicollinearity was identified in five cases. This was due to indicator GOOD with the VIF value of 195.12, which led to its removal. After this correction, the indicators FAIR and BAD have the VIF value of 1.11.

The first model assesses the impact of gender inequalities in indicators that determine the perceived health status (Fair health (FAIR), Bad or very bad health (BAD) on indicator that determines the economic growth (GDP per head of population in USD in current prices PPPs).

The significance of the effect of years was tested using the F Test for Individual and/or Time Effects, which takes the p-value of 0.17in the F statistics that equals to 1.48, i.e. the effect of time is not significant. On this basis, the OLS model was chosen as the most suitable. Subsequently, the outliers were verified using the Bonferroni Test for identification of outliers. The result of the test revealed 5 significant outliers, and therefore these data were removed. The heteroscedasticity was tested on the basis of the Gauss-Markov theorem. The homoscedasticity was tested by the Breusch-Pagan test, which takes the p-value of less than 0.00095(in BP that approximately equals to 13.91), i.e. there is the significant heteroscedasticity. The coefficients were estimated using the HC3 estimator. *Table 3* shows the output of testing.

Table 3. Regression analysis – the impact of gender inequalities in self-rated health status on GDP per head of population – Model 1

| Model 1 OLS HC3 | Estimate | Std. Error | t value | p value |
|---|---|---|---|---|
| constant | 52762.5 | 1539.9 | 34.3 | $<2.2\times10^{-16}$ |
| FAIR | -1895.1 | 491.1 | -3.9 | $1.45\times10^{-4}$ |
| BAD | -3296.9 | 311.3 | -10.6 | $<2.2\times10^{-16}$ |

Source: *own compilation*

*Table 3* provides the impact analysis output. With a focus on the outputs, it is clear that not all independent variables have the significant impact on GDP per head of population in USD in current prices PPPs. The Model 1 can be considered as significant at the significance level ($\alpha$) of less than $2.2\times10^{-16}$ in the F statistics that approximately equals to 66.65. The Model 1 takes the Multiple $R^2$ of 0.3505 and the Adjusted $R^2$ of 0.3452. Based on the coefficients, it is possible to confirm that the most significant variable is BAD that shows a negative coefficient. Therefore, if the gender inequality in perceived health status decreases, an increase in the economic growth represented by GDP per head of population in USD in current prices PPPs is expected and vice versa.

The following analysed model evaluates the impact of gender inequalities in indicators that determine the perceived health status (fair health percent (FAIR), bad or very bad health (BAD) on indicator that determines the economic growth (GDP per hour worked USD current prices PPPs).

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In the first step, the F Test for Individual and/or Time Effects tested the significance of the effect of years. This test takes the p-value of 0.19 in the F statistics that approximately equals to 1.43, i.e. the effect of time is not significant. On this basis, the OLS model was chosen as the most suitable. Subsequently, the outliers were verified using the Bonferroni Outlier Test and no significant outliers were found. The heteroscedasticity was tested on the basis of Gauss-Markov theorem. The homogeneity of variability of residuals (homoscedasticity) was tested by the Breusch-Pagan test, which takes the p-value of 0.00012 (in BP that approximately equals to 17.91), i.e. there is the significant heteroscedasticity. The coefficients were estimated using the HC3 estimator. *Table 4* shows the output of testing.

Table 4. Regression analysis – the impact of gender inequalities in self-rated health status on GDP per hour worked – Model 2

| Model 2 OLS HC3 | Estimate | Std. Error | t value | p value |
|---|---|---|---|---|
| constant | 67.9 | 2.2 | 31.0 | $<2.2\times10^{-16}$ |
| FAIR | -1.9 | 0.7 | -2.8 | $5.0\times10^{-3}$ |
| BAD | -4.2 | 0.4 | -11.0 | $<2.0\times10^{-16}$ |

Source: *own compilation*

Table 4 provides the output of the analysis of impact. Based on the outputs, it is clear that not all independent variables have the significant impact on GDP per hour worked USD current prices PPPs. The Model 2 can be considered as significant at the significance level ($\alpha$) of less than $2.2\times10^{-16}$ in the F statistics that approximately equals to 51.98. The Model 2 takes the Multiple $R^2$ of 0.292 and the Adjusted $R^2$ of 0.2864. When evaluating the coefficients, it is possible to confirm that the most significant variable is BAD that shows a negative coefficient. Therefore, if the gender inequality in perceived health status decreases, the economic growth represented by GDP per hour worked USD current prices PPPs is expected to increase and vice versa.

The last analysed model assesses the impact of gender inequalities in indicator that determine the perceived health status (Fair health percent (FAIR), Bad or very bad health (BAD) on indicator that determines the economic growth (GDP per person employed USD current prices PPPs).

At the beginning of the verification of assumptions, the significance of the effect of years was tested using the F Test for Individual and/or Time Effects, which takes the p-value of 0.041 in the F statistics that approximately equals to 2.13, i.e. the effect of time is significant.

On this basis, the Fixed effect model was chosen as the most suitable. Subsequently, the outliers were verified using the Bonferroni Outlier Test, one significant outlier was found and removed. The heteroscedasticity was tested on the basis of Gauss-Markov theorem. The homogeneity of variability of residuals (homoscedasticity) was tested by the Breusch-Pagan test and the results show the p-value of $4.97\times10^{-6}$ (in BP that approximately equals to 24.42), i.e. there is the significant heteroscedasticity. The Arellano estimator was used to estimate the coefficients. *Table 5* shows the output of testing.

Table 5. Regression analysis – the impact of gender inequalities in self-rated health status on GDP per person employed – Model 3

| Model 3 PLM Arellano | Estimate | Std. Error | t value | p value |
|---|---|---|---|---|
| FAIR | -3127.4 | 524.8 | -6.0 | $8.8\times10^{-9}$ |
| BAD | -5337.3 | 222.0 | 24.04 | $<2.0\times10^{-16}$ |

Source: *own compilation*

*Table 5* provides the output of the analysis of impact. With a focus on the outputs, it is clear that not all independent variables have the significant impact on GDP per person employed USD current prices PPPs. The Model 3 can be considered as significant at the significance level ($\alpha$) of less than $2.2 \times 10^{-16}$ in the F statistics that approximately equals to 58.33. The Model 3 takes the Multiple $R^2$ of 0.32 and the Adjusted $R^2$ of 0.30. Based on the coefficients, it is possible to confirm that the most significant variable is BAD that shows a negative coefficient. Therefore, if the gender inequality in perceived health status decreases, the economic growth represented by GDP per person employed USD current prices PPPs will increase and vice versa.

### 3.4. The correlation between gender health inequalities and economic growth

This section focuses on evaluating the relationship between the economic growth of OECD economies and the gender inequalities in perceived health status. The evaluation of the relationship was carried out using the Spearman $\rho$ as a non-parametric method. The essence of this section is to evaluate the relations univariate, and also to reveal the effects of the excluded variable in the previous part (multicollinearity indicator: GOOD).

Table 6. Relationship ($\rho$) between economic growth and gender inequalities in perceived health status

| Characteristic | GDP per head of population | | | GDP per hour worked | | | GDP per person employed | | |
|---|---|---|---|---|---|---|---|---|---|
| ID | GOOD | FAIR | BAD | GOOD | FAIR | BAD | GOOD | FAIR | BAD |
| N | 262 | 255 | 262 | 262 | 255 | 262 | 262 | 255 | 262 |
| $\rho$ | -0.63 | -0.42 | -0.62 | -0.54 | -0.31 | -0.56 | -0.58 | -0.35 | -0.58 |
| P value | <0.000 | <0.000 | <0.000 | <0.000 | <0.000 | <0.000 | <0.000 | <0.000 | <0.000 |

Source: *own compilation*

*Table 6* provides the output of the analysis of relationships. With a focus on the output, there is the significant relationship between the economic growth (GDP per head of population USD current prices PPPs, GDP per hour worked USD current prices PPPs and GDP per person employed USD current prices PPPs) and the vast majority of gender inequalities in perceived health status. The variables such as GOOD, BAD show the highest rates of relationship (substantial to very strong). All indicators show a negative coefficient, i.e. if the gender inequality in perceived health decreases, an increase in the economic growth is expected. On the other hand, there is no causality between these variables, only relationship.

### Conclusion

Many research studies dealing with health issues from an economic point of view have focused on health indicators such as mortality, frequency of specific diseases or life expectancy in their analytical procedures. Of course, these studies are very valuable, but on the other hand, this issue seems to be under-examined in terms of perceived health status. It should be emphasized that this is a very valuable health indicator that partly reflects the real (objective) state of health and partly also the subjective perception of health, which contribute to the importance of examining its economic effects. It is still questionable how the perceived health status affects the economic growth of countries. Several studies showed that there is a link (Mackenbach et al. 2011). A secondary question may be how the differences in perceived health status affect the economic growth of countries. It is generally accepted that health

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inequalities are a weakness also in developed countries (such as OECD countries). It can be assumed that reducing the health differences between individual population groups is positive for economic development (Schoeni et al., 2011; LaVeist et al., 2011; Politzer et al., 2019). Several studies have also dealt with the male-female health-survival paradox (Van Oyen et al., 2013; Luy& Minagawa, 2014), i.e. there is evidence of some inconsistency when women report poor health but live longer. On the basis of the above-mentioned, it can be concluded that the examination of relations of gender inequalities is beneficial. The main aim of the present study was to assess the relations between gender inequalities in perceived health status and economic growth in OECD countries. Based on several analytical processes, the objective can be considered to be fulfilled.

In terms of perceived health status, the BAD indicator showed the most significant difference. It can be concluded that the average proportion of men in the population reporting their health status as bad or very bad was 2.5% lower than the average proportion of women. With a focus on the GOOD indicator, it can be concluded that the average proportion of men in the population reporting their health status as good or very good was 5.1% higher than the average proportion of women. These results are in accordance with many findings confirming that women report their health worse than men (Gerritsen & Deville, 2009; Singh et al., 2013; Caroli & Weber-Baghdiguian, 2016), other results showed that the excess female reporting of poorer health occurred at all ages, but was smaller at age of 60 years and over (Boerma et al. 2016). Gender gaps were also identified in the present study and at this point, it is necessary highlight that societal, cultural and behavioural aspects play an important role in affecting the changes in gender inequalities (Carmel, 2019). The stereotypes or taking the risks should be also taken into account. It can be interpreted that if the gender inequalities in health perceived status (FAIR, BAD) decrease, the economic growth is expected to increase. The most significant impact was identified in the BAD indicator that indicate bad/very bad health. The outputs of the correlation analysis indicate the existence of a link between these gender health inequalities and economic growth. It can be considered that if the gender health inequality decreases, the economic growth will increase. However, it is not a causal relationship, but only a relationship.

First of all, it should be highlighted that health and its perception are important. If people feel ill, their work performance is not optimal, the consumption of medicines increases and the quality of life decreases. Last but not least, it is undeniably objectively true that a negative perception of health as a whole has an impact on workers' productivity and, consequently, on the economic condition of countries. There is no reason to believe that the perception of health is not related to the real state of health. In this regard, the practical implications can be applied in conjunction with the exact health condition, and the emphasis is on activities that reduce morbidity as well as reduce negative perceptions of health. In this respect, the preventive policies and the improvement of the health system should be activated (Simionescu et al., 2019). The study presents a look at inequalities in the perceived health status between men and women and it confirms the importance of reducing these gender inequalities in terms of the impact on the economic growth of countries. The future research will focus on this health issue, but a more detailed relationship analysis is planned to answer the questions of the efficiency of reducing gender inequalities in health. Therefore, the future research will reveal indicators in which the efforts to reduce health inequalities in perceived health will be more effective on the part of women than men in terms of the economic growth. In this respect, the male-female health-survival paradox is highlighted, which will be included in the planned research in the sense of determining multidimensional relations of gender-oriented inequalities and their impacts on economic outcomes (in the structure of relationships of exact health and perceived health).

The limitation of the study is that the findings reflect outputs for developed countries and over the specified period of time, therefore the findings can be generalized and applied only to very similar conditions. This time period is considered sufficient and the results are relevant, i.e. time series were not large and therefore the risk of exogenous factors is minimal.

## Acknowledgement

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