

Bhutanese Health and the Health Care System: Past, Present, and Future

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Introduction

It can be argued that the modernisation of Bhutan started in 1961 when the first five-year plan was rolled out. However, development of the health system we know today started long before that. The first agents of change that brought western (allopathic) medicine to Bhutan were British medical doctors who accompanied the British political mission that visited Bhutan between long intervals from the late 17th century until India gained independence. The first Bhutanese who was trained as a fully graduated doctor returned to Bhutan in 1954 and the first hospital was established in 1956 (Dorji and Melgaard, 2012).

Guided by wise leaders and spurred by a growing number of dedicated health workers, Bhutan has a functioning health system built on the Primary Health Care Strategy (PHC) that reaches all corners of the country.

The Health of the Bhutanese—Then and Now

The road to modern health care in Bhutan began in 1961 with two hospitals, two doctors, and two nurses (Tobgay et al., 2011), coinciding with the first five year developmental Plan (1961-1966). Since then, Bhutan has witnessed significant progress in the health and wellbeing of the population. All health-related indicators improved and Bhutan achieved most of the Millennium Development Goals (MDGs) in 2015.

As the country progressed, both in terms of economy and social markers, there has been a shift in the disease trends as well. While there is decline in most vaccine-preventable diseases with some diseases, such as polio, eliminated or eradicated, there are new infectious diseases appearing, such as HIV, dengue fever and Multi-Drug Resistant TB (MDR-TB).

The HIV/AIDS cases have increased from 2 in 1993 to 432 in 2015, with an unknown number of undetected cases. The expansion of socioeconomic activities

and the casual attitude of Bhutanese people towards sex are some of the challenges in the battle against this disease.

Along with the global community, Bhutan is gearing towards eliminating TB by 2035. However, the biggest challenge is an increasing number of MDR-TB and TB-HIV co-infections that can undermine current achievements in prevention and control.

The spectacular decline in malaria cases has been accompanied by significant reductions in the mortality from malaria, with only one death in 2013 compared with 15 in 2000 and 63 in 1993. This is a major achievement and the challenge is to sustain this remarkable progress towards malaria elimination.

Simultaneously, with the improved control of infectious diseases, Bhutan is confronted with a rising trend of non-communicable diseases. This epidemiological change—the so-called double burden—demands a shift in the overall structures of the health and health care services and focus as highlighted below.

Non-Communicable Diseases (NCDs) are gaining prominence with the change in lifestyle, dietary habits, global marketing of unhealthy products, ageing population and consumption of alcohol and tobacco. Consequently, diabetes, hypertension, cancers and traffic injuries are on the rise as shown in Figure 1 (Sharma et al., 2014). NCDs cause the highest proportion of deaths for all age groups and account for 53 percent of all deaths (RGOB, 2015). NCDs have today become Bhutan's biggest health challenge.

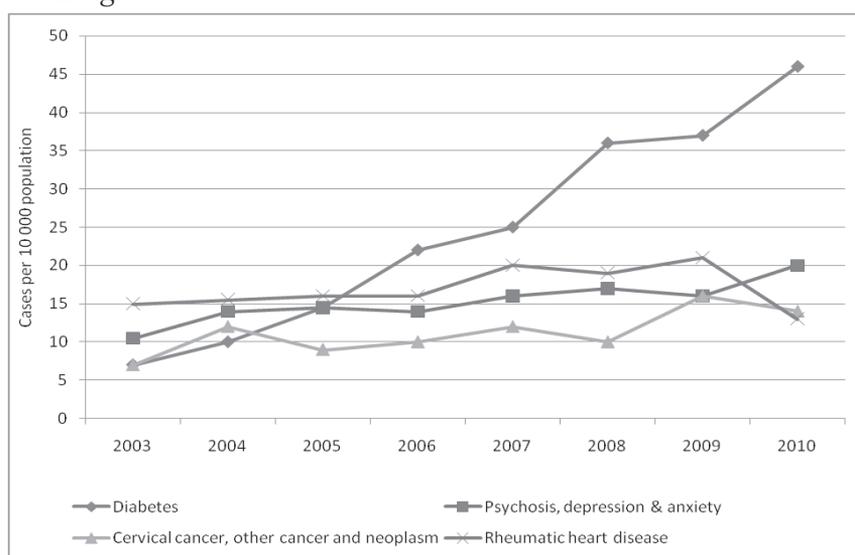


Figure 1: Selected Non communicable diseases in health facilities, 2006–2010 (Source: Sharma et al., 2014)

A 2014 NCD STEPS survey revealed that 33 percent of the population is overweight, 42.4 percent of the population consumes alcohol and Bhutanese consume 9 grams of salt a day, almost double the WHO recommended limit of 5 grams. The total number of cancer cases (all types) has been steadily increasing over the years. Rising road traffic accidents and occupational safety are also emerging concerns.

In contrast, the result from the National Nutrition Survey 2015 shows that stunting has dropped to 21.2 percent from 33.5 percent in 2010, but regional disparities remain with a persistently elevated 29.1 percent prevalence rate in the eastern region followed by 18.5 percent and 16.2 percent in the central and western region respectively. Further, it also shows that the stunting rate is higher in rural areas (26.1 percent) than in urban areas (16 percent). The rate of exclusive breastfeeding stands at 51.4 percent, while only 11.7 percent of children in Bhutan consume the minimum acceptable diet.

Other culturally related health determinants included in the Gross National Happiness (GNH) survey of 2010 were consumption of alcohol and chewing of *doma* (Choden, Tobgay & Ugyen, 2013). Consumption of alcohol and *doma* are part of the culture and are served during most ceremonies and rituals. The incidence of Alcohol Liver Diseases (ALD) in the country is increasing (Ministry of Health, 2016) and ALD is likely to become one of the main contributors to the total disease burden in the country. The burden of alcohol abuse goes beyond health care costs, to productivity loss and implications to the wider Bhutanese economy and society. Approximately 7 percent of road traffic accidents in Bhutan were attributed to drink driving (Road Safety and Transport Authority, 2011).

The Multi-Sectoral National Action Plan for the prevention and control of NCDs 2015-2020 was approved by the Parliament in 2015. While earlier initiatives for the prevention and control of NCDs were limited to health sector responses, this Action Plan is designed to address the growing incidences of NCDs in an integrated approach by relevant stakeholders and focusing on major modifiable risk factors and their determinants. Earlier, Bhutan had taken courageous steps to curb the misuse of one of the giant killers related to human health: tobacco. Tobacco sales and advertisements have been banned. Smoking in public places is prohibited.

Among other initiatives to control NCDs, the Health Ministry established diabetes clinics in all hospitals for timely screening of diabetes and these clinics are now converted to NCD clinics. To encourage people to participate in physical activities, outdoor gyms have been established in various locations in all 20 districts and 4

thromdes. The Village Health Workers network of volunteers at the village level is expected to serve as an important link between the health system and population in managing diseases and mobilising the community for health improvement.

With the objective to promote healthy lifestyles and behaviour change to avert diseases, the Health Ministry has implemented active community outreach, NCD prevention in 5 districts, and also developed a National Salt Reduction Strategy. In line with the global action plan on NCD, Bhutan has developed the National Action-Plan and piloted the WHO Package of Essential NCDs (PEN) in Paro and Bumthang. After the cost analysis in the two pilot districts, the WHO Package of Essential NCDs has now been rolled out in all 20 *dzongkhags*.

The Quest for Equity in Health and Health Infrastructure

The Modern Health System

Bhutan has strived for the equitable distribution of health and health care by providing free health care services to the people through the wide network of health facilities. Health care is delivered through a three-tiered health care service delivery system with a major thrust in the preventive and primary health care services.

At the community level, health care services are delivered through Basic Health Units (BHUs), Out-Reach Clinics (ORCs) and Sub posts. Most of the district hospitals are 20-bedded and have facilities for basic diagnostic tests including X-ray. In some districts, BHU grade I functions as a district hospital. The Health Ministry aims to deploy at least 3 doctors in every hospital. There are two regional referral hospitals located at Mongar in the east and Gelephu in the central region. Jigme Dorji Wangchuck National Referral Hospital is the apex hospital in the country and has 350 beds. The Hospital offers specialist services and also super-specialist services in some disciplines.

The overarching goal of the 11th Five Year Plan (2013–2018) is to achieve “Universal health coverage (UHC) by focusing on providing improved and equitable access to quality health care services”. This goal is well supported by the primary health care approach practiced in Bhutan.

To advance UHC, population coverage, service availability and financial protection are important dimensions of measurement identified by WHO (Sharma, Zangpo & Grundy, 2014). The recent study (Sharma et al., 2014) shows that inequalities remain. Fig. 2 illustrates the disparities in infant mortality according to wealth. This may partly

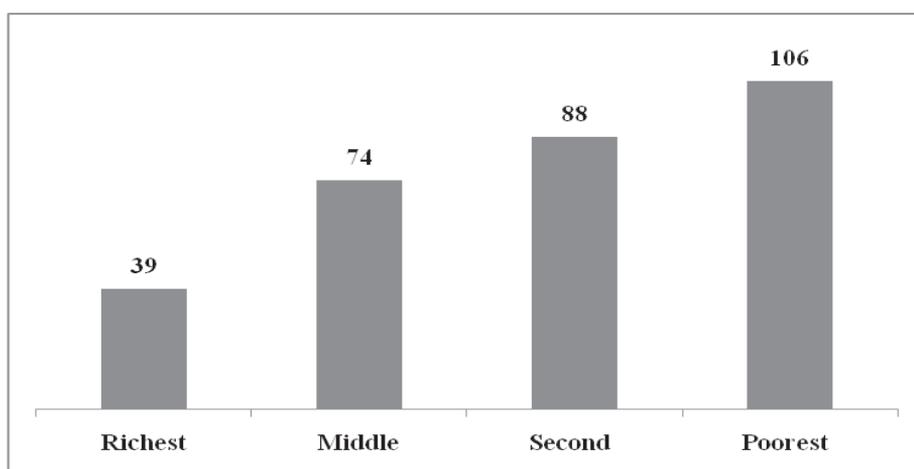


Figure 2: Mortality rates per 1000 live births of infants and children under 5 by wealth quintile.
Source: Sharma et al., 2014

be due to differences in utilisation of modern health facilities – e.g. some groups of people prefer other local healers than those provided by the modern health system.

The Bhutan Living Standard survey 2012 shows that despite free health care, there are wide disparities in access to health care in the country, mainly due to the demand factor and possibly out-of-pocket expenditure. On the supply side, there is equal opportunity to access health for all the citizens in terms of universal coverage. The problem is to increase utilisation of health services by the people from remote areas as remoteness and lack of awareness of the availability of services affects demand for the health services.

Households spend out-of-pocket primarily on transportation and purchasing medicines. Transportation costs are attributed to geographical terrain and isolated areas. The socioeconomic disparities also affect health status. Poor people have poorer health because of low income, unhealthy behaviours such as smoking, inadequate diet, lack of exercise and/or hazardous working conditions (Turrell & Kavanagh, 2004).

According to the Poverty Analysis Report 2012, the incidence of poverty in Bhutan is around 12 percent and it is mainly a rural phenomenon. Anecdotal sources say that poor people in Bhutan use fewer specialised services, whereas rich people use more specialised services as they have easy access to the free services due to their socioeconomic status.

Bhutanese Traditional Medicine

Bhutanese traditional medicine (BTM) has a unique status in the country. With its

origin from Tibetan traditional medicine, BTM has evolved to become a countrywide system known as *gSoba Rigpa* (Lhamo & Nebel, 2011) that promotes the health and economy of the nation (Wangchuk & Tobgay, 2015). The institution of BTM was formalized through a Royal Decree issued in 1967 that mandates the need for strengthening BTM (Dorji & Melgaard, 2012).

Allopathic and traditional medicines are integrated into the national health system and housed under one roof to maximise public health care services. Today, there are 54 traditional medicine units attached to district hospitals and BHUs in the country (Ministry of Health, 2016). The National Traditional Medicine Hospital in Thimphu is not only responsible for tertiary healthcare services but also serves as a referral center for all the district traditional medicine units in the country.

Bhutanese culture and traditional practices are influenced by Buddhism, which also forms the basis for different traditional healing practices, spiritual rituals and beliefs. In the traditional medicines, health and spirituality are seen as inseparable aspects and together they reveal the true origin of any illness. To address psychological wellbeing, which is one of the GNH domains, traditional medical services and mental health services are being offered by both allopathic and traditional medicine as a holistic approach to health and wellbeing.

Gross National Happiness and Health

Health is an integral part of happiness in Bhutan. The two out of nine GNH domains that are directly related to health are Health and Psychological Wellbeing, although

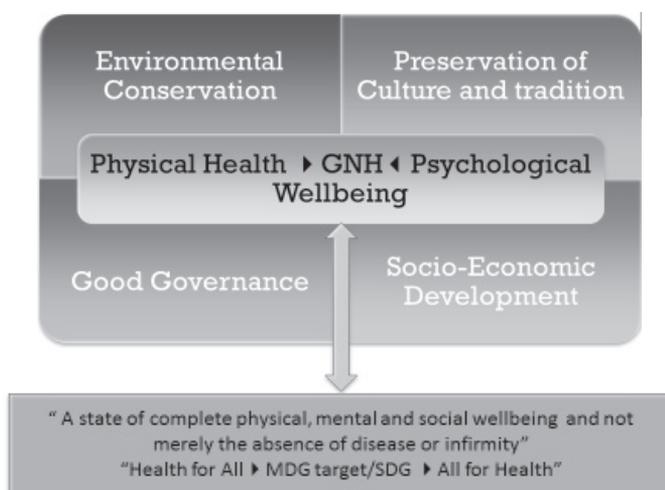


Figure 3: The philosophical model of GNH encompassing the two health domains

many other domains also have indirect links to health. As indicated in the following conceptual model, the model of GNH which Bhutan has espoused as the guiding developmental policy addresses the health goals and beyond. The approach adopted by Bhutan conforms with and goes beyond the international definition of health as the state of complete physical and mental health and not merely the absence of disease or infirmity.

It will not be possible to improve GNH if many Bhutanese lack access to high quality health care as ill health can contribute to losses in individual utility and social welfare.

Social Determinants of Health

The health of the population is shaped by a broad range of societal, environmental, economic, cultural and political factors that are outside the remit of the health sector. Determinants that have influenced the health status in Bhutan negatively over the recent decades include an increasingly sedentary lifestyle as urbanisation gains ground, nutritional habits leading to obesity, social insecurity as migration to the cities increases, and alcohol abuse.

By 2020, it is projected that more than 50 percent of the population in Bhutan will be living in urban areas. Urbanisation leads to overcrowding, sanitation issues and deterioration of air and water quality, thereby adversely impacting health. Many people migrate to the cities in search of jobs and education, leading to rapid growth of the urban population in the recent years.

This is giving rise to epidemiological and demographic transitions, with the ageing of the population and the rise of NCDs (Sharma, Zangpo & Grundy, 2014). Most of the city dwellers lack physical exercise and their consumption of high density and high calorie processed foods has increased the rates of overweight and obesity.

Rapid urbanisation and modernisation have increased deaths from road accidents, and the incidence of mental disorders, substance abuse, suicides and violence are also increasing (RGOB, 2015). Traditional safety nets provided by extended families in rural areas are fast diminishing in urban areas as families become nuclear and depend entirely upon market forces of supply and demand. These trends may result in increased stress, anxiety and suicide cases.

The Health Sector has developed a range of strategic plans to tackle these

determinants along with relevant stakeholders: They include among others:

- Suicide Prevention in Bhutan-A Three Year Action Plan (July 2015-June 2018)
- The National Policy and Strategic Framework to Reduce Harmful Use of Alcohol 2015-2020
- The National Health Promotion Action Plan
- The Community Based Elderly Care Program
- Comprehensive School Health Programme Action Plan and Strategy
- Bhutan Mental Health Strategy and Action Plan (2015-2023)
- Alcohol Harm Reduction Policy and Strategy

These are good initiatives but the challenges are to implement these plans so that they will have the desired impact on the population's lifestyles and consequently improve the health of the people.

Drug and Alcohol Abuse, Mental Health and Suicide

With modernisation, a major challenge for the country is the growing problem of drug and alcohol abuse, especially among our youth. A study published in Lancet shows that alcohol ranks highest among all other drugs in terms of overall harm that it causes to the individual and society (Nutt et al., 2010). This conforms to the Bhutanese saying that "*alcohol is the root cause of all evil deeds.*" However, adequate attention is not provided in terms of addressing this societal menace. The Ministry of Health has established alcohol detoxification services in all hospitals with community-based alcohol projects in three districts. But there is a long way to go before a significant impact on the alcohol abuse problem can be achieved.

Mental health issues are increasing and the number of suicide cases is increasing among the Bhutanese population, especially among youth. There have also been an increasing number of cases of substance use disorders in hospitals around the country. In 2015, there were a total of 1,442 cases of mental and behaviour disorder due to alcohol across various health facilities, excluding the National Referral Hospital (Ministry of Health, 2016). The high prevalence of substance use disorders indicates that mental health consequences will loom large in the overall mental health morbidity for many years to come (Pelzang, 2012).

One of the many challenges in providing quality mental health care in Bhutan is the superstitious belief that mental illness is caused by black magic, evil spirits, witchcraft, or the *karma* of previous lives (Pelzang, 2012). As a result, most people resort to

alternative healing practices such as religious and faith healing when someone is sick mentally. The ideal mental health care system will have to be community oriented but, in Bhutan, due to a lack of trained health workers at the primary health care level, patients have been treated mainly in the district and referral hospitals in the past few years (Ministry of Health, 2006).

With the commitment to address suicide prevention as a top social priority, the Government has approved the nation's first comprehensive National Suicide Prevention Plan in 2015. The plan addresses universal prevention, targeting the general population through mass media and social mobilisation, and providing specific services for individuals at high risk of suicide and those affected by suicide. The plan also offers the most practical ways of addressing suicide prevention in a short time frame and has the potential to save many lives.



Packaged food brought change in the Bhutanese diet as well as new health issues
Photo Credit: Siok Sian Pek-Dorji

Nutrition Insecurity

Bhutan's rapid urbanisation impacts its agricultural productivity as young people leave the countryside for education and jobs in the cities (Atwood et al., 2014). This has resulted in the agricultural lands being left fallow. Food shortages and chronic food insecurity are greater in the Eastern and Southern Regions, which also correlate to increased poverty in those areas (National Statistics Bureau, 2011). Inadequate dietary intake is the result of inadequate access to food. Food insecurity and a lack of dietary diversity due to poverty and education eventually lead to a decrease in the

balanced intake of nutritious food needed for normal growth.

A Situational Analysis on Nutrition in Bhutan found that the consumption of processed, packaged foods, commonly known as “junk foods”, is higher among adolescent girls and young women compared to men of the same age (Atwood et al., 2014). It also found that iron deficiency anaemia remains a major public health problem with a prevalence of 55 percent in women and 80 percent in children. There is need for targeted interventions to address these challenges.

Modernisation, Globalisation and Health

The modernisation of the health system has been shaped through collaboration with a number of external actors. These include the colonial medical services in India earlier in our history, the more recent collaboration with the Swiss NGO Helvetas, and significantly, major financial and technical assistance from Denmark. Today, India is the largest external contributor to the health sector.

Bhutan became a member of the World Health Organization (WHO) in 1982. Since then WHO has been the major technical partner for the Ministry of Health, and Bhutan has usually adapted WHO recommendations and strategies for national use. As a member state of the WHO, the majority of the health policies/interventions are guided by the resolution of the governing bodies of the WHO.

The impact of development or modernisation on Bhutan in the context of health can broadly be divided into two areas: First, what has modernisation done to the health system, and second, what has modernisation done to the health of the Bhutanese?

It can be argued that it pulls in two opposite directions. The growth of the integrated health system with its impressive reach has contributed significantly to the improvement in the health status of the Bhutanese, as has been registered over the last 50 years. This trend has further been enhanced by such factors as improved water supply and sanitation and, indirectly, through better education.

However, the changes in lifestyle that accompany developing societies: sedentary life, consumption of junk food, and substance abuse has marked negative effects. This poses new challenges to the government and to the health system as this epidemiological transition is taking place.

Globalisation in the context of health is seen as Bhutan adopted global goals such as the Millennium Development Goals (MDGs) of 2015, and the Sustainable

Development Goals (SDGs) endorsed by the UN in 2015.

The 2030 Sustainable Development Agenda is of unprecedented scope and ambition, applicable to all countries, and goes well beyond the MDGs. While poverty eradication, health, education, food security, and nutrition remain priorities, the SDGs comprise a broad range of economic, social and environmental objectives and offer the prospect of more peaceful and inclusive societies. Although the SDGs will provide an international push, Bhutan has already been ascribing to the SDGs as they have much in common with the GNH goals.

Among SDGs, health is the focus of SDG3: Ensure healthy lives and promote wellbeing for all at all ages. However, there are other goals and targets related to health. Health is framed as contributor to and beneficiary of sustainable development. Achieving SDG3 will depend on the progress of other SDGs—poverty reduction, education, nutrition, gender equality, clean water and sanitation, sustainable energy, and safer cities.

Challenges to the Health System

Health Human Resources

A major challenge faced by the Ministry of Health is the shortage of human resources, especially medical doctors. Production of health human resources is an expensive and long process, particularly when there are inadequate medical training facilities in the country.

The government has recently taken major steps to accelerate the development of human resources by establishing the Khesar Gyalpo University of Medical Sciences in Bhutan (KGUMSB). The mission of the University is: to develop health human resources for the provision of sustained quality and patient-centred care through innovative, learner-centred, integrated and humanistic training curricula and research activities. The University has three faculties for 1) medicine, 2) traditional medicine and 3) nursing and public health. All basic medical education has therefore been brought together in one institution.

But while the University strives to produce the health human workforce needed in the country, there is a challenge of oversaturation of graduates. The country is already facing the paradox of human resource, with the government citing that there is a shortage of critical mass of health human workforces, but at the same time, nurses, laboratory technologists and dental surgeons are being left unemployed.

Similarly, there are about 259 students undergoing studies in medicine through government and private scholarships in the neighbouring countries of Bangladesh, India, and Sri Lanka as per the State of Tertiary Education report 2016 (Ministry of Education, 2016). Therefore, the Ministry of Health and the Royal Civil Service Commission may need to plan appropriately to absorb this exponential supply of trained health workers.

Rising Expectations for Higher Quality and More Sophisticated Health Care

The public expectation for quality health care has been increasing. This is due to the fact that many patients are referred outside the country and some seek services abroad if they can afford it at their own expense. There, they learn about the advanced state of health services in other countries.

Another contributing factor is the availability of un-validated information from the Internet with the ever-increasing literate population. This has forced the public health system to adapt to the latest medical technologies and medical procedures. Such adaptations may not necessarily be cost effective and efficient if the need for such services is small.

The Ability of the State to Fund Free Health Care

Over the years, the issue of the sustainability of providing free health care, in view of escalating health care expenditure, has been a challenge for the health sector. Some of the factors for increasing health expenditure are lifestyle related diseases including kidney failure and diabetes as well as problems such as road traffic accidents (RTA). For instance, the cost of treating a patient who is disabled after RTA would be Nu. 167,700 at referral hospitals.

There are no private hospitals in the country except for a few private pharmacies and diagnostic centres. The public health system is the sole provider of health care. Health care financing is done mainly through the general revenue of the country that includes the government's tax and non-tax revenues.

At present, free health care is provided to not just the citizens but also visitors and foreigners who reside in the country. How the health sector can effectively manage scarce healthcare resources, and ensure financial sustainability to meet its immediate and long-term objectives, is the main challenge today. Sustaining the current policy of providing free access to basic public health services and maintaining the health system performance in terms of equal access for equal need is critical. Falling budget allocations to health exacerbates this problem. Health expenditure as a percentage

of GDP declined from over 5 percent in 1999 -2000 to 3.8 percent in 2012 -2013.

The Bhutan Health Trust Fund was established in 2000 under a Royal Charter, to ensure a continued and timely supply of vaccines and essential drugs which are crucial components of Primary Health Care. The Fund has only recently been successful in reaching the desired capital and only in recent years have some of the proceeds from the fund been allocated to vaccines and drugs. The Fund started full financing of pentavalent vaccines in 2015.

The financial constraints in providing free basic health care raise the issue of cost efficiencies in the health system. Can savings be accrued in some sections of the system for the benefit of other sections? For instance, the urban drift means that rural health facilities are less utilised as the population dwindles. The potential for rationalising rural health care can be analysed to see if resources could be shifted within the health system.

Another challenge is that some people bypass the referral system by seeking care directly at second or third level hospitals. This puts strain on the facilities and increases the cost of health care, as referral care is more expensive than first level care. Indeed, one of the measures that the government can undertake to cut rising health care costs is to enforce a rigid referral system and institute a gate-keeping mechanism.

Conclusion

Bhutan has achieved remarkable progress and beckoned in the improvement of the health and wellbeing of its populace. Most MDGs are achieved and a conducive environment is set for achieving the SDGs and beyond.

However, there are new challenges that demand an overall paradigm shift in the health policy and systems, without which the country might face severe consequences. While the constitution guarantees free essential health care, the country needs to set limits and define the essential packages, a move that may not be as popular with its political leaders.

Therefore, there is a need to review the current free health care system, health care financing, and service delivery from the equity and sustainability perspective, and institute a strategic and systematic change in a progressive manner.

Success of primary health care, education, socioeconomic development, population control etc., has been outstanding by any measure. But the new challenges such as youth unemployment, NCDs (including mental disorders), alcohol and substance abuse, are more than mere health problems and they need a broader sectorial approach where all Bhutanese must play a part.

Note: With the consent of the authors, the full set of references for this article is given in the online edition at www.drukjournal.bt