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THE POVERTY REDUCING EFFECT OF HEALTH - THE CASE OF REPUBLIC OF MACEDONIA

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Abstract

Beyond its intrinsic value for individuals, improving and protecting health is also central to overall human development and to the reduction of poverty. Enjoying the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief and economic or social condition. Good health contributes to development through a number of pathways, having a macroeconomic impact, intergenerational spillover effects that are clearly shown in micro-economic activities, not least in the household itself. Based on this, the aim of this study is to examine the impact of the health costs of reducing the poverty in the Republic of Macedonia, this specifically by excluding the health cost from the poor family budgets, and to, therefore, reduce the inequality in the country. The at-risk-of-poverty rate in the Republic of Macedonia in 2015 is 21.5% and the Gini coefficient 33.7%. The study examines health cost based on available official data from the State Statistical Office (Household Consumption in the Republic of Macedonia and Laeken poverty indicators) from the period of 2005-2015. Findings show that if we exclude the costs for health from the cost structure, the poverty line would be reduced by 3% on average and the number of poor reduced for 15 000 persons in average. Therefore the health system in the country should be based on the pro-poor approach, be more fair and responsive to the needs of people.

Key words: economic development, health, inequality, income distribution, poverty

1. INTRODUCTION

Health is being considered now higher on the national and international agenda than ever before, because of its big influence on the country's development. Most nations throughout the world have agreed that enjoying the highest attainable standard of health is one of the fundamental rights of every human being. Beyond its intrinsic value to individuals, health is also central to overall human development and to the reduction of poverty (OECD, 2003). Introducing the pro-poor health approach in the countries with the support of the development agencies will put the promotion, protection and the improvement of the health of the poor people high on the priority list. Investment in health contributes to the development of the country through a number of ways, like higher labor productivity, educational attainment, higher investments, savings, improved human capital, demographic changes and etc.

Measuring the health expenditures poverty-reducing effect in an economy is crucial for building a more responsive system that will answer the needs of the poor people in a more effective and efficient manner.

2. HEALTH, POVERTY AND THE ECONOMY

2.1. Health and poverty

Poverty and poor health worldwide are inextricably linked. The causes of poor health for millions globally are rooted in political, social and economic injustices. Poverty is both a cause and a consequence of poor health. Poverty increases the chances of poor health. Poor health, in turn, traps communities in poverty. The poor suffer worse health and die younger because of the high levels of the child and maternal mortality, diseases, limited access to health care and social protection.

The DAC Guidelines on Poverty Reduction present five core dimensions of poverty that reflect the deprivation of human capabilities: economic (income, livelihoods, decent work), human (health, education), political (empowerment, rights, voice), socio-cultural (status, dignity) and protective (insecurity, risk, vulnerability). Some social categories are particularly affected by severe poverty, among them indigenous populations, minority and socially excluded groups, refugees or displaced persons, the mentally or physically disabled and people living with HIV/AIDS. These groups are among the poorest of the poor in many societies and require special attention in policy action for poverty reduction. Poor women and girls are worse off, in relation to assets and entitlements, within the household and in society (OECD, 2003).

Poverty and disease are tied closely together, with each factor aiding the other (Singh and Singh, 2008). Many diseases that primarily affect the poor serve to also deepen poverty and worsen conditions. Poverty also significantly reduces people's capabilities making it more difficult to avoid poverty-related diseases (Singh and Singh, 2008). The majority of diseases and related mortality in poor countries is due to preventable, treatable diseases for which medicines and treatment regimes are readily available. Poverty is in many cases the single dominating factor in higher rates of prevalence of these diseases. Poor hygiene, ignorance in health-related education, non-availability of safe drinking water, inadequate nutrition and indoor pollution are factors exacerbated by poverty (Stevens, 2004). For many environmental and social reasons, including crowded living and working conditions, inadequate sanitation, the poor are more likely to be exposed to infectious diseases. Malnutrition, stress, overwork, and inadequate, inaccessible, or non-existent health care can hinder recovery and exacerbate the disease (UNFPA, 2002). Malnutrition is associated with 54% of childhood deaths from diseases of poverty, and lack of skilled attendants during childbirth is primarily responsible for the high maternal and infant death rates among the poor.

Better health services can break out the cycles of poverty in the country. In economics, the cycle of poverty is the "set of factors or events by which poverty, once started, is likely to continue unless there is outside intervention".

Health is a crucial economic asset of the poor people because their income gain depends on it, and that's why health investments are an important means of economic development.

2.2. Health and the Economy

The health can influence the economy in a number of ways. Good health has a positive impact on increasing people's productivity and the possibility to increase their knowledge and skills or the "human capital" and therefore be more productive. School attainment is also determined by the health status which influences the future earnings of the individuals and the households in general. Large health costs can worsen the financial status of the individuals and push them into poverty. The health care services and their expenditures are important for the economy in general, as their financial scheme also.

Good health can increase the longevity and therefore the earnings of the people in the country which can increase the labor productivity in general. Sick people are often absent from work and therefore could not earn money, the entire household can become trapped in a downward spiral of lost income and high health-care costs, and can cause them to fall into poverty. The costs of illness can be devastating for poor families. The cascading effect can mean an absence from school also, selling assets from the households and etc.

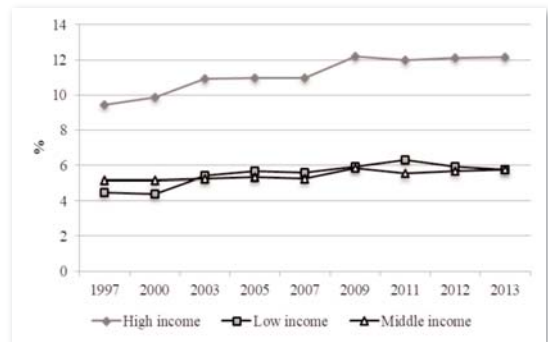
A study of the poor carried out for the preparation of the 2000 World Development Report of the World Bank stresses the importance to the poor people on maintaining a good health. Ill health is an important contributor to poverty and to the economic vulnerability that is at the foundation of the poverty problems (World Bank, 2001).

Another important issue is how much the health system is responsive to the needs of the people and the fairness of its' financing. Disadvantaged groups such as poor ethnic minorities, people living in distant places from the health services and women have less access to health services. Sometimes the health services are being offered in areas like larger cities and towns, whereas the people that live in rural areas often should make additional costs in order to be able to use those health services, causing to decrease their incomes.

Health is important to the countries also as they spent a lot of money in their fiscal budgets for this issue. High-income countries spend around 9-12 percent of their national income on health (Figure 1), whereas the low-income countries from 3 to 6 percent of their national income (Skolnik, 2016). What is also very important is not only how much expenditures the country has made on health, but also how that money is being spent or the particular investment of that money. Having in mind that the governments have limited amount of financial assets and therefore limited health budget, they have to prioritize which health interventions will be covered based on the cost-effectiveness analysis. Scaling up financial resources for health should be a priority, requiring more financing from the budgets of the countries as well as substantial resources from the developing agencies.

Figure 1
Health expenditure by income countries,
total (% of GDP)

Source: Authors calculation, [Databank.worldbank.org](http://databank.worldbank.org).
(2017). World Development Indicators | DataBank. [online]
Available at:
<http://databank.worldbank.org/data/reports.aspx?>



Many economists' studies show that the importance of the health to economic development is growing. Higher levels of economic development promote better health at the level of both individuals and of society. Higher income is associated with better health and longer life expectancy which could be also as a result of the technological progress in the medicines they use, such as on vaccines, new drugs, treating methods and etc.

Good health contributes to development through a number of pathways, which partly overlap but in each case add to the total impact:

- Higher labor productivity. Healthier workers are more productive, earn higher wages, and miss fewer days of work than those who are ill. This increases the output, reduces turnover in the workforce, and increases enterprise profitability and agricultural production.
- Higher rates of domestic and foreign investment. Increased labor productivity, in turn, creates incentives for investment. In addition, controlling endemic and epidemic diseases, such as HIV/AIDS, is likely to encourage foreign investment, both by increasing growth opportunities for them and by reducing health risks for their personnel.
- Improved human capital. Healthy children have better cognitive potential. As health improves, rates of absenteeism and early school drop-outs fall, and children learn better, leading to growth in the human capital base.
- Higher rates of national savings. Healthy people have more resources to devote to savings, and people who live longer save for retirement. These savings, in turn, provide funds for capital investment.
- Demographic changes. Improvements in both health and education contribute to lower rates of fertility and mortality. After a delay, fertility falls faster than mortality, slowing population growth and reducing the “dependency ratio” (the ratio of active workers to dependants). This “demographic dividend” has been shown to be an important source of growth in per capita income for low-income countries (Birdsall, Kelley and Sinding, 2001).

In addition to their beneficial macroeconomic impact, health improvements have intergenerational spillover effects that are clearly shown in micro-economic activities, not least in the household itself.

3. PRO-POOR HEALTH SYSTEM AND THE POVERTY

The broad development impact of health investment points to the importance of a comprehensive approach to improving the health of poor people. In many developing countries health services are often ineffective, with the result that hundreds of millions of the world's poor do not have access to the public health and personal care they need. Ensuring that people have access to effective and affordable health services is not only vital to give them opportunities to improve their lives but is an essential measure of social protection to prevent the spiral from ill health to poverty. If the health of poor people is to improve a pro-poor approach must be introduced.

A pro-poor health approach is one that gives priority to promoting, protecting and improving the health of the poor. It includes the provision of quality public health and personal care services, with equitable financing mechanisms. It goes beyond the health sector to encompass policies in areas that affect the health of the poor disproportionately, such as education, nutrition, water, and sanitation. Finally, it is concerned with global action on the effects of trade in health services, intellectual property rights, and the funding of health research as they impact on the health of the poor in developing countries (OECD, 2003)

A pro-poor health approach builds on the following four pillars:

- Health systems comprise the promotive, preventive, curative and rehabilitative services delivered by health personnel and their support structures (e.g. drug procurement systems). They include public and private sector services (for-profit and not-for-profit), formal and informal, as well as traditional services, and home- and family-based care.
- Health financing and broader social protection strategies are necessary to protect the poor and socially vulnerable from the impoverishing costs of health care.
- Key policy areas beyond the health sector. The health of poor people, in particular, is determined by a wide range of factors, including income, education level, food security, environmental conditions, and access to water and sanitation. Economic, trade and fiscal policies are also important determinants of household incomes and nutritional status. They have an impact on inequality and exclusion, whether, by

gender, ethnicity or socio-economic groups, and these, in turn, have a major impact on health status. National Poverty Reduction Strategies (PRS) provide an important framework to connect policies outside the health sector with pro-poor health objectives.

- Promoting policy coherence and global public goods. International action – such as the provision of global public goods, multilateral agreements on trade and investment, and environmental conventions – should complement other pro-poor health strategies (OECD, 2003).

Development agencies are committed to working in partnership with developing countries to develop health systems that provide quality public health programs and personal (i.e. individual) health services that are accessible by the poor and nearly poor. The ways in which the countries and the development agencies can develop a pro-poor health approach is being given in table 1.

Table 1. Key actions to develop effective pro-poor health systems

Partner country	Development agency
Assume key public-sector functions in health: policy-making, regulation, purchase and provision of services.	Strengthen capacity for the execution of the core functions of the ministry of health.
Provide accessible, affordable, and responsive quality health services	Facilitate the identification of disease patterns, and the health service needs of poor people and vulnerable groups.
Strengthen health financing systems to allow for equitable access of the poor to health services.	Support capacity in social impact analysis, to make health systems, including financing, more accessible to the poor.
Support health policies through decentralization and greater local capacity to deliver services. Ensure meaningful community participation	Assist civil society organizations and community representatives to increase their capacity to participate in health policy and programs.
Develop partnerships with the private sector and NGOs for the delivery of health services.	Support strategies to improve service delivery including better public services and partnerships with the private sector to increase coverage

Source: OECD, (2003). *DAC Guidelines and Reference Series: Poverty and Health*. Paris: WHO Library. pp.10

Improving the health of the poor is an investment in economic growth and development and should be a priority for reducing poverty. The lack of resources allocated to health is not the only obstacle to the effective implementation of pro-poor health policies, but it is a major, and inescapable, part of the problem. Existing resources allocated to health in developing countries are inadequate to finance a health system that meets the needs of poor people. Some increases in government spending for health are possible through budget reallocations, efficiency savings, and the use of funds released from debt relief. Yet the poorest countries will remain unable to provide sufficient resources to meet pro-poor health objectives without a substantial increase in external financing. Increased resources should come from a combination of public, private, domestic and external sources. Development agencies should consider how to improve their own capacity to support pro-poor health objectives and overcome the constraints that limit the effectiveness of development co-operation and help the countries to implement this concept. (OECD, 2003)

Ensuring that the poor have access to effective and affordable health services is central to a pro-poor health approach. However, it is not sufficient in itself to improve the health of the poor since major determinants of their health depend on actions beyond the health sector. There is, indeed, ample and longstanding evidence of the effects of a range of sectoral policies and macroeconomic practices on health outcomes. Those that

are critically important include education, food security, safe water, sanitation, and energy. The health of the poor can also be improved by reducing their exposure to air pollution, violence, injuries at home, in the workplace, and on the roads, and by preventing the devastating impact of conflict and natural disasters.

- **Education.** Education and health are fundamental to poverty reduction. The evidence demonstrating inter-linkages between investments in health and education and their synergetic effects on reducing poverty is compelling. Minds and bodies – education and health – are the most important assets of poor people, enabling them to lead socially and economically productive lives. Even a few years of schooling provide basic skills that can have far-reaching implications for health-seeking behavior. Moreover, education emphasizing health prevention and informed self-help is among the most effective ways of empowering the poor to take charge of their own lives. Although education is essential for health improvement, health is also a major determinant of educational attainment: it has a direct impact on cognitive abilities and school attendance. Policymakers and staff in the two sectors, therefore, have a mutual interest in interacting closely and identifying strategies for collaboration using both the school system and informal education channels.
- **Food security, nutrition and health.** Hunger and malnutrition are among the most devastating problems facing the world today. Although food security has improved in developing countries in the last 30 years, there has been a slowdown in the reduction of hunger in the 1990s. While the total number of undernourished people has declined (especially in China), in most countries the numbers have increased (FAO, 2001). Key linkages with poverty and health Malnutrition and food insecurity, obviously, have strong implications for health. Nearly 800 million people in developing countries are chronically hungry. Many live in conflict areas and more than 60% of them are women (ACC/SCN and IFPRI, 2000). Although the large majority of hungry people live in rural areas, rapid urbanization contributes to increasing poverty and food insecurity in large towns and cities. Hunger and malnutrition increase vulnerability to disease and premature death, and reduce people's ability to earn a livelihood, not least through cultivation and generating an income. Malnutrition is both a major cause and effect and a key indicator, of poverty and lack of development. Moreover, a failure to treat the underlying causes of malnutrition and their consequences undermines the impact of other efforts to improve health, while ill health itself reduces the ability of the body to absorb nutrients from food.
- **Poverty, health, and the environment.** Estimates suggest that at least 25% of the global burden of disease may be attributed to environmental conditions (WEHAB, 2002). Poor people are often subject, in their homes and workplaces, to exposure to toxic pollutants from sources including waste disposal sites and incinerators. Poor health status increases a person's vulnerability to the impact of toxic chemicals. It is important to have a healthy and safe work environment and a coherent policy for the safe use of chemicals, including their production, handling, storage, and disposal (ILO, 2001). Almost 1.2 billion people lack access to safe drinking water; twice that number lack adequate sanitation. Sanitation is the safe management of waste. Hospitals and health facilities are themselves a source of hazardous waste, which can be environmentally damaging and impact on the health of poor people. Inadequate water quality leads to the transmission of such diseases as diarrhea, cholera, trachoma, and onchocerciasis (WELL, 1999). Scabies and trachoma depend on the quantity of water available while stagnant water is a breeding ground for the vectors transmitting malaria and schistosomiasis. Access to adequate quantities of water is also essential for food production, which in turn improves nutrition, health and people's ability to withstand and recover from diseases. Lack of sanitation increases the transmission of excreta-related illnesses, including certain faecal-oral diseases such as cholera, soil-transmitted helminths (among them roundworms and hookworms), and water-based helminths (which cause, for example, schistosomiasis). In addition, the contamination of water (and food) by pesticides and toxic chemicals such as mercury, lead, and arsenic causes millions of cases of poisoning each year (WEHAB, 2002) The majority of people affected by these diseases are poor. Most of the resulting deaths are among children under five and are concentrated in poorest households and communities. According to one estimate, at any one time, half of the urban population is suffering from one or more of the diseases associated with

the provision of water and sanitation (WHO, 1996). During conflicts and emergencies, people are even more vulnerable to water and sanitation-related diseases.

- **Air pollution, indoors and out**, is a major problem that affects the health of poor people disproportionately. Poverty leads to a dependence on cheap traditional fuels for cooking and heating which combines with unventilated, overcrowded accommodation to cause indoor pollution. In addition, in urban areas poor people live close to highly polluting industries and transport networks, with predictable effects on their health. Around 3 billion people are exposed to indoor air pollution from the use of traditional fuels for household energy. Poor households in sub-Saharan Africa and Asia rely mostly on biomass or kerosene because of cost; only the more affluent households use gas or electricity. Indoor air pollution causes an estimated 2 million deaths a year, mostly in developing countries (WEHAB, 2002). It primarily affects the poor in rural areas but exposure is rising among urban populations. Inadequate regulation, rapid urbanization, the proximity of industries to residential areas, and high population density exacerbate the degree of exposure of poor people.

4. THE POVERTY REDUCING EFFECT OF HEALTH-THE CASE OF REPUBLIC OF MACEDONIA

The health of poor people is currently a central issue in international debate and a serious concern in the Republic of Macedonia, which registered 6.5% health expenditures as a percentage of GDP in 2015, compared with 8% in 2005. The minimum health expenditures in EU countries are around 10%. According to the final data of the State Statistical Office in 2016 (Table 2), the at-risk-of-poverty rate in the Republic of Macedonia in 2015 was 21.5%. Analyzed by household types, the at-risk-of-poverty rate in households of two adults with two dependent children in 2015 was 22.9%, while for households with 5 and more members 52%. According to the most frequent activity status, the at-risk-of-poverty rate for unemployed persons was around 40%, the GINI coefficient is 33.7, which has decreased from around 40% mostly based on the newly changed methodology that is being used for calculating GINI in the State statistical office of Republic of Macedonia.

Table 2. Some selected poverty and social exclusion indicators in Republic of Macedonia, 2013-2015

	2013	2014	2015
At-risk-of-poverty rate, % of population	24.2	22.1	21.5
Number of persons below at-risk-of-poverty threshold, in thousand persons	500.4	457.2	445.2
Households of two adults with two dependent children	24.8	25	22.9
Households of two adults with three or more dependent children	49.9	50.9*	52.2
Unemployed	43.7	40.5	39.7
Inequality of income distribution, S80/S20, %	8.4	7.2	6.6
Inequality of income distribution, Gini coefficient, %	37	35.2	33.7
At-risk-of-poverty rate before social transfers	41	41.7	40.5

Source: State Statistical Office of RM, Laeken poverty indicators in 2015

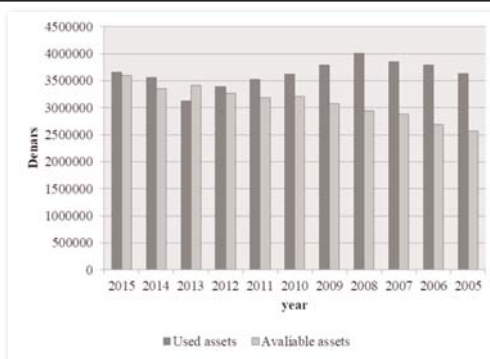
The aim of this study is therefore to examine the impact of household health expenditure in reducing poverty in the Republic of Macedonia, by excluding such expenditures from poor household budgets to reduce the inequality in the country.

The study examines the health expenditure effect on poverty reduction based on available official data from the State Statistical Office, Survey on Income and Living Conditions and Laeken poverty indicators for the period 2005-2015.

The available assets within a household comprise the financial means at the disposal of the household, the value of products used for personal consumption from own production and the value of consumer credits and loans raised and realized during certain year. The used assets of the household include its expenditures for purchasing goods and services for personal consumption, the value of the consumption from own production and the refunded part of the consumer credits and loans. Generally, within the analyzed period from 2005-2015 (Figure 2), the available assets have an increasing tendency, whereas the used assets are the highest in 2008 and later decreasing until the year 2013, where they have the lowest value, and start increasing afterward. The reported used assets are mainly higher than the available assets during the whole period, except in 2013.

Figure 2
Used assets and available assets, 2005-2015

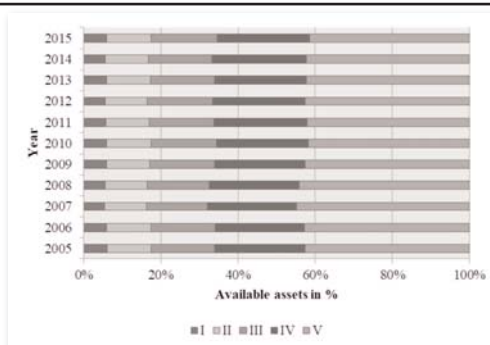
Source: Authors' calculations,
State Statistical Office of RM



The available assets analysis by quintiles in the period 2005-2015 registers high-income inequality which exists in the Macedonian economy presented in Figure 3. In average in the analyzed period the richest people in the country (fifth quintile) possess 43% of the national income, whereas the poorest people (the first quintile) take only 6% in average from the national income. Another indicator which measures the income inequality is the S80/S20 ratio, which calculates the ratio of total income received by the 20% of the population with the highest income (the top quintile) to that received by the 20% of the population with the lowest income (the bottom quintile). Income must be understood as equivalised disposable income. In the Republic of Macedonia, this ratio is in average 7, meaning that the richest people in the country receive 7 times more income than the poorest people. According to EUROSTAT this ratio in 2012 was 10.2. The EU 28 countries have an S80/S20 ratio round 5.

Figure 3.
Available assets by quintiles, 2005-2015

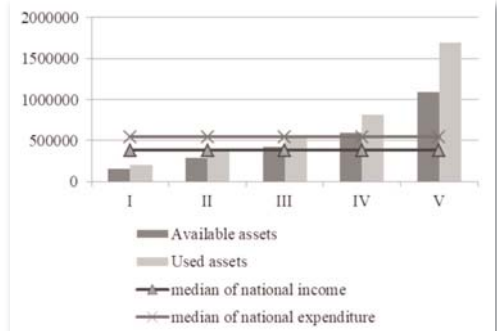
Source: Authors' calculations, State Statistical Office of RM



The used and available assets in quintiles, for the year 2005 and 2015 are given in order to get the picture how they have changed through the time. What can be seen is that there is an upward movement of the median of national income in 2015 and gets closer to the national expenditure median. What is evident is

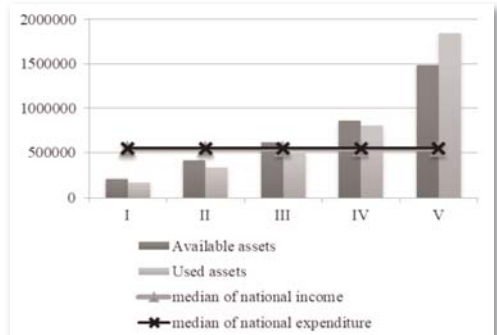
that the households in the first three quintiles are below the median of national income which is an alarming situation (Figure 4 and 5)

Figure 4.
At-risk-of-poverty threshold (2005)



Source: Authors' calculations, State Statistical Office of RM

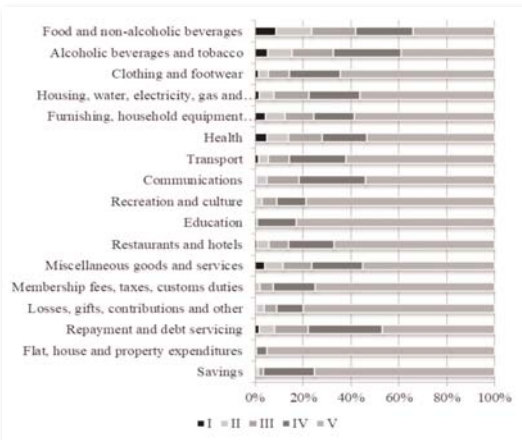
Figure 5.
At-risk-of-poverty threshold, 2015



Source: Authors' calculations, State Statistical Office of RM

The used assets according to the purpose of consumption in 2015 by quintiles are being given in Figure 6. What is evident for the first three quintiles is that most of their used assets are spent on food and nonalcoholic beverages, alcoholic beverages and tobacco and health. This is an indicator also for the tax inequality which exists in the society based on the fact that the poorer people spend most of their assets on products which are taxed with indirect taxes, making the poor people pay higher percentage of their income on indirect taxes, which are the same for everyone no matter of their purchasing power.

Figure 6.
Used assets according to the purpose
of consumption in quintiles (in %), 2015



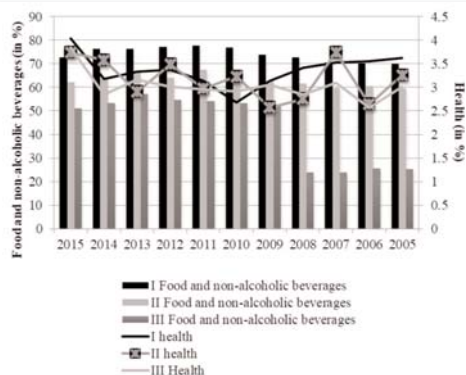
Source: Authors' calculations,
State Statistical Office of RM

If the costs for tobacco and alcoholic beverages are excluded, the data shows that in 2015 the first quintile uses 73% of the total used assets for food and non-alcoholic beverages (follow the bars). The second and

the third quintiles use 62% and 51% of the used assets for this purpose, respectively. The data presented with the lines show that the first quintile in 2015 uses 4% of their assets for health services, whereas the second and the third quintile 3.7% and 3.8% respectively. In average in the analyzed period the first quintile spends 74%, the second 63%, and the third quintile 43% of the used assets for Food and non-alcoholic beverages. The health costs do not differ so much and are in average 3% (Figure 7).

Figure 7.

Used assets according to the purpose of consumption I, II and III quintiles, 2005-2015

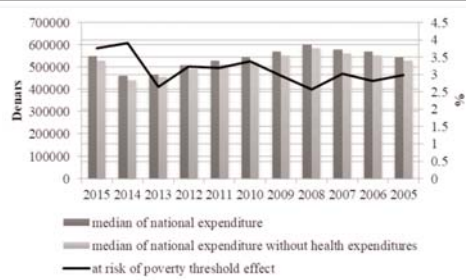


Source: Authors' calculations, State Statistical Office of RM

Findings show that if health expenditures are excluded from the overall expenditure structure, the median of the national costs will decrease as shown with the difference between two bars in the same year (values in denars on the left vertical axis). The at-risk of poverty threshold would be reduced by 3% on average in the period from 2005-2015, or 3.8% in 2015 which can be seen with the given line and measurement in percentage on the right vertical axis (Figure 8).

Figure 8.

The poverty reducing effect of health, 2005-2015



Source: Author's calculation

If shown with numbers, the number of persons below at risk poverty threshold in 2015 is 445 200 persons, whereas if the health costs are excluded this number will fall for 16 918 persons in 2015, or round 15 000 in average for the analyzed period (Table 3). If the positive effects of the pro-poor health approach are being taken into account, then the country should put itself on the road to implement this approach and therefore be more fair and responsive to the needs of people.

Table 3. The poverty reducing effect of health, 2015 and average 2010-2015

	year 2015	Reducing effect on the at poverty risk threshold
Number of persons below at-risk-of-poverty threshold	445,200	
Number of persons above at-risk-of-poverty threshold in 2015 if health costs excluded	16,918	3.80%
average 2010-2015	15,246	3%

Source: Author's calculations

5. CONCLUSION

Beyond its intrinsic value to individuals, health is also central to poverty reduction and for the human development of the countries in general. The productivity of the countries increases because healthier people can work more, people have longer lifetime and their input to the economy is higher. When people get ill less therefore spend less and reduce the risk that their income declines and go below the poverty line. High income countries spend more financial assets on health than the low-income countries do. What is more important is how that money is used. The cost-effectiveness analysis can be used as a tool for setting the priorities for the health expenditures in the countries. Better health increases the well-being in the countries by increasing the labor productivity, higher domestic and foreign investment, higher savings, improved human capital and etc.

The broad development impact of health investment points to the importance of pro-poor health approach to improving the health of poor people. The implementation of this approach should be supported by the development agencies also, as the developing countries can develop a health systems that will provide quality public health programs and health services that are easy accessible by the poor people. Ensuring that the poor people have access to effective and affordable health services is at the centre of the pro-poor health approach. There is also a need for complementarities with a range of other sectoral policies and practices, such as education, food security, safe water, sanitation and energy.

The health of poor people is currently a central issue in international debate and a serious concern in the Republic of Macedonia, which in 2015 registered 6.5% health expenditures as a percentage of GDP and at-risk-of-poverty rate of 21.5%. The income inequality measured by the GINI coefficient is 33.7, whereas the S80/S20 ratio is around 7. The main objective of the study to examine the health expenditure effect on poverty reduction is based on available official data from the State Statistical Office, Survey on Income and Living Conditions and Laeken poverty indicators for the period 2005-2015.

Findings show that if health expenditures are excluded from the overall expenditure structure, the at-risk of poverty threshold would be reduced by 3% on average in the period from 2005-2015, or 3.8% in 2015. If shown with numbers, the number of persons below at risk poverty threshold in 2015 is 445 200 persons, whereas if the health costs are excluded this number will fall for 16 918 persons in 2015, or round 15 000 in average for the analyzed period. Therefore the health system in the country should be based on the pro-poor approach, be more fair and responsive to the needs of people.

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