Medical Education Policy 2023

Medical Education Commission
Sanothimi, Bhaktapur

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1 Background

Medical education is one of the critical components of the health system in any country. All expectations from a health system, like the quality of the health service, efficiency and resiliency, largely depend upon the medical education system. If the medical education system is weak in quality, efficiency, competency, ethics and integrity, we cannot expect an effective health service system. Thus, strengthening the medical education system is one of the first conditions of a successful health service system. While embarking upon a mission to transform medical education in Nepal, we must discuss some of the critical characteristics of medical education.

In Nepal, in the past 50 years, after the establishment of the Institute of Medicine in 1972[1] under Tribhuvan University, medical education has grown to become very complex in many senses like quality, governance, cost, financing, politics, turbulence, recognition and lots of stakeholders with multiple interest. Beginning from one university/institute and a few hundred students, there now are multiple universities and institutions and thousands of students. Thus, Nepal needs a comprehensive medical education policy to facilitate the development and consolidation of medical education of all types and levels of education as per need of the country and its people.

There has been lots of interest in improving the condition of medical education in Nepal. All stakeholders, including the state, concerned universities and institutes, faculties, students and investors are working on its improvement. As a result, many improvements have been made in the past 50 years. But still,

[1] Dixit, H. (2009). Development of medical education in Nepal. *Kathmandu University Medical Journal, 7*(1), 25, 8-10. Retrieved from http://www.kumj.com.np/issue/25/1.pdf

medical education in Nepal needs transformation. Given the fast-changing technology and innovations in medical fields, new research findings and growing aspirations of more and more people for medical education, it has to be responsive to emerging contexts. Dissatisfaction with the present system, questioning it and debating the existing situations are essential for transforming a system. Medical education in Nepal has regularly benefitted from challenges it has been receiving now and again from multiple stakeholders.

Medical education has been the center of attraction for many youths and their parents. It is good but puts lots of pressure on the system, causing a shortage of facilities and resources. In countries like Nepal availability of public funds for medical education has always been problematic. But as health service is considered one of the fundamental human rights, several national and international actors, institutions, groups and individuals are active in making this right a reality and in access to all people. Given all these, the government is also under pressure to allocate an adequate budget for medical education. Nevertheless, Nepal needs to look for alternative funding sources as the scarcity of public funds has remained an all-time phenomenon.

The scarcity of public funds gives way to individual or household and private sector investment in medical education. Household investment often goes to pay several direct, indirect and opportunity costs in acquiring medical education. Direct costs are often very high in many countries, including Nepal. An ethical concern that often arises is, after completing the course successfully, how does a student who paid the whole cost herself/himself see it? Prioritize the return on the investment or immerse in the service, putting any self-interest at the back? An

understanding of this concern is very critical. A study conducted in Kathmandu in 2009 with 469 students (girls – 39%, born in a city – 73%, household paid tuition – 83%) in four medical colleges found that 48% want to work abroad (very likely and likely) and 88% want to work in urban areas (very likely and likely)[2]. Economic orientation is evident here.

The second source of investment from the private sector has often remained in debate with the argument that health service and medical education should be wholly the state's responsibility. Instead, Nepal has allowed private sector investment in health services and medical education. Excepting philanthropy, the private sector is known to be for profit. But seeking excessive profit, even using unjust methods, could not be justified in any way. Private sector investment in medical education can be very supportive of increasing access to medical education and thus strengthen the health service in the country. But there is a risk that private medical institutes focus on profit at the cost of quality and social justice. The blame is that they charge excessive fees from students, which has often created critical problems in Nepal's medical education, leading to closure, strikes, resistance, etc.

All stakeholders of medical education, from the state to individual students, from service staff to goods suppliers or even outside members like local or national political persons, have their interests in medical education and make efforts to fulfill them. Politics in and around educational institutions are normal. The concern, however, is whether politics is for quality, efficiency and

[2] Huntington, I., Shrestha, S., Reich, G., & Hagopian. A. (2012). Career intentions of medical students in the setting of Nepal's rapidly expanding private medical education system. *Health Policy and Planning, 27*(5), 417–428. doi 10.1093/heapol/czr052

relevance of the system and to make the whole system socially accountable and inclusive or to fulfill implicit personal or group interests. Medical education in Nepal has lots of experience with such politics and conflicts. Strikes, closure of services, resistance, etc., in the medical education sector are common in Nepal. The impacts of these conflicts and resistances could be both positive and negative. At times, resistances bring many positive results. They work as a catalyst for transformation. However, the need is to remain aware of any adverse impact of explicit or implicit conflicts and politics.

As there is high economic and social attraction towards the medical profession, medical education might remain a place of inequality and injustice. Because of high cost and high competition for entry, there is a high chance that competent young aspirants from socio-economically disadvantaged communities might not get entrance to the system. Further, even if they could enter somehow, they might not be getting support to complete their study successfully. One risk is that if there is distortion in entry into medical education, there will be distortion in the composition of health professionals – dominated by urban-centric high-class groups.

The Covid-19 pandemic showed that human health is a global issue. No country – developed or developing or rich or poor – could remain isolated from its effect. The latest pandemic showed that all countries must work collaboratively to address health issues. Governments around the world worked together not only during pandemics but also during all other health issues. Naturally, then, medical education should also be a global issue. However, given the national context – differing political, sociocultural and economic contexts – medical education in any country must focus on national and local priorities. Hence, it

should synergize national and international efforts and priorities.

Medical education is unique in that there is an all-time concern of how and to what extent a medical educator can equally be a competent health professional with competency both in theory and practice and equally be the best teacher with content expertise. Likewise, we anticipate that a medical educator deals with students appropriately, understanding their psychology and competency level in the class and alongside the patient's bed. S/he is also expected to be a researcher both in clinical and non-clinical fields, depending upon the topic or the research purpose, by bringing sociocultural, economic and political perspectives into the analysis of research findings. An educator is also likely to be a good communicator who must constantly liaise with students, patients and several others. Given the fast-changing advancement in the medical sector, medical educators must be continuous learners. The health sector is sensitive because it is related to human life. There is no chance for a health professional to make even a tiny mistake, as that might have severe consequences for the patient's life. Moreover, medical ethics recommends what a health professional should and should not do. How health professionals prepare themselves given all these expectations and satisfy the medical community and the larger society is a matter of concern. Nevertheless, medical education is supposed to prepare such a person.

Nepal has made substantial efforts to develop medical education in the country. Along with the government, several other actors have substantially contributed to this process. At the same time, we need to do many things to transform medical education in Nepal. The Covid-19 pandemic has amply shown the weaknesses of our health system. During the peak time of the pandemic, our health system was largely disrupted. Yet, it did not collapse

and continued to provide health services. The country's medical education system also could not show strong resilience and has taught a good lesson on the weak areas in the system.

As one of the backbones of the country's health system, the medical education system needs to draw lessons from the experience during the pandemic. Its transformation must build upon a broad base, building on community health leadership, technology-oriented and at the same time just, efficient and sustainable. Comprehensive systemic research, careful planning, broader discourse and national commitment from all stakeholders are required, particularly from the political groups.

2 Efforts to Improve Medical Education in Nepal

Nepal's health care and medical education have followed traditional medicinal practices since ancient times. Traditional medicine is the knowledge inherited through generations of experiences, beliefs, practices and theories developed for maintaining and improving health status and preventing, diagnosing and curing any form of illness[3]. These practices are often categorized as scholarly practices (e.g., Ayurveda), folk medicines and shamanistic practices[4]. Scholarly practices are based on research, theories and principles. Its practitioners (e.g., Vaidya) are trained through a rigorous process. Folk medicines are medicine-based everyday knowledge of the people, learned through generational transfers, apprenticeship, observations and experiences. Shamanistic practices follow spiritual and faith

[3] World Health Organization. (2013). *WHO traditional medicine strategy, 2014-2023.* WHO. Retrieved from https://www.who.int/publications/i/item/9789241506096

[4] Gewali, M.B. (2008). *Aspects of traditional medicine in Nepal.* Edited by S. Awale. Institute of Natural Medicine, University of Toyama, Japan. Retrieved from http://documents.scribd.com/docs/pbaqobfv3iyua8j7pcb.pdf

healing. Most Nepalese still follow these traditional practices in one or the other way to keep their health fit and fine and to prevent and cure illness.

Nepal, however, has given little attention to developing these practices with further research, building systems and institutions and education of necessary human resources in the country. It was only in 1928 that the first Ayurveda school was established in the country[5, 6, 7]. Earlier, apart from this school, getting Ayurveda training was possible only by being an apprentice to a vaidya or self-study or going outside the country. This first Ayurveda School was converted to Ayurveda Campus in 1972 under the Institute of Medicine, Tribhuvan University and is still running.

Christian missionaries began Nepal's modern allopathic medicine system during the second half of the 17th century. Allopathic medicine was further expanded by the presence of a British Residency in Nepal after the Nepal-Anglo War of 1814-16. The residency even provided medical services to the Nepali government and people[8]. Citing Buddhi Bahadur Bhandari's 'Janga Bahadur Kunwar: Biography', Marasini writes that the Residency even provided smallpox vaccines to some people in 1850[9].

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5 Gewali, Aspects of traditional medicine in Nepal, p. 6.

6 Sharma, G.N. (1986). *Nepalma shikshyako itihas* (in Nepali) [Education history of Nepal]. Kathmandu: Hem Kumari Sharma, p. 113.

7 Sharma, G.N. (1986). p. 73-74, includes a list of 16 schools where teachers (one teacher in each school) were appointed on 1901 March 27 and the list includes Vaidyanath (Vaidhyakhana) Pathsala. If this is really a pathshala (school), there already was an Ayurveda school in Nepal as early as 1901.

8 Marasini, B. (2020). Health system development in Nepal. *Journal of Nepal Medical Association, 58*(221), 65-68. doi: 10.31729/jnma.4839 Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7580485/pdf/JNMA-58-221-65.pdf

9 Marasini, Health system development in Nepal, p. 66.

It took nearly the next 100 years to establish the first modern medical education school in Nepal. Bir hospital was established in 1889 and a few other dispensaries or health centers were also opened in some parts of the country. In the absence of Nepali health professionals to provide health services, there was a dependency on foreign health workers, mainly from India. To address this problem, the first medical school, the Civil Medical School, was established in 1933 to prepare dressers and compounders[10]. This school was later merged with the Institute of Medicine, Tribhuvan University when the institute was established in 1972. Two separate medical education schools were established in 1956 to prepare nurses and health assistants[11].

Year 1972 became a landmark in medical education in Nepal. Under the National Education Plan, the government consolidated the whole education system in the country and brought it under one centralized umbrella[12]. All higher education institutes – government or private – were brought under Tribhuvan University. An Institute of Medicine was established under this university and the government brought all higher-level medical education institutes (above grade ten at that time) in the country under this institute. Along with its establishment, as it amalgamated other medical education institutes with different programs running, the institute, from its very beginning, started

[10] Sharma, G.N. (1986). Nepalma shikshyako itihas (in Nepali) [Education history of Nepal]. Kathmandu: Hem Kumari Sharma, p. 120.

[11] Report of high level task force on formulation of the medical education national policy (Mathema Report). (2015). Kathmandu, p. 12. Retrieved from https://www.mec.gov.np/public/uploads/shares/files/Mathema-Final-Report-Nepal-health_policy_2072.pdf

[12] Ministry of Education (MOE). (1971). *Rashtriyza shikchhya paddhati: 2028-2032 sammako yojana* [The National Education System: Plan for 1971-1975]. Kathmandu: Author. Retrieved from https://www.martinchautari.org.np/storage/files/thenationaleducationsystemplanfor-1971-english.pdf

to produce midlevel human resources. Gradually, it offered the Bachelor of Nursing in 1976 and MBBS in 1978, both for the first time in the country[13]. Then, gradually, other medical education institutes were also established. Two new universities, Nepal Sanskrit University (1986) and Kathmandu University (1991) were also established, which later began their medical education programs. The field of medical education in Nepal is now much broader, covering several areas of specialization and levels of study, from the basic level to the highest levels of study including PhD.

The 1980s experienced a significant shift in the management and governance of education in Nepal by allowing private investment in running education institutes[14]. Further, the political paradigm shift in the country in 1990[15] brought many changes, including its socioeconomic aspects. Accordingly, private investments also began to pour into medical education in the country. The first private-sector medical education institute (Manipal College of Medical Sciences) in higher education was established in 1994[16]. Since then, many private medical schools/colleges have been established and far outnumbered the public sector or trust-based medical schools/colleges.

The government established the Council for Technical Education and Vocational Training (CTEVT) in 1989 as a national apex body for overseeing the country's basic and mid-level human

[13] Mathema Report, 2015, p. 12.

[14] National Planning Commission. (1980). *The sixth plan 1980-85*. Kathmandu. Retrieved from https://npc.gov.np/images/category/sixth_nep.pdf

[15] A mass movement changed the political system in the country from absolute monarchy to a multi-party parliamentary system.

[16] Mathema Report, 2015, p. 15.

resources[17]. In the same year, the government decided to change the educational structure in the country. Accordingly, grades 11 and 12, which till then were part of higher education, were made part of school education[18]. As CTEVT was already there to oversee the technical and vocational education at the basic and mid-level, universities running technical schools at these levels either handed over these programs to CTEVT or closed down. On its part, CTEVT also began to run its medical education programs that focus on preparing nursing, health assistants, etc. The Medical Education Commission Act 2019 abolished medical education programs in grade ten and below. The government established the Medical Education Commission in 2019 to develop medical education in the country[19]. In the last four years of its establishment, the Commission has carried out several activities for consolidating medical education, particularly at the higher education level.

As the country moved to a federal system of governance with the promulgation of the Constitution of Nepal in 2015[20], some provincial governments have established medical education institutes in their respective areas. Koshi Province has established the Manmohan Polytechnic University in Biratnagar[21], including

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17 *Technical Education and Vocational Training Council act 2045* (1989). Retrieved from http://ctevt.org.np/uploads/files/admin_ctevt_act2045(eng).pdf

18 Nepal Law Commission (1989). *Higher Secondary Education act, 2046*. Retrieved from https://lawcommission.gov.np/en/?cat=467

19 Nepal Law Commission (2019). *National Medical Education act, 2075*. Retrieved from https://www.mec.gov.np/en/detail/national-medical-education-act-2075-nepali

20 Nepal Law Commission. (2015). *Constitution of Nepal*. Retrieved from https://lawcommission.gov.np/en/wp-content/uploads/2021/01/Constitution-of-Nepal.pdf

21 Pradesh One Government. (2019). *Manmohan Technical University Act, 2076*. Retrieved from https://mtu.edu.np/files/downloads/1637212115.pdf

the School of Medicine and Allied Sciences. Bagmati Province has established Madan Bhandari Health Science Academy in Hetaunda[22]. Likewise, Madhesh Province has established Madhesh Pradesh Health Science Academy[23] and has begun academic programs. Gandaki Province has also established Gandaki University and has started academic programs in medical fields.

The above discussion shows that Nepal has successfully expanded access to medical education in the country. Along with the expansion, subject-wise and level-wise diversity of medical education facilities is also essential. It is also encouraging that apart from the central government, several other actors are now involved in increasing the opportunity for medical education in the country. Provincial governments are actively coming forward and the role of the private sector has long been important in this regard. Actually, the private sector is in the leading position regarding the number of institutions and graduates. Some non-government agencies have also been playing an essential role in this area. Despite these encouraging trends, medical education in Nepal has been facing enormous problems.

3 Medical Education in Nepal: Problems and Challenges

Medical education and the medical profession, particularly the MBBS, have high social value in Nepal. Given this, many parents and youth are attracted to medical education, making it one of Nepal's most sought-after fields of study. It is one of the significant strengths of Nepali medical education and has been one reason for Nepal's progress in medical education in the past

[22] Bagmati Pradesh Government. (2019). *Madan Bhandari Health Academy act, 2076*. Retrieved from https://ocmcm.bagamati.gov.np/index.php/article/394

[23] Madhesh Pradesh Government. (2020). *Madhesh Health Science Academy act, 2077*. Retrieved from https://mihs.edu.np/act-planpolicy/

90 years. However, the development intensified in the last 30 years when universities, academies and the private sector entered medical education. The oldest medical education institute, the Institute of Medicine, Tribhuvan University, also expanded and diversified its programs. Because of this development, health professionals developed in Nepal have primarily shouldered the country's health service system. The roles of Nepali health professionals trained in other countries have also been influential in strengthening the Nepali health service system. However, the country's health service system still severely lacks the required health professionals of different levels and fields/specialties. Nevertheless, despite shortcomings, Nepal's achievement in this area must be regarded as an achievement.

The institutionalization of governance-related institutions at the level of the government and the active involvement of non-state actors have been influential in this development. Apart from the government body, these institutions (e.g., Nepal Medical Council, professional councils, professional associations, Medical Education Commission) have been pivotal in developing and maintaining norms and standards and, thus, the quality of medical education in Nepal. Likewise, medical education in Nepal has also shown a tendency to be innovative. The first medical education institute, the Institute of Medicine, Tribhuvan University, began community-based integrated teaching and BP Koirala Institute of Health Sciences and Kathmandu University began problem-based teaching[24]. Likewise, the Patan Academy of Health Sciences has been emphasizing rural community-based education, making efforts to link directly to the needs of rural

[24] Dixit, H. (2009). Development of medical education in Nepal. *Kathmandu University Medical Journal, 7*(1), 25, 8-10. Retrieved from http://www.kumj.com.np/issue/25/1.pdf

communities[25]. Nepali medical education system has shown its resiliency during times of crisis like the 2015 earthquake and the Covid-19 related pandemic that began in 2019. It was, of course, disrupted during those times but soon came back on track. Medical education in Nepal has also been successful in receiving international support in varied forms and levels. International governments, World Health Organization, other organizations, institutions and even individuals have been keen to support and strengthen medical education in Nepal. Their financial and non-financial supports (e.g., expertise, training, equipment, knowledge sharing) have remained instrumental in Nepal's medical education.

Along with these positive aspects, medical education in Nepal has been suffering from several problems and there are many challenges. Quality of teaching and learning has been one of the critical problems of medical education in Nepal and is related to many other factors. Teacher quality is linked with their capability and commitment to become good teachers, researchers and leaders. However, for this, they need support from the system. The support and opportunity they get from the system have often been questionable. Instead, there are concerns about career security and prospects, discrimination and work pressure in medical education[26]. Aspects like teacher autonomy, teacher professional development in educational areas and teacher career prospects are little discussed in medical education in Nepal.

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[25] Courneya, C.A. & Dunne, D. (2009). PAHS: A Nepali project with international implications. *Clinical Governance: An International Journal, 14*(2), 134-144. Retrieved from https://doi.org/10.1108/14777270910952298

[26] Prakash, S. (2018). A teacher is not just a teacher (editorial). *Janaki Medical College Journal of Medical Sciences 6*(2), 1-5. https://doi.org/10.3126/jmcjms.v6i02.22066

Medical education suffers from an emphasis on content knowledge, limited practical exposure of students, exam focused student assessment practice, a teaching-learning environment that is not very conducive, poor infrastructure and facilities and limited human resource availability. All these are closely connected with insufficient preparedness of students and teachers and hence the poor learning. The situation is even worse in some cases where students do not get to be with the patients for the required time for their practical exposure.

There is also a disparity in access and inclusion based mainly on economic and social groups. The provincial disparity is also high. Most medical education institutes are city-centric, particularly true in the case of private medical education institutes. Despite efforts toward making the curriculum community-oriented, this has not been realized fully. Aspects like ethics, integrity and social accountability often are not prioritized and thus students are not motivated to serve the patients and the community in deprived areas. As such, many medical education graduates do not feel obligated to go to rural areas and provide health services to people and communities deprived of these basic fundamental rights guaranteed by the constitution. However, it is also true that a better career prospect, a better working environment, professional autonomy and an opportunity for further study could change the scenario motivating graduates to stay and work in the country and serve even in rural areas. The challenge now is developing such a situation.

The role of the private sector has been challenging despite its important contribution to the expansion of medical education in the country. It has been criticized for its profit orientation, excessive fees charged to the students, lack of social accountability

and less focus on the quality of teaching learning[27]. The problem also lies in the absence of monitoring these institutions to make them comply with the rules and follow the prescribed norms, standards and procedures.

Weak monitoring system of the processes of medical education has been a critical problem in Nepal, not only in the case of private medical education institutions but also within the whole medical education system. Sometimes in the name of the lack of human resources, lack of enough budget or sometimes because of lack of coordination or even role conflict among the governing agencies monitoring has not been effective in medical education system. The challenge is to institute and strengthen the monitoring of all processes of the medical education system ensuring the active involvement of all stakeholders. A related problem is a weak Medical Education Management Information System (MEMIS). In the absence of such a management information system and indicator based monitoring, effective monitoring becomes difficult. Likewise, lack of a retrievable repository of all the required information and research findings seriously hampered the medical education system.

In the spiral of cause and effect, things are very much interrelated. All the problems and challenges of medical education are primarily related to its governance which has been a complicated issue in Nepal. Role conflicts are often are realised as several agencies are involved in the governance of medical education. This is coupled with the interests of other parties and there are cases of political interference[28]. These situations have weakened

[27] *Report of high level task force on formulation of the medical education national policy* (Mathema report). (2015). Kathmandu, pp. 35-63. Retrieved from https://www.mec.gov.np/public/uploads/shares/files/Mathema-Final-Report-Nepal-health_policy_2072.pdf

[28] Mathema report, (2015), pp.35-63.

the governance process resulting in several other problems and challenges discussed above. Leadership is one of the critical aspects of meaningful governance. However, little attention has been given to leadership development in medical education in Nepal. Besides, political and interest groups' interference prevents building a leadership development system. Likewise, institutional capability and autonomy, transparency and integrity are essential for successful governance that could deliver the desired result. Where these are distorted with undue interests, systems are disrupted and might be chaotic. Nepal has already experienced such a situation. While talking about autonomy in education, academic autonomy is critical. If universities do not remain autonomous, they can not be creative. Thus, they cannot remain as a body that creates knowledge and learning necessary for the welfare of the planet Earth and all beings and things on it.

The challenges do not only come from within the system but also from external sources. Environmental challenges are one of the significant challenges that the Earth has been facing. Excepting natural reasons, humans are primarily responsible for ever-growing environmental challenges. The health sector also has a substantial role in causing environmental damage producing about five percent of total greenhouse gas emissions.[29, 30] The irony is that the sector, expected to support people's well-being through better health, has been creating health and many other problems.

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[29] World Health Organizations. (2021). *Expert meeting on measuring greenhouse gas emissions and other environmental sustainability concerns in health care facilities.* Meeting report, 24 February 2021, p. 6. https://cdn.who.int/media/docs/default-source/climate-change/ghg-meeting-report-01.04.21.pdf?sfvrsn=e0c03c41_7&download=true

[30] Gandhi, V., Al-Hadithy, N., Göpfert, A., Knight, K., van Hove, M. & Hockey, P. (2020). Integrating sustainability into postgraduate medical education. *Future Healthcare Journal, 7*(2), pp. 102–4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7296569/pdf/futurehealth-7-2-102.pdf

Health-related climate change and its impact are not only visible. In many cases, these have adversely affected human living and livelihood forcing them to move or change their occupation or lifestyle. In such a context, health professionals should know how they should work individually and institutionally to adopt environment-friendly technology, practices and behavior. This learning should begin while they are students.

Technological advances, particularly digital technology, biotechnology, the artificial intelligence, are growing very fast revolutionizing almost all aspects of health care and management. Health care and the medical system nowadays are largely technology dependent. Moreover, the whole spectrum of diagnosis and treatment and the management of this whole process is ever-changing. In such a situation, no health systems and no professionals can provide better service if they could not move along with the advancement. Hence, it is a challenge to countries like Nepal which often find it difficult to manage its priorities and resources properly, whose digital infrastructure is weak and where digital literacy is low. Nevertheless, the country, the health system and particularly the medical education system need to be pro-active to transform the situation within its scope. Further, new ideas and innovations in science and also in other fields like social science, psychology and economics are emerging that directly or indirectly influence the health system.

As a biological and social being, humans evolved very slowly through millions of years. Though some of the social practices and the patterns of human behavior have little changed throughout generations, change or transformation is the norm. Some of these transformations go so slowly that humans themselves often do not remain aware of changes that take place. If the medical education system could not capture and respond to these subtle and visible changes, its relevance and effectiveness will remain

questionable. The challenge, thus, is how to make the medical education system and its processes responsive to emerging changes and transform itself accordingly.

Finance is one more challenge that needs to be sorted out and this is not easy. Due to the resource constraints, it cannot be expected that medical education could get a big increase in funds. Nevertheless, medical education needs to make every effort to increase the availability of finance from the government. The field needs to convince the decision-makers with the argument that a substantial increase in government fund allocation is essential to make it one of the best systems. Research and evidence based plans and constant and persuasive advocacy and dialogue are essential tools for this. It is also important that medical education looks for alternative and multiple sources of finance.

So, there are so many areas that medical education in Nepal needs to consider, prioritize, move forward and transform the field. Of course, problems and challenges are there and will always be there in one or another form. It is also important to realize that challenges are opportunities. In medical education in Nepal there are no challenges that cannot be converted into opportunities. What is needed is a zeal to make things happen in the wider interests of the country.

4 International Norms and Practices in Medical Education

The international community has developed some fundamental norms and practices that have guided the development of medical education system in countries.

4.1 World Health Organization (WHO)

World Health Organization (WHO) Guidelines highly emphasizes the role of the state in playing the role of the facilitator for ensuring equitable access to a quality, relevant and sustainable

medical education system in the country that works for preparing the required number of health professionals (WHO, 2013).[31] The Guidelines also calls for focusing on community based education so that health professionals could be socially accountable, ethical, be aware of the needs of the community people and serve the accordingly to achieve the ultimate goal of responsive health system. One other key point the WHO has emphasized is the state's responsibility to protect the people and patients from underqualified and non-qualified health care providers by developing a system that ensures proper communication and information flow between the service provider and the receiver.

WHO Guidelines also calls for a strong political commitment at all level to realize the necessary dialogue and collaboration between the related government agencies, the private sector, the non-governmental organizations for reforming and improving medical education in the country by linking it with a national planning process, creating and strengthening necessary institutions at the national and sub-national levels. The message of the Guidelines is thus the emphasis on participation and collaboration among all actors; the government (at all levels) and all relevant agencies, the private sector, the non-government organizations and the professional associations. The Guidelines' emphasis is also on community engagement for bringing a change in medical education. There is also the call for partnership at the global level.

One other important key recommendation of the WHO Guidelines is strengthening the medical education institutes. This needs to be done by ensuring adequate physical, educational and

[31] World Health Organization. (2013). Transforming and scaling up health professionals' education and training: WHO guidelines, 2013. Retrieved from https://www.who.int/publications/i/item/transforming-and-scaling-up-health-professionals%E2%80%99-education-and-training

medical infrastructures, adequacy and competency of teachers; regular updating of curricula, reform in the student admission process and linking education with the health needs of the people. The Guidelines also call for allowing mid-way career change and allowing students from other disciplines to enter the health service and serve as health professionals.

4.2 World Federation of Medical Education (WFME)

World Federation of Medical Education (WFME) has provided several global quality standards for medical education institutes running basic medical education programs (WFME, 2020)[32]. The standards are as follows:

4.2.1 Mission and Values

The school has a public statement that sets out its values, priorities and goals.

4.2.2 Curriculum

The school has defined the learning outcomes that students should have achieved by graduation, as well as the intended learning outcomes for each part of the course.

The school has documented the overall organisation of the curriculum, including the principles underlying the curriculum model employed and the relationships among the component disciplines.

The school can justify inclusion in the curriculum of the content needed to prepare students for their role as competent junior doctors and for their subsequent further training.

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[32] World Federation of Medical Education. (2020). *Basic medical education WFME global standards for quality improvement*. Retrieved from https://wfme.org/wp-content/uploads/2020/12/WFME-BME-Standards-2020.pdf

Content in at least three principal domains is described: basic biomedical sciences, clinical sciences and skills and relevant behavioural and social sciences.

The school employs a range of educational methods and experiences to ensure that students achieve the intended outcomes of the curriculum.

4.2.3 Assessment

The school has a policy that describes its assessment practices.

It has a centralised system for ensuring that the policy is realised through multiple, coordinated assessments that are aligned with its curriculum outcomes.

The policy is shared with all stakeholders.

The school has in place a system of assessment that regularly offers students actionable feedback that identifies their strengths and weaknesses and helps them to consolidate their learning.

These formative assessments are tied to educational interventions that ensure that all students have the opportunity to achieve their potential.

The school has in place a system of assessment that informs decisions on progression and graduation.

These summative assessments are appropriate to measuring course outcomes.

Assessments are well-designed, producing reliable and valid scores.

The school has mechanisms in place to assure the quality of its assessments.

Assessment data are used to improve the performance of academic staff, courses and the institution.

4.2.4 Students

The medical school has a publicly available policy that sets out the aims, principles, criteria and processes for the selection and admission of students.

The medical school provides students with accessible and confidential academic, social, psychological and financial support services, as well as career guidance.

4.2.5 Academic Staff

The school has the number and range of qualified academic staff required to put the school's curriculum into practice, given the number of students and style of teaching and learning.

The school has specified and communicated its expectations for the performance and conduct of academic staff.

The school implements a stated policy on the continuing professional development of its academic staff.

4.2.6 Educational Resources

The school has sufficient physical facilities to ensure that the curriculum is delivered adequately.

The school has appropriate and sufficient resources to ensure that students receive the required clinical training.

The school provides adequate access to virtual and physical information resources to support the school's mission and curriculum.

4.2.7 Quality Assurance

The school has implemented a quality assurance system that addresses the educational, administrative and research components of the school's work.

4.2.8 Governance and Administration

The school has a defined governance structure in relation to teaching, learning, research and resource allocation, which is transparent and accessible to all stakeholders, aligns with the school's mission and functions and ensures stability of the institution.

The school has policies and procedures for involving or consulting students and academic staff in key aspects of the school's management and educational activities and processes.

The school has appropriate and sufficient administrative support to achieve its goals in teaching, learning and research.

4.3 World Medical Association (WMA)

The World Medical Association (WMA) has also provided Basic Principles of Medical Education[33]. It states: "The goal of basic medical education is to ensure that medical students have acquired the knowledge, skills and professional behaviors that prepare them for a spectrum of career choices, including, but not limited to, patient care, public health, clinical or basic research, leadership and management, or medical education. Each of these career choices will require additional education beyond the first professional degree." The document further states: "At a medical school, the knowledge, skills and professional behavior that students should acquire should be based on the professional judgment of the faculty and accreditation councils and be responsive to the healthcare needs of the region and/or the country. These decisions will inform the selection of students, the curriculum design and content, the student assessment system and the evaluation of whether the school has achieved its goals. Such

[33] World Medical Association. (2017). WMA statement on medical education. Retrieved from https://www.wma.net/policies-post/wma-statement-on-medical-education/

decisions should also be subject to relevant standards, the needs of fairness and accessibility and diversity and inclusion in the medical workforce."

Celletti et al. have suggested some strategies for increasing the numbers and matching medical education for low- and middle-income countries[34]. Their strategies include reforming curricula focusing on local relevance, developing and retaining faculties in relevant fields, enrolling students from the area where health professionals are most needed and establishing medical education institutes in those places, ensuring multi-sectoral policy reforms and planning and aligning medical education and health service delivery. They presented the following points as the vision for transforming medical education.

- Greater alignment between educational institutions and the systems that are responsible for health service delivery.
- Country ownership of priorities and programming related to medical education, with political commitment and partnerships to facilitate reform at national, regional and local levels.
- Promotion of social accountability in medical education and of close collaboration with communities.
- Doctors who are clinically competent and provide the highest quality of care.
- Global excellence coupled with local relevance in medical research and education.
- Vibrant and sustainable medical education institutions with dynamic curricula and supportive learning environments, including good physical infrastructure.

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[34] Celletti, F., Reynolds, T.A., Wright, A., Stoertz, A, & Dayrit, M. (2011). Educating a new generation of doctors to improve the health of populations in low- and middle-income countries. *PLoS Med 8*(10). Retrieved from https://journals.plos.org/plosmedicine/article/file?id=10.1371/journal.pmed.1001108&type=printable

– Faculty of outstanding quality who are motivated and can be retained.

5 Guiding Principles for Medical Education Policy in Nepal

- The medical education policy shall be promoting a self-sustained and coordinated system of medical education in the country for preparing a competent and socially responsible health workforce required for developing and strengthening a quality and relevant health system responsive to the sociocultural context of the people.
- It shall be contributing toward achieving the goals and objectives of the national health system.
- Equity and social accountability shall be the cross-cutting themes across the policy. This means, it shall be the responsibility of the government to take care of, plan and implement, a just and inclusive medical education in the country. Likewise, ethics and integrity and sustainability shall also be important cross-cutting themes for the policy.
- The participatory approach shall be the key approach for the governance and management of medical education in the country. It shall stand strong at the community level boosting community health leadership and incorporating community health concerns. Working on the humanitarian and socially responsible ground, the private sector shall have an important role in expanding and strengthening provisions for efficient and accountable medical education.
- The policy shall cover all levels of medical education and it shall also cover all types of modern and traditional approaches to imparting medical education.
- The policy shall be following the provisions mentioned in the constitution of the country as well as internationally accepted norms and standards of medical education.

- It shall focus on research, innovation and technological enhancement as key approaches for strengthening medical education in the country.

6 Goals and Objectives of Medical Education in Nepal

6.1 Goals

In accordance with the constitution of the country, institute a transformative system of quality and innovative medical education that is efficient, equitable and works for preparing qualified and competent human resources in the medical sector for providing quality, reliable, accessible and socially just public health service to the people.

6.2 Objectives

1. To develop directive guidelines for running medical education fully with the academic, humanitarian and social responsibility approaches.
2. To improve the quality and relevance of medical education by preparing it to address the needs and concerns of the wide sociocultural, economic and geographic diversity of the country and by making technology friendly, sustainable and in accordance with the emerging knowledge of the field.
3. To ensure equity and inclusion in medical education.
4. To enhance regional/geographical balance in medical education with sharing of responsibilities among federal, provincial and local level governments.
5. To raise the capacity for effective planning, management and implementation for having an efficient, resilient, coordinated and productive system of medical education.
6. To increase public fund allocation in medical education and also encourage cost-sharing and alternative sources of funding.

7. To institute a robust and functional monitoring system of medical education programs/institutes.
8. To strengthen a system of coordinated and autonomous governance of medical education with a clear allocation of responsibilities to all key stakeholders.
9. To promote traditional and alternative systems of medical education.
10. To develop a research culture and digital information system in medical education.
11. To attract foreign students to medical education in Nepal.
12. To stimulate medical students/graduates for integrity and responsibility towards the profession and services.

7 Policies

7.1 Access, Quality and Participation

- Ensure equitable access to medical education by establishing medical education institutes across regions and provinces. The establishment of medical education institutes aligns with their mapping and with the health sector human resource projection.
- Student selection follows transparent criteria based mainly on ability, aptitude and preparedness. Economy, gender, ethnicity, area and some soft skills like integrity, attitude, commitment, communication, etc. also are considered.
- The Medical Education Commission develops objectively defined clear criteria, norms and standards for allocating student seats to higher education and school level institutions of all programs at all levels. These criteria are updated as per need. The criteria for allocating student seats are made public for the purpose of transparency in the admission process. Once the medical education institutes get accreditation, the student seat allocation to them follows their accreditation status.
- Based upon the previously developed criteria mentioned above, each year the Medical Education Commission, in the case of higher education level medical education institutes, forms a committee with representatives from the medical universities, academies and colleges to decide and approve the seat allocation for that year for all programs of all levels. Likewise, in the case of school level education, affiliating authorities form a committee with representatives from the school level medical education institutes to decide and approve seat allocation for that year for all programs of all levels.

- The entrance examination and student selection are conducted by the concerned universities, academies and affiliating authoritiries.
- Scholarships are provided to students from deprived groups and areas. Provisions are also made for student loans. All students who receive scholarships or student loans are required to do a bond for working in rural areas for a certain duration (depending upon the proportion of the scholarships or loans to the total fees).
- The private sector can also establish medical education institutes following the defined procedure, norms and standards and on the basis of geography, population and social equity. Availability of human and financial resources and infrastructures (medical, physical and others) are also important conditions. However, the private sector's involvement in medical education is seen as an investment with humanitarian and socially responsible investment. Hence, they are required to invest part of their annual profit in improving/the facilities/services in their own institute. All private medical education institutes provide scholarships to minimum ten percent of its total students. The scholarship includes all fees a student needs to pay to the institute.
- All medical education institutes follow the defined norms and standards to ensure the quality of medical education. If some existing medical education institutes lack some norms and standards prescribed under this policy, they fulfill all those lacking within three years of implementation of such norms and standards. New medical institutes are established only after fulfilling these norms and standards.
- Investments are made to promote the use of technology (digital technology, artificial intelligence, simulation, biotechnology, biomedical) for improving the quality of medical education, for improving its management and

governance and as preparations for emergencies. For this, a five-year plan is developed including strategies and activities to make students and teachers competent in using technology in teaching learning. Managers of medical education are also made technology friendly. There also are strategies for e-learning, remote learning, skills-lab and a blend of online and face-to-face learning.

- All medical education institutes get accreditation from national accrediting bodies through rigorous, detailed and transparent quality criteria. For international recognition and standardization, accreditation from international agencies is also promoted. Gradually, accreditation is also provided to individual programs and individual courses.
- The internationalization of medical education in the country is promoted. Programs are developed to attract foreign students in medical education and to invite some senior international faculties. As a strategy to get international recognition of Nepali medical institutes, Nepal becomes a member of the World Federation for Medical Education (WFME). Likewise, understanding will be reached with other countries at the government level to bring foreign students for studying medical education in Nepal.
- Programs are developed for the promotion, expansion and strengthening of traditional systems of medicines and teaching those systems. Emphasis is given to researching these traditional systems and developing plans and programs and their implementation on the basis of research outcomes.

7.2 Teacher

- A five-year teacher development plan is prepared for attracting related professionals in teaching and to ensure a regular supply of teachers. They are prepared as instructional leaders – well-versed in competency-based, simulation-based

and technology-based teaching, task design, assessment and in soft-skills.

- A health professions faculty development program of six-month is designed and implemented as part of teacher training in medical education. All new teachers must go through this training. As per the need, such programs could be designed in a flexible manner in terms of modes of delivery (physical, online, hybrid), pedagogical approaches (lecture, project, work-based learning, etc.) timing (could be spread to more than six months), etc. Likewise, if some have successfully completed pedagogical courses in their previous higher education degree program, they do not need to participate in this six-month program. All teachers participate in refresher courses, workshops, seminars, etc. as part of their continuing professional development. Concerned universities/institutes are responsible for organizing/managing teacher training.
- Provisions are made for involving non-teaching health professionals in teaching for linking teaching with clinical practices.
- Concerning the quality of teaching-learning in medical education, a medical education teaching license is made mandatory for all teachers in medical education at all levels, once a detailed procedure for this is developed in due course of time.
- All teachers in medical education are required to involve in clinical and non-clinical research activities. As the outcome of such research, all teachers have to publish academic papers, present papers at national/international conferences, prepare and publish policy briefs, etc. Concerned universities/institutes are required to provide funding support to faculties for their research activities. Publications and conference presentations are linked with incentives and promotion.

7.3 Curriculum

- The curriculum development process is made participatory involving health professionals, students, patients and other stakeholders, including the local community people. The process begins with conducting research justifying the need for a particular course/ program, content coverage, weightage, assessment and grading, etc. Curriculum research remains a key aspect of the development, implementation, monitoring, revision and evaluation.
- All medical education universities, academies develop their curriculum under a broad curriculum framework developed by Medical Education Commission as per international standard and national need. There is also room for addressing local health needs in the curriculum. Medical Education Commission coordinates this task in the case of higher education level and affiliating authoritiries in the case of school level.
- All curriculum includes key student attributes they are expected to acquire upon the successful completion of the program at the given level.
- The final approval of the curriculum is made by the appropriate authorities of the concerned universities, academies and affiliating authoritiries.
- The competency-based approach is followed in the design of the curriculum with clearly defined competencies that are closely connected with real-life problems and that the students must achieve, in aggregation, by the end of the program.
- The curriculum design takes an interdisciplinary approach allowing faculties to deal with any topic from a broader perspective. Likewise, it follows the principle of sustainability and works for preparing health professionals on theory and

skills of mentoring fresh health professionals, serving the community in accordance with their cultural context and becoming lifelong learners by instilling in them skills and motivation for this purpose.

- Along with the main content courses, the curriculum will also include components of creative arts, humanities, social sciences, education, management and leadership, technology and health issues in the communities. It also includes components of soft skills, using curricular and non-curricular approaches.
- A system of regular curriculum evaluation and updating is established. Accordingly, a major revision of the curriculum is carried out at least every five years. It is the responsibility of the concerned universities, academies and affiliating authoritiries to carry out the revision. Such revisions are approved by the appropriate authorities of the university, academies and affiliating authoritiries.
- Apart from the major revision carried out at least every five years, revisiting the curriculum for some possible minor revisions and adjustments is carried out every semester/ year. Such revisiting, however, does not change the defined competencies. The concerned faculty and/or the medical education institutes have the authority to make such adjustments.

7.4 Pedagogy

- Medical education pedagogy mainly draws from the principles of adult learning (self-direction, motivation, experiential, practical, relevance, mentoring, open to learning) and principles of instructional design (effective, engaging, coherence, efficient, sustaining).
- Competency-based pedagogy is the norm for medical education. It is also learner-based, patient-based and

practice-based. The project, group work, fieldwork, seminar, lab work, clinical work, internship, simulation, etc. are particular pedagogical methods. In addition, there are also methods like explaining, questioning, demonstrating, etc. in practice.

- Moving fully to competency-based pedagogy takes some time. However, a full system of competency-based pedagogy will be in place within three to five years.
- In the case of undergraduate and secondary-level health professionals' education programs, all students are required to work for a certain time in one hospital or health center/ health post located in remote rural areas. Similar provisions for working in rural areas are also there for higher-level students depending upon the nature of the academic program. While in the field, apart from the health services they offer, they are also involved in carrying out some health research in the area. Particularly undergraduate students also contribute to preparing/implementing health sector planning of the municipality where they work.
- Depending upon the topic being discussed, inviting patients and community people for interaction, in or outside the classroom, is a preferred pedagogical approach as these help students understand patient and community health concerns. Involving students in clinical and sociocultural research is an important pedagogical approach.

7.5 Student Learning Assessment

- Medical Education Commission incorporates assessment in Curriculum Framework. The Commission also monitors the assessments. All assessments are carried out by the concerned universities, academies and affiliating authoritiries.
- Assessments are carried out as a learning process and follow the principle of higher-order learning. Competency-based

formative assessments with real-life problem solving are the main approach for student learning assessments. They ensure students have all the competencies required for being competent health professionals.

- Medical education institutes prepare and adopt detailed rubrics for student assessment for all types of assessments that are conducted throughout their course of study.
- Student learning assessment needs to be supported by the participation of defined working days/hours in the internship/apprenticeship/work-based learning.

7.6 Medical Education Institutes

- There are three types of medical education institutes – public (receiving regular government grant), trust (non-profit, mainly self-funding, government support) and private (no direct financial support, quality enhancement support from the governmnet but require to follow all rules and regulations of the nation).
- Possibilities remain open for running medical education programs in partnership between and among medical education institutes of three different types or in partnership with some other organizations/investors.
- Guidelines are developed by Medical Education Commission for procedures and norms and standards for establishing new medical education institutes.
- Medical education institutes are graded and ranked at three levels (Excellent, Very Good and Good) as per their accreditation outcomes. They have autonomy in their academic activities as per their accreditation ranking. Likewise, other medical education institutes also have autonomy under their universities and affiliating authoritiries. However, all follow the prescribed rules, norms, standards and guidelines.

- Medical education institutes carry out academic and social audits on a regular basis in a systematic manner; first self-audit and then involving all key stakeholders (students, parents, faculties, staff, patients, people's representatives at palika level – urban/rural municipalities, community people, management/governing bodies) as a regular practice and publish all audit reports (upload on the website). They carry out financial audits each year and publish audit reports (upload on the website).
- Medical education institutes form a committee with students, parents, faculties and staff to realize that the institute implements/responds to the recommendations made by all audit reports. Any support from the government and extension opportunities are tied-in with audit reports and processes and adaptation of recommendations made by these reports.
- Medical education institutes make all academic practices/ decisions transparent and available to all key stakeholders (publish on the website). They publish a detailed curriculum with credit loads for each subject/unit, pedagogical practices, required learning competencies, assessment modes, procedures and the grading system for transparency and for international recognition and comparison.
- Medical education institutes maintain a learning environment along with an affective, safe, inclusive, democratic environment in the institute creating a student-centered, competency-based, flexible, learning path. They develop a culture of learning and working in a team with the key members of the institute, particularly the students, in the development of leadership skills as well as other soft skills through curricular and non-curricular activities. They prepare health professionals to be aware of and adapt to the cultural values of the people/community where they will be

working. This includes orienting students, faculties and staff members toward the concept of ethics and integrity that they need to maintain.

- Medical education institutes develop and practice the policy of zero-tolerance against any form of abuse and violence against anyone and create an inclusive environment for all women, people from different backgrounds and physical/ mental special situations.
- Medical education institutes establish a department that works for the development of its faculty and staff members for ensuring continuous faculty/staff development through long- short-term programs/activities. They help to develop the culture of mentoring practice. Likewise, they implement policies for maintaining the dignity of health professionals.
- Medical education institutes organize and support health professionals and students in participating in national/ international activities related to their field/study areas such as conferences, exposure visits, study visits, training, workshop and network building. They also allocate budgets for these purposes.
- Medical education institutes provide stipends, fee waivers, paid assistantships (only for a limited hour so that their study is not disturbed) to those students who come from financially deprived families through a transparent and detailed and strict objective assessment of aspiring students/ applicants.
- Medical education institutes develop a system of providing psycho-social counseling to health professionals, particularly to students. They also develop a student support system for activities like academic writing, professional writing, searching e-resources, use of digital technology, language efficiency, career advice and guidance and connecting with employers and with professional communities, etc.

- Medical education institutes allow a system of credit transfer from recognized national and international medical education institutes of an equivalent standard, course content and learning outcomes. The concerned universities, academies and affiliating authoritiries develop clear guidelines and procedures for this purpose.
- Medical education institutes develop collaboration with other national/international medical education institutes for knowledge sharing, faculty/student exchange, joint research/ publications and other activities. They also collaborate with Local governments, education institutes and other organizations for sharing knowledge and support as part of their community engagement and with international organizations for sharing knowledge and support as part of their global engagement activities.
- All medical education institutes with undergraduate and secondary level programs are assigned some rural municipalities, mainly remote areas, as their service areas. Medical education institutes work with hospitals and health centers/posts in the assigned areas in strengthening the capacities of those hospitals and health centers/posts and also in providing health services to people.
- Medical education institutes work with schools/colleges/ local governments to prepare future students (particularly from socio-economically disadvantaged groups) for medical education.
- Medical education institutes develop their long-term perspective plan and short-term strategic plan aligning with national medical education plans/policies and also with the provincial and local policies related to medical education. Such plans include strategies to identify resources and for generating funds from internal and external sources apart from government grants.

- Medical education institutes establish a center/department for research and innovation for generating evidence-based new knowledge that promotes innovations in medical education, with the allocation of budgets for this purpose.
- Medical education institutes promote activities related to sustainability in order to help health professionals understand, be aware of and act in line with the sustainability agenda.
- Medical education institutes stay prepared for emergency situations so that there could be minimum or no loss of educational activities. For this, they prepare their students, faculties and staff members by providing training and by making necessary technological and logistical arrangements.

7.7 Planning, Management and Governance

- Governing medical education in the country is the joint responsibility of the government (federal, provincial and local governments), Medical Education Commission, universities (having medical colleges), academies, affiliating authoritiries, medical education institutes.
- Medical Education Commission and affiliating authoritiries ensure necessary funding to all higher education level and school level medical education institutes respectively as per the set criteria as well as the accreditation status, equity, transparency (public disclosure) and inclusion of key stakeholders in its management and social audit functions. However, in the case of medical education institutes established by the provincial and local governments, the respective governments are primarily responsible for ensuring necessary funding following these same criteria.
- Medical Education Commission develops detailed norms and standards for ensuring quality, transformative and inclusive

medical education. The Commission facilitates in acquiring, developing and strengthening facilities mentioned in the norms and standards. Affiliating authoritiries are mainly responsible for providing support to medical education institutes affiliated with them. Likewise, provincial and local governments are mainly responsible for providing/arranging support to the medical education institutes they establish.

- A National Medical Education Qualification Framework is developed, in line with the National Qualification Framework.
- An independent National Medical Education Accreditation Commission is established for accrediting medical education institutes.
- All national medical education regulating bodies (Medical Education Commission, Medical Education Accreditation Commission, affiliating authoritiries) ensure transparency and public responsibility and function on the basis of pre-defined objective criteria and indicators, in a digitalized and automated environment, minimizing subjective judgment, in their decisions.
- All medical education institutes (including regulating bodies) prepare their annual plan of action with defined activities, timelines, procedures, etc. and operate as per their plan of action. This annual plan of action is made public (upload on the website).
- Health professional councils and associations are expected to carry out systematic and comprehensive research in their relevant fields. The outcomes of these research works help the Medical Education Commission, Medical Education Accreditation Commission and affiliating authoritiries revise the norms and standards and procedures on different aspects of medical education and conduct professional development activities.

- Medical education institutes make efforts to link medical education with the labor market, mainly with the national labor market also with the international labor market.
- Province and local governments and medical education institutes enter into collaborative understandings for supporting each other. Province and local governments support medical education institutes in management-related concerns, in the social audit process, in identifying health issues in the area, in developing curriculum, etc. and medical education institutes support the province and local governments as part of their community engagement activities.
- Provisions are made to activate and engage traditional local institutions (eg., Guthi, Barghar) in making medical education closer to the need of the local people, researching and developing traditional caring and treatment practices, etc.
- A national perspective plan for medical education is developed in line with the national development plan, particularly education and health sector plans. Likewise, a strategic plan is also developed for a shorter duration, three years, with clearly defined targets. Province and local governments also develop similar plans for their respective areas.
- Medical Education Commission develops a system of accepting degree certificates from Nepali universities and academies by all other Nepali universities, academies and the government. Further, the Commission also works for the acceptance of certificates from Nepali universities and academies by foreign universities. In the case of school level education, the affiliating authorities take the responsibility of providing equivalence to certificates obtained from foreign countries.

7.8 Financing and Sustainability

- The federal government remains the main source of funding for medical education in the country. It allocates 1.5% of GDP or 2% of total national budget to medical education. Province and local governments also allocate budget for medical education in their respective areas. However, medical education in the country adopts the policy of cost-sharing and cost-recovery and draws mainly from the principle of equity and social accountability.
- A single-channel policy is established to provide grants to higher education level medical education institutions. All grants from federal government agencies are channeled through this same channel. Likewise, this same channel is used to provide scholarships and any other support to students. All types of support thus provided to students from federal government agencies are sent to the concerned medical education institutes. Likewise, a single-channel policy is also established to provide grants to school level medical education institutes.
- Grants to medical education institutes are made through transparent, objective and equitable means and accreditation ranking and are calculated through an automated digitalized system.
- Medical Education Commission develops a template to calculate the maximum fee a higher education level medical education institute can charge a student. Affiliating authoritiries develop such a template in the case of school level medical education institutes. There are three separate templates for medical education institutes in three different accreditation ranks (excellent, very good, good). All the criteria used for determining the fees are set objectively and all the processes of calculating fees remain transparent.
- The possibility of medical education insurance is explored allowing parents/future students to pay premiums for future

expenses. If the person having medical education insurance does not join the medical education program, the premiums paid are refunded along with the interest.

- Provisions are there to call/motivate people for establishing endowment funds for student support and for physical and academic facilities.
- All three key aspects of sustainability (economic viability, equity and social accountability and environmental aspects) are ensured in all activities of medical education, particularly in establishing a new medical education institute. Building environmental awareness through curricular and non-curricular activities remains a key concern.
- In order to ensure the financial sustainability of medical education, all plans, strategies and activities are tied-in to each other and also with financial availability.
- The sustainability of medical education is also ensured with other research-based information on aspects like teacher attrition, migration (within and outside the country), prospective students, youth interest, emerging local and national health issues, international trends, technological changes and innovations in related fields, etc.

7.9 Ethics and Integrity

- Instilling the value and importance of ethics (moral values, rules and practices one is expected to follow) and integrity (internal conscience a person has for being honest, fair and supportive) into students, staff and faculties remain key concerns.
- Preparing health professionals to follow ethics and integrity with full spirit not only in health and medical issues but also in every other decision and activity that needs to be taken or carried out as a health professional, as an individual or as a member of society.

- Developing a mechanism to ensure that all medical education professionals follow all identified ethics and integrity.
- The key dimensions of ethics and integrity are; ensuring and enhancing accountability and efficiency in the use of public funds and funds from all other sources, following the principles of beneficence and non-maleficence, respect for autonomy and justice, caring and protecting people and the environment including all living beings and non-living things that are part of our total environment, getting the trust of the people that they will be getting the proper care for any of their health-related concerns and following all the rules that they are supposed to follow as the member of the society and an organization.

7.10 Research, Information System and Monitoring

- Policy, planning and programs are based upon research evidence and data/information as well as on process monitoring and evaluation.
- There is a system of carrying out systemic, comprehensive social and lab-based clinical research on all aspects of medical education where medical education institutes, faculties and students contribute actively. Faculties and senior students are supported in developing research proposals for national/international bidding. Likewise, programs are conducted to raise the institutional as well as the individual capacity to conduct, manage and evaluate the research.
- Drawing from the research carried out, researchers publish academic articles (for the professional/academic community), policy briefs (for policy people) and media notes (for the general public). All medical education institutes are motivated to publish medical education journals, occasional papers, research reports, policy briefs, media briefs, etc. on a regular basis. Conferences, seminars,

workshops are regularly organized as capacity-building activities and as dissemination of research findings. A system is created for regular interaction for reporting and sharing research with the public, policymakers and the industry sector. Provisions are established for financial contribution/ grants to faculties and students to support research activities.

- A five-year plan is developed for instituting and strengthening a Medical Education Information System. The plan also includes a component of establishing an open-access web-based Medical Education Research Repository for collecting all the required research outputs, data and information, policy documents and literature related to medical education in Nepal and elsewhere in the world.
- Following the five-year Medical Education Information System Plan, a medical education information system, along with an indicator system, is developed involving all universities and medical education institutes. Likewise, a Medical Education Research Repository is also established.
- A system of regular monitoring of medical education activities involving all medical education institutes is developed at the system and institutional levels.
- An integrated system of research, information and indicators and monitoring and evaluation is there to follow the process adopted and the progress achieved against the goals and targets and to identify areas requiring intervention and strengthening. Medical Education Commission carries out and manages these activities in a system-wide manner. Medical education institutes take responsibility for these activities at their institutes.
- As per need, different types of monitoring strategies are adopted but generally, the focus will be on process monitoring, compliance monitoring, beneficiary monitoring, outcome monitoring and financial monitoring.

- There is a system of regular publication of analytical reports based on information, indicators and monitoring and evaluation.
- As per need, there will be different types of evaluation but generally, the focus will be on process evaluation, formative evaluation, outcome evaluation and impact evaluation.
- Reports of social and academic audit, financial audit and other audits will be part of the monitoring and evaluation.

8 Management, Monitoring and Evaluation of Policy Implementation

- Basically, the principle and approaches of process implementation, process management, process monitoring and process evaluation using a participatory and bottom-up process are adopted for the management, monitoring and evaluation of policy implementation.
- Coordinating implementation, management and monitoring and evaluation responsibility of the Nepal Medical Education Policy rests mainly with the Medical Education Commission.
- To enhance the performance of the Medical Education Commission, its structure and organization are revisited and expanded and consolidated.
- A high-level Policy Implementation Management, Monitoring and Evaluation Committee (PIMMEC) is there under the Vice-Chairperson of the Medical Education Commission with representation from the Ministry of Education, Ministry of Health, Ministry of Finance, Medical Education Accreditation Commission, affiliating authoritiries, representatives of medical education universities, academies, institutes, health/medical professional councils, associations and faculties of medical education institutes.

- There is a Policy Implementation Management and Monitoring and Evaluation Unit (PIMMEU) within the Medical Education Commission under the PIMMEC. A similar unit is also there in affiliating authorities.
- PMMEC forms different sub-committees and task forces as necessary with representation from different stakeholders to support policy implementation and management and also for monitoring and evaluation. Similar sub-committees and task forces are also formed in affiliating authoritiries as necessary with representation from different stakeholders.
- There is a policy implementation cell at all medical education institutes to oversee the implementation, management and monitoring and evaluation of provisions under the medical education policy.
- PMMEC identifies steps for Policy Implementation and Management Plan that includes a detailed work plan and procedures for implementation and management of policy and risks mitigation measures to address those risks, monitoring and evaluation plan along with monitoring and evaluation indicators.
- A system of constant monitoring, evaluation and feedback is there for the timely revision of policy provisions.