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## An extensive review of patient satisfaction with healthcare services in Bangladesh

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### **Cover Page Footnote**

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# An extensive review of patient satisfaction with healthcare services in Bangladesh

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## Abstract

Patient satisfaction is a useful measure for providing quality indicators in healthcare services. Assessing patients' satisfaction is important since it often helps, in absence of healthcare service quality indicators, to determine the quality of health-care delivery and health system responsiveness. Higher levels of patient satisfaction indicate higher levels of patient empowerment, commitment to care and compliance to recommended management—all of which results in better health outcomes. Concern over the quality of healthcare services in Bangladesh has resulted in a loss of faith in healthcare providers, low utilization of public health facilities, and increased outflows of patients from Bangladesh to hospitals abroad. The main barriers to accessing health services are inadequate services and poor quality of existing facilities, shortage of medical supplies, the busyness of doctors due to high patient load, long travel distance to facilities, and long waiting times once facilities were reached, very short consultation time, lack of empathy of the health professionals, their generally callous and casual attitude, aggressive pursuit of monetary gains, poor levels of competence and, occasionally, disregard for the suffering that patients endure without being able to voice their concerns—all of these service failures are frequently reported in the print media. Such failures can play a powerful role in shaping patients' negative attitudes and dissatisfaction with healthcare service providers and healthcare itself. The Ministry of Health and Family Welfare plans and implements the public healthcare delivery through various healthcare infrastructure, from national to the community level.

## Keywords

Doctor consultation length, patient waiting time, quality of future doctors, rural health facilities, Bangladesh, hospital avoidance during COVID-19 crisis, COVID-19, patient satisfaction, patient experience

## Introduction

Bangladesh, a South Asian low-middle-income economy, has experienced a demographic and epidemiological transition with rapid urbanization and a gradual increase in life expectancy.<sup>2</sup> It is the seventh most populous country in the world and population of the country is expected to be nearly double by 2050.<sup>3</sup> The rising burden of non-communicable diseases (NCDs) in Bangladesh can be related to rapid urbanization, and nearly 50 percent of the country's slum dwellers live in Dhaka.<sup>4,5</sup> According to the 2018 Country Environmental Analysis (CEA) report of the World Bank, air pollution causes the deaths of 46,000 people in Bangladesh per year.<sup>6</sup> Less than 10% hospitals of this country follow the Medical Waste Management Policies.<sup>7</sup> In 2017, 26 incidents of disease outbreak were investigated by Institute of Epidemiology, Disease Control and Research (IEDCR).<sup>8</sup> Out-of-pocket (OOP) treatment cost raised nearly 70% in the last decade.<sup>9</sup> About 2/3rd of the total health expenditure is from OOP, and of this, 65% is spent at the private drug retail shops.<sup>10</sup> There is little assessment of the quality of provider care, low levels of professional knowledge and poor application of skills. Bangladesh does not have a formal body for arbitration of complaints against health providers. Hospital or clinic

authorities address complaints and disputes independently, without involving the government or legal entities.<sup>11</sup> Bangladesh's post-disaster management is inadequate due to a lack of adequate compensation, inadequate or inaccessible health care facilities and the slow rehabilitation process to accommodate disaster survivors within the mainstream society. Joint survey of the Power and Participation Research Centre and BRAC Institute of Governance and Development (PPRC-BIGD Rapid Response Survey) reveals that per capita daily income of urban slum drops by 82%, rural poor by 79% due to present countrywide shutdown enforced by the government to halt the spread of Covid-19. More than 50% urban and 36% rural population took loans to meet the daily expenses.<sup>12</sup>

## Discussion

### Methodology

Research conducted a year-round comprehensive literature search, which included technical newsletters, newspaper journals, and many other sources. The present study was started at the beginning of 2019. PubMed, ALTAVISTA, Embase, Scopus, Web of Science, and the Cochrane Central Register were thoroughly searched. The keywords

were used to search for different publishers' journals such as Elsevier, Springer, Willey Online Library, and Wolters Kluwer which were extensively followed. Medicine and technical experts, representatives of pharmaceutical companies, hospital nurses and journalists gave their valuable suggestions. Projections were based on patient experience, expectations, and reasons for dissatisfaction with the present healthcare facilities among Bangladesh's population.

#### ***Implication of Medical Law and Ethics***

Unsurprisingly, death due to oversight of physicians or medical laxity and doctors' incompetence have been reported in the media all the year-round. Laws such as the Penal Code 1860, Code of Criminal Procedure 1898, Consumer Rights Protection Act, 2009 under which cases can be filed for legal remedies. In the event of death due to medical laxity, cases may be filed under the penal code, 1860, as death by laxity is a criminal offence and is punishable under section 304A of the penal code.<sup>13,14</sup> There are also provisions for imprisonment and fine which are equally applicable to both the doctors and the complainants. In the realm of therapeutic care, challenges are: public hospitals face no competition, have neither built-in incentive system nor any culture to enforce discipline and conduct rules and punish the recalcitrant; there is no mechanism either to evaluate individual's performance or that of any healthcare institution.<sup>15,16</sup>

Doctors usually give little time, often less than one minute, to examine patients and mistreat them; fixated mind-set of hospital staff who overestimate their own performance, care little about the patients' experiences and don't know that patients' satisfaction index is related to clinical outcome.<sup>17</sup>

#### ***Present Healthcare Situation***

Harvard Professor Sue Goldie credited Bangladesh with reducing child mortality by 80%, the highest in South Asia and targeting the reduction of the 1990 maternal mortality ratio by three quarters in the 2015-MDG5 target.<sup>18</sup> According to WHO, the current doctor-patient ratio in Bangladesh is only 5.26 to 10,000, which places the country second from the bottom, among the countries of South Asia.<sup>19</sup> According to the Bangladesh Medical and Dental Council, there were 25,739 registered male doctors in the country between 2006 and 2018 (47%) and 28,425 female doctors (53%).<sup>20</sup> Average consultation length is used as an outcome indicator in the primary care monitoring tool which was found a less than a minute to an outdoor patient.<sup>5</sup> An average 1.5 hours is to spend to see a doctor in Dhaka Medical College and other public hospital outdoors, sometimes there are no doctors due to post vacancy.<sup>21-23</sup> Patients' struggle for essential services during any disease outbreak in hospital indoor and outdoor is common (Figure 1). Overall, 67% of the healthcare cost is being paid by people, whereas global

**Figure 1. Patients' struggle in a private medical college indoor during a pandemic situation in 2019<sup>1</sup>**



standard is below 32%. Only one hospital bed is allocated per 1667 people, and 34% of total posts in health sector are vacant due to scarcity of funds.<sup>24</sup> In a low socio-economic country like Bangladesh, nurses struggle in a grossly underfunded healthcare system to deliver care to the people. Heavy workloads; lack of government accommodation and transportation; poor health status; lack of support from nursing supervisors; lack of promotion opportunities; incomplete hospital policies and procedures; and lack of night shift and risk allowances reported by Akter et.al, 2019.<sup>25</sup> Bangladesh Health Facility Survey (BFHS), 2017 reveals that over 70% of rural health facilities do not have all six basic supplies (thermometers, stethoscopes, blood pressure gages, infant and adult weighing scales, and torch lights).<sup>26</sup> Only about half of doctors employed in district-to-union sub-center public hospitals are satisfied with the availability of medicines in their facilities, suggesting a widespread lack of stocks of medications in public amenities.<sup>27</sup> In 2013/2014, the infant mortality rate, which is 34 per 1000 live births in urban areas overall, and 40 in rural communities, rises to nearly 70 in urban slum areas.<sup>28</sup> Sir William Osler said "One of the physician's first duties is to teach the masses not to take medicine." Bangladesh has an estimated 100,000 licensed drug stores and an additional 100,000 unlicensed drug stores.<sup>29,30</sup> They are largely unregulated and unaccountable, and run by salespersons who are mostly trained informally through a process of 'apprenticeship',<sup>29</sup> where majority of medicines were dispensed irrationally without any prescription and OTC dispensing of many low safety profile drugs is common.<sup>31</sup> More than 80% of the population seeks care from untrained or poorly trained village doctors and drug shop retailers.<sup>30</sup> 'Oversight of Physicians' and 'Inappropriate Treatment' have become commonly-used phrases in print and electronic media of Bangladesh, while violence against the physician in Bangladesh (by patients or by their associates) has been increased and the severity has been intensified simultaneously.<sup>32</sup> The 2019 Dengue outbreak in August 2019 alone caused more than 50,000 hospital admissions<sup>33</sup> and around 100,000 hospitalizations and claimed 112 deaths from January to October 2019<sup>34</sup>, where hospitals had been unable to cope with the huge number of patients flooding the hospitals.<sup>35</sup> The country is hosting 1.1 million Rohingya refugees,<sup>36</sup> who are posing serious threat of diphtheria,<sup>37-39</sup> HIV and other STDs transmission<sup>40,41</sup> along with Covid-19.

#### ***System Collision with Traditional Medicine***

There are around 86,000 villages in the country and almost every village has one or two traditional practitioners.<sup>42</sup> More than 65% of Bangladesh's population receive first-line healthcare services primarily from village doctors.<sup>43</sup> An estimated 70 to 75% of the country's people use traditional medicine for their health care.<sup>44,45</sup> 70% of females also used at least one herbal product during their last pregnancy, mostly without a qualified medical care

practitioner's consultation.<sup>30</sup> Again, alternative/traditional medicine are not included in the medical school curriculum except in Ayurvedic Medical College of Bangladesh. Illiteracy, poor financial status, social context, uncertain diagnosis and treatment costs, physician absenteeism in rural health complexes, divergent medical opinions, unhealthy competition between healthcare professionals and their tendency to linger on treatment, negative impression of expensive medical tests and unnecessary food supplements, as well as easy accessibility and accessibility of alternative medicine diverted the patients to seek help from orthodox to alternative medicine.<sup>46-52</sup>

#### ***Drug Cost Vs OOP Expenditures***

Due to high competition in the pharmaceutical industry, different medicine companies have adopted aggressive marketing strategies. The doctors, willingly or unwillingly, become part of the system with few exceptions. This unethical promotion clearly drives them towards prescribing high valued or unnecessary medicines.<sup>53-59</sup> Very often, medical representatives rush at peak hours and aggressively pulls patient prescriptions in the name of survey. Prescribing antibiotics in 44% consultations, prescribing of 3 or more drugs in 46% in urban centers and 33% in local health centers<sup>29</sup> clearly raise OOP expenditure and create strong repulsion towards modern medicine where nearly 22% of the population is below poverty line.<sup>60,61</sup> Moreover, doctors are more often accused to take 30% to 50% commission on a test from hospitals/diagnostic centers.<sup>51,62,63</sup> Neither the regulatory authority nor the professional or consumer rights bodies has any role to control or rectify the process.<sup>53</sup> 'Global Monitoring Report on Financial Protection in Health 2019' (joint report of World Bank and WHO) estimates that around 7% households are pushed into poverty due to OOP outlays wherein chronic non-communicable diseases are the principle contributor.<sup>64,65</sup> Khan et.al, 2017 further reported that middle class families spend 11% of their total budget on healthcare, with 9% of households facing financial disaster, with 16.5% of the lowest paid and 9.2% of the richest households facing catastrophic health expenditure.<sup>65</sup> Studies reported that detrimental coping strategies and lack of healthcare expenditure protection for health care often negatively affect future income and can magnify people's vulnerability and hardship.<sup>66</sup>

#### ***Downgrading Image of Supplied Medicines***

Fake drugs kill more than 250,000 children a year worldwide.<sup>67</sup> Ensuring quality health service is impossible without availability of medicines as it is one of the basic requirements of people, said former DGDA of Bangladesh.<sup>68</sup> Counterfeit medicines may lead to avoidable morbidity, mortality, drug resistance, early death or treatment failure, as well as loss of faith in health systems, especially in low-income and middle-income countries.<sup>69</sup> Rural people, who are believed to be unaware of the

situation are generally the victims of the adulterated medicines. "People are taking poison without knowing it," according to the Dean, faculty of Pharmacy at the University of Dhaka, who noted sales of counterfeit or sub-standard medication are most common in rural areas due to the lower levels of health awareness and formal education there.<sup>70</sup> According to a survey by Bangabandhu Sheikh Mujib Medical University, as many as 2,700 children died due to renal failure after taking toxic syrup from 1982 to 1992. The accused companies took a more reasonable approach. Recognizing that 90% of their products had no scientific validity, they argued that the fault lay with the Drug Administration which should not have permitted their products in the first place.<sup>71</sup> Recently, a lot of people are being cheated in buying adulterated insulin.<sup>72</sup> According to the drug market intelligence, an estimated Tk 600 crore of counterfeit medicines is traded in the Tk 18,000 crore medicine market in Bangladesh each year.<sup>73-75</sup> The government revoked licenses of 20 pharmaceutical companies for producing adulterated and low-quality medicine back in 2016.<sup>76</sup> Besides those, the parliamentary panel recommended that licenses of 14 companies to manufacture antibiotics (penicillin, non-penicillin and cephalosporin groups) be revoked and permission of 22 companies to produce medicine of penicillin and cephalosporin groups be suspended.<sup>54, 77-82</sup> The court also ordered the government to immediately stop these companies from producing medicines. But the government is yet to act on it. 370 cases of fake medicines had been filed in the first 6 months of 2019, according to the DGDA.<sup>83</sup> Even hospitals like Apollo and United were accused for keeping and selling of substandard reagents and drugs.<sup>54</sup> It should be further noted that, there are two Govt. Drug Testing Laboratories in the country, one unit in Chittagong and another in Dhaka.<sup>84,85</sup> They are fully-equipped with modern machines and other testing facilities but their performance is much lower than (5% of the total produce) present demand where there are more than 275 pharmaceuticals companies have more than 25,000 brands that produce more than 100,000 batches of medicines.<sup>86</sup>

### **Quality of Medical Education**

In a parliamentary session June 2019, the Health Minister informed that close to 50% teaching positions are vacant in public medical and dental colleges, where most of the vacant posts are of the basic subjects.<sup>87,88</sup> The disappointing poor performance of the private medical colleges noted from the honorable prime minister in a seminar on critical disease treatment in Bangladesh.<sup>89</sup> A deficit in 65% teaching staffs in both public and private medical colleges has also been reported.<sup>90</sup> Generally, 80% of medical education should be provided to students through practical classes—the rest is theoretical knowledge. But in some private medical colleges, students do not get to see patients even in their fourth year.<sup>91</sup> Doctors without adequate practical and field-based applied knowledge are increasingly become risk factors to the

patients they happen to treat. If a degree-holding doctor fails to find the vein for just a saline push-in and then takes the professional help of an experienced nurse, it is a shame not only for the doctor in question but also for the whole nation. Definitely all these facts have deep connections to progression of medical studies and quality of future doctors in Bangladesh.

### **Debasement of Health Providers' Image**

Bangladesh suffers from a severe lack of quality, reliable health care services and an insufficient supply of healthcare organizations to match growing demand. Specifically, there is a major supply gap between the care available to the poor and the rich, especially in light of the growing middle class. A major finding from the household survey was that patients are unhappy with the way health workers in government facilities behave towards them. The behavior of health workers towards them is one of the main determinants of satisfaction of government health service users.<sup>92</sup> Though private hospitals and clinics have mushroomed in the country over the years the quality of services delivered by most of those is found to be poor. Surprisingly, more than 40% of private hospitals, clinics, blood banks and diagnostic centers are not registered with the relevant government agency.<sup>93</sup> Patients and their families are found to be more appreciative of the services offered by doctors, nurses and other medical staff of foreign hospitals. They find doctors there in particular communicative and caring.<sup>94</sup> The number of hospitals of international or regional standard is quite a few and those are located only in Dhaka. Other cities and towns do not have modern health facilities in their true sense. Taking hostage of dead bodies for not clearing the hospitalization costs by some of the hospitals is becoming quite common.<sup>95-99</sup> Other allegations also include such as: swapping of a deceased child with a new born baby, abducting or stealing newborn baby,<sup>100-102</sup> staff not attending to patients in coma, high ICU,<sup>103,104</sup> keeping clinically dead patients in ICU and raising hospital bill,<sup>105,106</sup> wrong diagnosis and treatment,<sup>107-114</sup> absence of human touch and care from the hospital staff, not maintaining proper medical history or lack of electronic health record (EHR) or illegible prescription writing,<sup>115-125</sup> etc. Hospital acquired infection rates in Bangladesh may exceed 30% in some hospitals, according to Shahida et.al, 2016.<sup>126</sup> Also, rural practitioners routinely made errors in death certification practices (more than 95%) and medical record quality was poor (more than 70%).<sup>127</sup> The country has still not introduced the subject of Emergency and Critical care medicine in the curriculum 1 for graduate medical students. The Basic and Advanced life support courses are still not introduced as integral part of physician credentials in our hospitals, especially for those who work in Medicine, Pediatrics, Anesthesia, Emergency etc. Emergency health care exists in name not in real sense.<sup>128</sup>

### ***Present Trend of Medical Tourism***

In a press briefing, former health minister of Bangladesh revealed four reasons of Bangladeshi patients seeking medical treatment in abroad (economic solvency, love for treatment abroad, health tourism, and in some cases, for the lack of suitable treatment facilities in the country) but he could not present any statistics about how many people go abroad from Bangladesh for treatment and the expenditure involved.<sup>129</sup> However, public health experts, health economists, agents of foreign specialized hospitals and patients reported that Bangladeshis seeking treatment abroad is on an upward trend since patients are unwilling to gamble with their life and health. “People do everything they can to get an accurate diagnosis. They run from one doctor to another, change hospitals and so on. Eventually they get frustrated when they don’t see results. That’s why people decide to go abroad for treatment,” according to director of the Institute of Health Economics at Dhaka University.<sup>130</sup> A low confidence on local doctors and flawed diagnosis are forcing a large number of Bangladeshis to travel abroad for treatment of medical conditions such as cancer, cardiac ailment, autism, infertility, as well as medical check-ups. In fiscal year 2015-16, 165,000 patients from Bangladesh visited different hospitals of India but only around 58,000 medical visas were issued to Bangladeshi nationals. Some 63,000-65,000 patients went to Thailand in 2015.<sup>131,132</sup> On an average 1,000 Bangladeshis go to India daily and some 10,000 in Malaysia (in a year) to take treatment, as reported by 2 directors of Indian and Malaysian consultancy firms.<sup>133</sup> India, Thailand, Singapore and Malaysia are the most visited countries by Bangladeshis medical tourists. Instead of playing the blame game, doctors should act responsibly, and government should acknowledge its huge responsibility for updating the healthcare sector, according to Joint Secretary General, Diabetic Association of Bangladesh (BADAS) and convener of National Health Rights Movement.<sup>130</sup> For Bangladesh’s economy, increasing medical tourism means the country economy is losing the amount of money Bangladeshis are spending abroad. About 700,000 people go to abroad every year for treatment spending US\$ 3.5-4.0 billion during the period 2018-2019 which was \$ 2.0 billion in 2012, due to lack of confidence on the local physicians and poor diagnosis system.<sup>94,132</sup> The middle and lower middleclass families, in many cases, are forced to sell their property or spend life's savings or borrow from others to meet medical expenses abroad. This also drainage hard-earned foreign currency at the same time Bangladesh is becoming health tourism market for neighboring countries. To cash in on the growing demand from Bangladesh's rising mid-income people, some hospitals of India, Thailand, Singapore and Malaysia have either opened their liaison offices or hooked clients through their consultants in Bangladesh.<sup>133</sup>

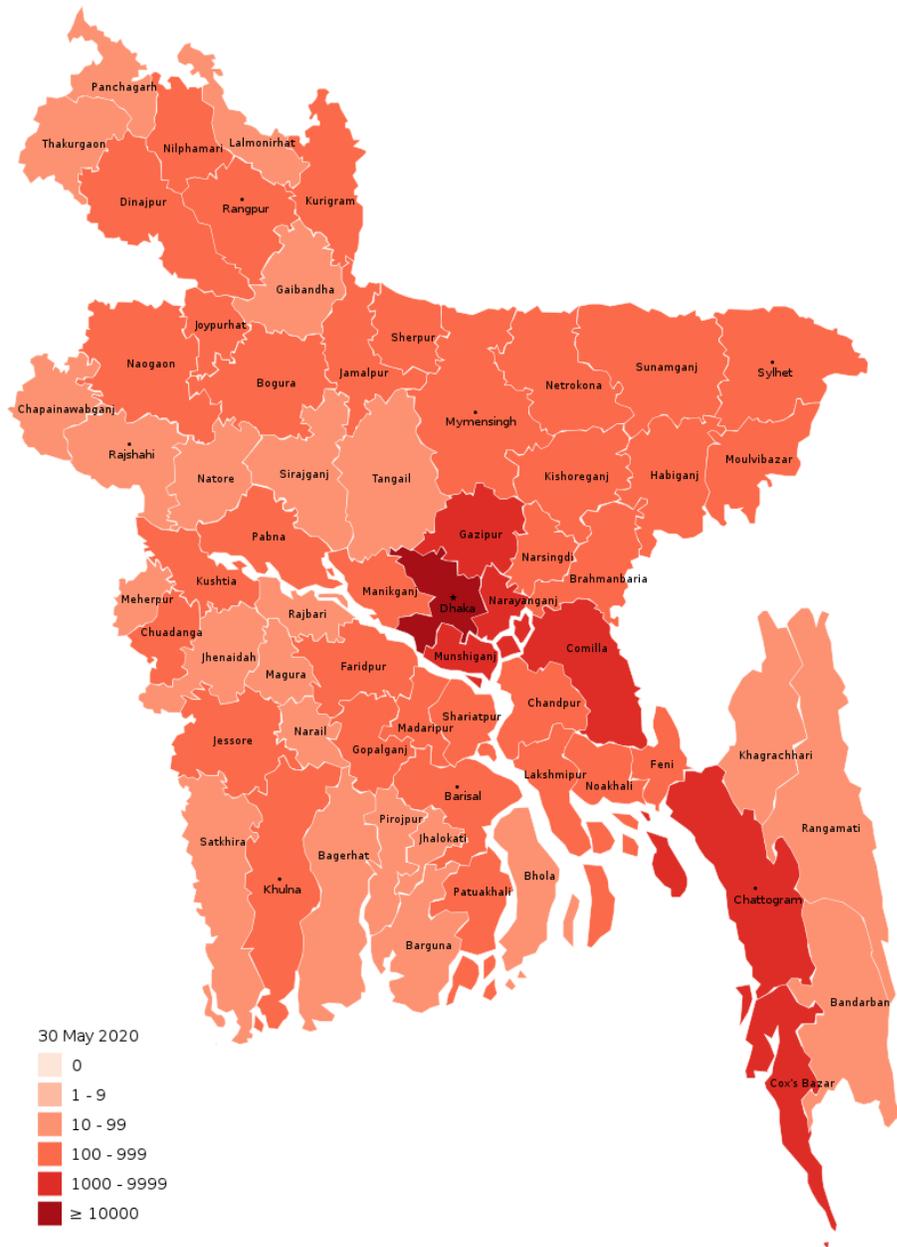
### ***Present State of Pandemic Situation Handling by Bangladeshi Hospitals***

More than 80% of the 25,121 coronavirus cases detected in Bangladesh have been reported in the Dhaka division and nearly 60% of them are in the capital, Dhaka (Figure 2).<sup>134,135</sup> The virus hit a total of 11 out of the 64 districts in the country until 05.04.2020 after the first known cases were reported around a month ago, according to the government’s disease control agency IEDCR.<sup>136</sup> Amidst this global crisis, Bangladesh has been identified as one of the 25 most vulnerable countries to be affected by the fast-spreading virus.<sup>137,138</sup> By 25.04.2020, it was confirmed in 63 out of 64 districts, taking the officially COVID-19 death toll to 120.<sup>139</sup> Many patients with fever, cold and breathing problems – which are also COVID-19 symptoms – have gone untreated as the hospitals in Dhaka are sending them to the IEDCR for coronavirus test.<sup>140</sup> Most hospitals are not in a position to provide doctors and other health associates with the personal protective equipment (PPE) like masks, gloves, and infected patients could walk into the hospital at any moment.<sup>141-147</sup> Many doctors are not providing services fearing the contagion and lab technicians are shunning workplaces, halting medical tests, according to the patients. In some cases, serious patients who are not affected by COVID-19, moved from one hospital to the other but could not receive treatment and finally died, the media reported. In another case, the doctor fled leaving the patient behind.<sup>148-151</sup> Doctors and other healthcare workers say they do not have adequate personal protective equipment and the health system cannot cope with the outbreak.<sup>152</sup> Experts say elderly people infected with coronavirus need ICU support the most.<sup>153</sup> The number of older persons in the country is over 0.8 million.<sup>154</sup> In line with international standards a 100-bed hospital should have at least five ICUs.<sup>155</sup> In reality, hospitals in Bangladesh have less than 1200 ICU beds (432 govt, 737 private) in total against a population of 161.4 million people.<sup>156</sup> The health minister on 29.03.2020 reported that there are only 500 ventilators in the country.<sup>157,158</sup>

### **Conclusion**

Privatization not only makes services more expensive, but also diminishes equity and accountability in the provision of services. The public sector should remain vital, and the government must remobilize it to provide better provision of healthcare.<sup>159</sup> However, problems such as a lack of personnel, absenteeism, and corruption in the public sector have also contributed to private sector growth. At the same time, affordable formal primary care services are scarce, and what exists is almost exclusively provided by NGOs working on a project basis.<sup>160</sup> NGOs, private organizations and mobile phone companies are also providing e-Health services to the patients in different areas in Bangladesh. It is important to have modern hospitals in divisional and district headquarters. But,

Figure 2. District wise COVID-19 infected cases in Bangladesh (as of 30 May 2020)<sup>158</sup>



unwillingness of skilled and senior health professionals to work outside Dhaka turns out to be a major problem here. As if to follow their footsteps even junior doctors despise postings beyond the capital city. A study on career choices among medical students in Bangladesh revealed that more than 50% respondents wanted to practice abroad about 90% chose major cities as practice locations.<sup>161</sup> According to another study, female medical students face challenges from the society as well as the family. After marriage, their husbands and in-laws expect them to prioritize their families over their career.<sup>20</sup> These clearly reveal motivation level of qualified doctors having postings in remote areas. It is high time the authorities act pragmatically on policies

to create female-friendly workplaces everywhere. Doctors and nurses are usually demotivated by poor working conditions, unfair treatment, and lack of career progression; private and unqualified practitioners sought to please patients instead of giving medically appropriate care. However, attractive facilities might lure senior health professionals to cities and towns other than Dhaka. A robust surveillance is necessary for assessing the public health situation in Bangladesh and prompt notification of public health emergency. The relevant policymakers do need to look into the issue seriously if they are really interested to stop outflow of funds on account of medical treatment abroad and ensure proper health treatment in

homeland. Foreign pharmaceutical companies (MNCs) like Organon, Sanofi, GlaxoSmithKline, Pfizer, SK+F, ICI plc, Rhone-Poulenc Rorer, Ciba-Geigy have closed their operation in this country, as they found the market here 'not sustainable', created a vacancy in quality drug supply for sure.<sup>162-164</sup> A revolution needs more than improvements and upgrades.

## Recommendations

At less than 1% of GDP, government health spending in Bangladesh is among the lowest in the world.<sup>64</sup> WHO recommends allocating at least 5% of a country's GDP and 15% of the total budget for the health sector.<sup>165</sup> Government should spend additional resources directly on government doctors, drugs, hospitals and health centers and also increase the allocation in education to ensure quality by recruiting qualified teachers, retaining them by providing incentives and ensuring better infrastructural facilities and resources. Training of doctors/ nurses and paramedics is a sine quo non for improving both preventive and therapeutic care.<sup>166</sup> So, arrangements should be made to train round-the-year two categories of health staff-doctors and nurses belonging to first category to receive training in healthcare management/ administration and the second category comprising of village doctors and SSC/HSC passed young men/women to receive training in preventive and primary therapeutic care in their respective Thana Health Complex and be designated as village health worker (VHW) to work in their own village. Some of the women will receive training in midwifery and be designated as birth attendant. The training of doctors/nurses should focus on patient-safety and patient-centered-care, in which healthcare is conceived of as a partnership between patients and health professionals. Doctors will be motivated to obtain feedback from patients about their experience. Hospital administration should lay down protocols for all procedures and surgeries and standardize treatments. Nurses will be trained to affix in every ward check lists, like hand-washing/alcohol rubs, use sanitized gowns and gloves and stress on cleanliness. VHWs and Birth Attendants educate patients and their families, among other things, on how to maintain good health, nutrition level and maintain families' health record. Nurses can be relieved of extra duties by appointing ward clerks. Building on further institutional capacity would be the next step in the way to improving healthcare. National Health Council (NHC), which is to be headed by the Prime Minister, can provide policy directions, and evaluate overall progress in healthcare. The government can constitute a National Accreditation Council with the health minister at the helm and make accreditation a mandatory requirement for all hospitals, and other healthcare providers maintain a minimum standard. Hospital, community and clinical pharmacy in Bangladesh have not been well developed due to lack of government policy.<sup>167,168</sup> Pharmacy is taught in

about 100 public and private universities in Bangladesh and about 8000 pharmacy students graduate every year.<sup>169</sup> They can be more beneficial to the public if the good hospital and community practices are introduced properly. Interprofessional Education (IPE) is essential to improve quality of care, competent and coordinated health care delivery.<sup>170</sup> This is also important in strengthening medication reconciliation and interprofessional medication reviews (IMRs). Among chronic disease patients, particularly those under quarantine, there is a greater challenge in the supply of drugs and compliance with medications, although the safety and effectiveness of care is still critical for these patients. Home care is especially important in these situations because hospitals are not seemingly safe during pandemic outbreaks. Telemedicine and telehealth technologies are especially effective during epidemic outbreaks, when health authorities recommend implementing social distance systems. Unnecessary diagnostic tests and caesarean sections are also common and impose a substantial economic burden on the poor.<sup>55,171,172</sup> Health providers should impose litigation and special guidelines in the health policy to manage potentially life-threatening complications in both women and newborns. A patient and family advisory council can be constituted for all hospitals, which will take care of patients' concerns including unnecessary diagnostic tests and procedures and coordinate with management board of hospitals.

## Abbreviations

DGDA-Directorate General of Drug Administration  
 HER-Electronic Health Record  
 IPE-Interprofessional Education  
 VHW-Village Health Worker  
 MDG 5-Millennium Development Goal 5  
 MNCs-Multinational Companies  
 OOP-Out-Of-Pocket

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