The Millennium Development Goals: A Global Assignment

Hassan Joulaei, Najmeh Maharlouei, Reza Tabrizi, and Kamran B. Lankarani

1. Context

The United Nations millennium summit was one of the largest conferences of the world leaders that would play a decisive role in sustainable development. The millennium development goals (MDG) are global committed efforts to provide anti-poverty and disparity document. During the past 15 years and based on MDGs, nearly all countries have made efforts to achieve its related goals. Therefore, the current narrative review aimed to analyze the MDGs’ challenge and achievements with the focus on Islamic Republic of Iran.

Evidence Acquisition: This study was a non-systematic narrative review conducted through studies and reports published from 2000 to 2015, about MDGs’ progress worldwide, compared to the Islamic Republic of Iran.

Results: According to the review, almost all countries have had remarkable improvement in all MDGs. Among them Iran’s achievements are significant in five goals out of eight, but to reach the goals number 6 and 7 related to HIV/AIDS control and environmental sustainability, Iran has a rough way to go. The challenges that countries are facing to reach MDGs are slow growth outlook, limited resources, institutional reforms deficiency, insufficient development capacity, unequal income distribution, global economic situation especially during the past five years, absence of political commitment to the MDGs, lack of supportive environment to attract private sector for investment and development and the last but not least un-inclusive growth.

Conclusions: All countries reported improvements in MDG indicators, while SDGs has opened new doors of opportunity for countries to promote their socio-economic status.

Keywords: Millennium Development Goals, Mortality, Health, Iran

2. Evidence Acquisition

This study was a non-systematic narrative review ex-
plained by Green et al. (6). This review was conducted through studies, and, reports published prior to 2015, about MDGs' progress worldwide compared to that of the Islamic Republic of Iran. The research strategy was planned using the electronic databases such as Medline, Pubmed, and Google Scholar, as well as Iranian Farsi sources including Iranmedex, SID, and Magiran. Moreover, websites such as world health organization (WHO) and united nation (UN) were searched to recognize any contests regarding the MDGs. Keywords in this review included; "millennium development goals (MDG)", "eradicate extreme poverty and hunger", "achieve universal primary education", "promote gender equality and empower women", "reduced child mortality", "improve maternal health", "combat HIV/AIDS, malaria and other diseases", "ensure environmental sustainability", "sustainable development goals" and "challenges and achievements". At the end, the perspectives of health policymakers and experts were used for a narrative synthesis and interpretation of the findings.

3. Results
The results of this study were presented in two parts. In the first part, the latest information about the progress rate in each goal of MDGs was presented; both globally and for Iran. In the second part contributing factors of successes and challenges of MDGs progress were analyzed.

3.1. Part A: Progress Rate in the MDGs

3.1.1. Goal 1: Eradicate Extreme Poverty and Hunger
To monitor the rate of achievement in goal 1, three targets were set. First, reducing the proportion of people who earn less than $1 per day;
The proportion of people with less than $1.25 per day income is globally reduced by 62% from 36% in 1990 to 12% in 2015. Excluding Oceania, due to unavailability of data, all regions reported a reduction in extreme poverty and hunger. The most prominent reduction rate was reported by China (94%), south eastern Asia (84%) and northern Africa (81%). The only region where MDG 1 was not achieved was sub-Saharan Africa and western Asia, since they reported reduction rates of 28% and 46%, respectively.
The other target of MDG1 was halving the rate of people that are hungry. Choosing proportion of undernourished people as an indicator revealed that developing regions reported aggregate decrease of 41%. In fact, all Asian regions reported some improvement except for western Asia where a 33% increase in the frequency of undernourished people was reported. In addition, other regions that failed to reach this target were sub-Saharan (30% decreases), Caribbean (26% reduction), southern Asia (33% decrease) and Oceania (12.5% decrease). Besides, northern Africa and the developed regions, where percentage of undernourished people was less than 5% in 1990, reported no change in the given time (1).

Regarding target 1, Iran was successfully reduced the poverty, as the proportion of people earning below $1.25 per day decreased by 71.8% from 1990 to 2007. In the second target, Iran was successfully reduced the prevalence of underweight children aged under five years old by 66.9% from 1990 to 2004 (5).

3.1.2. Goal 2: Achieve Universal Primary Education
In 1990 the worst condition was in sub-Saharan Africa and Oceania, where respectively 52% and 69% of children had the chance of enrolment in primary schools. However, at the end of 2015 the most improvement was reported by sub-Saharan Africa (35%), followed by Oceania (28%) and southern Asia (26%). It should be mentioned that the highest rate of primary school enrolment was claimed by north African countries, where not only had 19.2% progress in this index, but also possessed the highest rate of primary school enrolment (99%) among all the developing and developed countries. Furthermore, they outpaced both the developing and developed regions; 97% compared to 12.1% and 96% improvement in primary school enrolment, respectively (1).

In goal 2, Iran had brilliant performance as its net ratio in primary education was 99.7% in 2004, even higher than the achievement rate of north African countries. Moreover, it reported 11.4% improvement in literacy rate of 15 - 24 year-old women and men; 87% in 1991 promoted to 96.6% in 2006 (5).

3.1.3. Goal 3: Promote Gender Equality and Empower Women
One of the targets was “eliminating gender disparity in primary and secondary education, preferably by 2005 and in all levels of education by 2015”.
Overall, developing countries reported acceptable progression in gender parity index for gross enrolment ratios in primary, secondary and tertiary education. Of all the developing regions, Oceania and sub-Saharan Africa could not reach this target in any of the primary, secondary or tertiary education by 2015. Also, none of the regions could report gender equality in enrolment in any of the three educational levels by 2015. Besides, statistics of the developing regions showed that the most gender inequality was reported in tertiary education that the male students outnumbered the female counterparts, 65% versus 31%, respectively (1, 5).

3.1.4. Goal 4: Reduce Child Mortality
The first target made to monitor goal 4 was at least 66% reduction of under-5 mortality from 1990 to 2015. While both developed and developing countries recorded significant decrease in under-5 mortality, 61% and 53%, respectively, just eastern Asia (78% decrease), Latin America
and the Caribbean (69% reduction), and northern Africa (67% decrease) reached this target. On the other hand, the least improvement was reported by Oceania (31% decrease) followed by sub-Saharan Africa (52% reduction). As the United Nation report estimated, considering that a remarkable achievement is yielded since 1990, a decade is needed to achieve this target globally (1).

Iran can claim being successful in goal 4. According to the publicly available records, Iran achieved the first target, decreasing under five mortality, before 2012, as the ratio of mortality of the children aged under-five per 1000 live births decreased from 73 in 1990 (7) to 18 in 2012, a 75.3% decrease. In the second target, reducing infant mortality rate (IMR) per 1000 live births, Iran reached the target by 2008 as its IMR dropped from 55 per 1000 live births in 1990 (7) to 15 per 1000 live births in 2012, which is about 72.7% decrease (8).

3.1.5. Goal 5: Improve Maternal Health

The first target was 75% reduction of maternal mortality rate (MMR) between 1990 and 2015. This target needs more endeavor. Except for some countries such as Iran and Maldives (7), neither developing nor developed regions could achieve this target by 2015; 37% and 46% MMR reduction, respectively. While the best improvement was reported by eastern Asia, 65% decrease in MMR, the least improvement was reported by Caribbean regions (36% decrease).

The second target was universal access to reproductive health. Monitoring this target, the indicator was the proportion of pregnant mother visited four times or more by skilled health providers. While the best recorded improvement belonged to south-east Asia (91% increase), the best net report belonged to Latin America and the Caribbean regions (97%). As data reveals, the best second improvement was reported by north Africa (78%); while the least belonged to sub-Saharan Africa 4.2% increase in this target by 2014 (1).

Iran succeeded to achieve the first target of goal 4 by 2008, seven years in ahead. MMR in Iran had plummeted from 150 maternal deaths in 100,000 living birth in 1990 to 30 maternal deaths in 100,000 living birth in 2008 (5). Although Iran achieved the first target of the goal 5, the MMR varied in different provinces (9, 10).

3.1.6. Goal 6: Combat HIV/AIDS, Malaria and Other Diseases

Some targets were considered to monitor this goal. The first target was to cease and start to reverse the dissemination of HIV/AIDS. According to estimated data, developed regions were supposed to show no improvement in halting their HIV incidence, but to face 11.8% increase. In contrast, developing regions were expected to encounter 71.8% decrease in HIV incidence. The most prominent decrease in statistics was estimated to occur in African regions, especially in southern Africa (48.9%), although north Africa was supposed to face a 62.5% increase in HIV incidence. This pattern was relatively estimated to occur in Asian regions too. While southern Asia was conjectured to show a 48.3% reduction in HIV incidence, south-eastern was hypothesized to halve the HIV incidence. Furthermore, Latin America and the Caribbean were the only regions that succeeded to achieve this target (1). Comparing the data regarding antiretroviral therapy coverage showed an upward trend in Middle East and north Africa; 10% in 2000 to 48% in 2014. Moreover, females had higher coverage rate compared to males, since they have more frequent contact with healthcare workers, due to perinatal and children care (11).

The other target set to reach goal 6 was ceasing and initiating to turn down the incidence of malaria and other major diseases. Based on the estimated figures, the incidence of malaria as well as its mortality rate (58.3%) plummeted, 37.4% and 58.3%, respectively. It could be due to the worldwide attention to the catastrophic effects of malaria on global health.

Tuberculosis was another contagious disease estimated to reach the target globally in incidence, prevalence and mortality rate from 1990 to 2015 (1).

Regarding HIV/AIDS section of goal 6, it seems that Iran was not successful to cease the spread of HIV. According to the data revealed by UNAIDS (11) newly detected HIV infected patients were estimated to increase from 5400 (3300 - 8300) in 2000 to 7400 (4300 - 16000) in 2014. In other words, Iran, Somalia and Sudan together account for nearly three-quarters of all new infections in the Middle-East and north Africa, while Iran reported the highest rate; about one-third of the whole data.

In Iran, antiretroviral therapy coverage among people with advanced HIV Infection was reported 3% in 2006, which increased into 8% in 2014 (12).

Another indicator of goal 6 was the notified cases of malaria per 100,000 population. Based on the released data, Iran had improvement in case finding from 18 per 100,000 population in 2008 (5) to 243 per 100,000 population in 2012 (13). Given the increase in the ratio of detected patients affected by malaria, no patient died due to malaria (14).

The last two indicators of goal 6 were incidence, prevalence and mortality rates of tuberculosis (TB) cases and the success rate of cure in those detected and treated under directly observed treatment short (DOTBTS) course. The data indicated that the incidence rate of TB (in 100,000 population) was 36 in 1990 (5), which decreased to 21 in 2013 (15). Also, the prevalence of TB (in 100,000 population) decreased from 48 in 1990 (5) to 30 in 2008 and 23 in 2013 (16).

The death rate induced by TB infection (in 100,000 population) had some fluctuations from 1990 to 2013. It decreased from 5 in 1990 to 2.9 in 2008 and remained stable till 2010, when it increased with a mild slope and reached 3.2 in 2013 (16).

In the last indicator, TB treatment success rate under
DOTS, Iran had reported invariable rate from 1996 to 2007; 83% (5).

3.1.7. Goal 7: Ensure Environmental Sustainability

To ensure the environmental sustainability to reach the goal 7, countries were recommended to denote the rules and regulations of persistent development. Also, they committed to merge the rules into their policies to alter losing environmental resources. Although developed regions reduced the rate of greenhouse gas emission by 3.7%, production of CO₂ in the developing regions doubled. According to the statistics, global emission of greenhouse gas showed no decrease, but in contrast grew by 53% in the given time.

The second target was to prevent the loss of biodiversity by preserving land and marine life. In this regard developing regions overtook developed regions, both in percentage of changing and in net percentage. As the report of 2015 reveals, the best improvement was attained by Latin America and the Caribbean with 1.65 times improvement followed by Oceania (1.5 times).

Iran was not noticeably successful to attain targets of goal 7 (1). As reports declared, among all indicators set to evaluate the countries' achievement rate in goal 7, Iran had remarkable improvement in reducing consumption of ozone-depleting substances (63.5%) and protection of terrestrial and marine areas (33.3%). However, Iran reported poor function in some other indicators such as, CO₂ emissions per capita (70% increase from 1990 to 2007), proportion of total water resources used (12% increase from 1990 to 2005), and proportion of the population consuming improved drinking water sources (22.2% decrease from 1990 to 2000). In the rest of indicators no subtle changes are reported (5).

3.2. Part B: Analysis of Successes and Challenges Factors

The challenges countries facing to reach MDGs are slow growth outlook, limited resources, institutional reforms deficiency, insufficient capacity development, unequal income distribution, global economic situation especially during the past five years, absence of political commitment to the MDGs, lack of supportive environment to attract private sector for investment and development and the last but not least un-inclusive growth (5).

Today’s world is full of bad news, conflicts, disasters, and emergencies and wars especially in the Middle East, Africa, and Ukraine (4, 5, 17). These factors provoked chaotic situation not only in those areas but also they could affect other parts of the world and accordingly each achievement would not be sustainable. Lack of community awareness, participation and inter-sector collaboration has abducted an important part of power and resources to achieve MDGs goals especially in the developing world (4, 5). Leveraging partnerships is a good remedy for low economic growth challenges in low and middle income countries and their development partners to sustain their achievements.

A major criticism of the MDGs, is that they are a donor-led agenda and pay little attention to local context, particularly missing governance capabilities (18, 19), MDGs miss out on crucial aspects of development (19) including climate change, the quality of education, human rights and democracy, economic growth, infrastructures, good governance, peace, disarmament and security (7, 20). MDGs ignore the poorest and most susceptible, masked by using countrywide averages or aggregated information (21). The eye catching progress in MDGs is reporting the average number of indicators for a country or region. It can show just the average progress of the country or region and not merely the situation of the different parts of the society from the point of social determinant of health view. And that’s why monitoring and evaluation of inequality within and between the countries is recommended (22).

MDGs focus on only three aspects of health (child and maternal mortality, and special infectious diseases) is inadequate and a universal goal of ‘freedom from illness’ is lost; however, health has an important function within MDGs structure (23). Primary health care is an integral part of economic and social development. Its principles are in line with those of MDGs: social equity, community participation, and promoting the inter-sector collaboration. Public health is necessary to eradicate poverty and achieve MDG. Public health approach is a crucial issue to the problem of sustainable development and is increasingly urgent to break the vicious cycle created by the triangle of environmental degradation, poor health, and poverty (24). Another important concern is the impact of the MDGs on research, data processing and interpretation. Since institutionalized targets may lead to abuse and manipulation of the data (25).

Iran is classified in the middle income countries, and the average progress of MDGs in Iran (6) is much higher than average rate of the same ranked countries (3.96). Fortunately, in four goals of MDGs out of eight, Iran had remarkable progress. Good infrastructures of health network system (MOU) resulted in significant progress of maternal and child health care. Increasing trend of people’s education level due to the encouraging policy of the government has brought the best results regarding MDG2. Moreover, Iran’s GDP per capita rose from 1990 to 2014 (about 1700 US$ - 6800 US$) which in turn lead to develop the economic situation of the people and reduce the poverty as an average (26). Although, Iran ranked 130 out of 136 countries regarding gender gap index it met the targets of MDG3 (5, 27). As for MDG6, Iran attained remarkable outcome for malaria and TB control (13). However, the last formal report of the ministry of health and published articles suggest that HIV/AIDS epidemic increased in Iran due to the progressive prevalence of risky behavior trend, along with stigmatization (11, 28).
Furthermore, Iran has a good surveillance system and the increase in the estimated data could be considered as a success, if it is taken into account as a successful case finding. In fact more precise estimation would result in more actual situation analysis and more meticulous programming to halt the rate of infected patients. Moreover, another problematic issue regarding MDGs in Iran is climate change and drought, natural disasters and endangered environment. Islamic development bank is approving this challenge well for many countries as well as Iran. As a result, Iran is facing two main challenges on the way, management of the risky behavior related to HIV/AIDS and drug use (29) and programming the environmental sustainability (30, 31).

UN secretary-general Ban Ki-Moon’s high-level global sustainability panel, appointed in the lead-up to the Rio+20 summit in June, 2012, issued a report recommending that the world adopts a set of sustainable development goals (SDGs). The SDGs are a significant thought, which can finally lead the world to a sustainable path (3). Its content has focused on two deliberations: worldwide priorities that need active global public participation, quantitative determination, and political centralization; and lessons from the MDGs, particularly the causes for their achievements, and alterations of some of their most essential failings. The thought of the SDGs has quickly got ground as of the growing necessity for global sustainable development (3).

One of the limitations of the current study was lack of updated or published data related to some goals of MDGs’ progress in Iran; therefore, the authors did not mention any information for those data or used old data. Due to high diversity of published data related to each country or region, the current research was based on the global reports.

4. Conclusions

Countries reported improvements in MDG indicators. Obviously, besides commitment of governments to MDGs, other contributing factors including socio-economic and political situations, either nationally or internationally had important roles on the progress rate. Similar to the other countries, Iran has experienced good progress in MDGs, except for goals number 6 and 7 due to justifiable challenges. Overall, SDGs has opened new doors of opportunity for countries to promote their socio-economic status.

Acknowledgments

The authors would like to thank the health policy research center of Iran.

References


17. UNWomen. Keeping the promise: United to achieve the Millennium Development Goals (MDGs). Post-2015 Development Agenda and SDGs. Intergovernmental processes; Millennium Development Goals (MDGs); 2015.


