# Provision of Health and Dental Care in Two Middle Income Asian Countries

İki Orta Gelirli Asya Ülkesinde (Malezya ve Bangladeş) Tıbbi ve

Diş Sağlığı hizmetleri Sunumu

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#### Abstract

The purpose of this research paper is to present an overview of medical and dental care in two middle income countries: Malaysia (upper middle-income) and Bangladesh (lower middle-income). Malaysia is one country located in the South-East Asian region, consist of three territories and thirteen states which practices parliamentary democracy where the Prime Minister leads the government along with a constitutional monarch. Whereas, Bangladesh is sited at South Asian region situated by the scintillating Bay of Bengal and have both the President and Prime Minister to lead its unitary parliamentary republic. Both country has Islam as their official religion, and it is predominantly a secular country where the multicultural society lives harmoniculty and free to practice their belief. This paper allow comparisons of health system which employ major influence on the public and on policy makers to promote accountability. The first part of the research paper will focus on the socio-demographic profile of both countries; this including organisation and governance of health system across countries while the second part will appraise and compare financial support, health manpower and delivery concerning universal coverage of health services. Finally, summary of abovernentioned discussed issues.

Keywords healthcare systems; Malaysia; Bangladesh medical; and dental

#### Özet

Objective: Bu araştırma çalışmasının amacı, iki orta gelirli ülkenin(Malezya-üst orta gelirli ve Bangladeş-alt orta gelirli) sağlık ve diş bakımı ile ilgili hizmetlere genel bir bakış sunmaktır. Malezya, Güneydoğu Asya bölgesinde üç bölge ve on üç eyaletten oluşan bir ülkedir, Başbakan'ın hikkimeti anayasal bir hikkimdarla birlikte yönettiği parlamenter demokrasiyi uygulamaktadır. Oysa Bangladeş, Bengal Körtezi'nin yer aldığı Güney Asya bölgesinde bulunur ve hem Cumhurbaşkanı hem de Başbakan'ı üniter meclise ilderlik ettiği bir cumhuriyeti le yönetilmektedir. Her iki ülkenin de resmi dinlen islam'dır ve çok kültürlü toplumlarda tüm inançlanı özgür bir şekilde yaşandığı uyumlu ve laik bir sisteme sahiptirler. Bu makale, hesap verebilirliği teşvik etmek için halk üzerinde ve politika yapıcılan üzerinde büyük etkisi olan sağlık sisteminin karşılaştırılmasını hedeflemiştir. Araştırma makalesinin ilk kısım, her iki ülkenin soşyo-demografik profiline odaklarımış olup burada ülkeler arasında sağlık hizmetleri sistemlerinin örgütlenmesi ve yönetilmesi irdelenirken, ikinci kısımda sağlık hizmetlerinin verensel kapsamı ile ilgili mali desteği, sağlık insan gücünü ve dağıtırımı değerlendirecek ve karşılaştırıcaktır. Son kısında da tüm bu konulanı topluca bir karşılaştırması yaplıcaktır.

Anahtar Sağlık sistemleri, Malezya, Bangladeş, tıbbi hizmetler, diş sağlığı hizmetleri.

#### Kelimeler

### Introduction

#### **Socio-Demographic Profile**



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MUSA, HASSAN, RAHMAN, JEENIA Provision of Health and Dental Care in Two Middle Income Asian Countries Malaysia is located in the South-East Asian region, situated in two different geographical areas: Peninsular Malaysia and East Malaysia<sup>1,2</sup>. The country is a federation of three territories and thirteen states which practices parliamentary democracy where the Prime Minister leads the government along with a constitutional monarch. It is an upper middle-income country that enjoys political and economic stability. While Islam is the official religion of the country, it is predominantly a secular country where the multicultural society lives harmoniously. Whereas, The People's Republic of Bangladesh (Bangladesh) is a republic country with a non-executive President in which the executive power is with the Prime Minister, who heads a council of ministers or cabinet, to lead its unitary parliamentary republic <sup>3</sup>. Bangladesh is a South Asian country situated by the scintillating Bay of Bengal <sup>4</sup>. Bangladesh is a perfect example of secular country and freedom of religion. This is proven by its constitution which comprises almost 88.4% majority Islam, 9.5% Hinduism, 0.3% Buddhism and 0.2% Christianity <sup>5</sup>.

Moreover, country of Bangladesh has a dense population around 163 million, despite having a small area of land, which is only 147570 square kilometres<sup>4,6</sup>. Aside than securing the title of twelfth most densely populated in the world and 8th most populous in South Asia region, Bangladesh is now bearing an additional burden of 725,000 Rohingya refugees<sup>7-9</sup>. While in Malaysia, the estimated population in Malaysia in 2017, is 31.2 million only or one in fifth of the total number of Bangladeshis; with had an average annual growth rate of two per cent for the time period of 2000-2010<sup>10</sup>.

On the other hand, both countries is ageing and the volume of senior citizens will increase, with dominant for Malaysian population despite the statistics indicate only 5.6% of the population are aged 65 years and above 10, compared to Bangladeshi with 1.8% reported in 2016 <sup>11</sup>. This mimics the ageing population trend experienced by many other countries<sup>12-14</sup>. In recent years, the life expectancy at birth for both countries are also improving <sup>5,15</sup>.

#### Organisation and Governance of Medical and Dental Healthcare Systems

Malaysia has fostered various collaborations and partnerships with international associations, such as the World Health Organization (WHO), Association of Southeast Asian Nations (ASEAN) and others in its effort to improve general health<sup>16,17</sup>. Consequently, the country has benefited from a well-developed health care system, a better access to clean water and sanitation, non-communicable diseases now account for most mortality and morbidity while communicable diseases still remain a concern <sup>18</sup>. Similarly, following various collaboration and partnership of Bangladesh government with the non-government organizations (NGO) such as WHO, United Nations International Children's Emergency Fund (UNICEF), and United States Agency for International Development (USAID); has made remarkable progress in many ways in order to achieve and advance the sustainable general health among the people of Bangladesh <sup>5</sup>.

The Malaysian health care system can be categorised into two sectors; tax-funded and governmentrun universal services and a fast-growing private sector <sup>18</sup>. The public sector health services are organized under a civil service structure and are centrally administered by the Ministry of Health (MOH). Every health care professional in Malaysia is under regulation to be registered under certified statutory bodies <sup>19</sup>. The MOH plans and regulated most public sector health services but so far exerts little regulatory power over the private sector. The fast-growing private services nevertheless mainly located in urban areas <sup>19, 20</sup>. Moreover, MOH constantly supervises the expansion of health facilities and promotional activities and these are strengthened by a trade liberalisation policy recently introduced in the country, that is believed to increase population health awareness<sup>21,22</sup>, which then may improve their level of service uptake <sup>21</sup>. The recent implementation of policy that allows freedom movement of foreign specialists, including dentistry into the country is believed to may increase their volume.

As for Bangladesh, the health care system was mainly focused on curative services, especially to women, child and newborn babies <sup>5,23</sup>. After few decades later, the view has been shifted generally with its emphasis equally on health promotion and preventative services<sup>23,24</sup>. Bangladesh has a well-structured health system with three pyramids of primary health care - Upazila Health Complexes (UHC) at the upazila level; Union Health and Family Welfare Centers (UHFWC), Union Subcenter and Rural Health Center at the union (collection of few villages) level and Community Clinics (CC) at the village level <sup>5,25</sup>. These are subsidized by the district hospitals providing secondary level care. The secondary level care is also provided by General Hospitals, Medical College Hospitals, Nursing Institute; and a number of specialized hospitals such as Tuberculosis and Leprosy Hospital. For the tertiary level care, it is provided by a number of specialized institutes of various entities in divisional and national level. Therefore in a nutshell, the health system of Bangladesh is based on sound principles encompassing an entire spectrum of services and care - from health education to treatment, care and rehabilitation<sup>24, 26</sup>. In short, Bangladesh has a solid infrastructure for delivering primary health care services<sup>25</sup>. The entire health sector is under control of the Ministry of Health and Family Welfare (MOHFW)<sup>25</sup>. In order to ensure proper supervision, organization and monitoring, the government has intersected the Ministry into two divisions- the Health Service Division; and Medical Education plus Family Welfare Division<sup>25</sup>. Governance in the Bangladesh health system exists as a pluralistic one. There is at least four stakeholders performing their respective roles and working in various competitive and collaborative unification. Firstly, the government sector. This sector is pledged for not only setting policy and to regulate, but also to implement comprehensive health services. Secondly, the private sector. This is a large sector which comprises different private institutions. Thirdly, the vibrant and large non-government organization (NGO) sector. This sector, focuses on resource allocation for meeting the health needs of the poor, often as part of a broad array of development interventions. Fourth, is the donor community. In the government sector, dental services extends up to upazila level where primary health care can be accessed. On the other hand, private sector plays a crucial role at all levels<sup>27</sup>.

Meanwhile, for dental health, besides the MOH, dental care and services are provided by statutory bodies and local authorities that including private dental clinic, dental schools regulated by the Ministry of Higher Education (MOHE) and the Ministry of Defence (MINDEF)<sup>28</sup>. Basically, there is a network of health clinics which provide primary healthcare to the local community; and there is a referral system from primary to secondary or tertiary care across district and urban hospitals<sup>29</sup>. As for Bangladesh, dental services extends up to upazila level where primary health care can be accessed by means of abovementioned levels; along with crucial contribution of private sector plays at all levels<sup>24</sup>. Referral system has been the integral part in Bangladesh health care delivery



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MUSA, HASSAN, RAHMAN, JEENIA Provision of Health and Dental Care in Two Middle Income Asian Countries system. The patient can be referred from community clinic to district level hospital or national level specialized hospital<sup>5</sup>.

### Financing

Malaysia's public health system is financed mainly through general revenue and taxation collected by the federal government, while the private sector is funded through private health insurance and out of pocket payments from consumers<sup>30</sup>. The spending on health [at 4.4% of gross domestic product (GDP) in 2013] remains below the average for upper middle-income countries <sup>31</sup>. Future studies predict the similar expenditure until 2030, which will amount to 4.4% of the GDP <sup>30</sup>.

On the counterpart, Bangladesh has attained drastic advancement in GDP with higher per capita income. Health financing in Bangladesh is principally tax-based, along with the financing from development partners. The Total Health Expenditure (THE) is about 3.4% of GDP, from which the government contribution is nearly one third of it <sup>32</sup>. Over the last few years, per capita GDP has raised from 1,236 US \$ in 2014-2015 to 1,677 US \$ in 2017-2018 <sup>33</sup>. Aside than that, the larger private sector includes private hospitals; clinics as well as private chambers are consummating the out of pocket expenditures. Furthermore, Bangladesh is about to attain the middle income country status recently <sup>34</sup>. Therefore, Bangladesh is eligible for crossing over from the status of least developed country (LDC) to a developing country <sup>35</sup>.

Health insurance acts as a mechanism for financing health care, however has not yet been used significantly in both countries especially for Bangladesh<sup>23,24</sup>. The fees for dental treatment are reasonable and cheap at the public dental hospitals. In contrast, the fees are slightly expensive at the private dental hospitals. Since the fees are cheaper at the public dental hospitals, it attracts more patients coming in and demands long waiting schedule <sup>24,36,37</sup>. Manpower shortage and limited facilities at the public dental clinics and hospitals worsening the long waiting issue; similar case for Malaysia <sup>24, 38</sup>.

In this light, the Malaysia government constantly provides given a relatively low allocation for the MOH in the national budget for over 40 years since the 1970s <sup>28</sup>. On the other hand, Malaysia has also no dental health insurance systems, and adult and elderly groups who choose private dental care in need to pay using their own money. Furthermore, only a limited number of private organisations (employers) provide dental insurance that provides subsidises dental care as part of their employee benefit <sup>28, 30</sup>. This suggests that there is some limitation for dental care due to financial costs.

These schemes are essentially complementary, covering the costs of user charges and additional payments required in public facilities or user charges in private facilities. Hence, these health insurances often termed as health allowance that included within the salary. The inadequacy of government spending on oral healthcare has caused concern regarding the government's ability to meet the increasing needs of the population <sup>37, 39-41</sup>. This pattern of spending is currently being debated for financing options, including the establishment of a social health insurance scheme for both health and dental across countries.

#### Health Facilities and Manpower: Medical and Dental

The number of private and public primary care and dental clinics has increased, along with the number of hospital beds <sup>42-44</sup>. Meanwhile, the supply of health professionals has increased over the years, as the result of the government's effort to increase medical training facilities, although its number is still below the required number. In this light, registered nurses including community and dental nurses are the largest group of health professionals where a larger number of doctors working in the public sector mostly in hospitals, compared to the private sector in 2016 <sup>44</sup>. Meanwhile, the employment of dental nurses (therapists) is restricted to the public sector under the Dental Act 1971 and they mostly deliver oral health care to schoolchildren under the supervision of dentists <sup>45</sup>. The current dental workforce in Malaysia comprises dental health professionals, namely general dentists and specialists, and dental auxiliaries. The dental auxiliaries, known as Dental Care Professionals (DCPs) in the United Kingdom (UK), consist of Malaysian dental nurses, dental technicians and dental surgery assistants (DSAs) <sup>28</sup>. In Malaysia, both the dental health professionals and the dental nurses are operating clinicians, and their job scopes are varied, based on the age groups of the patients and the complexity of dental treatment <sup>31</sup>.

Bangladesh has an extensive public sector health infrastructure spanning the country. These infrastructures consist of primary, secondary and tertiary health care facilities. Secondary and tertiary facilities are more advanced than the primary healthcare facilities. Among countries that provide free medical services at the community level through various public health facilities, Bangladesh has a top-ranking position in this regard <sup>23</sup>. Rapid influx of migrants and increased numbers of people living in urban slums in large cities are creating continuous pressure on urban health care service delivery. In order to ameliorate this situation, Government of Bangladesh has increased the number of public and private hospitals, including hospital beds and dental clinics. However, the total number of public hospitals under Directorate General of Health Services (DGHS) is 607, which are still inadequate <sup>25</sup>. The Bangladesh dental health workforce is characterized by "shortage, skill mix and inequitable distribution". The size of the professional health workforce is increasing over time, but not according to requirements. The formal health workforce (doctors, dentists, nurses) is mostly concentrated in the urban areas, with variation among the different regions. At present, there are 8130 registered dental surgeons (Bachelor of Dental Surgery or Equivalent) and 85633 registered physicians (Bachelor of Medicine, Bachelor of Surgery or equivalent) 5. Retention and absenteeism of health workers are two major problems in rural areas. Dental services provided by both public and private sectors, are concentrated in urban areas. The positions for dental surgeons are available at upazila level but most of the positions remain vacant. Furthermore, it is difficult to retain dental practitioners in rural areas. Meanwhile, dental auxiliaries who are referred as "dental technologists" in Bangladesh, are registered by Bangladesh Medical & Dental Council (BM&DC). The number of registered dental technologists till 2002 were 1886 46. Recently, based on DGHS health and education survey, this figure has upraised into 11216 (Health Bulletin, 2017).

#### **Provision of Services**

Malaysians of all age groups are eligible to receive publicly-funded health services; however, the range of available services differs across area, and is limited in certain aspects. The national health policies is mainly stress on public health and health promotion<sup>19</sup>. In the meantime, public primary care services are under considerable strain with staff shortages and patients often encounter long waits. Hospital policy currently has two main thrusts: strengthening speciality care in large hospi-



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MUSA, HASSAN, RAHMAN, JEENIA Provision of Health and Dental Care in Two Middle Income Asian Countries tals; and increasing the number of ambulatory centres <sup>18</sup>. In dentistry, the adults and the elderly enjoy highly subsidised treatments for tooth fillings, extractions, low-cost dentures and emergency treatments. However, such treatments are available only on an appointment basis and there are limited slots available with a long waiting list to obtain such services, suggesting a low uptake rate for dental service. Meanwhile, schoolchildren up to age 17 enjoy dental treatment provided by dental therapists under the school dental programme, which offers totally free dental checkups and treatments based on their parents' consent <sup>28, 47, 48</sup>.

Health services in Bangladesh are delivered by both the public and private sectors. Ministry of Health and Family Welfare is the main agency providing public health services, including health promotion and preventive services. The Government of Bangladesh is constitutionally committed to "supply the basic medical requirements to all segments of the people in the society" and the "improvement of the nutritional and the public health status of the people" <sup>26</sup>. Primary and ambulatory care is delivered through the public network of facilities, particularly through the community-based health care programme delivered by the community clinics <sup>24</sup>. In urban areas, patients tend to attend the outpatient units of the major urban hospitals for ambulatory care. Secondary and inpatient care is provided through public facilities at upazila, district, medical college and specialist urban hospitals, as well as private hospitals, mainly in urban areas.

#### Summary

As the country approaches developing or developed nation status, both countries has set an extraordinary example of gaining good health at a very low cost and has aimed to be role model for other neighbourhood countries in the region. Yet, it has been going through a transition period where the health system has been facing enormous challenges in catering to the health needs of more people along with sudden and massive influx of refugees such a case for Bangladesh government. Moreover, the advent of new technology expands the possibilities for intervention as the demand for health care by the population continues to rise and will heighten expectations for more high quality of health care. Both government will need to address the growing concerns of health profession and public to successfully deliver equity and efficiency of health services, both medical and dentistry through check-balance of policy-political influences in such of financial constraints for a better health reform for the future.

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