Journal of Community Positive Practices, XXII(2) **2022**, *120-144*
ISSN Print: 1582-8344; Electronic: 2247-6571

UNEQUAL ACCESS TO HEALTH CARE FACILITIES AND ITS IMPACT ON ACHIEVING SUSTAINABLE DEVELOPMENT GOALS: BANGLADESH PERSPECTIVE

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DOI: https://doi.org/10.35782/JCPP.2022.2.09

***Abstract**: This article aims to explain how unequal health opportunities influence the development visions of a developing economy. By employing 20 years of panel data, ordinary regression, and trend analysis, the impact of unequal access to health facilities on Sustainable development Goals (SDGs) has been explained. The empirical findings confirm that discriminatory public health opportunities highly shape the agenda-2030. The higher out-of-pocket expenditures (amount people spend on health care with their household's ability to pay) contribute to financial hardship for individuals and widen inequality in access to health care. The shortage of qualified health care providers and their unequal distributions across regions force poor people to seek services from nonqualified traditional providers. The Poor- non-poor and rural-urban disparity in access to essential health care services is also acute here in Bangladesh. In health care financing, more than 70% of costs are out-of-pocket, and it pushes a massive number of people under the poverty line every year. The associations between good health & well-being and other sustainable development goals are robust. The inability to guarantee equal public health opportunities for all profoundly impede a nation's vision to promote a peaceful and prosperous society by ending poverty, malnutrition, and stunning. Conversely, securing fairness in attaining universal health coverage and quality health care for walks of people expedites a country's vision to build a just and flourishing society.*

***Keywords:** SDG-3, Agenda-2030, Inequality of Opportunity (IoP), Universal Health Coverage (UHC), Out-of-Pocket (OOP) expenditure.*

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Introduction

From the beginning of civilization, everyone (from butcher to pope) searched for a better way of life. In every society, people, irrespective of their class, status, character, and religion, try to have a standard of living. In this viewpoint, the concept of "development" is biblical, and the process is contentious that possesses so many dimensions with challenges. Sustainability is one of the fundamental and inherent dimensions of development that world leaders have emphasized for the last few decades. In this context, United Nations (UN) has taken a world transformative agenda (Agenda-2030) for its countries to transpose the planet into a peaceful and prosperous one. It focuses on the principle of economic, social, and environmental development (Hosseinpoor, Bergen, Schlotheuber & Grove, 2018), which contains 17 goals and 169 targets, representing a globally shared vision and an outline for future generations (Morton et al., 2017)

However, the moment while the Post Millennium Development Agenda *(SDGs) introduced our beloved* planet has already been divided into two segments the rich at the top and the poor at the bottom. The ever-historic level of discrepancies between societies is associated with diverse causations.

Unequal opportunities refer to the conditions of not being equivalent, especially in rank, rights, and privileges. It is perceived as a share of overall imbalance that derives from circumstances beyond an individual's authority, such as color, place of birth, gender, religion, parental education, caste, etc. (Choudhary, Muthukkumaran and Singh, 2019). The concept of inequality is highly interlinked with social justice, sustainability and exerts enormous impacts on development. The developed and developing nations of both worlds suffer from equal access to different opportunities.

The condition arises in such an extreme situation that it disrupts the long-standing societal harmony and coherence on a balanced development pathway. Unequal opportunities, especially in delivering quality health care service, have become one of the most appealing development challenges of our time. It does not compare with the definite developmental stage of an economy; the challenge is faced by all alike (World Social Report, 2020). As the SDGs are multifaceted and integrated, all other SDGs are massively impacted by unequal health opportunities. Though factors beyond an individual's control should not define one's possibilities to succeed in life, in reality, the world is far from addressing all people with the same opportunity to live a healthy and flourishing life.

The author in this paper would like to investigate how unequal opportunities in primary health care services retard a nation's development ambitions by impacting individual lives and exerting long-term effects on achieving different sustainable development goals. Bangladesh is determined to attain SDGs to end poverty and ensure peace and prosperity for all by 2030. In this regard, equal access to health is considered a fundamental human right for its citizen by the constitution of Bangladesh. It has made commendable progress in different socio-demographic indicators like life expectancy at birth, EPI coverage, maternal mortality and child health, fertility check, gender parity, HDI, gross enrolment, and literacy rate. According to sustainable development report-2021, Bangladesh faces critical challenges in reaching seven (7) sustainable development

goals out of seventeen (17), where promoting good health and well-being (goal: 3) is the most significant one that Bangladesh confront, along with SDG: 2, 6, 9, 11, 16, and 17. The report also mentions that though Bangladesh is moderately improving regarding SDG: 3, still major challenge remains in reducing maternal mortality and neonatal mortality, the incidence of tuberculosis, adolescent fertility, births attended by skilled health professionals, and universal health coverage make the spirit of achieving healthy lives and promoting well-being for all ages a difficult one ("Sustainable Development Report 2021", 2021). The SDGs require shared initiative across diverse stakeholders within and outside the health sector to accomplish progressions in the many conditions that impact the opportunity for health. Such as poverty, hunger, quality education, gender discrimination, decent work environment, women empowerment, clean energy, water and sanitation, disparity within and across countries, and above all, raising a healthy and flourishing world.

Scarcity of healthcare professionals, low density of physicians and nurses, the incongruity in their distribution across the country, uneven progress in various vital health indicators between the rich and the poor, and dominance of unqualified/traditional healers are the critical issues in our health sector. Besides inadequate health financing, high out-of-pocket expenses, the difference in health expenditure and its distribution by wealth status and locality, low government spending, and the rich-poor variations in exposition to health risks are well-known forms of disparity in the health system of the country.

The central focus of this research is the analysis of unequal access to health care facilities, and its impact on sustainable development has been measured by different conventional health indicators of Bangladesh. Correlation, regression, Ordinary Least Square (OLS), and usual trend analysis are run to have the impacts. To have the effects of the interactions, F-test were also conducted. The correlation symbolizes a solid assertive relationship ($r=0.93$) between public expenditure and Out-of-Pocket (OOP) spending on health care. That means the lower the government expenses to health, the higher the burden of private spending on people, ultimately lowering their access to Universal Health Coverage (UHC).

Statement of the Problem

Bangladesh has performed exceedingly well in different socio-demographic indicators in the last two decades, especially in health. From the beginning of its independence, the country has taken many initiatives, programs, policies and adopted goals regarding health and related facilities focusing on the problems of access, equity, and quality. Despite the priority accorded to health in the country's development strategy, the progress towards actualizing these goals has been slow, especially in terms of inclusiveness and quality. Though our health sector has successfully reduced child and maternal mortality, improving life expectancy, sanitation, and immunization, it is still limping in securing quality health facilities for all. According to Sachs et al. (2020), SDG 3 has been heightened irrationally based on the vaccination coverage and HIV infection. Bangladesh is in a discomfort zone in implementing SDG-3 and will not be able to meet the targets on time (Rahman, 2021).

Public financing in the health sector is very low, and *per capita*, health expenditure incurred by the government has become stagnant over time. As a result, mass people have to bear the considerable cost that makes them unable to access quality health services very often. Besides, the skilled workforce shortage in the health sector and its unequal spreading across countries make our objective to attain good health and happiness for all a challenging one. To ensure good health and well-being for all by promoting universal health coverage and quality health service by skilled health professionals, increasing health worker density and public health expenditure is still challenging. This paper will help us realize the kind of unequal opportunities predominating in health and how it will interrupt the way to achieve a post-millennium development agenda.

Methodology

To carry out research, applying a single method is not always sufficient. As different research styles and methodological tools apply to various research problems; therefore, qualitative analysis has been done in this research work based on quantifiable data collected mainly from secondary sources. By presenting data in nine figures and five tables, the results have been analyzed. Besides, qualitative analysis simple regression has also been run to estimate the robustness of the linear relationship between the dependent variable (*incidence of poverty)* and the independent variable (*out-of-pocket expenditure)*.

Data

Secondary data, from a different reliable source such as the Bangladesh Bureau of Statistics (BBS), Bangladesh Health Watch Report-2018, Bangladesh Health System Review-2015, Demographic and Health Surveys (DHS)-2015, Bangladesh National Health Accounts 2015, Bangladesh Economic review Report 2019, Ministry Health and Family Welfare (MoHFW), Institute for Health Metrics and Evaluation (IHME), 2020 has been used. Articles from different journals, publications, reports, books, rules and regulations, websites, and web-based newspapers have been reviewed.

Limitations of the Study

The paper tries to endeavor an emerging and alarming social issue of time: the unequal opportunities in the health sector of Bangladesh. One of the most crucial constraints of this research paper is the lack of primary data. Moreover, we could not meet with beneficiaries, healthcare providers, and health experts due to the COVID-19 pandemic. Without the epidemic, we would interact with all the stakeholders, giving us a clearer picture of the issue.

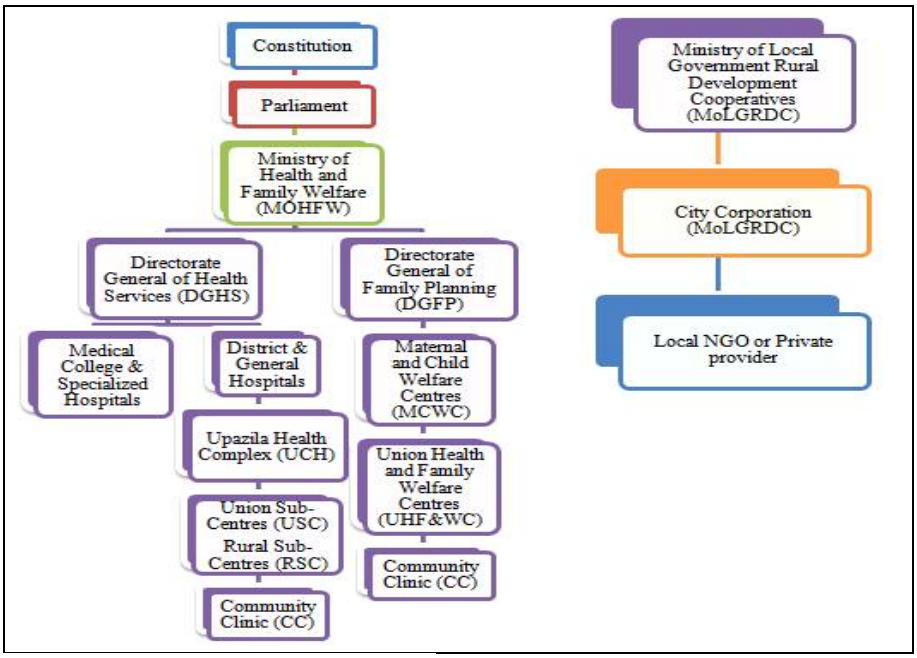
The Health and Structure of Health Care delivery system in Bangladesh

The World Health Organization (WHO) defines "health" as a state of complete physical, mental and social well-being (WHO, 1948). It is the source of all happiness and the fundamental right of all citizens of a country. According to the Constitution of Bangladesh (Article 15a), access to health is a fundamental right of all citizens. The state must take up practical steps "to guarantee uniform, mass-oriented and universal access to health for all age's people." The nation promises to make sure health and education as fundamental human rights have been re-affirmed through different world conferences.

To improve and sustain people's lives, tangibly, a sound health care system is mandatory. A robust health care delivery system is crucial for actual progress in disease control and ensuring health quality. A well-formatted health care delivery system with multiple layers exists in Bangladesh. The system is decentralized with Union Health and Family Welfare Centres (UHFWC) at Union (cluster of few villages) levels, primary health care provided in Upazila Health Complexes (UHC) at Upazila level, and Community Clinics (CC) at the village level.

In addition to that, the District Hospitals provide secondary care, and tertiary hospitals in various large urban areas provide specialized care and back the primary health care system. There are four key players in Bangladesh's pluralistic health care delivery system that define its composition and functions: the public, the private, the NGOs, and the donor agencies. The structure of the health care delivery system is grounded on sound policies embracing the whole area of services, and the government of Bangladesh always tries to create conditions whereby its citizens can avail the highest achievable health status.

Figure 1: Organizational Structure of Health Service Delivery Mechanism in Bangladesh



Source: Bangladesh Health System Review 2015

Table 1: Major Selected Socio-demographic Indicators of Bangladesh

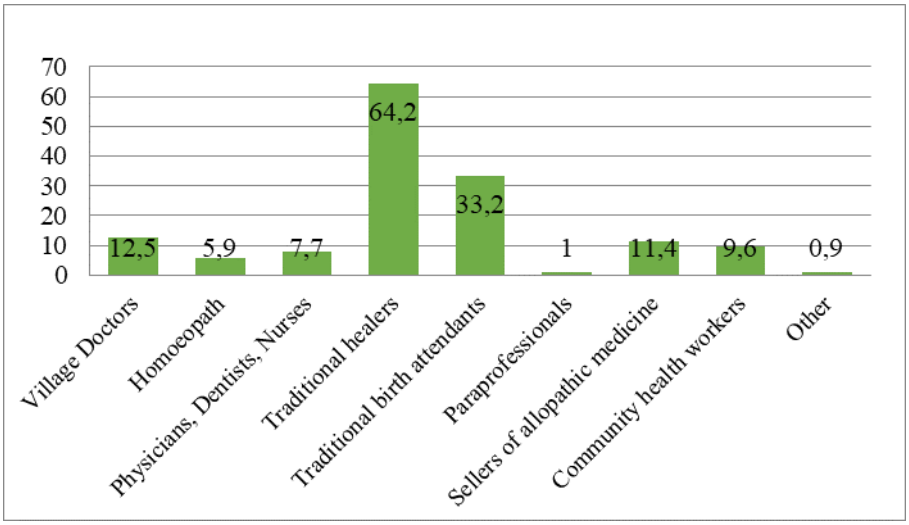
Subjects	Indicators	Values
Population	Population (in millions)	169.11 BBS
	Male- Female Ratio	100.2
	Population Density/Sq. Km	1140
	Crude Birth Rate/1,000 Population	18.1
	Crude Death Rate/1,000 Population	5.1
	Crude Disability Rate	8.5
	Infant Mortality Rate/(1000 Live Birth)	21
	Under 5 Mortality Rate(1000 Live Birth)	28
	Maternal Mortality Ratio/(1000 Live Birth)	1.65
	TFR/ Per Women (15-49)	2.04
	CPR (%)	63.9
	Child Underweight (0-59 Months)%	22
	Child Stunted (0-59 Months)%	31
	Child Wasting (0-59 Months)%	18
Life Expectancy	Male	71.2 Years
	Female	74.5 Years
Financial Indicators	GNI per Capita—US$	2227
	PPP GNI per capita—US$	5200
	Average growth rate (last 20 years) at a constant price (%)	6.27
Health Care Facilities	Union Level Sub-centres (including OPD)	1304
	Upazila Level Hospitals(including Upozila Health Office+ Thana Health Centre)	522
	Secondary and Tertiary Hospitals	127
	Medical Colleges	37
	Disease(Infectious) Control Centers	5
	Specialized Hospitals	35
	Community Clinics	13,907ER
Health Care Providers	Total Registered Health Providers	85,633
	Total Registered Nurses	48,001
	Medical technologists (per 10,000 populations)	0.32
	Medical assistants (per 10,000 populations)	
	Community & Domiciliary staff (per 10,000 populations)	2.13
Health services	Persons/Physician	1:1724
	People/Bed in Hospital	1195
	Doctors/10,000 population	5.80
	Improved Drinking Water Coverage (%), (tube-well)	98.3
	Improved Sanitation facility (%)	81.5
	Fully Vaccinated EPI Coverage (%)	86
Financing Health Care	GDP spent on healthcare	3.1
	Health expenditure as a % government budget	4.9
	Out-of-pocket expenditure for health	74
	Per capita total expenditure on health (U.S.$)	37
	Contribution Development Partners	6%

Sources: Sample Vital Statistics Report 2020 (BANGLADESH BUREAU OF STATISTICS, 2021), Bangladesh Economic Review Report 2021 (Ministry of Finance, Peoples Republic of Bangladesh, 2021), Ministry of Health and Family Welfare Report 2018

Health Service Provider's Density in Bangladesh

Along with socioeconomic and environmental factors, health workers are the critical restrictive issue shaping the population health, and Bangladesh is well-known as a country with severe health professional shortages (Ahmed, Hossain, RajaChowdhury & Bhuiya, 2011). In health care delivery systems, the workforce serves as doorkeepers and pathfinders for the efficient application of all other resources. The scarcity of competent health care providers, especially in lower-middle-income countries like Bangladesh, has got much concentration at present as it acutely intimidates the accomplishment of sustainable development goals. Having the shortage of provision of trained health professionals, the poor and the deprived people in Bangladesh search for health care from the nonqualified traditional providers. Compared to contemporary developing countries, the quality of average health care services is deficient in Bangladesh due to poor health consciousness, predominantly on the demand side.

Figure 2: Health service Provider's Density/10.000 Population



Source: Author's compilation from Bangladesh Health Watch Report 2016.

Unequal Distribution of Health Professionals in Bangladesh

Bangladesh is a country confronting with severe human resource crisis for health care services (World Health Organization, 2006). There are only two nurses and five doctors per 10,000 population, and the doctor-nurse ratio is only 0.4. The significant discrepancy in the density of different healthcare providers is also observed in all eight divisions. Dhaka division enjoys the highest density of doctors followed by Chottogram, but this movement is just the reverse for nurses. In urban areas, a

considerable imbalance in density was also observed, especially for the doctors. Likewise, there is also a higher dissimilarity in the male-female ratio, supporting males in the case of doctors (4 males to 1 female) and females in the case of nurses (9 females to 1 male). In total, only 7.7 skill health professionals per 10,000 people officially.

Table 2. Disparity in Distribution of Health Care Professionals (HCP)/10,000 Population

Divisions	Doctors	Nurses	Dentists	Total	Nurse per Doctor
Barisal	1.7	0.9	0.3	3.08	0.5
Chottogram	4.8	3.6	0.3	8.8	0.7
Dhaka	10.8	2.8	0.5	14.2	0.2
Khulna	1.3	1.9	0.05	3.3	1.4
Rajshahi	2.1	1.1	0	3.2	0.5
Sylhet	2.2	0.4	0	3.2	0.1
Area					
Rural	1.1	0.8	0.08	2.1	0.7
Urban	18.2	5.8	0.8	24.9	0.3
Sex					
Male	4.5	0.2	0.2	5	0.05
Female	0.8	1.8	0.03	2.7	2.1
All	**5.4**	**2.1**	**0.3**	**7.7**	**0.4**

Source: Author compilation of Distribution of Health Care Professionals (HCP) (Ahmed et al., 2013)

Inequality in health and related indicators across various wealth quintiles and region is usually massive in Bangladesh. Though overall disparity in under-five mortality rates between different wealth quintiles has been falling, it persists between rural and urban areas to a large extent. The variation in the under-five mortality rate and institutional delivery between the lowest and highest income quintiles is relatively high. However, the poor versus non-poor disparity in family planning and immunization is not that severe.

Table 3: Inequality in Fundamental Health Indicators by Wealth Quintile

	Poorest	Second	Third	Fourth	Richest
Under-five mortality rate(U5M)	61.6	60.3	55.2	51.1	37.1
Family Planning (FP)	82.7	85.6	83.9	82.5	84.7
Full Immunization	69.4	83.4	87.2	89.7	91.9
Institutional Delivery	14.9	24.2	34.1	46.3	70.9

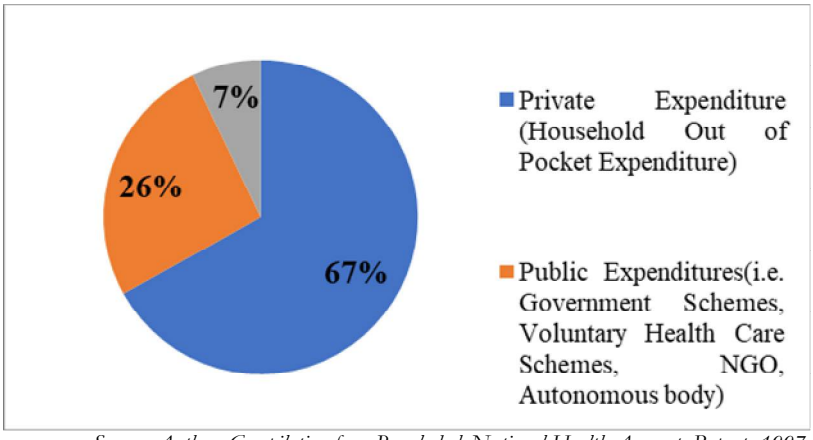
Source: Authors Compilation of Demographic and Health Surveys (DHS), Data-2017-18

The Disparity in Health Service Financing

Public spending on health care services in Bangladesh as a percentage of GDP is the lowest globally. In 2015, overall health outflow (both private and public) was 3.0% of GDP, the lowest in South Asia and below the average of lower-middle-income countries (5 percent). In total health spending, government expenditure (combined with voluntary schemes, NGOs, and Autonomous bodies) is only 26% and has been stagnant at around 0.8-0.1 percent of GDP over the last 15 years. In health care, private expenditure in the percentage of GDP is substantially large and increasing day by day. In 2015, personal health expense was 67% of total health expenditure, whereas, for the government, it was only 26%. Therefore, here in Bangladesh, mass people have to bear the massive burden of health expenditures. In these conditions, mass people, especially the poor and underprivileged, fail to ensure their basic health amenities.

In recent times the OOP shows an increasing trend. Most OOP spending includes the provision of care by private providers, with almost 42 % going to medicine retailers, 11% to ambulatory providers, 10% to private hospitals, and a diverse range of medical providers. Of course, this low government spending on health poses a challenge to attaining the universal health coverage that Bangladesh wants to achieve by 2030 would remain a dream unless public expenditure on health care service is substantially increased immediately.

Figure 3: Total Health Expenditure (THE) Financing by Source



Source: Authors Compilation from Bangladesh National Health Accounts Reports 1997-2015.

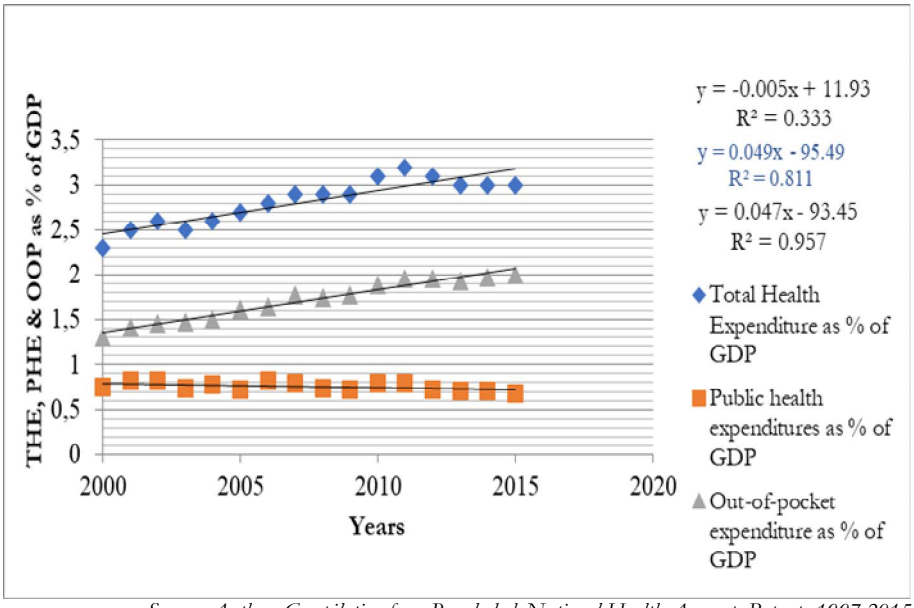
Per Capita GDP and the Trends of Different Health Expenditure as % of GDP

From appendix B, we find a definite relationship between "Public Health Expenditure (PHE)" and "Out of Pocket (OOP)" expenditure of the last 15 years. The r-value (r =

0.88) indicates that the correlation between public health expenditures and Out of Pocket (OOP) expenditure as a share of total health expenses is robust. In addition to that, we observe that Bangladesh has made excellent advancements in increasing per capita income. In 2020 it's per capita income reached $2,064 per person (BBS, 2020) whereas, in 2000, it was $417 only. The size of GDP has also increased by 6.57 times last 20 years (in 2000, it was only $53,000 million to $ 347,991 million in 2020), and so has its per capita health expenditure (from $10 to $ 37 over the period).

Though overall expenditure on health in Bangladesh has increased, it has remained stagnant about 3% over the period as a percentage of GDP. Among this 3% of expenditure, the share of public health expenditure displays a decreasing drift while the proportion of OOP expenditure shows an increasing trend as an ultimate result. It is evident from the figure-4 that the lower amount a government pays out on health, the higher will be the out-of-pocket expenses. According to the 'Global Monitoring Report on Financial Protection in Health 2019', about 7.0% of households in Bangladesh are hard-pressed into poverty every year as an outcome of high out-of-pocket payments on health. So, the tendency of less government health expenditure and higher OOP imposes severe challenges towards achieving SDGs. Because low public spending necessitates a clear trend of higher out-of-pocket payment which results in greater socioeconomic inequality.

Figure 4: Trends of Total Health Expenditure (THE), Out of Pocket (OOP) and Public Heatlth Expenditure (PHE) as % of GDP

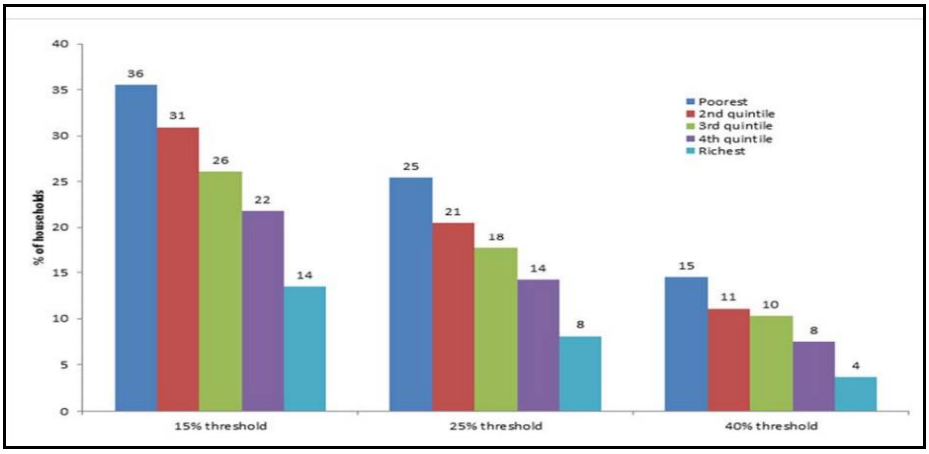


Source: Authors Compilation from Bangladesh National Health Accounts Reports 1997-2015

Differences in Health Expenditure by Wealth Status

Health expenditure consists of a comprehensive range of fees, charges, and costs (i.e., consultation fees, cost of tests, travels, drugs, and admission charges). In Bangladesh, health well-being expense is a much more delicate issue for victims of their poor income. Because private outflow forces an excessively higher burden on the poor than the non-poor, since people are uncertain about when they become unwell and how much it will cost, the means for pooling and risk-sharing are imperative. A recent study by (Khan et al., 2017) represents the prevalence and concentration of household catastrophic health spending in Bangladesh at 15%, 25%, and 40 % by quintile. It reveals that the destitute are the worst sufferer by OOP health expenditures at all thresholds. The disproportionately large OOP expenditure also restrains the health financing system from performing the key social redistribution role from the better off to the poor. As a result, people fail to access health facilities properly.

Figure 5: Proportion of Households with Catastrophic Health Expenditures by Quintile

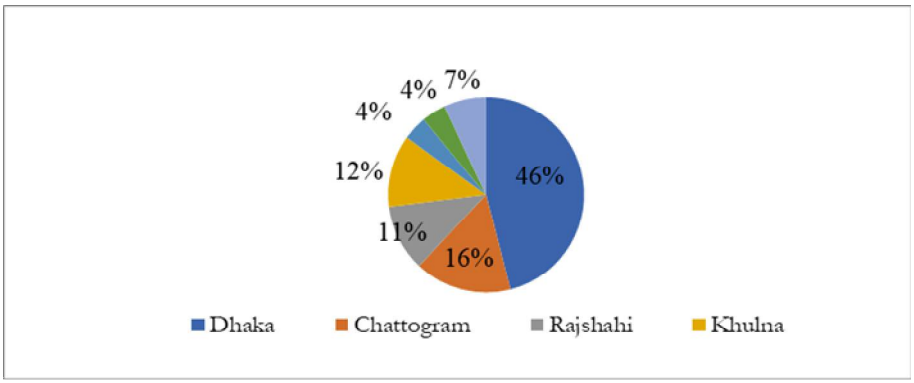


Sourse: Author's Compilation of Households with Catastrophic Health Expenditure: Source: Khan et al., 2018

Unequal Distribution of Total Health Expenditure (PHE) and Per Capita Health Expenditure (PHE) among Divisions

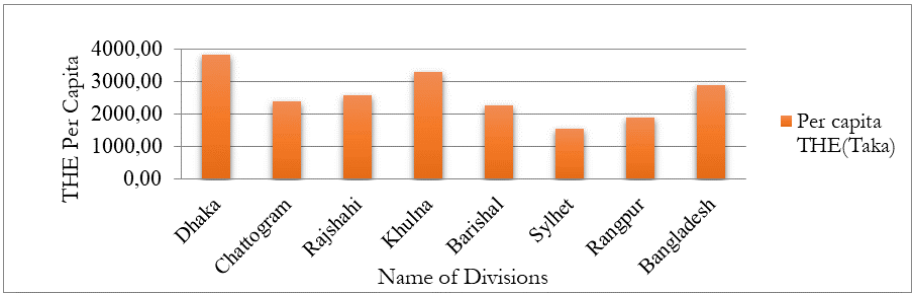
Through careful observation of figures 6 and 7, the distribution of Total Health Expenditure (THE) and Per-capita Health Expenditure (PHE) are uneven across eight divisions of the country. The Dhaka division enjoys the highest percentage of THE, followed by Chottogram, Khulna, and Rajshahi.

Figure 6: Share of Total health Expenditure by Division, 2015



Source: Authors Compilation from Bangladesh National Health Accounts Reports 1997-2015

Figure 7: Total Health Expenditure Per capita (Taka) by Divisions

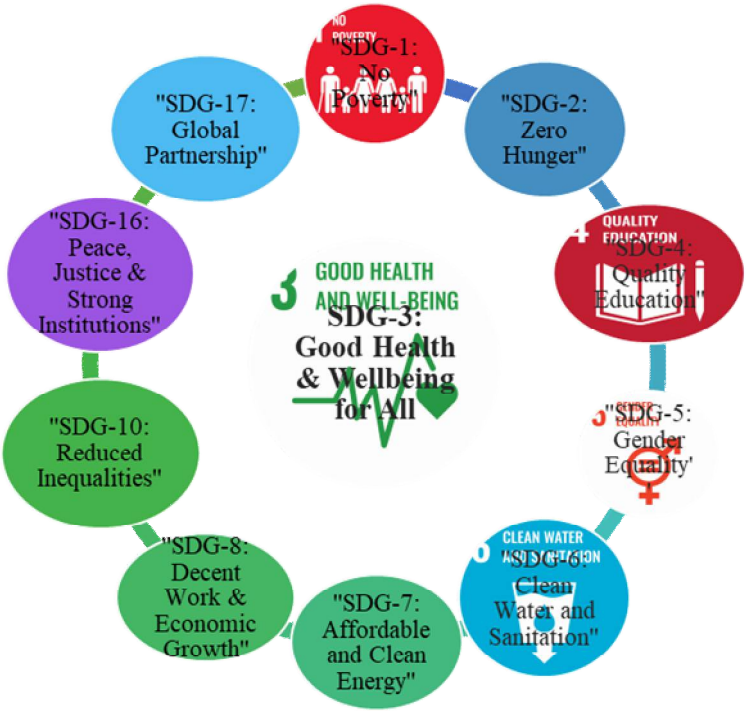


Source: Authors Compilation from Bangladesh National Health Accounts Reports 1997-2015.

Unequal Opportunities in Health and It's Impacting Other SDGs

The link between inequality of opportunity in health and other SDGs is meaningful. As fundamental human rights, health has qualitative and far-reaching impacts on almost all other sustainable goals. In this perspective, without addressing existing imbalances regarding ensuring healthy lives and qualitative education for all walks of people, achieving SDGs is a daydream. The ways disparities towards access to inclusive, equitable education and good health in Bangladesh impact its sustainable development ambitions are given below:

Figure 8: Other SDGs that are Impacted by Good Health and Wellbeing (SDG-3)



Source: Author's Compilation by using Targets and Goals of SDGs; ("THE 17 GOALS | Sustainable Development", 2021)

The overarching theme of *"Good Health and Wellbeing"* (SDG-3) *is "no one will be left behind"* has an enormous impact on different goals of sustainable development. From "Appendix C," we find that SDG-3 highly influences SDG-1, 2, 4, 5, 6, 7, 8, 10, 16, and 17. Health and poverty are connected in a fortifying manner. As the poor are less nourished and less informed, they are exposed to greater risks and less able to access healthcare facilities than the wealthy. Consequently, they have a hovering risk of sickness and feebleness.

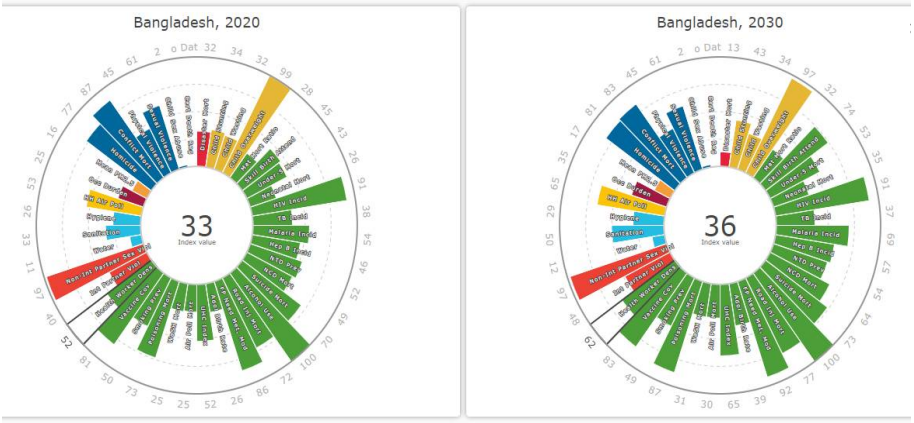
On the other hand, diseases shrink households' savings, reduce understanding capacity, trim down competency, and weaken the standard of living, thereby perpetuating poverty (WHO, 2016). A considerable segment of the people in Bangladesh fails to maintain their health expenditure and nutrition as the incidence of poverty is very high. Poverty creates powerlessness and poor health condition, as lousy health raises poverty. On the other hand, improving health conditions increase income-earning potentials and eliminate discrimination against disadvantaged groups, directly enhancing their well-being and enabling them to earn more (Oxford University Press, 2001). So,

undoubtedly poverty is a vital hurdle for guaranteeing good health and well-being to the people in Bangladesh as it restrains people's spending ability on health (Rahman et al., 2005).

A nation's objective of building poverty, hunger, and disparity-free, just, equal, and peaceful society can hardly imagine without ensuring access to good health. To secure universal health coverage and quality health care, all forms of malnutrition, including stunting, wasting and overweight, and violence against women and girls, must end. Besides, ensuring safe, affordable, and equitable access to water, sanitation, and reliable modern energy, protecting labor rights, and securing a safe working environment is imperative to extend life expectancy. It is also evident that if we cannot ensure equal access to health care and related facilities for all, our productivity will be low. Low productivity ultimately leads to low income, and people with less purchasing power are highly exposed to poverty, hunger, malnutrition, violence, and low-quality education. An individual burdened with poverty, hunger, malnutrition, disparities, and illiteracy usually has less opportunity to think of other critical aspects of SDGs like climate action, biodiversity, research and innovation, sensible consumption, resilient cities, and global partnerships. Though Bangladesh has ranked 109 among 193 UN countries having an overall SDG index value of 63.5 among 100, it has scored only 33 among 100 in the case of *health and health-related index* value. From projected data, we find that for health and other SDG targets related to health, we will likely score 36 by 2030, where most of the targets will remain unmet.

So, health has an intergenerational impact towards achieving SDGs, which rotate cyclically. Thus, neglecting any of these fundamental issues will ultimately lead our aspiration to achieve agenda-2030 in vain.

Figure 9: Present and Projected Score of Bangladesh in Terms of Sustainable Development



Source: Author Compilation by using Institute for Health Metrics and Evaluation (IHME), 2020 Data, ("Health-related SDGs | IHME Viz Hub," 2021)

Conclusion and recommendations

Previously, it has been considered that inequality is a routine procedure on the development process, especially among the Kuznets followers. Later on, it was proven wrong, and many countries of the world have successfully reached a higher growth path without accelerating inequality. Inequality of opportunities ultimately leads to unequal outcomes and erodes social harmony. So sustainability is the most crucial aspect of development ambitions, especially in developing countries like Bangladesh. It is vital to fulfilling the core values and inherent objectives of development. Without sustainability, the fundamental objectives of development (*sustenance, self-esteem, and freedom of choice*) will not be achieved. In this respect, exploring the relationship between sustainable development and unequal opportunities is vital because it creates substantial imbalances in a society with considerable impacts on sustainability.

From our discussion, the existence of significant unequal opportunities in our country's health sector is quite self-evident. Though Bangladesh has made extraordinary improvements in different socio-demographic indicators, unequal access to overall health care facilities is still extensive and tenacious. It faces severe constraints in ensuring good health and well-being for all of its citizens. The shortage of skilled health care providers, the disparity in health workers distribution (male-female, rural-urban), low density of doctor-nurse ratio are pretty usual. We observe mentionable differences in fundamental health indicators (maternal mortality, family planning, and immunization) and per capita health expenditure of households by wealth status. In addition to that, government health expenditure is still deficient compared to developed countries. Public health expenditure has been moving around 2-3% of the GDP, and the poor and the rich simultaneously benefit from it. As the poor are much more vulnerable to catastrophic health hazards than the wealthy, they demand special attention in health spending so that the poor can benefit more from it and their out-of-pocket expenditure reduces substantially.

We also notice a robust and assertive correlation between sound health to poverty and their consequences on SDGs. The higher the attainment of an individual's health status, the lower the incidence of poverty. As the private expenditure on health is very high compared to public spending, it exerts a tremendous barrier, especially to the poor, by gradually placing them in a lower cohort of income status. The inability to access quality health care services brings impoverishment by lowering an individual's competency and productivity. Similarly, suppose a person is exposed to malnutrition and health hazards and lives with disabilities for a more extended period. In that case, his productivity must be lower, ultimately leading to a lower segment of income status.

Policy Initiative of Good Health and Wellbeing

The government has been implementing different programs in the health sector to improve the living standards of all citizens by undertaking impressive pro-people policy initiatives. The core objective of sustainable development is to free humankind from the severity of poverty, hunger, malnutrition, illiteracy and protect our beloved planet from all sorts of depravity. Though Bangladesh has made remarkable progress in the

health sector due to various activities, mass people fail to harvest its actual benefits for prevailing inequality in different forms. We must extirpate all kinds of disparities related to various opportunities to reap tangible benefits from the development. The rural-urban gap in access to different health care services also is removed in this response. To minimize the out-of-pocket (OOP) expenditure, especially the poor, we must focus on them. If the rich take the same advantage as the poor from the public health expenditure, the gap will never be minimized. Benefit incidence analysis can be done to have a clear picture of government health expenditure. As the number of the aging population is growing high with the incremental life expectancy, the government should have a distinct view regarding their old age safety and welfare.

Acknowledgments

This study was a part of a Master's dissertation under the Department of Economics, University of Essex, England.

Funding

The author has received no financial assistance from anywhere for this article's research, authorship, and publication.

Declaration of conflicting interests

I declare, on my own responsibility, that there is no conflict of interest in the production and publication of this article.

Appendix A – Per Capita THE, PHE, OOP as a Share of GDP & Total Expenditure

Year	Total GDP in USD (in Millions)	GDP Per capita ($)	Total Health Expenditure (THE) in Current Price (Million Taka)	Total Health Expenditure (THE) as % of GDP	Public Health Expenditure (PHE) as % of THE	Out of Pocket (OOP) Expenditure as % of THE	Per Capita THE ($)
2000	53000.00	417.00	63,008.00	2.30	32.7%	57.0%	10
2001	54000.00	414.00	72,030.00	2.50	32.6%	56.5%	10
2002	55000.00	413.00	81,559.00	2.60	31.8%	56.2%	11
2003	60000.00	446.00	87,882.00	2.50	29.2%	58.7%	11
2004	65000.00	475.00	100,456.00	2.60	30.2%	57.6%	12
2005	70000.00	501.00	115,399.00	2.70	26.8%	59.9%	14
2006	72000.00	511.00	137,114.00	2.80	29.2%	58.7%	15
2007	80000.00	560.00	156,977.00	2.90	27.2%	61.2%	16
2008	92000.00	638.00	181,775.00	2.90	25.5%	60.3%	18
2009	102000.00	706.00	207,671.00	2.90	25.0%	61.1%	21
2010	113000.00	768.00	246,040.00	3.10	25.7%	61.0%	24
2011	119000.00	801.00	288,806.00	3.20	24.7%	61.3%	25
2012	133000.00	889.00	323,437.00	3.10	23.1%	63.3%	27
2013	150000.00	982.00	353,960.00	3.00	23.8%	64.3%	29
2014	173000.00	1118.00	398,420.00	3.00	23.5%	65.6%	33
2015	195000.00	1245.00	451,889.00	3.00	22.7%	66.9%	37

Appendix B – The other Sustainable Development Goals and Targets along with "Goal-3 (Ensure Healthy Lives and Promote Well-being)" that are Impacted by Unequal Opportunities in Health

Sustainable Development Goals and Indicators Related to Health	Target	Achievement of Bangladesh in last 20 years					Projected Values	
		2000	2005	2010	2015	2020	2025	2030
"1.5.1 Death rate due to natural Disaster per 100000 people."	"By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters."	0.1	0.2	0.07	0.01	4.8	4.4	4.7
"2.2.1 Prevalence of stunting among	"By 2030, end all forms of malnutrition,	49.2%	43.8%	41.9%	39.9%	34.5%	35.3%	43.3%

Sustainable Development Goals and Indicators Related to Health	Target	Achievement of Bangladesh in last 20 years					Projected Values	
		2000	2005	2010	2015	2020	2025	2030
children under five years"	including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons."							
"2.2.a Prevalence of wasting among children under five years"	Do	13.3%	11.9%	12.7%	12.6%	12.3%	12.2%	12%
"2.2. b Prevalence of child overweight."	Do	3.3%	3%	3.7%	4.2%	4.7%	5.3%	5.9%
"3.1.1 Maternal mortality ratio"	"By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births."	323.7	286.9	223.9	175.7	150.4	134.6	123.7
"3.1.2 Coverage of skill birth attendance"	Do	11.6%	18.8%	33.8%	47.9%	58.8%	70.8%	80.3%
"3.2.1 Under-five mortality rate (probability of dying before the age of 5 years per 1000 live birth)"	"By 2030, end preventable deaths of newborns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births."	85.8	67.4	51.5	37.8	28.4	22.7	18.6
"3.2.2 Neonatal mortality rate"	Do	42.5	36.5	29.9	23.5	18.5	15.5	13.2
"3.3.1 Age-standardized rate of new HIV infection (per 1,000)"	"By 2030, end the epidemics of AIDS."							
"3.3.2 Age-standardized rate of Tuberculosis cases (per 100,000)"	"By 2030, end the epidemics of tuberculosis."	183.4	149.7	126.7	127.5	129.9	132.6	135.9
"3.3.3 Age-standardized rate of	"By 2030, end the epidemics of malaria."	8.1	6.2	2.1	0.3	0.05	0.01	0.0

Sustainable Development Goals and Indicators Related to Health	**Target**	**Achievement of Bangladesh in last 20 years**					**Projected Values**	
		2000	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Malaria cases (per 100,000)"								
"3.3.4 Age-standardized rate of Hepatitis B incident cases (per 100,000)"	"By 2030 combat against hepatitis-B."	1797.3	1694.1	1670.8	1666.3	1516.6	1293.1	1114.1
"3.3.5 Age-standardized prevalence of 15 neglected tropical diseases (NTDs)"	"By 2030, end neglected tropical diseases."	42.3	44.2	47.6	50.3	53.2	54.4	54.2
"3.4.1 Death rate due to cardio-vascular diseases, cancer, diabetes, and chronic respiratory diseases among population age 30 to 70 (per 100,000)"	"By 2030, reduce by one-third premature mortality from NCDs through prevention and treatment and promote mental health and well-being."	513.8	544.7	536.3	463.4	420.6	369.6	326.0
"3.4.2 Age-standardized death rate due to self-harm (per 100,000)"	Do	7.7	7.2	7.3	6.1	5.9	5.6	5.4
"3.5.2 Risk-weighted prevalence of alcohol consumption"	"Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol."	0.03%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%
"3.6.2 Age-standardized death rate due to self-harm (per 100,000)"	"By 2020, halve the number of global deaths and injuries from road traffic accidents."	7.1	10	9.9	8.7	7.8	7.1	6.6
"3.7.1 Proportion of women of reproductive age (15-49 years) who have their need for family planning met with modern contraception methods."	"By 2030, ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs."	65.2%	68.4%	71.9%	75.9%	78.9%	81.4%	83.6%
"3.8.1 Coverage of essential health services, as defined by the UHC service	"Achieve universal health coverage, including financial risk protection, access to	40.8	47.3	53.5	58.5	62.7	67.6	71.4

Sustainable Development Goals and Indicators Related to Health	Target	Achievement of Bangladesh in last 20 years					Projected Values	
		2000	2005	2010	2015	2020	2025	2030
coverage index."	quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all."							
"3.9.1 Death rate attributable to air pollution and ambient air pollution (per 100,000)."	"By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination."	132.7	128.8	122.2	98.3	88.2	80.4	73.8
"3.9.2 Death rate attributable to unsafe water, sanitation and hygiene (WaSH) (per 100,000)."	Do	85.9	56.4	39.1	32.1S	28.4	23.5	19.7
"3.9.3. The death rate due to unintentional poisonings (per 100,000)."	Do	0.3	0.4	0.5	0.4	0.3	0.2	0.2
"3.a.1 Prevalence of daily smoking among population ten years and older."	"Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate."	21.3	21.1	21.4	20.8	20.4	20.3	20.3
"3.b.1 Coverage of seven vaccines in target populations"	"Support the R&D of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines."	30%	41%	57.7%	75.5%	81.4%	82.5%	83.4%
"3.c.1 Health worker density(Physicians, Nurses, Midwives and Pharmacists per 1,000."	"Substantially increase health financing and the recruitment, development, training, and retention of the health workforce."	0.7	0.8	1	1.3	1.5	1.9	2.3

Sustainable Development Goals and Indicators Related to Health	**Target**	**Achievement of Bangladesh in last 20 years**					**Projected Values**	
		2000	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
"5.2.1 Prevalence of intimate partner violence among women age 15 years and older in previous 12 months."	"Eliminate all forms of violence against all women and girls in public and private spheres, including trafficking and sexual and other types of exploitation."	27.1	24.6	22.8	21.8	20.8	19.6	18.5
"6.2.1 Risk-weighted prevalence of populations using unsafe or unimproved water as measured by summary exposure value(SEV)."	"By 2030, achieve universal and equitable access to safe and affordable drinking water for all."	80.9%	80.2%	79.1%	77.8%	77%	76.6%	76.2%
"6.2.1a Risk-weighted prevalence of populations using unsafe or unimproved sanitation as"	"By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations."	78.5%	73.6%	68.9%	66.9%	61.2%	53.9%	46.4%
"6.2.1b Risk-weighted prevalence of populations without access to hand wash facility"	"By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations."	76%	75.2%	74%	72.7%	71.1%	69.7%	68.2%
"7.1.2 Risk-weighted prevalence of household air pollution"	"By 2030, ensure universal access to affordable, reliable and modern energy."	55.4%	50.7%	45.4%	40.1%	35.9%	31.2%	26.8%
"8.8.2. All-cause DALY (Disability Adjusted Life Year) rate attributable to occupational risks(per 100,000)."	"Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment."	1689	1625	1368	1235	1132	1045	970
"16.1.1 Population weighted mean level	"By 2030, reduce the adverse per capita	63	69	71	67	61	61.1	61.4

Sustainable Development Goals and Indicators Related to Health	Target	Achievement of Bangladesh in last 20 years					Projected Values	
		2000	2005	2010	2015	2020	2025	2030
of fine particulate matter smaller than (PM2.5) micrograms per cubic meter."	environmental impact of cities, including by paying special attention to air quality and municipal and other waste management."							
"16.1.1 Death rate due to interpersonal violence(per 100,000)"	"Significantly reduce all forms of violence and related death rates everywhere."	2.5	2.1	2.0	1.6	1.5	1.3	1.2
"16.1.2 Death rate due to conflict and terrorism (per 100,000)."	Do	0.02	0.1	0.01	0.07	0	0	0
"16.1.3a Prevalence of physical violence experienced by populations in last 12 months."	Do	10.9%	11%	11.1%	11.1%	11.1%	11.1%	11.1%
"16.1.3c Prevalence of sexual violence experienced by populations in last 12 months."	Do	2.4%	2.5%	2.5%	2.6%	2.6%	2.6%	2.6%
"16.2.3 Prevalence of men women aged 18-29 years who experienced sexual violence by the age of 18"	"End abuse, exploitations, trafficking and all forms of violence against and torture of children"	22.1%	22.2%	22.3%	22.4%	22.3%	22.2%	22.2%

Source: Author's Compilation by using Institute for Health Metrics and Evaluation (IHME), 2020 Data, Source: ("Health-related SDGs | IHME Viz Hub," 2021)

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