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Status of Health, Education and Income Inequality in Iran

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ABSTRACT

Introduction: Education and income inequality are two important social determinants of health inequality. Every society for improving health status should focus on income equality and education for all. A review of the current situation helps to identify and improve the weaknesses in Iran.

Methods: This study was descriptive and data collection was done by documentary study method. This researchtried to study various global databases, papers and global reports to search the status of Iran in comparison to other countries in different regions.

Result: Studies have shown that inequality in income and wealth. Although the situation in Iran is better than the Persian Gulf countries, more inequality is observed in Iran in comparison to other parts of the world, including the United States and Western Europe. In terms of health, among the fifty major causes of death, Iran is ranked first and fourth in global terms due to road accidents and illicit drug use. At the same time, mortality from liver cancer, skin cancer, epilepsy, cervical cancer, kidney cancer, and cancer are in good condition compared to other countries in the world. In the field of education, the state of Iran in primary education, the exclusion of children from primary education, the guarantee of equal access for women and men to higher education and the eradication of gender inequality in participating in education is in a better situation than other parts of the world, but has been weaker than many other countries in the number of preschool years and pre-school education.

Conclusion: The status of Iran in income inequality and education showed challenges that should be improve. These two as social determinants of health inequalities have an enormous role in health status. Sustainable development goals can be a guideline for developing the current situation.

Keywords: Inequality, Health, Education, Sustainable development goals, Social determinants of health

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Introduction

In September 2015, world-level heads of state agreed to move the world towards sustainable development, according to a plan for sustainable development by 2030. The program included 17 sustainable development goals that have few goals in the economic and social and environmental fields that need to be met by countries by 2030. These goals set out a framework for "people, planet and welfare" to be co-sponsored by all countries and stakeholders. The goals of sustainable development on the achievement of the eight Millennium Development Goals, agreed in 2000, were to be halved by 2015 to reduce extreme poverty as an intermediate point to eradicate poverty in all its forms. The Millennium Development Goals focused on various dimensions of extreme poverty, including low incomes, chronic hunger, gender inequality, lack of education, lack of access to health care, and the elimination of clean and sanitary water and so on. The Millennium Development Goals achieved many successes and made significant improvements in many indicators. However, many countries have not achieved sufficient progress, especially in terms of environmental sustainability, and it has now been widespread that in order to achieve the ultimate goal of ending extreme poverty in all its forms, it is necessary that countries enhance their efforts (1). In addition, it is agreed that the scope of the Millennium Development Goals should be expanded to reflect the challenges that we are facing today. About 700 million people are still living below the poverty line, according to the World Bank, and billions more are deprived. Many societies suffer from increasing inequality. In addition, the whole world faces environmental threats from climate change caused by human intervention and the loss of biodiversity. Poor governance, official corruption, and in controversial cases, conflicts and wars affect many of the world today (2).

The Millennium Development Goals played a major role in focusing the world's attention on reducing extreme poverty, but progress was flawed. In 2011, the percentage of people living in extreme poverty (at less than $ 90 a day) in sub-Saharan Africa was 44.3% and in South Asia was 2.2%. In general, underdeveloped countries, developing countries that do not have access to free water and island developing countries are lagging behind because of structural problems. In many societies, the most vulnerable groups have made little progress. Group migration, often caused by violence and conflict has resulted in massive displacement, instability, life in danger, and refugee camps filled with population and informal settlements. Gender inequality is still widespread, as many young girls are deprived of their education and forced into early marriages (3).

Progress has been made in reducing child mortality according to the Millennium Development Goals, but six million children still die of preventable causes each year (4, 5). In many countries, maternal mortality rates have fallen, but not enough to meet the Millennium Development Goals. Many people do not have access to affordable primary health care (4) and major efforts have been made for global access to basic infrastructure, including energy, water, sanitation, and transportation. While much progress has been made in increasing the number of enrollments in elementary schools in all countries, the completion rate is still low (6). Approximately 800 million people are constantly in trouble for nutrition(7), and they do not have access to adequate, safe and nutritious food. One billion or more are faced with a variety of nutrient deficiencies(8). For this reason, they endeavor to endorse their sustainable development goals to end extreme poverty in all its forms, including hunger, and urge all people to have access to the world will enjoy social services and infrastructure until 2030.

The scale of human impact on the earth has reached dangerous levels, which will threaten the development of poor and rich countries in terms of poverty alleviation and well-being in the long run. The global economic system is now "besieged" by the "planetary boundaries" of the Earth (9). Many natural resources and ecosystems that are essential to human health and society are uncertain or are being lost, such as the loss of biodiversity, air pollution, water scarcity and pollution, deforestation

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and degradation of pastures and soil contamination. Climate change is no longer just a threat, but a reality. At present, the consequences of increasing carbon dioxide concentrations and higher temperatures worldwide can be seen, such as changes in the intensity and duration of severe climatic events and acidification of the oceans (9). The goals of sustainable development are committed to protect the planet from destruction, including sustainable production and consumption and sustainable management of natural resources (including land and sea ecosystems) as well as urgent action to tackle climate change.

In this study, Iranian situation in the subjects of people, planet, and prosperity has been shown to have examined the status of Iran in terms of income inequality, health, education, environment and gender gap through reviewing the global documents and reports.

Methods

This study was descriptive and data collection was done by documentary study method. This study tried to examine various global databases, studies and global reports, the status of Iran in the fields of education, health, economic inequality. All Data were collected from "SDG Index and dashboards report 2018", "World health statistics 2018" and "World inequality report 2018".

Result

Inequality

The global report of inequality has shown that inequalities across the world have increased over the past decades at different speeds (10). The fact is that the level of inequality varies greatly between countries, and this difference even exists between countries with similar development and this sign suggests that national policies and institutions play an important role in building inequality. Inequality in income in Europe is the lowest. Inequality varies between different regions of the world (10, 11). In 2016, the share of national income calculated for the first 10% was received, in Europe 37%, China 41%, and Russia 46%, 47% Canada, 55% Africa, Brazil, and India. The Middle East has attracted the most inequality in the world, with the top 10 percent of the recipients receiving 61 percent of the national income (10).

Table 1. The comparison of income between the Middle East, Western Europe, the United States and Iran between 2012-2016

	Population (million person)	Adult (million person)	Adult percentage to the entire Middle East	National income to the million euros method PPP*	Percentage of national income compared to the Middle East PPP	National income to the million euros method MER **	Percentage of National Income in the Middle East MER
Turkey	80	53	21%	1.073	19%	548	22%
Iran	80	56	22%	896	16%	330	13%
Egypt	93	54	22%	800	14%	234	9%
Iraq, Syria	102	52	21%	570	10%	243	10%
Persian Gulf countries	54	37	15%	2,394	42%	1,179	47%
The total Middle East	409	252	100%	5,733	100%	2.534	100%

* Purchasing Power Parity
** market exchange rates

Since 1980, income inequality has been rising rapidly in the North, China, India, and Russia, and its rate has slowed down in Europe (10). From a historical perspective, the rise of inequality returns to the end of the post-war fair-justice regime, which was shaped in different regions. But there is also an exception for this general pattern. In the Middle East, sub-Saharan Africa and Brazil, income inequality remains high (12).

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Table 2. The comparison of income inequality between the Middle East, Western Europe, United States and Iran between 2012-2016

	The income share is 50 % lower than the population	40 % average revenue share	The share of the deceased population's income
Middle East (410 million)	10%	30%	61%
Western Europe (420 million people)	18%	45%	37%
The United States (320 million)	13%	40%	47%
Iran (80 million people)	15%	35%	50%

The combination of large privatization and increased inequality of income within the country has led to an increase in inequality of wealth among individuals. In Russia and the United States, there has been an increase in wealth inequality, while in Europe it has been relatively modest. Inequality of wealth has not yet returned to a very high level in the rich countries in the early 20th century (10, 13).

Official reports of inequality and income distribution usually use the Gini coefficient as an indicator of inequality, which, if it is fully matched, is zero and in the event of a complete inequality of the index, it will be a desire. Both the calculation and the study and understanding of it are mathematical knowledge, and the general audience of the Gini coefficient does not have a specific interpretation. For example, if the Gini coefficient is 0.38, it cannot be said that it is low or high.

An effective measure to show the inequality used in the Global Report on inequality is the focus on the share of national income that is absorbed by each group. For example, in the United States in 2016, the top-notch population has absorbed 47 percent of the national income, which means ten percent of the population, 4.7 times more than the average, and an equal income community, and this can be said a meaningful and accurate indicator.

According to statistics in 2016, Iran has 80 million people, 56 million of whom are adults, representing 22 percent of the adult population of the Middle East. Iran's national income was calculated using the PPP 896 billion (16% Middle East) PPP methods, using the market exchange rate approach of 330 billion euros, or 13% of the Middle East region. In 2013, 50% of the country's low income accounted for only 17% of the revenue, with 40% of the average 35% of the revenue. 10% of the country has allocated 48% of the income and 1% above 16% of the country's national income. According to the report, the Gini coefficient in Iran is 55% (10).

Health

Iran's Situation on Sustainable Development Indicators

In the goals of sustainable development, there are several indicators for the health status of the people of the world, for which only comparative information is available for Iran and the rest of the world, including the following.

The first goal is to reduce maternal mortality during labor by less than 70 per 100,000 births by 2030. This goal is measured through two indicators. The first indicator of the percentage of births that is being done by the professional caregivers, with 96.4% in 2011, is in the highest position in the world, after North America with 98, and Europe with 96% in third place, and after Iran, Latin America, East Asia and the Pacific, and with the Middle East, South Asia, and Africa. The trend has been increasing from 1997 to 2000, but from 2000 to 2012, unlike other trends in the world, the world has been declining (with a very low slope). The next indicator is the maternal mortality rate at 100,000 births, with Iran having a ratio of 25 after America with a ratio of 13 and Europe with a proportion of 16, followed by Iran, East Asia and the Pacific, Latin America, the Middle East South Asia with 182, and Africa with 547. The trend in Iran has been decreasing since 1990 and has remained steady since 2005 (4).

Another goal is to reduce the number of early deaths from non-communicable diseases by

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preventing and treating and promoting mental health and well-being by the year 2030. One of the indicators of suicide death is that Iran has a 3.6 per 100,000 population lower than the rest of the world, and its trend has declined from the rest of the world since 2005 (14). In another indicator, the target is deaths due to heart disease, cancer, and diabetes for those over the age of 30, which after the United States of America has had the lowest proportion to the regions and came after Iran, Latin America, Europe and other parts of the worldThe trend of this kind of mortality has also declined since 2000 (15).

One of the goals that Iran has a bad situation in it is to halve the number of injuries and road traffic injuries worldwide by 2020. In the area of mortality due to road accidents, although the trend has been declining since 2005, Iran is far from the largest in comparison with other parts of the world. In 2015, Iran's death toll was 28 per 100,000, while the same figure for Europe was 8.8 (16).

Universal access to sexual and reproductive health services, including the family planning, education and information, and the integration of reproductive health in national plans and strategies by the year 2030, is another goal of sustainable development (4). The first indicator of this goal is the fertility rate of adolescents, which is the birthrate to 1,000 girls aged 15-19, which is 26.9 percent in 2015, and since 1990 has now declined, but the decline since 2002 has been low. However, in 2015, Iran's statistics are much higher than North America, Europe, and East Asia, but have a better status than South Asia, the Middle East, Latin America and Africa (4).

The state of Iran in the field of mortality due to diseases in the world

Among the 50 major causes of death, Iran is ranked first and fourth in global terms due to road accidents and illicit drug use. Meanwhile, mortality from liver cancer, skin cancer, epilepsy, cervical cancer, kidney cancer is in a good state of affairs compared to other countries in the world (4).

Education

The first minor objective below the goal of the whole education is to ensure that all girls and boys up to 2030, complete primary and secondary education courses qualitatively and fairly, without paying any tuition and with the achievement of effective learning outcomes (17). The first indicator of this goal is the number of adolescents who have left the second sixth grade. Iran is in a good position in this regard, along with the North American region, with the best performance in 2014, followed by Iran, the countries of Central Asia and Europe, Latin America, and so on. The second indicator is the percentage of children deprived of primary education, which Iran has performed well in the field in some parts of the world, and has been performing well since 2006. If before 2004, Iran has been following regions of East Asia, Europe, and Central Asia, North America, and Latin America, it has surpassed these regions since then (18).

A second, minor objective is to ensure that all girls and boys have access to pre-school education and quality care and development at an early age, in order to prepare them for elementary education by 2030. The first indicator in this area is the number of years of pre-school education that Iran teaches less than other regions of the world and education is only one year. In 2014, Middle Eastern countries will have an average of 2 years, North America 2.5 years, Europe, Central Asia, and East Asia 3 years of preschool education. The second indicator provides for pre-school education for children, which Iran has not done well in this area, and has only worked better than countries in the Middle East, Africa and South Asia (18).

The goal of guaranteeing equal access for all women and men to higher and university education and affordable and qualitative technical and vocational education will be the third minority objective by 2030. The goal of this goal is the rate of participation of young people and adults in formal and informal education in the past 12 months. Iran had a good performance in this regard in 2000 but has grown well since 2006, and in 2014, Iran was placed after the countries of the Americas North and above the countries of Central Asia and Europe, Latin America, East Asia and the

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Pacific, the Middle East, South Asia, and Africa. The participation rate in 2014 was 65.96 and in the year 2015 it reached 71.88% (18).

The fifth goal is to eradicate gender inequalities in education and ensure equal access to all levels of vocational education and training for vulnerable groups, including disabled people, indigenous people, and children who are vulnerable until 2030. With regard to the first indicator of this goal, the gender equality of girls and boys in participating in elementary education, Iran is in a good position than other parts of the world, and in 2015, Iran was after South Asia, America, Europe, Latin America, The Middle East, and Africa, although the distance between these two regions is close. But in the case of the second indicator, gender equality is about secondary education in Iran followed by Latin America, North America, East Asia, Europe, Central Asia, and South Asia. The trend of Iran in this area has been increasing as in other parts of the world. The proportion of girls to boys at this time is 0/98 (18).

Another target is about the proportion of primary and secondary school students who in 2014 is a teacher per 25 students who have been in an inappropriate position after countries in North America, Europe, Central Asia, East Asia, and Oceania and Latin America. This trend has been improving since 2000-2009 but has been grossly and inappropriate since 2009, and Iran's trend has been unlike other trends in the world. The next indicator of this ratio is the high school level, which still has a disadvantage between the regions of the world and is only better in South-Asia and Africa, however, the trend of Iran has been steadily declining since 1998 (18).

Discussion

Income and education are social determinants of health inequalities (19). Income is an indicator that shows how many people have access to material circumstances. The effect of income is during life course and the socioeconomic position of people is strongly dependent on it (19).

Income inequality is a structural determinant of health (20, 21). It affects health in different ways. Income inequality makes social hierarchies and ihas an effect on the psychosocial status of people at micro level (19). People whom at bottom level experience chronic stress and which results in poorer health (22, 23). Income inequality also alters social cohesion and social bonds between people (22, 24). So trust will decrease and crime and other unhealthy situations will increase (19, 25, 26). Income inequality will expose poorer people to risks factors because there are fewer resources for protection and access to health facilities and resources (26, 27). Likewise macro-level leads to social disinvestments. Poorer people have less investment in better material conditions like housing, schools, neighborhood, and the like (26, 28). Health selection theory expresses that the people are not sick because they are poor but their health status affectstheir income and wealth. Therefore, income and health have a two-way effect (19, 26).

Health statistics show that most of the fatalities and injuries in Iran are preventable. Iran has a good situation in communicable diseases but in non-communicable diseases, situation can be better. Road accident has the main role in the number of death and injuries in Iran. It can be prevented with intersectional action and should be emphasized by Iranian government. Another fatality caused in Iran is drug abuse. This cause is preventable by intersectional action. It seems social determinants of health in Iran is partly neglected and should be set in agenda.

Pre-school education in Iran hasn’t a good status in comparison to other countries in different regions and has only worked better among the countries in the Middle East, Africa, and South Asia. Based on experiences and psychological and educational studies, early childhood plays an essential role in the growth and development because 80% of the child's personality develops within the first six years of his life (29). Pre-school education is especially important because the first human-social communication of children is formed in pre-school years, and the growth and prosperity of this relationship are conditioned by showing the right way of communicating with their parents and

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their instructors (29). In fact, the foundation of confidence, responsibility and autonomy and creativity of children is created in pre-primary schools (30). Careful attention to children helps to grow their talents (30). Several studies have confirmed the positive and long-lasting impact of preschool education on cognitive development and the performance of educated students during the semester (31). Sustainable development goals with emphasis on the fourth goal of sustainable development,are a special focus on early childhood educationto achieve predictable goals in the field of inclusive education and lifelong learning. Moreover, the number of years of pre-school education that Iran teaches less than other regions of world and education is only one year. In 2014, Middle Eastern countries will have an average of 2 years, North America 2.5 years, Europe, Central Asia and East Asia 3 years of preschool education. The second indicator provides pre-school education for children, and Iran has not done well in this area, and has only worked better than countries in the Middle East, Africa and South Asia (18).

Income and education are structural mechanisms, theinterplay between context and socioeconomic position (19). These mechanisms rooted in policies and institutions. If government wants to improve health situations, it should focus on social determinants of health inequality like education and income equality. Improving situation of these, will lead to better health status (19).

Conclusion

Studies have shown that although Iran is better than the Persian Gulf countries in inequality in income and wealth, , more inequality is seen in Iran than other parts of the world, including the United States, Western Europe,.

In terms of health, among the fifty major causes of death, Iran is ranked first and fourth globally due to road accidents and illicit drug use. At the same time, mortality from liver cancer, skin cancer, epilepsy, cervical cancer, kidney cancer is in a good condition compared to other countries in the world, and in other cases, the situation in Iran is moderate and in the average line of the world.

In the field of education, the status of Iran in primary education, the exclusion of children from primary education, the guarantee of equal access for women and men to higher education and the eradication of gender inequality in participating in education is in a good situation than in other parts of the world, but in the field of education the number of preschool years and pre-school education has been weaker than other parts of the world.

In the field of environmental protection Iran has a bad record, and it is based on various indicators such as air quality, water, health, heavy metals, biodiversity, forest protection, fisheries, climate and energy, air pollutants, water resources, and poor ratings in the world.

In the context of the gender gap, Iran has ranked poorly in 140 out of 144 countries with indicators of opportunity and economic participation, education, health and life, and political rehabilitation.

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Conflict of interest

Authors declare no conflict of interest.

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