



Improving healthcare performance by focusing on individual productivity of healthcare provider and system thinking: a strategy proposal

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ABSTRACT

Bhutan's health system, despite its commendable achievements in past few decades, continues to face shortage of skilled healthcare professionals and quality issues in service delivery. While recruiting more professionals, advocating for population health, better patient experience and safety, healthcare provider wellness has been overlooked. As the recent pay revision receives warm welcome from the health fraternity, a sense of greater professionalism and responsibility will be expected. Yet, aforementioned challenges still remain. Life and aspirations of professionals, brought up and trained in society that provides free healthcare and education, will become more convoluted. Mentorship program for healthcare providers at the beginning of their career and institutionalizing enabling environment for their personal and professional development need to be looked into. Decisions to pursue specialization should be a result of genuine interest and not a presumed exit hallway from professional frustrations, nor a shortcut to hefty pay. A promising and congruous career pathway can improve job satisfaction among health care providers. Endeavors to improve healthcare service delivery are present at every level but lack of coordination hampers favorable outcome. Variation in healthcare is major cause of adverse healthcare outcome and it is also known that every system is perfectly designed to achieve the results it gets. After conceptualizing few desired outcomes, a strategy framework that leads to health system improvement through improved individual productivity and systemic reforms enhancing intra- and inter sectoral coordination, while using evidence-based practice and existing resources, is proposed.

Keywords: Bhutan; Health provider wellness; Health system improvement; Quality improvement; System thinking.

Setting the context: healthcare system and health workers

Bhutan started its planned development process in 1961 with the beginning of the 1st Five Year Plan. Life expectancy in Bhutan has soared from 34.53 in 1960 to 71.13 years in 2017¹. Maternal mortality and infant mortality have plummeted from 945(1990) & 185.5 (1969) per 100000 live births to 121 & 26 in 2017²⁻⁴. Also, with the beginning of the Five-Year Plan, human resource requirements were clearly outlined and accordingly students were selected for training in India. Today majority of health workers graduate from the Faculty of Nursing and Public Health under the Khesar Gyalpo University of Medical Sciences of Bhutan (KGUMSB) but few professionals, including physicians still undergo their medical training outside Bhutan⁶.

Skilled health professional's density remains low in Bhutan (18.9 per 10000 population). It is below regional and global average of 25.7 and 52.8 per 10000 population respectively⁷. While tackling with shortage of human and financial resources,

Bhutanese health workers face additional challenge of keeping up with medical standards and innovations in other countries manifested in demand for high standard of care by patients.

Unfortunately, in recent times an increasing number of health workers are leaving the system, leading to further lowering of already small number. 24 doctors left practice between 2011 to 2015 and 15 between 2016 to 2018 (source: personal communication). This loss is urgent given that some specialties have only one physician trained in the field. Royal Civil Service Commission (RCSC) of Bhutan came up with Doctor's Career Path Reform to address this issue⁸. In spite of this, physicians (highly trained/experienced doctors and fresh graduates) are leaving the system. This has an impact on workload and quality of care delivered. For example, in 2015 a snake bite victim in Nanglam died because antivenom serum was not administered⁹. In 2018 11 neonates succumbed to hospital acquired infection in Jigme Dorji Wangchuck National Referral Hospital (JDWNRH)¹⁰. In April 2018, a patient with blunt trauma to abdomen died due to post-operative complications¹¹. These cases caused quite a stir in the mainstream media and in some instances resulted in punitive action against the healthcare providers.

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According to the 2017 National Healthcare Provider Job Satisfaction survey only 62% of the doctors were satisfied with their job, least amongst all categories of healthcare providers in the country¹². This finding is concerning because physicians and their decisions have a huge impact on individual patient and overall health system outcome/expenditure¹³. Approximately 70% of healthcare costs are directly or indirectly controlled by physicians’ decisions¹⁴. Another study found that recognition, aside from pay were considered important motivating factors for the Bhutanese physician¹⁵. In fact, until the recent pay revision begins to influence the decisions of future professionals, one can still say that physicians in Bhutan choose the profession for non-financial reasons. Majority of the physicians undergo medical training through merit-based government scholarship.

Now, is the right time

Medical history of Bhutan is at critical juncture today. While the government has rewarded the hard work of health workers with blanket pay rise, the health system needs to be redesigned to strengthen accountability and professionalism at every level. It needs to acknowledge the changes in needs and expectations of both patients/communities and the frontline workers. Professionals need to be encouraged to excel and enabled to explore ways to contribute better, rather than being coerced to follow regulations that were made when awareness on possibilities and resources to support were at its minimal.

“US Healthcare has focused on brilliant-the unusual diagnosis, the brilliant procedures, the latest medications... We have under-emphasized the “routine”, operational aspects of care, that arguably benefit more people”¹ - William A Bornstein, MD. PhD.

Bhutan is on the other side of the spectrum. Our healthcare has been focused too much on the routine care for so long that now there is an emergent need of bold policy change nurturing brilliance and innovation to have any further improvement.

Table 1. A summary of current situation

Good	Bad	Ugly
<ul style="list-style-type: none"> • Free Healthcare: Healthcare Access achieved. • PHC: Tremendous improvement in Health Indicators in just over 6 decades of medical history. • Physician have autonomy to practice • Health workers paid slightly better than other professional groups: Medical allowance 	<ul style="list-style-type: none"> • Quality of care not assessed • Patient expectation not met • No incentive to drive innovation • High workload • No system thinking • Patients and physicians not mindful of healthcare expenditure • Limited opportunity to pursue interest 	<ul style="list-style-type: none"> • Brain drain, while there is shortage of professionals • Physician Burnout • Adverse healthcare outcomes • Punitive action against medical errors

¹ Excerpt from Lecture on Health System Improvement for Physician Performance course Spring 2019, Department of Health Policy and Management, Rollins School of Public Health, Emory University.

What needs to change? Why? and the desired outcome

Health workers’ Early Career (especially physician)

Fresh MBBS graduates after few weeks of orientation are sent to their first workplace, often on their own; and at times expected to manage healthcare center. These physicians experience numerous challenges and eventually, over years most learn to navigate the highly complex healthcare system but, at a cost (can be anything from burnout to adverse patient outcome).

Bhutan’s healthcare system should be designed to enable new recruits to learn from and be guided by leaders in the field. A mentorship program can alleviate the work-related stress and anxiety, increase job satisfaction, reduce turnover and promote personal and professional well-being¹⁷. Evidence suggests many areas of healthcare management—including staff recruitment and retention, education and training, quality improvement, patient safety, and risk management—can benefit from carefully planned, leadership-supported mentoring programs. By supporting internal learning experiences and relationships, organizations can foster improved performance and morale, nurture future leaders, and prepare to meet the many challenges and changes that will present in the years ahead¹⁸.

Career Path

Specialists are significantly more satisfied with their job than those with MBBS degree only¹⁵. Opportunity to pursue Residency has become easier in last six years with the beginning of the FoPGM in KGUMSB. However, timing and regulations related to opportunities outside KGUMSB has not been clear. Few have been able pursue specialization right after undergraduate studies. Some never get to pursue the specialization in the field of their interest. Some get selected for government scholarship but fail to get admission to master’s program. Some get admission to a master’s program but do not get financial support. Some manage to find admission and financial support from elsewhere but do not get approval to leave for study. Additionally, even after years of administrative work, a physician is not accepted as a

“manager” to be able to proceed in executive career pathway of civil service. At a glance solution seems as simple as equal opportunity to study further before joining civil service, equal opportunity to pursue one’s field of interest and equal opportunity to choose a career path suitable to one’s aptitude. But, for some reason it hasn’t worked out that way. Perhaps, a separate agency is required to look into this several decades old issue. Our system should recognize the importance of every specialty, including primary care and hospital administration. Healthcare provider wellness and professional development opportunities need to be looked into. Leadership capable of envisioning and enabling such systemic improvement is needed. Interdisciplinary collaboration within the health system should be enabled before embarking into intersectoral ventures. So far one can say that health related intersectoral and interdisciplinary collaboration has been unidirectional.

Unstandardized practice

There is huge variation in healthcare¹⁹. In Bhutan, this variation is worsened by the fact that physicians are trained in universities across different countries. Few Programs in MOH attempt to standardize treatment through trainings and distribution of guidelines. However, with no mechanism to track, implementation is left completely up to the discretion of health workers. Further, in spite of being public hospitals run by the same government, each health center in the country has its own way of working. There is a confusion on roles and responsibilities of physician at different levels. This unstandardized patientcare and organizational management not just lead to inefficiency but increase risk of adverse health outcomes. Standardization of care & management, with periodic monitoring and evaluation would address most of the common issues in the health system. Clinical audits with timely feedbacks could prevent unforeseen grave adverse medical outcome. All of these would need to be done at health center level (hospitals and BHUs) and managerial roles assumed by physicians should be formalized to ensure long-term planning.

Intellectual Stasis and Emotional Isolation:

Most of the physicians are practicing what they remember from their medical training. Learning and following guidelines are pretty much left up to individual physician’s convenience. When errors occur, which happens very often in healthcare¹⁹, they change their strategy as deemed necessary by themselves. There are no external measures to monitor or guide them. Physicians are emotionally devastated by serious mistakes that harm or kill patients²⁰⁻²². Almost every physician who cares for patients has had that experience, usually more than once. The emotional impact is often profound, typically a mixture of fear, guilt, anger, embarrassment, and humiliation. Physicians are typically isolated by their emotional responses; seldom is there a process to evaluate the circumstances of a mistake and to provide support

and emotional healing for the fallible physician²¹. From an emotional standpoint, they need the support and understanding of their colleagues and patients when they make mistakes. Yet, they are denied both insight and support by misguided concepts of infallibility and by fear: fear of embarrassment by colleagues, fear of patient reaction, and fear of litigation²³.

This is a worrisome situation because physicians are the cornerstone of health delivery system. Health-care costs ultimately arise from the accumulation of individual decisions doctors make about services and treatments to write an order for. The most expensive piece of medical equipment, as the saying goes, is a doctor’s pen²⁴. Also, by nature of this discipline, a physician has to continue learning and being abreast of the latest guidelines. Health system should be redesigned into one that is emotionally supportive and conducive for physicians to participate in academically beneficial activities while providing quality care to the patients.

Adding EMR to the eHealth Strategy

National eHealth Policy of Bhutan states that “Digitized Health record and information system shall be instituted in all the health facilities for faster and effective health information generation to support decision making”²⁵. Even if the existing system is perfectly integrated, the reliability will remain an issue because interactions at individual level are still not digitalized. ICT tools that would help a physician track the past history of patients and support clinical decision through reminders and best-practice guidelines for treatment have not been discussed explicitly in the current eHealth Strategy.

Introduction of Electronic Medical Record (EMR) could help address the quality issues in direct patient care. It will also improve communication, coordination, measurement and decision support.

In 2005, a study in US concluded that effective EMR implementation and networking could eventually save more than \$81 billion annually by improving healthcare efficiency and safety-and that HIT (Health Information Technology)-enabled prevention and management of chronic disease could eventually double those savings while increasing health and other social benefits²⁷. Others say healthcare expenditure and physician burnout has increased as a result of EMR introduction. And that there have been few savings from the EMR²⁸.

EMR could be a success story in Bhutan because firstly there will be just one system for the whole country. Secondly, Bhutan could wait for few years before incentivizing any activity related to EMR use. One important amendment to current eHealth strategy should be involvement of users in the early stage. A customized, reliable and efficient EMR system needs to be developed. ICT officers who work in this project should be closely involved with professionals in hospitals and understand the work process. We would not want to invest in a healthcare improvement tool that virtually locks out the users in long run.

Develop a tradition that insists on the collection and evaluation of information to understand and describe the consequences of medical practices

Healthcare workers can do more to admit the existence of uncertainty, both to themselves and to their patients. While this will undoubtedly be unsettling, it is honest, and it opens the way for a more intensive search for ways to reduce uncertainty¹⁹. Individuals who want to promote policies regarding use of medical procedures could learn the necessary languages (statistics, probability theory, mathematics and economics and decision theory). Physicians should be encouraged to publish papers that synthesize existing information, estimate the outcomes of different policies, and present the rationales for different actions. Government can support more evaluation research to analyze medical practices. Patients can push the process by asking questions. The problems that exist today are not the fault of any individuals; the fault lies with the profession and society as a whole for not developing the traditions and methods needed to assess medical practices¹⁹. We certainly cannot blame a systematically chosen Grade 12 student for choosing the profession seven years later.

Pay for performance

Policy experts believe payment method reforms for healthcare providers is the most promising method of improving the quality of care and controlling costs²⁹. Some say Pay for Performance (P4P) results in unsustainable post-introduction initial quality improvement acceleration, with possibility of unintended consequences, including reductions in the quality of some aspects of care not linked to incentives and in the continuity of care³⁰. For Bhutan, P4P is implementable especially because of small number of physicians. It could also be used to reward teams, and in that way bind physicians and other health workers together in seeking the same patient outcome objective. However, unfamiliarity to such a system, comfort of generalizing corrective action and possibly even lack of expertise has contributed to non-acceptance of an elementary proposal like Doctors Oncall Allowance by the recent 5th pay Commission of Bhutan. The Oncall allowance could have been the first step towards P4P system.

Having said that, P4P at the individual level would slowly but surely happen as the country’s human resource capacity develops. Meanwhile, performance evaluation of hospitals based on quality improvement measures can be started. This is more doable as the Quality Assurance & Standardization Division (QASD) in MOH has already laid the framework for assessment. KPIs (Key Performance Indicators) in the Bhutan Health Standard Quality Assurance (BHSQA) guideline could be used to rank and reward the hospitals performing well. Systemic improvement in hospitals will definitely lead to improvement in overall health system.

Healthcare expenditure and Systems approach

Atul Gawande in his article “The Cost Conundrum” recommends cities wean away from untenably fragmented, quantity-driven systems of health care²⁴. He says doctors and hospitals should be rewarded if they collaborate to increase prevention and improve quality of care, while discouraging overtreatment, undertreatment, and sheer profiteering. He says government could shift regulatory burdens, and even malpractice liability, from the individual to organization. He recommends in-depth research on what makes the best systems successful. Further he says a national institute for health-care delivery, that regularly assess the quality and the cost of care, review the strategies that produce good results, and make clear recommendations for local systems should be formed.

As mentioned earlier, health system in Bhutan is very different from that in US but we can definitely learn a lot from each other. The recommendation Gawande makes is pertinent to our health system as well. In fact, one can even say that we are on the right track. Unlike few decades earlier we have the insight and access to resources. Important foundations are already laid and some entities have already started to address issues. The challenge is to come up with a mechanism to coordinate.

How do we get to our desired outcome?

Strategy Framework: A proposal

Each of the desired outcomes proposed above lead to improved Health System Performance through improved individual productivity and improved coordination within healthcare system.

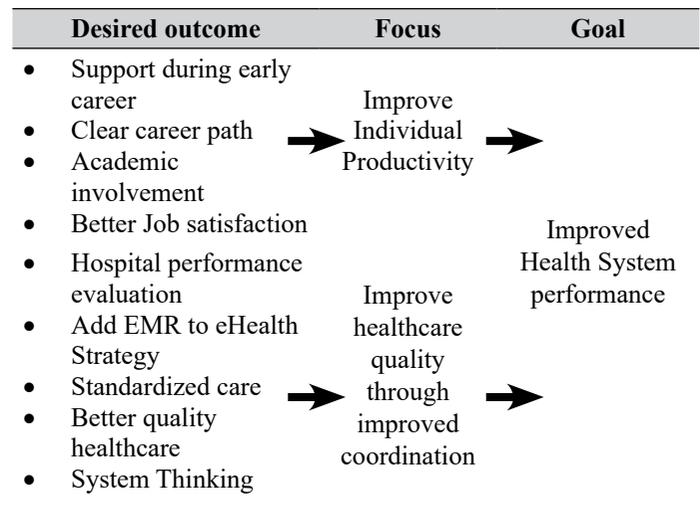


Figure 2. BCMP strategy framework

The framework summarized in Figure 2 emphasizes the fact that healthcare provider performance is very much a part of health system. One cannot make any changes to healthcare provider performance without changing the health system and vice versa. Physician (a healthcare provider) performance is rightly said to be 85% system related³¹.

Objectives	Performance Improvement Approach	Measure	Agency responsible
1.Improve healthcare quality through improved coordination	1.Standardization of care with regular monitoring and evaluation both at Hospital level and National level.	BHSQA-KPI ¹	QASD ² and DHS ³ in MOH, KGUMSB
	2.Ranking and rewarding (incentivizing) quality outcomes. <ul style="list-style-type: none"> • Individuals at hospital level • Hospitals at national level 	Health outcomes	DHS and DH* in MOH, RCSC
	3.Include EMR in eHealth Strategy	Implementation of EMR	ICTD, MOH
2.Improve individual productivity	4. Mentorship program <ul style="list-style-type: none"> • Professional development • Emotional wellness • Job satisfaction • Nurture future leaders 	Health Worker Job Satisfaction and Patient Satisfaction scores	MOH, RCSC
	5.Streamline career path <ul style="list-style-type: none"> • Equal opportunity to pursue specialization field of interest including MPH • Job responsibility congruent with reality 	Staff turnover	MOE, MOH, RCSC
	6. Professional group formation <ul style="list-style-type: none"> • Promote research culture • Develop a platform to share practice success and experience • Improve healthcare by participating in policy decision making, innovation 	Research activity, participation in policy decision making, academic learning, sharing experiences and success stories in journals	Health professionals especially physicians

¹ BHSQA-KPI: Bhutan Health Standard Quality Assurance- Key Performance Indicators, * DH: District Hospital

² QASD: Quality Assurance & Standardization Division

³ DHS: District Health Service Program, ICTD: Information Communication and Technology Division, MOH: Ministry of Education

Figure 3. Aim of BCMP: Improve Health System Performance

To reach our goal we could form a separate independent professional agency/body, say for example an entity named Bhutan Center for Medical Professionalism (BCMP), comprised of experts from multiple health related disciplines. It would enable health professionals to attain their highest potential and ensure quality healthcare delivery through systemic reform. This extremely important and responsible institute should epitomize professionalism, high ethical standards, respect, support, competence and expertise in patient safety and healthcare provider wellness.

As proposed in Figure 3, the BCMP could coordinate the six major Health System improvement approach. Standardization of care with regular monitoring and evaluation will be one of the most challenging tasks given the complexity of public hospitals and unavailability of digital medical data at present. However, we can use KPI of BHSQA to start-of. With this performance-based hospital ranking and rewarding would be possible.

A Future Leaders Mentoring Programme was introduced by RCSC in 2017 as one of the programs under the Civil Service Well-being reform³². BCMP could propose for a similar program suitable for medical professionals. Given the nature of work, physicians could benefit immensely from a formal program like this.

BCMP will guide the physicians in forming a professional group. Forming a professional support group to ensure healthy discussions and active learning won't just boost the performance and morale of the physicians but germinate a possibility of Bhutanese physicians inventing and innovating in medical field. So far, work environment of physicians has not been favorable for academic growth. They do not have a formal platform to interact with fellow-physicians and share their experiences and success stories. There is neither a medium for sharing genuine concerns nor a nurturing and non-judgmental support mechanism for grievances.

Rationale for choosing this strategy

This strategy was chosen because it holds a certain body responsible. It addresses various challenges faced by Bhutanese health professionals. A systemic and collaborative approach like this is required because in healthcare there is high interdependency within and across the system. BCMP will work independently but closely with the Ministry of Health, Royal Civil Service Commission and Bhutan Medical and Health Council (BMHC). Evidence based practice will be instrumental in changing the social norms. Having BCMP will give assurance to health professionals that there is an agency that looks after their welfare. Current BMHC rules and regulations does that for the patients. Mostly importantly this strategy is culturally acceptable. It's foundation on evidence-based practice and ultimate aim of improving healthcare is more acceptable to societal environment. It follows the "new Donabedian Equation."- Dr. William A. Bornstein:

$$\mathbf{S + P + C = O}$$

Structure + Process + Culture = Outcome

Note: Healthcare is a team effort. Although throughout history of medicine physicians have led the profession, which still remains true in other countries, Bhutan has given equal importance to all the professionals honoring the contributions made by each category of healthcare providers. However, findings that suggest that physicians are not just the least satisfied employees amongst the healthcare providers¹² but also much less happy than the general population³³ is something to worry about. These professionals, constituting only 10% of the health workforce³, are not just the leaders of patient treatment team but also often the managers of healthcare centers. They are overworked and drained from high expectations. Most importantly, much evidence suggests that the majority of the healthcare outcome and expenditure is dependent on them. Therefore, it is crucial to make a concerted effort to improve healthcare system with focus on physician performance.

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