

Tackling the Challenges of the Healthcare Delivery System in Developing Countries

Dr. Myint Htwe



**TACKLING THE CHALLENGES OF THE HEALTHCARE DELIVERY SYSTEM IN
DEVELOPING COUNTRIES**

By Dr. Myint Htwe

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CONTENTS

Acknowledgment	06
Preface	08
Message to My Fellow Health Professionals	11
How is This Book Set Up?	12
Disclaimer	16
Appreciation	16
Gratitude	17

Part 1. PRELIMINARY CONSIDERATION

1. Principles and Generic Approaches to Tackle the Strategic Challenges	19
2. Initial Steps for Consideration	22

Part 2. DISCUSSION AND ACTION POINTS PROPOSED ON THE BROAD FRONT

3. Promoting Tripartite Collaboration	26
4. Reinforcing Human Resources for Health	35
5. Strengthening the Public Health Domain	40
6. Enhancing the Effectiveness and Efficiency of the Healthcare Delivery System	43

PART 3. DISCUSSION AND ACTION POINTS PROPOSED ON SPECIFIC ISSUES

7. Updating the Standard Operating Procedures and Guidelines	50
8. Consolidating the Health Information Systems	53
9. Conducting Capacity-building Activities	59
10. Establishing a Resilient National Health Supply Chain Management System	63
11. Collaborating with the WHO and External Entities	68
12. Removing the Demarcation Line Between the Clinical Domain and the Public Health Domain	73
13. Reducing the Number of Patients in Hospitals	76
14. Be Prepared to Tackle Future Pandemics	80
15. Conducting Implementation Research	84
16. Initiating Rational Budget Allocation	87
17. Minimizing the Challenges Observed in the Hospital Domain	90

18.	Launching Staff Briefing Programs for New Employees	94
19.	Reinforcing the Nursing Professionals	96
20.	Backing up the Paramedical Professionals	100
21.	Expanding the Use of Computerized Systems	103
22.	Intensifying the Collaboration Among Ministries: Road Traffic Accidents <i>vis-à-vis</i> The Cost to the Ministry of Health	107
23.	Senior Officials of the Ministry of Health <i>vis-à-vis</i> Strategic Challenges	110
24.	Stopgap Measures to Ease the Challenges of the Hospital System	115
25.	Stopgap Measures to Increase the Effectiveness of Public Health Programs	121
26.	Enhancing the Effectiveness of Disease Surveillance Systems	125
27.	Enhancing the Work Efficiency of the Director of Communicable Disease Control	131

Part 4. DISCUSSION AND FORWARD-LOOKING THOUGHT

28.	Thinking “ <i>outside-the-box</i> ” in the Context of Developing Countries’ Health Scenarios	135
29.	Managing a Health Program with a Suboptimal Number of Health Staff	146
30.	Decision Making in Public Health	150

Part 5. CONCLUSION

31.	Conclusion	155
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PART 6. ANNEXES

Annex 1.	Ringling the Bell for the Ministry of Health	160
Annex 2.	Inaugural Speech Delivered by Dr. Myint Htwe	164
Annex 3.	Author’s Profile	190

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Dr. Myint Htwe is a public health expert with a wealth of knowledge in the national and international health fields. The MBDS would like to thank him for his essential work on the publication of this book. This is a reflection of the skills and expertise he acquired while working at the WHO Regional Office for South-East Asia from 1994 to 2010 and as Union Minister for Health and Sports in Myanmar from 1 April 2016 to 31 January 2021.

Many of the concerns discussed in this book are based on the actual circumstances in a developing country like Myanmar. Many of the recommendations, realistic strategies, and concepts put forth might also be applied in other developing countries. These could be particularly helpful for epidemiologists, administrators, and public health specialists managing the healthcare delivery system in developing countries. All developing countries share a lot of common health problems, issues, and challenges. In this regard, MBDS is pleased to release this significant publication for the field of public health.

Topics such as principles and generic approaches to tackle the strategic challenges; promoting tripartite collaboration; reinforcing human resources for health; strengthening the public health domain; enhancing the effectiveness and efficiency of the healthcare delivery system; consolidating health information systems; collaborating with the WHO and external entities; removing the demarcation line between the clinical domain and the public health domain; reducing the number of patients in hospitals; stopgap measures to ease the challenges of the hospital system; stopgap measures to increase the effectiveness of public health programs are just a few topics that will be covered.

This book is the third in a series of books produced by Dr. Myint Htwe. All three books are complementary to each other. They are inter-linked and inter-connected. This third book is mainly directed towards reducing and overcoming the strategic challenges faced by the healthcare delivery systems in developing countries.

In actuality, it aims to improve not only the managerial and administrative facets of running the healthcare delivery system but also the public health development and coordination processes. It offers viewpoints from both national and subnational levels in

the context of developing countries. It also strives to educate decision-makers in public health, epidemiology, clinical practice, paramedicine, and health program directors on how to effectively address the problems and challenges of the healthcare delivery system in developing countries.

In order to make public health programs more effective and efficient, lower middle-income countries (LMIC) and other countries in the Mekong region may find it useful to adapt, use, and adopt the experiences that have been documented and actions that have been suggested in this book. This applies not only to Myanmar but also to other LMICs.

Health-related decision-makers should pay special attention to the four chapters. The importance of senior officials in addressing strategic challenges is illustrated in the chapter titled ***“Senior Officials of the Ministry of Health vis-à-vis Strategic Challenges.”*** Future-focused and thought-provoking is the chapter on ***“Thinking outside-the-box in the Context of Developing Countries’ Health Scenarios”, “Managing a Health Program with a Suboptimal Number of Staff”, and “Decision Making in Public Health”.***

Dr. Moe Ko Oo

Secretariat

Mekong Basin Disease Surveillance (MBDS)

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PREFACE

This third book strives to tackle the strategic challenges that developing countries' healthcare delivery systems regularly run into. The two books already written by the author, i.e., *“Reflections of a Public Health Professional”* <https://mbdsnet.org/publication/reflections-of-a-public-health-professional/> and *“Health System Challenges: A Developing Country Perspective”* <https://mbdsnet.org/publication/health-system-challenges-a-developing-country-perspective/>, are complete. The three volumes' topics revolve on several major problems, practical difficulties, and challenges frequently faced when providing healthcare to people in developing countries.

A few chapters from the first two books are cross-referenced to keep the book from getting too big. This book captures the challenges faced in the real world and the state of healthcare delivery systems in developing countries. To guarantee a stable state of health for the populace, we must successfully conquer the difficulties, challenges, and barriers as a team.

It is well-known that challenges are generally evolving and fluctuating in the context of:

- (i) The quality, number, attributes, and activities of the health professionals running the healthcare delivery system;
- (ii) The government's overall national policy;
- (iii) The political climate and security of the country;
- (iv) National health policy;
- (v) National health plan;
- (vi) Major healthcare strategies and interventions being implemented in the country;
- (vii) Level of performance of the healthcare delivery system, including the efficiency of services given in hospitals and health institutions;
- (viii) Population health literacy level;
- (ix) Ever-changing epidemiological conditions;
- (x) The socioeconomic situation of the country.

Before taking on each challenge, we must weigh its relative importance. The biggest problems in the healthcare delivery system are typically those relating to administration, management, logistics, and technical aspects.

The relative weightage of the importance of each challenge should be considered as appropriate. When we scrutinize the challenges, they should be viewed from different angles and perspectives. This could reduce the bias in inference drawing and decision making. Tackling the challenges should be seen as the greatest opportunity to improve the effectiveness and efficiency of the healthcare delivery system in the country.

The absence of necessary standard operating procedures and guidelines in hospitals and healthcare facilities presents numerous difficulties. Simply creating new standard operating procedures and guidelines, or updating or changing the current standard operating procedures and guidelines, can solve these problems. By using freshly created or improved tactics and solutions, some problems can be resolved. However, some challenges call for changes in health policy and strategy, which could take some time.

From a health standpoint, it is crucial to first examine problems and challenges with human resources because people, not machines or robots, manage the healthcare delivery system. Therefore, the availability of technically competent, ethically minded, forward-looking, positive-minded, and team-spirited professionals could be the possible solution.

We need to take the following sequence of key actions when tackling the problems, difficulties, and challenges of the healthcare delivery system:

- (i) Identifying the challenges;
- (ii) Prioritizing the challenges using a set of criteria;
- (iii) Considering the cost-effectiveness of each solution or action identified;
- (iv) Exploring and selecting the options and best possible solutions;
- (v) Making an unbiased and rational decision;
- (vi) Carrying out rapid implementation research;
- (vii) Reviewing the status of the healthcare delivery system's performance after sometime;

This book makes reference to a number of pertinent chapters from the first two books, where specific action items have been explored and outlined. They are prepared so that readers or implementers can choose the actions that best suit the current requirements of the scenario at hand in their country. The readers may also choose to tweak the action points even more to meet the unique requirements of their country.

This book is presented in a straightforward and approachable style to make it easier for health professionals in developing countries to grasp the author's honest intentions. The suggested action steps in the book can be modified to fit the particulars of the challenges they are dealing with.

It is ardently desired that the concepts discussed in this book would contribute to raising the general effectiveness of the healthcare delivery system in developing countries. The public will be happy with the services provided by the health ministries and other associated agencies. Our ultimate goal should be to provide high-quality clinical and public health services to the whole community.

At the end of each chapter, boxes with the relevant chapter's action points are displayed. These boxes contain action points that work in concert with one another. As a result, we must think about them as a whole rather than separately.

The inaugural speech, which was given on April 1st, 2016, to the senior personnel of seven departments of the Ministry of Health, is attached as Annex 2 because the facts and concepts it contains are general in nature and are still relevant today. The suggested course of action outlined in the speech will enhance the effectiveness and efficiency of the healthcare delivery system, as well as help address and resolve some of its difficulties.

Through teamwork, we shall conquer the strategic challenges!

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MESSAGE TO MY FELLOW HEALTH PROFESSIONALS

The issues and challenges mentioned in this book, as well as my thoughts and proposals for potential solutions, should be taken into account in light of the professional readers' prior knowledge. I simply want to sincerely share my experience with my health colleagues. I do not want to lose my arduously acquired experience for no apparent cause.

Each developing country may face several sets of challenges. This non-uniformity of challenges itself is a challenge to all of us. We are all faced with obstacles since challenges themselves are not uniform. In order to manage and tame the challenges, collective thought and the collaborative nature of work are essential. Nobody has all the knowledge. We are all only aware of a portion of it. We ought to make an effort to view the other side of the coin holistically.

The issues and challenges addressed and explored in this book can represent a small component of the whole situation. Some of the difficulties and challenges are brought on by elements resulting from decisions made or actions taken by areas over which the Ministry of Health has no influence. To address these issues, conversations at the ministerial level are necessary. These are not covered by this book. After reading my book, I want my esteemed colleagues in the health field to think creatively and innovatively. Their cognitive processes, audacious suggestions, and fresher strategies must be far superior to mine.

The challenges, as well as the solutions, are like jigsaw puzzle pieces. They are all interconnected and interlinked. By extending this example, it may be said that one strategy or solution can address multiple problems, issues, or challenges. Similarly, challenges could not be resolved by a single person. We need collaborative thinking and coordinative effort. It is advisable to discuss each chapter with a group of professionals or a group of post-graduate public health students rather than reading this book and getting an answer from one individual.

The results so produced might be much more beneficial than the ones I had suggested. As long as there is a healthcare delivery system, there will in reality be obstacles, difficulties, and problems, and those challenges are always changing in terms of their number, geographic distribution, range of periods, and degree of intensity. We can assume obstacles, difficulties, and problems as challenges, which need to be overcome. ■

HOW IS THIS BOOK SET UP?

In the preface, the nature of the challenges and general issues are highlighted, and several perspectives on the challenges are discussed from different angles. Following this, *“Message to My Fellow Health Professionals”* is explained. The first two chapters provide some background information on the ideas and methods that will be used to address the strategic problems and challenges. Also described are the initial steps that must be taken before we can begin to address the problems and challenges with the healthcare delivery system. There are 28 key areas (4 on the broad front, 21 on specific issues, and 3 on forward-looking thoughts) that we need to improve to alleviate or eliminate the challenges of the healthcare delivery system.

The following four chapters are directed towards improving the system as a whole.

Chapter 3. Promoting Tripartite Collaboration. This will strengthen the overall work of the healthcare delivery system, especially in terms of training activities, and its synergistic efforts will be felt.

Chapter 4. Reinforcing Human Resources for Health. The drivers of the healthcare delivery system will be strengthened as a result. Many challenges arising from insufficient and subpar performance of the healthcare delivery system would be resolved if we reinforce human resources for health.

Chapter 5. Strengthening the Public Health Domain. It can lead to a stronger infrastructure of the healthcare delivery system, which could help alleviate the workload challenges seen in hospitals and reduce the incidence of epidemics and public health problems.

Chapter 6. Enhancing the Effectiveness and Efficiency of the Healthcare Delivery System. It outlines strategies for enhancing the effectiveness of the healthcare delivery system. This might resolve issues brought on by the healthcare delivery system’s subpar performance.

The following twenty-one chapters are directed towards improving certain specific issues.

Chapter 7. Updating the Standard Operating Procedures and Guidelines. As a result, there may be less complaints about the clinical and public health services because of an improvement in their technical quality. This is an activity that might result in long-term advantages. The importance of standard operating procedures and guidelines should not be understated.

Chapter 8. Consolidating the Health Information Systems. This can assist in obtaining accurate, timely, and reliable information so that the essential planning can be done in advance to avoid many undesirable occurrences. Most countries' health information systems are not well coordinated and consolidated.

Chapter 9. Conducting Capacity-building Activities. This can improve the caliber of health professionals, leading to fewer complaints due to sub-standard healthcare services rendered to the population. A highly strong health workforce may result from this, which would be a long-term value for the health ministries.

Chapter 10. Establishing a Resilient National Health Supply Chain Management System. This might significantly enhance hospital performance, raise patient satisfaction, and reduce stress on medical staff. All ministries of health must undertake this project, which is of utmost importance. Without adequate supply chain system performance, the healthcare delivery system will collapse sooner rather than later.

Chapter 11. Collaborating with the WHO and External Entities. Due to the technical and financial support provided by them for the delivery of more effective health services to the people, this can enhance the overall performance of the healthcare delivery system. These organizations and agencies are here in the country to support the ministries.

Chapter 12. Removing the Demarcation Line Between the Clinical Domain and the Public Health Domain. This could have a variety of advantages and lessen a number of challenges. This demarcation line must be permanently eliminated. In both realms, favorable reciprocal effects are possible.

Chapter 13. Reducing the Number of Patients in Hospitals. This can lead to high "*patient satisfaction index*," resulting in fewer complaints from patients. This is the challenge that all developing countries are dealing with. To achieve this decrease in the number of patients in hospitals across the county, clinicians and public health experts should collaborate in this area as well.

Chapter 14. Be Prepared to Tackle Future Pandemics. This has major significance. There will be numerous advantages for the populace and the government if we can quickly contain upcoming epidemics and pandemics. There won't be any disruptions to other healthcare delivery system activities' usual operations.

Chapter 15. Conducting Implementation Research. If we are to uncover the difficulties and challenges that are hidden and choose the best course of action to reduce them, this is a requirement. The health staff's technical and research skills will also be greatly enhanced.

Chapter 16. Initiating Rational Budget Allocation. The need for a balanced budget allocation for health programs and priority health programs to get more cannot be overstated. The significance of which is frequently understated in the health ministries of many countries. It is crucial to many health programs' success in attaining their goals.

Chapter 17. Minimizing the Challenges Observed in the Hospital Domain. This is a direct response to the challenges in the hospital sector. Hospitals and other medical facilities are posing a number of difficulties. It is necessary for all hospital and healthcare workers to work together.

Chapter 18. Launching Staff Briefing Programs for New Employees. This can result in improved performance, and there will be no lapses in the duties to be performed by the individual staff. This is a mandatory activity for all ministries of health. Immediate attention should be given.

Chapter 19. Reinforcing the Nursing Professionals. This is the most important thing to accomplish because it will help to solve many problems with *“patient-nursing staff interactions”* in hospitals. The workforce is dependent on nurses to keep the facility operating efficiently. The working atmosphere should be made as conducive as possible.

Chapter 20. Backing up the Paramedical Professionals. Many countries have not taken this seriously. Paramedical experts' superior performance and outstanding output can assist in resolving numerous problems that arise in hospitals. If paramedical personnel perform satisfactorily, patient death rates and duration of stay will be decreased in hospitals.

Chapter 21. Expanding the Use of Computerized Systems. This may make it easier for medical staff to provide quality care on time, which might result in fewer problems with the healthcare delivery system. The system for delivering healthcare will be much more effective.

Chapter 22. Intensifying the Collaboration Among Ministries: Road Traffic Accidents *vis-à-vis* The Cost to the Ministry of Health. The importance of collaboration among several ministries is highlighted using road traffic accidents as an example. Multiple benefits for the healthcare delivery system can be obtained while at the same time resolving many of the challenges facing it.

Chapter 23. Senior Officials of the Ministry of Health *vis-à-vis* Strategic Challenges. It illustrates how senior officials should respond to strategic challenges. In order to provide their personnel with realistic, strategic, relevant, and practical counsel, senior officials must have a thorough understanding of what is actually taking place on the ground. They ought to spearhead numerous new initiatives.

Chapter 24. Stopgap Measures to Ease the Challenges of the Hospital System. Although stopgap measures are temporary solutions to the hospital system's problems, they may have a favorable direct or indirect impact on how well the entire healthcare delivery system performs. Some initiatives have a long-lasting positive impact on the populace's faith in the work hospitals do.

Chapter 25. Stopgap Measures to Increase the Effectiveness of Public Health Programs.

Ongoing public health programs can be made more effective by looking at a few temporary solutions. These band-aid solutions won't take the place of the ongoing public health interventions carried out in accordance with the plans of various public health initiatives. The populace will eventually feel the effects of these band-aid solutions, though.

Chapter 26. Enhancing the Effectiveness of Disease Surveillance Systems.

Enhancing the effectiveness of disease surveillance systems could not only prevent disease epidemics, but also allow us to make necessary changes to disease control programs to overcome common challenges in the disease domain.

Chapter 27. Enhancing the Work Efficiency of the Director of Communicable Disease Control.

The efficiency of the responsible director is crucial to keeping the morbidity and mortality rates of communicable diseases on a downward trend. Multiple benefits could be obtained, including the removal of many challenges in the disease control arena.

The following 3 chapters discuss the forward-looking thoughts.

Chapter 28. Thinking “outside-the-box” in the Context of Developing Countries’ Health Scenarios.

This is a thought-provoking article for decision-makers who want to have a long-term positive impact on the health of the people. There are numerous new innovations taking place in the fields of clinical practice and public health. Therefore, we should not be conducting business as usual. There should be more forums for employee discussion to generate creative and practical solutions for enhancing the work of the healthcare delivery system.

Chapter 29. Managing a Health Program with a Suboptimal Number of Staff.

This is one of the challenges that ministries of health in developing countries are facing perpetually. Several options to improve the situation are discussed in the article. It is a stimulating piece that can sharpen the epidemiological skills of the health staff.

Chapter 30. Decision Making in Public Health.

The majority of the time, health professionals pay little attention to their decision-making process. Decisions taken at the strategic and policy levels could have negative and positive effects on the populace. A good decision could relieve or remove many untoward effects of issues and challenges. Making the right choice could lessen or even eliminate many detrimental effects of issues and challenges. This article will stimulate the health staff to be serious in the decision-making process. ■



DISCLAIMER



The viewpoints expressed in this book are those of the author, Dr. Myint Htwe, and may not necessarily represent those of the WHO, the Ministry of Health and Sports of Myanmar, or any groups, committees, or organizations with which the author has long-standing ties.

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APPRECIATION



Iwould like to express my appreciation to Dr. Soe Kyaw, editor, and MEDIAART, Academic Publishing Consultancy for the book's distinctive publication design as well as to Dr. Moe Ko Oo and his team from the MBDS Secretariat for their insightful ideas to enhance the book's overall aspect. ■



GRATITUDE



Through this book, I want to express my respect and gratitude to my late parents, U Shwe Tha Htwe (then the head of the Department of Agriculture, Burma) and Daw Aye Yee, who enrolled me in St. Patrick's Catholic Primary School and St. Paul's High School in Rangoon, Burma. I want to express my sincere gratitude to my early teachers from the two schools. I gained a strong foundation in a variety of viewpoints, particularly moral and ethical viewpoints.

I would personally appreciate and thank the professionals and staff of all domains and disciplines working in 14 states and regions, and the Nay Pyi Taw region, Myanmar, under the umbrella of the Departments of Public Health, Medical Services, Human Resources for Health, Medical Research, Food and Drug Administration, Traditional Medicine, Sports and Physical Education, 16 medical and paramedical universities, 52 nursing and midwifery schools, and staff of the office of the Ministry of Health, who supported, collaborated, and worked with me as a solid team from 1 April 2016 to 31 January 2021. I attained unique experiences while interacting and working with them for nearly five solid years. I also learned many valuable lessons from them, for which I am eternally grateful.

My wife, Dr. Nang Kham Mai, a retired Township Medical Officer from Ahlone Township in Yangon Region, Myanmar, deserves a special mention for her unwavering support throughout the preparation of this book. I also want to thank my three grandkids, Keanu, Kelvin, and Sachi, who helped me write this book by providing a happy and cozy environment. ■

PART. 1

PRELIMINARY
CONSIDERATION

Chapter: 1

PRINCIPLES AND GENERIC APPROACHES TO TACKLE THE STRATEGIC CHALLENGES

Tackling the challenges of the healthcare delivery system is a daunting task for the officials of the Ministries of Health in developing countries. The challenges seen in the healthcare delivery system of developed countries are very different from the challenges faced in developing countries. Similarly, challenges observed in government-controlled healthcare delivery systems and private healthcare systems are also not similar.

If we visualize the causal nature of a challenge, it could be the result of multiple factors. One of the factors causing that challenge in one program area may also cause another challenge in another program area. In other words, a critical or composite analysis of a challenge should always be carried out. Sometimes, a challenge will disappear by itself because we have removed the cause of another challenge.

In essence, tackling the challenges requires holistic thinking and practicing a systems approach. In the parlance of epidemiology, it is called epidemiological thinking and epidemiological analysis. Therefore, we need to improve the epidemiological thinking skills and epidemiological analysis capabilities of health professionals to help them overcome the challenges of the healthcare delivery system.

We have to live with the challenges. Challenges are part and parcel of the normal phenomenon of the healthcare delivery system. The presence of challenges is also conducive to making the healthcare delivery system more responsive, sensitive, and dynamic.

One of the approaches to eliciting the existing challenges and their implications is to conduct quick implementation research on the performance of the healthcare delivery system as well as conduct rapid surveys to elicit the viewpoints of patients and the population at large towards the healthcare delivery system.

It is thus incumbent upon the responsible officials to propagate the knowledge of doing implementation research on different aspects of the healthcare delivery system. The reason is that implementation research could help improve the efficient translation of health policies, strategies, and interventions into reasonably acceptable actions.

Conducting implementation research on the healthcare delivery system can also create a sense of belonging among the staff who run health programs. As alluded to earlier, the challenges should also be viewed from a patient's or population's perspective to construct the full picture of skeleton challenges.

When we are dealing with the challenges in the government-controlled healthcare delivery system, we need to take into account the following conditions:

- (i) The country's national health policy, national health research policy, and national health plan;
- (ii) The major strategies and interventions of the Ministry of Health as well as its structure and functions;
- (iii) The competence and capability of health professionals;
- (iv) Population health literacy level;
- (v) The budget allocation and utilization pattern of the Ministry of Health;
- (vi) Rising healthcare costs;
- (vii) Rising demand or shifting population expectations;
- (viii) The existence or absence of a national health insurance system;
- (ix) The emergence and re-emergence of communicable diseases;
- (x) Morbidity and mortality trends in communicable and noncommunicable diseases;
- (xi) The frequency with which epidemic outbreaks occur;
- (xii) The availability of new patient treatment and diagnostic methods;

The challenges span from administrative, management, and logistics to technical issues in the clinical and public health domains. Some of the challenges are beyond the control of the Ministry of Health. Challenges could be divided into two categories: one is common across all parts of the country, and the other is specific to individual regions/provinces/states and health institutions in the country. Tackling the challenges of the healthcare delivery system should be taken as an opportunity by health professionals and handled appropriately.

The challenges are not fixed nor stationary. The challenges may vary or change, and new challenges may emerge due to changing epidemiological situations in the country and other factors such as changes in the head of the department, or division, or unit. A new approach such as ***"Healthcare Delivery System Challenges Scouting Teams"*** could be

formed so that **“Surveillance of Challenges”** of the healthcare delivery system in the country would be recognized on a real-time basis and taken care of accordingly.

The major challenges stem from issues related to human resources for health. In order to elicit the challenges of the healthcare delivery system in the country, as a preliminary initiative, brainstorming sessions, seminars, and meetings to identify the challenges of the healthcare delivery system should be held, involving representatives from relevant disciplines and domains. This could give perspective from the supply side.

Simultaneously, we could also conduct **“People’s Health Assemblies”** to see the picture or perspectives from the demand-side or population point of view. After we have identified the challenges from both sides, they should be critically analyzed and prioritized. While focusing on the identification of challenges, we need to review the national health policy and national health plan of the country as well as major strategies and interventions of health programs and projects being implemented in the country.

“Composite analysis” is crucial. It should be considered from each and every angle. The inference drawn should be put on the table for the collective final decisions on the path to successfully tackling the contemporary challenges of the healthcare delivery system in the country. The challenges of the healthcare delivery system would be reduced in terms of number and seriousness if we could consider initiating the following interventions.

Formulate and institutionalize practical, implementable, cost-effective, sustainable, and down-to-earth strategies commensurate with the developmental status, budget availability, and capacity and capability of human resources for the health of the country concerned. To be cost-effective, the challenges should be tackled on a broad front rather than as individual challenges, unless the individual challenge is too sensitive, big, and complex.

We need to achieve these as much as possible by supporting, helping, and collaborating with each other among the different stakeholders of the healthcare delivery system in the country. The challenges are universally present in every healthcare delivery system, whether in developing or developed countries. However, the degree, seriousness, prevalence, and quantum of challenges will vary from country to country, region to region, province to province, and from time to time.

The strategies and interventions are generally linked together, complementing, supporting, and reinforcing each other. The beneficial effects of each strategy and intervention generally reach far beyond their originally intended purposes. The synergistic actions among the interventions are generally noticeable, and thus the cumulative benefits overwhelm the individual benefits combined.

The following chapters discussed on the general strategies and actions should be taken into consideration for overcoming the strategic challenges frequently faced in the functioning of the healthcare delivery system, starting with the preliminary steps as described below. ■

Chapter: 2

INITIAL STEPS FOR CONSIDERATION

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

The question is, *“Can we be able to tame the strategic challenges of the healthcare delivery system successfully?”* Yes, we can.

There are two major areas that we need to pay attention to. One is the consideration of achieving public health preparedness and readiness, through which we will make all the key interventions that are usually implemented in the field of public health well prepared and ready for action.

The second one is hospital or clinical side preparedness and readiness, by which we aim at reducing the commonly encountered issues, problems, and challenges arising out of interactions between health staff and patients in hospitals and health institutions and health centers.

Another important aspect is that challenges should be viewed not only from the health staff side but, more importantly, from the population side. In other words, viewpoints from holistic aspects should be exposed and systems thinking and systems approaches should be practiced.

It is only through cost-effective and efficient public health interventions that we can improve the overall health status of the population in the country. It is the inherent duty of public health professionals, clinicians, epidemiologists, social scientists, and researchers to work collectively to identify the best public health interventions suitable for a particular health scenario in a country. One caveat is that the best public health interventions suitable at one point in time may not be appropriate all the time.

Depending on the changing epidemiological situation, socioeconomic status of the population, health literacy level of the population, and trend of the health situation of the country or area, we may need to adjust the already implemented public health interventions. When we develop a new health program or modify the existing health program, it is important to probe in light of at least eight basic characteristics as mentioned below.

Specific action points were also discussed in **“Eight Basic Probes before Initiating a Health Program: Drinking Water and Health”**, part A, chapter 17 of the book titled, *“Reflections of a Public Health Professional”* by Dr. Myint Htwe.

There are myriad factors affecting the health status of the population. All these factors need to be taken into account when we are formulating responsive, effective, and dynamic public health interventions. To achieve this, we need input and ideas from different players and different perspectives. We need to have health programs that possess certain basic characteristics of good health programs.

Specific action points were also discussed and covered in **“Basic Characteristics of a Good Health Program Development”**, part A, chapter 18 of the book titled, *“Reflections of a Public Health Professional”* By Dr Myint Htwe.

The professionals who are going to take care of the challenges should possess epidemiological thinking skills. Epidemiological thinking is more systematic than analytical thinking, which considers a specific issue from the standpoint of obtaining results or inferences through an analysis of the available data and information. ***“Epidemiological thinking perceives a scenario from different perspectives, or angles, or planes, and compares it with different or similar scenarios, observing various controlling or determining factors leading to the scenario at hand.”*** If we can do that, the challenges, as well as the likely solutions, can be easily found.

For details, please refer to **“Public Health Approaches and Epidemiologic Thinking”**, part A, chapter 10 of the book titled, *“Reflections of a Public Health Professional”* by Dr. Myint Htwe.

The fact of the matter is, ***“How are we going to identify the existing strategic challenges that we are facing while running the healthcare delivery system?”***

We need to create several dynamic platforms for sharing the viewpoints of professionals from different clinical disciplines, hospital administrators or medical superintendents, various categories of public health professionals, basic health service professionals, some key administrative and financial staff from the Ministry of Health, epidemiologists, social scientists, researchers, and representatives of UN agencies, bilateral and multilateral aid-giving agencies, associations, organizations, INGOs, and local NGOs, community-based organizations, and ethnic health organizations. Through the discussion platforms, it is expected to find practical and innovative ideas, solutions, and futuristic or forward-looking thoughts.

New ideas on contemporary public health issues and challenges also need to be hatched out freely. Innovative and bold ideas should be shared among clinicians, public health professionals, epidemiologists, social scientists, and researchers in order to improve the effectiveness and efficiency of the healthcare delivery system. The Ministry of Health should honor and give serious attention to the ideas and proposals coming out of these platforms. A technical team or committee should be made available in the Ministry of Health for the purpose of scrutinizing and prioritizing the solutions before implementation.

The value and benefit of an idea to overcome the challenges can be felt only if it is field-tested and applied. The ideas need to be floated around the professionals first. When a new idea is being materialized, it is important that implementation research be conducted concomitantly. The necessary adjustments should then be made based on the findings of the implementation research. There are many new ideas that are submerged. These new ideas should be exposed using various avenues and means. ■

PROPOSED ACTION POINTS

- **Create platforms (e.g., meetings, seminars, workshops) to expose the strategic challenges confronting the healthcare delivery system;**
- **Elicit the viewpoints on healthcare delivery system performance not only from health staff (e.g., seminars, brainstorming sessions, key informant interviews, focus group discussions) but also from the population (e.g., People’s Health Assembly, quick surveys, key informant interviews, focus group discussions);**
- **Encourage health professionals to think in terms of epidemiological perspectives;**
- **Consider, organize, and plan for public health readiness;**
- **Think, organize, and prepare for hospital or clinical side readiness;**
- **Ensure that health programs have clear-cut objectives and activities, dynamic and robust monitoring systems, and built-in small implementation research activities;**
- **All public health programs should possess the “Basic Characteristics of a Good Health Program;”**
- **Create “Challenges and Issues Scouting teams;”**

PART. 2

DISCUSSION AND ACTION POINTS
PROPOSED ON THE BROAD FRONT

Chapter: 3

PROMOTING TRIPARTITE COLLABORATION

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The culture of working together among health institutions and entities is generally not the order of the day. Thus, each health institution or entity is not noticing the development, challenges, issues, and progress of other health institutions or entities. They usually consider other health institutions or entities not as their counterparts but as their contenders.

The institutions or entities do not share their ideas, intentions, objectives, and long-term goals with their counterpart health institutions or entities. Two or more health institutions working collaboratively could not only have a synergistic effect, but also the weakness of one health institution could be counterbalanced. We should try to have more networks of like-minded institutions or entities.

The head of the institution, the chief responsible person of the clinical domain, and the chief responsible person of the public health domain should realize the synergistic effects and long-term benefits of working together for the sake of improvement of the whole health domain in the country.

The complementary nature of the work of the three entities should always be discussed in policy meetings of the Ministry of Health by referring to specific examples or incidents.

The Minister for Health, in fact, is the key player or prime mover in making things happen and moving forward in full swing and in the right direction.

We need to have strong collaboration in dealing with issues or challenges; mutual respect and honoring each other; a spirit of compromise; positive thinking; and mutual agreement on common goals or objectives. It is easier said than done, but we should try to strive to achieve it.

As it is not a give-and-take situation and does not involve monetary or profit aspects, it would not be difficult to realize it. We need to overcome these aspects while we are working together to overcome the strategic challenges of the healthcare delivery system as noted in developing countries.

We need to have down-to-earth and long-term strategies to overcome the various challenges of the healthcare delivery system. Tripartite refers to clinicians, including general practitioners; public health professionals ranging from epidemiologists and program managers to basic health service workers; and health institutions (schools, universities, and training institutions) under the Ministry of Health.

The representatives from these three entities should regularly meet and discuss the contemporary challenges observed in the delivery of health services in the country. This group should propose strategic changes that may be required to tackle the challenges (technical, administrative, management, and logistics) to the Minister for Health through existing in-house procedures. If this system of sustainable discussion is established, many challenges could be overcome in time in one way or the other.

Tripartite collaborative action is synergistic and could lead to a reduction of challenges in the long run. The cohesiveness of the three entities will make the healthcare delivery system robust and responsive in the long run. It could help tremendously in managing epidemic outbreaks and man-made or natural disasters.

Through the services of nodal points of the tripartite, it would be very beneficial to the country in the future if we conducted regular training programs, courses, sessions, and workshops for different disciplines. The task forces for different disciplines should be formed to identify the topics, selection of faculty, etc. for the training programs. All these training programs, courses, sessions, and workshops should be properly registered using certain variables.

All training materials should be posted on the department's website for easy access by professionals who are unable to attend the training programs, courses, sessions, and workshops. If possible, video clippings of the training programs, courses, sessions, and workshops should be uploaded on the website.

We need to develop a well-integrated healthcare delivery system based on primary health care and principles of public health. The role of the clinical or hospital domain is crucial to buttressing the healthcare delivery system in the country. Here, the ethical private sector should work in tandem with the government-controlled healthcare delivery system, especially in the referral of patients, use of sophisticated diagnostic machines, and state-of-the-art treatment of patients. In developing countries, private sector hospitals could purchase modern diagnostic and treatment equipment. They should not exploit the poor patients out of this. The government should set certain rules to prevent this from happening.

If the health staff are equipped with good managerial and administrative skills, with relevant technical backstopping depending on the posts they are holding, there will be smooth functioning of the healthcare delivery system. It is necessary to give basic management and administrative skills development training courses depending on the job description of the staff. The training programs mentioned below should be jointly conducted by the professionals of the tripartite consortium.

These training courses should be subsumed under the rubric of *"Continuing Professional Development"* (CPD), i.e., *"Continuing Clinical Professional Education"* (CCPE), *"Continuing Public Health Professional Education"* (CPHPE), *"Continuing Nursing Professional Education"* (CNPE), *"Continuing Paramedical Professional Education"* (CPPE), *"Continuing Basic Health Staff Education"* (CBHSE), and *"Continuing Stakeholders Education in the field of health domain"* (CSE).

Appropriate numerical credits should also be given for consideration of many purposes, such as promotion of staff, post-graduate studies abroad, fringe benefits, etc. There should be one national level committee to give overall guidance and oversee these training activities. If these proposed activities are carried out seriously, the attributes and quality of health professionals in the country will be very much enhanced in a couple of years.

There are several agencies, foundations, organizations, INGOs, and local NGOs working in the health domain. Under the leadership of the chief responsible officials of the tripartite, a national seminar should be conducted to discuss the *"Intensified Collaboration of Stakeholders and Partners with the Ministry of Health"*.

The recommendations of the seminar will set the tone for intensified collaboration in the health domain. The only issue is that the Ministry of Health should seriously consider the recommendations. Proper monitoring of the implementation of the recommendations should be done. The following regular training programs, courses, sessions, and workshops (to regularize and put in the registry) could be considered for promoting the clinical domain. Some examples are:

- “The Latest Trend in the Medical Treatment and Management of Patients”;
- “Newer Surgical Procedures and Quality Post-Operative Care”;
- “Patient’s Safety”;
- “The Safe Anesthesia”;
- “The Medical Emergency”;
- “Cooperation Between Hospital Medical Staff and Private General Practitioners”;
- “The Role of Nurses in Hospitals”;
- “Collaboration Between Medical Doctors and Paramedical Staff in Hospitals”;
- “Collaboration Between Medical Doctors and Nursing Staff”;
- “Collaboration Between Doctors, Nurses, Paramedical Staff, and Hospital Administrative Staff”;
- “Conducive Working Environment in Hospitals”;
- “Hospital Medical Store Management”;
- “Patient Referral Systems”;
- “Logistics Systems Inside the Hospital”;
- “Implementation Research Studies in the Hospital”;
- “Use of Newly Developed Medicines and Drug Interactions”;
- “Operation Room Safety Procedures”;
- “Mishaps in Clinical Management of Patients”;
- “Blood Transfusion Safety”;
- “Dealing with Difficult Patients and Health Staff-Patient Interactions”;
- “Hospital Environmental Sanitation, Including Sewage, Biological Waste, and Garbage Disposal”;
- “Hospital Admission, Discharge, and Patient Referral Systems”;
- “Nosocomial Infections in Hospitals” or “Healthcare-Associated Infections (HAI)”;
- “Rehabilitative Care for Discharged Patients”;
- “Life-Saving Emergency Procedures at Remote Health Centers and Hospitals”;
- “Life-Saving Basic Life Support (BLS) Skills and Advanced Cardiovascular Life Support (ACLS) Skills”;
- “Hospital Ambulance System Management”;
- “Patient-Friendly Hospitals”;
- “Computerized Hospital Management System”;
- “Patient Physical Examination Methods”;
- “Nursing Station Management”;
- “Drawing a Balanced Duty Roster System for Hospital Staff”;
- “Networking of Hospitals”;
- “Experience Sharing Meetings of Medical Superintendents”;
- “Creating a Desirable and Conducive Working Environment for Hospital Staff”;
- “Socialization Activities for Staff Working in the Hospital”;
- “Medico-Social Services for Inpatients and Discharged Patients”;
- “The Welfare System for Hospital Staff”;
- “The Role of House Officers in Hospitals”;

- “Management of the Outpatient Departments”;
- “Management of the Emergency Care Departments”;
- “Time and Motion Studies in Hospitals”;
- “Institutional Review Boards in Hospitals”;
- “Medical Ethics”;
- “Hospital Staff Etiquette”;
- “Ethical Issues for Hospital Staff”;
- “Private Medicine Shops in Hospitals”;
- “Hospital Canteen Systems”;
- “Hospital Mortuary Management”;
- “Development of Health Education Materials for Patients Discharged from Hospitals”;
- “Discharge Health Education Sessions for Patients”;
- “Hospital Information Systems”;
- “Hospital Laboratory Systems”;
- “Hospital Administrative and Management Systems”;
- “A number of specific technical subjects in various clinical disciplines as determined by the relevant professors”;

The following training courses, sessions, and workshops (to regularize and put into the registry) could be considered for the promotion of the staff working in the **public health domain**. Some examples are:

- “Tabletop and Simulation Exercises”;
- “Epidemic Prevention and Control Methods”;
- “Monitoring and Evaluation Systems”;
- “Program Evaluation Methods”;
- “Critical Analysis of a Health Program”;
- “Surveillance and Sentinel Surveillance Systems”;
- “Policy Reviews and Analysis”;
- “Responsive Health Information Systems and their Sub-systems”;
- “Epidemiologic Reasoning Abilities”;
- “Formulation of Healthy Public Policy”;
- “Formulation of National Health Policy”;
- “Formulation of National Health Research Policy”;
- “Planning Tools and Methods”;
- “Public Health Approaches”;
- “Public Health Ethics”;
- “Qualitative Research Methods”;
- “Quantitative Research Methods”;
- “Qualitative Data Analysis”;
- “Quantitative Data Analysis”;

- “Data Analysis Methods and Inference Drawing Techniques”;
- “Commonly Used Statistical Methods”;
- “Data Presentation Methods”;
- “Data Triangulation in Qualitative Research”;
- “Understanding Sensitivity and Specificity”;
- “Development of Health Education Materials”;
- “Strengthening of Public Health Laboratories”;
- “Information Dissemination Methods to the Population”
- “Analysis of Job Descriptions”;
- “Job Descriptions of Hospital Administrative Staff”;
- “Job Descriptions of Basic Health Services Staff (health assistants, public health supervisors, midwives, etc.)”;

The following training programs, courses, sessions, and workshops (to regularize and put in the registry) could be considered for promoting the staff working in the **research domain**. Some examples are:

- “Research Methods for Implementation Research”;
- “Qualitative Research Methods”;
- “Quantitative Research Methods”;
- “Sampling and Sample Size Computation Methods”;
- “Development of a Survey Questionnaire”;
- “Research Ethics”;
- “Research Management”; (10 modules)
- “Information Systems for Research”;
- “Registry Systems for Research”;
- “Clinical Trials”;
- “The International Council on Harmonization (ICH) Good Clinical Practice (GCP) Guidelines”;
- “Institutional Review Boards (IRB) or Ethical Review Committees (ERC)”;
- “Capacity-building for IRB or ERC members”;
- “Research Prioritization”;
- “Formulation of Institutional Research Policy and Strategies”;
- “Formulation of National Health Research Policy”;
- “Research Planning”;
- “Research Biases-Quantitative and Qualitative”;
- “Development of Research Proposals”;
- “Research Monitoring and Evaluation”;
- “Resource Flow Analysis”;
- “Research Article Critiquing”;

Many aspects of hospitals could be improved through the support of professionals from the public health domain and professionals from health institutions/schools/universities. It clearly shows the complementary nature of the clinical domain and the public health domain.

It is essential that a one-year timetable for training programs, courses, sessions, and workshops be prepared and put on the website of the Ministry of Health. The attendance by government service staff should be compulsory and reasonable and minimal charges (not-for-profit) should be taken from general practitioners and non-government service professionals.

For the long-term development and progress of the clinical domain and the public health domain, we should seriously think of establishing **“a system for conferring board-certified clinicians”** in different clinical disciplines. The purpose of having board-certified clinicians is that we would like to render quality medical services to the population at large.

The board-certified clinicians have to undergo further training by obtaining additional education in a given specialty and demonstrating their knowledge. They need to have a rigorous medical education and training process. The board-certification implies the topmost level of accreditation within a given discipline.

Subject to the availability of resources, we need to think of having board-certified doctors in various disciplines such as in radiology, cardiology, nephrology, oncology, ophthalmology, neurology, dermatology, rheumatology, psychiatry, anesthesiology, hepatology, hematology, endocrinology, gastroenterology, pediatrics, obstetrics and gynecology, etc. in the country. This would ensure that people are getting quality clinical care services from these board-certified doctors.

Likewise, we could also think of **“board-certified public health specialists and board-certified epidemiologists”**, etc. Board-certified epidemiologists can deliver quality epidemiological services to the population and effectively manage and investigate epidemics or pandemics.

The process of conferring board-certified credentials could be established with the support of various medical societies working under the mandate and umbrella of medical associations and medical councils in the country. The process of board certification can be referred to as the process used by the American College of Physicians. We do not need to copycat them. We can modify it depending on the requirements and respective medical education systems in the countries.

Support from the World Medical Association, the World Medical Council, and other relevant institutions could be explored. The health domain of the United States developed this system successfully several decades ago. As an incentive, additional fringe benefits should be given to those who obtain board-certified status.

To tackle the general challenges of the healthcare delivery system, we have to reckon that all three players in the tripartite are of equal importance, although each player has a unique role to play. In solving or overcoming the challenges, the principles of thinking **“outside-the-box”**, practicing epidemiological thinking, showing mutual respect during the discussion, initiating fact-finding rather than fault-finding tactics, and applying the systems approach and systems thinking should be practiced.

Specifically, clinicians should give health knowledge to patients in terms of preventive, promotive, curative, and rehabilitative aspects. This is important and highly likely to achieve its purpose because the patients are in a receptive mode as they are suffering from diseases.

We need to conduct **“patient satisfaction surveys”** to know the real needs and challenges faced by patients in hospitals and other health institutions. We can take care of their generic needs. The findings of the **“patient satisfaction surveys”** should be discussed in one national level meeting attended by all relevant professionals, including hospital administrators. The action points, as well as the people responsible for carrying them out, must be clearly identified. Another monitoring group should be formed, and after a year or two, another round of **“patient satisfaction surveys”** conducted and necessary action taken.

Specific action points were also discussed and proposed in **“Tripartite Collaboration for Promoting Public Health”**, part A, chapter 3 of the book titled, **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

The above activities would definitely eliminate or minimize many of the challenges of the healthcare delivery system. It will take time. The system infrastructure will be very strong and sturdy if we can achieve our intended ideas mentioned above. The most significant variable underpinning all these is the availability of ethically-minded and technically-qualified doctors. The strong and durable tripartite collaboration will result in the outstanding performance of the healthcare delivery system, which is a solid predictor for reducing the challenges of the healthcare delivery system. ■

PROPOSED ACTION POINTS

- A realistic and efficient *modus operandi* should be established so that clinicians, public health professionals, and health institutions can work on equal footing and collaboratively on health issues and challenges in the country;
- Plan and conduct regular training programs, courses, sessions, and workshops for staff in the clinical domain, public health domain, and research domain so that each staff member's technical acumen is up to the mark;
- Conduct "patient satisfaction surveys" on the overall health services rendered by the Ministry of Health to elicit perspectives from the population;
- Initiate long-term planning to establish a system for having board-certified professionals in the country;
- Conduct a national seminar to develop a roadmap and framework of actions for the nodal points of the tripartite;

Chapter:

REINFORCING HUMAN RESOURCES FOR HEALTH

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

Generally, human resources for health issues are not given particular attention as a top priority domain to be taken care of by the Ministry of Health. Many are not noticing the analogy of the car and the driver. Health professionals (drivers) are steering and driving the healthcare delivery system (car) to achieve its objectives. We need to strengthen our health workforce (drivers) by all means in order that they are fully capable (technical, administrative, management, logistic, ethical) of providing quality health services to the population.

There are many vacant posts in the Ministry of Health. These need to be filled out as soon as possible. The vacant posts should not be filled just for the sake of filling them. Priority vacant posts should be identified first and filled accordingly. The vacant posts in the clinical domain need urgent attention as we need to improve the health staff patient ratio. Units where there are surplus staff should be revisited to move some of the staff to units in need of more staff. In this context, the importance of a review of job descriptions comes to the fore.

For several reasons, the “**National Strategic Plan for Human Resources for Health**” is available in many countries, but it is not followed up and taken seriously. These plans

are the cornerstone of the healthcare delivery system. A strong health workforce is an essential prerequisite for having a strong healthcare delivery system.

The training programs are there, but they are not properly evaluated in terms of quality and the number of training courses given in different disciplines. The capability and capacity of the trainers are not assessed regularly. The training methods and approaches applied are also not selected properly.

*A “**system of registries for training programs**” is not well established, and the feedback from the trainees is not generally available for improving future training courses. The capacity-building activities of staff are carried out in an imbalanced manner among various disciplines. These are some of the issues that we commonly face in many developing countries.*

There are no regular discussion platforms to share experience among the professionals of the same and related disciplines. The significance of this is far-reaching and extremely beneficial in improving the performance of respective disciplines. The budget provisions to do this are generally not available. The WHO is one of the organizations that will be willing to support this activity. Capacity-building is one of the top priorities of the WHO biennial workplans.

*The “**career ladders of the staff**” of various disciplines are not properly worked out, and there is some imbalanced growth among the disciplines. This has led to internal brain drain as well as external brain drain. The career ladders should be good enough to attract health workers to stick to the government services. Fringe benefits and respectable retirement settlements for government health staff are important attractants.*

A good, cost-effective, and dynamic “**National Strategic Plan for Human Resources for Health**” could help solve many challenges in the healthcare delivery system. These plans are available in all the developing countries but are not implemented seriously and fully. It is also important that the plans need to be reviewed and updated as and when necessary because the requirement for human resources for health scenarios could be altered by many factors.

A major proportion of the challenges stem from insufficient human resources for health in various disciplines and a less than desirable quality of performance by staff. We need to tackle these two prime challenges first by initiating proper human resources for health planning. It is crucial that we need to produce ethically minded, technically savvy, future-oriented, and team-spirited health professionals. The effectiveness and efficiency of the healthcare delivery system depend to a large extent on the capacity and capability of the staff running the healthcare delivery system.

The patient safety perspective, which is one of the most commonly encountered challenges in the clinical domain, could be satisfactorily tackled if the professionals are ethically minded. **“Patient satisfaction indices”** are generally low in hospitals in developing countries for several reasons. We need to conduct small research studies to elicit patient safety perspectives and also the viewpoints of patients regarding satisfaction with the services they are receiving.

To improve the overall ethical perspectives of health professionals, principles of medical ethics, nursing ethics, public health ethics, paramedical ethics, and research ethics should be taught and discussed in teaching institutions all over the country. For ethical subjects, discussion is far better than teaching. We need to firmly ingrain these ethical principles into the minds of health professionals. Some of the challenges are due to the unethical behavior of health professionals.

We need to promote conducting seminars, workshops, and lunchtime talks on ethical perspectives in public health, clinical, nursing, and paramedical disciplines in teaching institutions all over the country. The purpose is to highlight the extreme importance of ethics in the health domain.

Specific action points were also discussed and proposed in **“Producing Ethically Minded and Future-oriented Health Professionals”**, chapter 3 of the book titled, **“Health System Challenges: Developing Country Perspective”** by Dr. Myint Htwe.

Another main challenge is a shortage of trained professionals in clinical, public health, nursing, and paramedical disciplines. It will take time to increase the number of professionals in these disciplines. We need to work out systematically to implement the human resources for the health plan in a phase-wise and step-wise manner. As an **“outside-the-box”** thinking approach, we may recruit general practitioners as part-time staff in some government hospitals located in remote and hard-to-reach areas.

Specific action points were also discussed and proposed in **“General Practitioners: A Strong Workforce for Promoting Public Health”**, part A, chapter 9 of the book titled, **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

To give input to this, we need to review the approximate number of deficient or additionally required (taking into consideration the attrition rates due to various causes) professionals in different disciplines after discussing with responsible personnel or heads of these disciplines. Then, we need to discuss with the production sides such

as schools of medicine, schools of public health, schools of pharmacy, schools of medical technology, schools of nursing, schools of midwifery, schools of community health, schools of dental medicine, schools of veterinary science, schools of traditional medicine, and other training institutions, etc.

Specific action points were also discussed and proposed in “**Role of the Myanmar Medical Association in Human Resources for Health Development**”, part A, chapter 15 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Before we can narrow the gap between the availability and the current human resources for health situations, we need to review the job descriptions of various categories of health professionals. We should not underestimate the importance of job descriptions in successfully delivering health services to the population. It has far-reaching implications, and we need to take it seriously.

Appointing or promoting a person to a job that has a particular job description where he or she has not been trained for that task is detrimental to him as well as to the healthcare delivery system. Generally, if we review the job descriptions, the tasks are so huge that it is impossible to accomplish them. The incumbent also has no idea how to differentiate between the essentials and non-essential ones.

The job descriptions are also generally not reviewed and updated regularly, although the health situation and workload of staff have changed over the years. The job descriptions should be divided into priority or essential duties and general duties. We even need to prioritize the priority or essential duties of a job description as they are not the same in all regions, or provinces, or hospitals in the country.

A “**Committee for Reviewing the Job Descriptions of Staff**” of the Ministry of Health should be formed with specific and realistic terms of reference. The main purpose is to update the job descriptions in line with contemporary requirements.

Simultaneously, a framework for conducting a series of specific training courses or workshops for improving the overall quality of services, clinical acumen, public health acumen, paramedical acumen, nursing acumen, etc. should be properly developed. Each training course should be evaluated (using a generic framework and guidelines) for improving future courses. This particular group of training activities is so important that we need to have them carefully crafted by a group of responsible professionals.

Follow-up activities to see the effectiveness of training courses should be done and strictly followed up. There should also be a proper registry of these training courses being conducted. The utility of the registry is limitless.

Specific action points were also discussed and proposed in **“Increasing the Effectiveness of Capacity-building Activities”**, part A, chapter 21 of the book titled, **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

Appropriate placement of human resources for health is very important. It should be taken care of by a committee involving representatives from various disciplines. **“Guidelines for Placement or Posting Transfer or Promotion of Staff”** should be framed and strictly applied to the extent possible. Unbiased decision-making should be practiced. When it comes to staff placement decisions, there should be no favoritism. ■

PROPOSED ACTION POINTS

- Check whether the existing **“National Strategic Plan for Human Resources for Health”** is in line with the contemporary requirements of the country and update it accordingly;
- Improve the quality and quantity of staff from various disciplines in accordance with the human resources for health plan;
- Conduct regular capacity-building activities so that staff are technically savvy, administratively competent, ethically minded, future-oriented, and team-spirited professionals;
- Include bioethics, medical ethics, public health ethics, research ethics, nursing ethics, paramedical ethics, institutional ethics, and work-place ethics into respective schools’ or universities’ curricula;
- Encourage in-service professionals to attend seminars, workshops, and lunchtime talks on the ethical perspectives of relevant disciplines;
- Develop a **“Registry System for Training Workshops or Courses”** conducted in the country;
- Review and update job descriptions of various categories of staff by the committee to be formed by the Ministry of Health;
- A **“Committee for Reviewing the Job Descriptions of Staff”** of the Ministry of Health should be formed;
- **“Guidelines for Placement or Posting Transfer or Promotion of Staff”** should be framed;

Chapter: 5

STRENGTHENING THE PUBLIC HEALTH DOMAIN

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

There are a multitude of challenges in each and every public program in developing countries. Most prominent is the public health acumen of some of the staff working at strategic posts at the central level to the provisional or regional level, who do not possess this acumen fully.

These people thought that public health was an easy subject and that anybody could handle it. As a matter of fact, it is a highly technical subject. It had a very wide spectrum of activities, and each was based on strong technical rationality.

Another concern is that a lot of improvements need to be made to have harmonized collaboration or synchronized coordination among the activities of different public health programs. This is one of the weak points of public health programs. Synchronized coordination can reinforce the activities of the other program if the two programs are working in tandem.

If we achieve this scenario, the workload of various public health programs can be significantly reduced, and staff will have more time to consider ways to further improve program performance.

Sharing of relevant data and information among various public health programs is not commonly practiced. The creation of innovative platforms to this effect would be a great advantage to all public health programs. The successful approach used by one program director or manager to overcome the challenges will be recognized by another program director or manager. Common platforms to share various experiences among program directors or managers should be created and encouraged to use them on a regular basis.

Rational resource allocation, effective resource utilization, and resource monitoring are not seriously taken care of by senior officials of the Ministry of Health. “Resource Flow Analysis” of various health programs is rarely conducted. A critical analysis of the budgetary aspects of health programs will expose many beneficial effects as well as several weak points in health programs. Health staff needs training on the general perspective of budgetary analysis. The principles of public health ethics are generally not applied in resource allocation.

A public health program, once established, will be there forever. Each program needs to be reviewed and readjusted depending on the quantum, severity, and trend of the epidemiological situation of the public health problems dealt with by that program. Depending on that, financial and human resource allocation should be considered. In other words, all public health programs should be put under the surveillance of a central oversight team and take action accordingly.

The clinical domain, where many diseases are treated and cured, is generally regarded as more important than the public health domain by the general public. The impact of the work of public health could be seen after some time, but it is sustainable. The notion of the genuine power of public health needs to be effectively propagated to all staff of the Ministry of Health.

Many of the challenges of the healthcare delivery system could be alleviated if we could improve the work of the public health domain in the country. We all must be aware of the fact that the public health domain is complementary to the clinical domain. The public health domain could be aptly called the prime mover of the whole healthcare delivery system. There is enormous power behind the public health domain because public health has genuine power to make things better in the field of health.

The enormous power of public health in improving the health status of the population and thereby reducing the challenges faced by the population while getting healthcare services from the Ministry of Health is openly discussed in the chapter mentioned below. We need to have a strong public health infrastructure before we think of implementing public health interventions.

Specific action points were also discussed and proposed in **“Genuine Power of Public Health,”** part A, chapter 1 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

“Twenty specific key interventions” together with their sub-activities to improve the domain of public health are succinctly discussed in the chapter mentioned below.

Specific action points were also discussed and proposed in **“Improving the Domain of Public Health,”** part A, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Systematic and careful implementation of these twenty specific key interventions can reduce the challenges of the healthcare delivery system. There are several interventions that can

promote the public health domain of the country. Each has its own merit and significance, either from a short-term or long-term perspective. Each country needs to prioritize as per its needs.

In order to successfully carry out the twenty specific key interventions, the following generic and overarching facts should be at the back of our minds;

- (i) We need combined, concerted, and coordinated efforts to carry out the activities in a phase-wise and step-wise manner;
- (ii) It is necessary to employ systems thinking and a systems approach, and epidemiological thinking should also be applied;
- (iii) The Ministry of Health is only one of the players in the field of public health. Other relevant players need to be involved too;
- (iv) The role of teaching institutions is crucial;
- (v) Collective thinking, a collaborative approach, mutual respect, and a willingness to compromise in solving problems are essential to a successful outcome;

In order to carry out the essential public health services effectively and adroitly, public health professionals are encouraged to try to achieve the **“Twenty-two desirable characteristics of a public health professional”** through various avenues.

For reference, please refer to chapter 1 of **“Being a Versatile Public Health Professional”** in the book titled, **“Health System Challenges: A Developing Country Perspective,”** by Dr. Myint Htwe.

For information, the Public Health National Center for Innovations (PHNCI), USA, with the de Beaumont Foundation, reviewed and revised the 10 essential public health services (EPHS) during 2019-2020. The EPHS framework was developed in 1994 by a federal working group in the USA. The public health services cover a very wide spectrum of activities. It is also to be noted that the relative importance of these 10 essential public health services varies from one country to another and from time to time. This is due to the fact that the public health landscape has shifted over the years. ■

PROPOSED ACTION POINTS

- **Conduct capacity-building workshops on “implementation research” for responsible personnel of public health programs on a regular basis;**
- **Conduct a “National Seminar on Public Health,” involving all players and stakeholders, for an in-depth discussion on promoting public health and its challenges in the country;**
- **“Twenty specific action points” to improve the domain of public health should be prioritized and implemented in a step-by-step and phase-by-phase fashion;**
- **Try to achieve the “twenty-two desirable characteristics” of a versatile public health professional”;**
- **“Common platforms” to share various experiences among program directors or managers should be created;**
- **“Resource Flow Analysis” of various public health programs should be conducted on a priority basis.**

Chapter: 6

ENHANCING THE EFFECTIVENESS AND EFFICIENCY OF THE HEALTHCARE DELIVERY SYSTEM

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

As previously stated, the healthcare delivery system is a very wide domain comprised of numerous sub-domains and networks of various disciplines. It is also closely related to a certain degree of movement or activities in health sector reform. It is also influenced by the policy and strategic level activities of other ministries, over which the Ministry of Health has little control.

Food and drug safety is part and parcel of the work of the healthcare delivery system. It plays a very significant role in influencing the health status of the population. Priority attention is deserved. A case in point is that the food and drug safety aspects depend on the level of effectiveness of the work of the Customs Department, Police Department, Border Affairs Department, Judiciary Affairs Department, and Consumer Affairs Department. The relevant activities of these departments are not well coordinated. The food and drug industries located inside and outside the country also play important roles. Proper handling of food and drug issues will not only reduce the number of challenges but also improve the health status of the population.

When we analyze the performance of the healthcare delivery system, we need to deliberate at the policy and strategic levels, such as referring to national health policy, national

health research policy, general policy directions of the government, the political system of the country, national economic policy, national security policy, the infrastructure of the Ministry of Health, health-related speeches of the President and Prime Minister of the country, the general perception of the health staff towards the healthcare delivery system they are running, etc. Generally, these things have not been reviewed holistically. We need to promote the notion of seeing things at a policy and strategic level.

The effectiveness and efficiency of the healthcare delivery system are directly proportional to the work performance of various units or entities of the healthcare delivery system. A few non-performing units could result in the emergence of challenges. The proposed action points to enhance the effectiveness and efficiency of the healthcare delivery system are discussed in several chapters of this book. Here, certain issues of contemporary importance will be discussed.

However, there are certain major determinants that have a significant influence on the effectiveness and efficiency of the healthcare delivery system. These are:

- (i) The technical, administrative, and ethical quality of human resources for health;*
- (ii) The responsiveness of various health information systems and sub-systems;*
- (iii) The availability of a relatively sufficient budget;*
- (iv) The efficiency of the National Supply Chain and Logistics Management System;*
- (v) A strong research culture among the health staff;*
- (vi) The level of epidemiological thinking skills possessed by the health staff;*

Special attention needs to be given to these determinants or predictors as a first priority. Hospitals are part and parcel of the healthcare delivery system. Issues related to hospitals are discussed in detail, and action points are proposed in chapters 13, 19, and 24.

While we are tackling the specific challenges of the healthcare delivery system, the strategies to increase the overall effectiveness and efficiency of the healthcare delivery system should be continued on a broad front. It is to be noted that many challenges in the healthcare delivery system are interlinked and intertwined. The challenges can exhibit a domino effect, either in a positive or negative direction. Taking care of one challenge can, therefore, mitigate other challenges and *vice versa*. This particular fact is very strategic. We need to always have that notion at the back of our minds. When we attempt to improve the effectiveness and efficiency of the healthcare delivery system, we need to adhere to certain principles. If these principles are strictly followed, it is bound to be successful in mitigating the challenges. Some of the key principles are:

- (i) Think globally and act locally;
- (ii) Applying the systems approach and systems thinking;
- (iii) Always perceive a scenario from a holistic point of view and be critical of factors influencing the existing situation;
- (iv) Applying epidemiologic thinking and re-analyzing the situation from technical, ethical, social, and economic perspectives;

- (v) Always assess and check the situation in question and act accordingly;
- (vi) No hesitancy to make adjustments and modifications to the interventions if the health situation has changed (either good or bad) due to evolving epidemiological conditions;
- (vii) Always think of capacity-building for different categories of staff involved;
- (viii) Improving the administrative, logistics, and management aspects of the healthcare delivery system by way of conducting implementation research;
- (ix) The elimination of unnecessary administrative procedures and the reduction of red tape;

Taking care of the following interventions related to human resources for health could ease several challenges in the healthcare delivery system. They are:

- (i) Creating a favorable and conducive working atmosphere for staff in hospitals, public health institutions, and universities/schools;
- (ii) Giving sufficient attention to aligning the structure of the Ministry of Health commensurate with the existing and expected situations;
- (iii) Providing a promising and secure career path for the staff;

The following systems could be developed or existing systems should be updated and finetuned to further improve the performance of the healthcare delivery system. The actions may take time and require more human and financial resources. Therefore, we need to prioritize it.

- “Unique Patient Identifier Systems;”
- “Electronic Patient Recording Systems;”
- “Electronic Hospital Information Systems;”
- “Electronic Laboratory Management Information Systems;” (ELMIS)
- “Cancer Registry Systems;”
- “Diabetes Registry Systems;”
- “Research Registry Systems;”
- “Research Information Systems;”
- “Thesis Registry Systems;”
- “Human Resources for Health Database Systems;”
- “Electronic Memo Transmission Systems;”
- “Communicable and Zoonotic Diseases Surveillance Systems;”
- “Sentinel Disease Surveillance Systems;”
- “Noncommunicable Diseases Surveillance Systems;”
- “Data Dictionary Systems for Indicators and Parameters Used in Public Health and Clinical Domains;”
- “Staff Career Ladder Systems;”
- “Registry for Regular Short-term Training Programs;”
- “Compendia for SOPs & GLs;”
- “Compendia for Functioning Committees’ Terms of Reference;”

Specific action points were also discussed and proposed in **“Can we Improve the Effectiveness and Efficiency of the Healthcare Delivery System?”**, chapter 8 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

The health sector or health care reform of the country is related either directly or indirectly to the effectiveness and efficiency of the healthcare delivery system. However, health sector or health care reform should not be carried out just for the sake of reform. It should not be an intellectual or technical exercise. There should be a very strong reason or epidemiologic basis for carrying out the reform.

Specific action points were also discussed and proposed in **“Are we Ready for Health Care Reform?”**, part A, chapter 6 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

The effectiveness and efficiency of the healthcare delivery system depend to some extent on how the national health plan is formulated and implemented. In this context, we need to systematically review the technical soundness of the national health plan. The national health plan must be cohesive and self-sufficient by itself and comprehensive enough to cover the demands and needs of the country’s contemporary health situation.

Rapid developments are happening in the clinical domain, and changing epidemiological patterns of diseases are noted in the public health domain. The national health plan must be responsive enough to take care of the dynamic nature of the health domain.

Specific action points were also discussed and proposed in **“Reviewing and Revising the National Health Plan: A Practical Perspective,”** part A, chapter 14 of the book titled, “Reflections of a Public Health Professional”, by Dr Myint Htwe.

If the existing national health plan conforms to the following points, it could facilitate making the healthcare delivery system effective and efficient.

- (i) Relevant to the current needs of the country in terms of existing problems, issues, and priorities already accorded to specific population groups affected;
- (ii) Capable of achieving its objectives within the time frame specified;
- (iii) Cost-effective;
- (iv) Specific and concrete;
- (v) Feasible in terms of its capacity to implement it with the available human resources, etc.;

The structure or organogram of the Ministry of Health is related to the efficiency of the performance of the healthcare delivery system. Many administrative, management, and logistic challenges can arise due to too light or too heavy a structure of the Ministry of

Health. Too big a structure is not conducive to having a good output from the ministry. The minor structural changes can be exercised as and when necessary. The structure or organogram may be a perfect one at the time of the last restructuring. The appropriateness of the structure needs to be reviewed from time to time and adjusted accordingly.

It is not necessary to fill all the available posts in the organogram. Depending on the workload and importance of the work, the posts should be filled. Each staff member should also know their priority activities to be carried out, as per their job description. To resolve the challenges and issues, we need to restructure the Ministry of Health. It plays an important role in tackling the challenges. We have to work on a broad front. Strictly speaking, the scenarios mentioned below call for some structural change in the Ministry of Health.

- (i) Changes in disease epidemiology;
- (ii) Transformation of the social fabric;
- (iii) Government policy changes;
- (iv) Shift in the country's economic conditions: good or bad;
- (v) A shifting pattern of human resources requirements for health;
- (vi) Increasing demand from the population;
- (vii) Rapid population growth and demographic shifts;
- (viii) New developments in the field of public health;
- (ix) Rapid sophistication in many aspects of the clinical domain;
- (x) Outbreaks of new diseases;
- (xi) Emergence of new and re-emerging diseases;
- (xii) Novel pandemics caused by novel viruses with unknown natural histories;
- (xiii) The emergence of advanced diagnostics;
- (xiv) The availability of cutting-edge treatment modalities;etc.

A review of the structure or organogram of the Ministry of Health is required every five years or so. In fact, the structure or organogram of the Ministry of Health has a huge influence on the work performance of the ministry as well as the health conditions of the population at large. Generally, we tend to forget to give attention to the structure or organogram of the Ministry of Health.

The structural adjustment of the Ministry of Health is a continuous process. It should be done very carefully, judiciously, wisely, cautiously, and shrewdly, taking into consideration all inputs from concerned professionals working in different disciplines of the health system and major stakeholders of the health domain in the country. There is no one-man show in reviewing and restructuring the organogram of the Ministry of Health. It should not be done just for the sake of restructuring. There must be a strong rationale for doing so.

Specific action points were also discussed and proposed in **“Restructuring the Ministry of Health,”** chapter 19 of the book titled, **“Health System Challenges: A Developing Country Perspective,”** by Dr. Myint Htwe.

Data and information sharing among relevant units, divisions, or departments should be promoted. Many challenges can be resolved with this data and information-sharing culture. We need to define the connotation of **“data culture”** as that of **“research culture.”** A technical session on how to promote data and information culture should be conducted, and the outcome of the session should be widely disseminated and promoted on a continuous basis. ■

PROPOSED ACTION POINTS

- Transform the **“structure or organogram of the Ministry of Health”**. It has a significant influence on the performance of the healthcare delivery system. Make the structure nimble and responsive and also allow structural adjustments to the changing epidemiological situation of the country;
- Review and assess all the key strategies of various health programs and improve them accordingly;
- A strategic review of the existing **“national strategic plan for human resources for health”** and **“human resources for health policy”** should be conducted;
- Make all the health information systems, hospital information systems, disease surveillance systems, and sentinel disease surveillance systems robust, dynamic, and responsive with built-in bidirectional feedback mechanisms;
- **“Built-in implementation research projects”** should be in place in all health programs in the public health domain and clinical domain to improve the administrative, management, logistics, and technical aspects;
- If there is a strong indication, **“health sector reform or healthcare reform”** may be considered;
- **“National health policy and national health plan”** may be revisited and reformulated, as needed;
- Promote a **“data and information culture”** among relevant units, or divisions, or departments;

PART. 3

DISCUSSION AND ACTION POINTS
PROPOSED ON SPECIFIC ISSUES

Chapter: 7

UPDATING THE STANDARD OPERATING PROCEDURES AND GUIDELINES

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The importance of Standard Operating Procedures and Guidelines (SOPs and GLs) and their impact on the efficiency of performance and day-to-day functions in the clinical domain and public health domain are generally not reckoned with great confidence. Several SOPs and GLs are also not updated, although many new developments are frequently happening, especially in the clinical domain. The compendia of updated SOPs and GLs are generally not available in many institutions and hospitals. Some staff are not even aware of the availability of SOPs and GLs in their institutions.

The SOPs and GLs were generally drawn without knowing and referring to the commonly accepted rules or procedures for drawing the SOPs and GLs. Field testing of SOPs and GLs is generally not done before posting. The dates of original preparation and updating, references quoted, and focal entities for any clarification are not mentioned in several SOPs and GLs. The SOPs and GLs are not properly placed and kept in hospitals, health institutions, and offices. These must be put in places where responsible staff can easily access them.

The importance and utility of SOPs and GLs are generally not known by incoming junior staff and even some senior staff. Without doubt, the SOPs and GLs are directly linked to the quality of staff performance. Thus, for the efficient functioning of hospitals, health

institutions, and public health programs, the SOPs and GLs should be widely propagated. Following the SOPs and GLs by the staff will definitely reduce the number of challenges encountered in hospitals and health institutions.

Poor or sub-standard staff performance is one of the challenges that we face in doing the daily activities of the healthcare delivery system. Poor staff performance is due to ignorance of the details of the technical aspects of the work they are doing. As there is rapid development in many technical areas and disciplines, it is imperative that they be well aware of the updates corresponding to their respective areas or disciplines.

This would be beneficial to patients in hospitals as well as to the population at large for public health programs. Thus, the availability of SOPs and GLs in hospitals and health institutions would be an advantage for improving the quality of services given to patients and the population.

For public health professionals, it is desirable that they are familiar with the basic characteristics of a good public health program as mentioned in the chapter mentioned below. It is the inherent duty of the respective unit/section/ward/division head to make sure that the staff working under him/her are following the updated and available SOPs and GLs of their respective public health programs and in the hospitals.

Specific action points were also discussed and proposed in **“Basic Characteristics of a Good Health Program Development”**, part A, chapter 18 of the book titled, *“Reflections of a Public Health Professional”* by Dr. Myint Htwe.

In order to increase the effectiveness and efficiency of staff performance, it is critical that staff are performing as per the required standards in their respective technical areas or disciplines. Several SOPs and GLs are available in clinical, paramedical, and public health disciplines. Generally, these are not updated, and obsolete ones are also not removed. This is very confusing, especially to the newly recruited or incoming staff.

In order to improve the situation, existing SOPs and GLs should be reviewed or updated quickly, and compendiums of SOPs and GLs according to specific technical areas and disciplines should be made available and distributed to all relevant professionals and institutions in the country. When the SOPs and GLs are updated, they should be properly field-tested first before issuing them. When the SOPs and GLs are updated, the date of updating and references quoted should be clearly spelled out. Simultaneously, implementation research should be carried out to determine the technical soundness of SOPs and GLs as well as their clarity, brevity, consistency, uniformity, and easy understandability.

The updating of SOPs and GLs should be done by the responsible division of the Ministry of Health together with the help of the faculty of teaching institutions. For SOPs and GLs in the public health domain, necessary technical support can be easily obtained from relevant local UN agencies. The task of updating SOPs and GLs tasks should be carried out very seriously and

on a continual basis. It is proposed that this subject matter should be in the *“curriculum of MPH courses”* and appropriate public health and clinical discourses.

Some of the SOPs and GLs pertaining to the field of public health could refer to SOPs and GLs proposed by WHO and other UN agencies. The caveat here is that these SOPs and GLs are written in a global or regional context. Appropriate modifications need to be made before incorporating it into the local context. For day-to-day use of SOPs and GLs in hospital laboratories, radiological, radiation, and other procedural activities, they should be plastic-coated and hung at eye level on the walls of the respective workplaces, where they can be seen clearly.

For reasons that we are all well aware of, one incorrect laboratory procedure or step can be very detrimental to the health of the patient. The SOPs and GLs for managing medical, surgical, pediatric, obstetrics, gynecology, and other disciplines’ emergencies should be reviewed and updated frequently. These are lifesavers in emergency departments of hospitals.

The document titled *“Guidance for Preparing Standard Operating Procedures (SOPs),”* produced by the United States Environmental Protection Agency (US EPA), EPA/600/B-07/001, April 2007, is one of the best references to be referred to. It was written very clearly and was easy to understand. References should also be made to several directives on this subject matter issued by WHO, other UN agencies, scientific organizations, and public health associations on a regular basis. One important point is that we should not copy these. Instead, we need to appropriately adapt to our specific needs. ■

PROPOSED ACTION POINTS

- **List the existing SOPs and GLs in hospitals, health institutions, and public health programs in the country;**
- **Remove the obsolete ones, update the useful ones, and develop new ones as recommended by the responsible senior heads of the departments in hospitals, health institutions, and public health programs. The final approval should be made by the “Committee on SOPs and GLs;”**
- **Put the updated and new ones into the compendia as per different domains or disciplines and put them on the webpage of the Ministry of Health;**
- **Consideration should be given to having this subject matter be in the curriculum of MPH courses and other appropriate public health and clinical training courses;**
- **Training workshops on the development, use, and evaluation of SOPs and GLs should be held as appropriate in different domains and disciplines. Funding support could be easily obtained from WHO;**
- **“An annual review of SOPs and GLs” used in the country should be held to further improve the whole spectrum of work in this area of work;**

Chapter:

CONSOLIDATING THE HEALTH INFORMATION SYSTEMS

A holistic view and action points will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

Generally, there is plenty of data or even data overflow in many health information systems in developing countries. Many countries are practicing computerized health information systems at different levels of development and sophistication. It can even lead to information intoxication or information indigestion. However, the analytical capacity and inference-drawing capability of staff are not up to the mark.

Transforming data into information is generally not promoted and not considered as one of the priority activities. Two-way information feedback mechanism is not commonly practiced. Data flow to the central level is commonly there, but feedback down to the implementation level is not very strong and regular. The information nodal points of the health information systems are not well connected and sometimes disjointed. Sharing of information among health programs is few and far between. They do not realize the complementary nature of health programs.

The use of data in the formulation of strategies for health programs is not commonly practiced and emphasized. Annual evaluation meetings for health programs are commonly conducted, but program directors or responsible officials of similar nature or related programs are generally not invited. Much useful information could be shared among health programs during annual evaluation meetings.

Many similar health information sub-systems are not tightly linked, and data is not widely shared. Information systems are using different types of software and there is an issue of doing composite analysis on a real-time basis.

The large data set that program directors already have in their database is generally satisfactory. They do not realize the fact that data without proper analysis is equivalent to having no data at all. Data culture among staff in the healthcare delivery system needs to be inculcated very strongly by way of applying various avenues and approaches. Without transforming data into information, we are like sailors sailing a ship without a rudder.

Health information systems are the lifeline of the healthcare delivery system, and we have to invigorate this. This notion must be ingrained in the minds of the directors of health programs in the country. Healthcare delivery systems are robust, dynamic, and responsive if the health information systems are well consolidated and functioning smoothly.

The health information systems and health management information systems are interchangeably used in the discussion. The main health information system has many systems or subsystems.

Resources were wasted due to the non-availability or partial-availability of valid, timely, reliable, and complete health information, especially in terms of geographical locations in the country and seasonal patterns of disease occurrence. Due to this, an appropriate and rational allocation of resources could not be made. More resources may be allocated to those areas where they are not required, and needed resources may not be available in those areas deemed required. Likewise, one may not be able to predict the likelihood of increasing morbidity and mortality from diseases, which could lead to a premature outbreak of diseases.

Resources (human, financial, and time) could be unnecessarily wasted if there is an outbreak of diseases, let alone the suffering of the families and social fabric disruptions of the population. The dynamic and robust health information systems and disease surveillance systems can at least predict the impending outbreak of diseases. Necessary preparation could be done in order to avert outbreaks of diseases. Even man-made disasters can be prevented if we have a strong and dynamic occupation hazard monitoring system, jointly with relevant ministries.

As alluded to in many of my writings, the health information system is the lifeline of the healthcare delivery system *vis-à-vis* the central nervous system for the human body. The health information systems should be quickly assessed to determine their level of performance in support of the healthcare delivery system.

Specific action points were also discussed and proposed in **“Quick Assessment of Health Information System,”** part A, chapter 12 of the book titled, **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

Improving the performance of the health information system could really help improve many aspects of the healthcare delivery system. We also need to improve the skills of staff in terms

of transforming data into information. This particular issue is very crucial. In many countries, tons of data are available, but these data are not transformed properly into information for use in strategy formulation, intervention identification, and assessment of health programs.

Specific action points were also discussed and proposed in “**Transforming Data to Information,**” in part A, chapter 20 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Referring to the above-mentioned chapter, many challenges and issues in the healthcare delivery system can be resolved if we can transform the data into information as described below. Necessary arrangements or preparatory work in the hospital or in the community can be made in advance to avert the problem or disaster.

The same piece of data should be transformed into different types of information depending on the nature of the work that the staff is performing. In other words, the thinking pattern or thought process of a piece of data or information should be different depending on the work of the person who is transforming the data into information. The following scenario is depicted as an example.

SCENARIO: “In a malaria-endemic area, 30 febrile people with severe chills and rigors, some in a comatose state, were admitted to a remote township hospital in the hilly area last night.”

This data/information was given to all categories of hospital staff early the next morning. The following thought processes must immediately come into the minds of staff so that our health system’s performance can be at an acceptable level to serve the population. The thought process questions are not exhaustive.

(GT stands for general thoughts; A for administrative issues; NC for nursing care issues; M for management issues; L for logistical issues; T for technical issues; S-T for strategic-technical issues; and P for policy issues.)

The minimal thought process of a nurse

- (i) I will be very busy tomorrow with these malaria patients. I hope no seriously ill people are there; (GT)
- (ii) I have to inform my nurse assistant not to take leave during the next week or so. Personally, I must cancel my leave; (A)
- (iii) I may need to plan for specialized nursing care for critically ill and comatose patients; (NC)

The minimal thought process of a matron

- (i) Do I have enough beds, pillows, and bed sheets in the hospital? (M)
- (ii) Do I have enough antimalarials in the hospital wards? (M)
- (iii) Do I have sufficient normal saline, dextrose saline drip bottles and drip sets if some of the patients are suffering from complicated malaria? (M)
- (iv) I need to inform the kitchen regarding the number of patients for diet requirements; (L)
- (v) How many nurses are taking leave this coming week? (A)
- (vi) We do not have sufficient beds for the 30 patients. What should I do? (M)

The minimal thought process of a Township Medical Officer

- (i) I have to check whether the lab assistant is available tomorrow for blood testing. I hope the reagents and rapid test kits are enough for the diagnosis of the disease; (M)
- (ii) I hope the required medicine and antimalarials are not out of stock; (M)
- (iii) Can these patients be suffering from drug-resistant malaria? (T)
- (iv) What should I do if blood is required for complicated malaria? (M)
- (v) I may have to refer some patients to the district hospital if some of them are serious and dangerously ill. What about transport arrangements? (A)
- (vi) I may have to refer to the latest WHO guidelines on the management of severe and complicated malaria. Luckily, I have the latest edition; (T)

The minimal thought process of an epidemiologist or malariologist

- (i) Is this an unusual occurrence of malaria cases in that area? (T)
- (ii) What is the age group of the 30 patients? (T)
- (iii) What is the gender proportion of these 30 patients? Men generally go to work in the forest fringes or forest. Women generally stay at home. If women constitute the majority, it may be a local transmission; (T)
- (iv) Are there relapses or recrudescence in patients? (T)
- (v) Is there anyone under one month denoting local transmission? (T)
- (vi) What is the general trend of malaria in that area during this period of the year? (T)
- (vii) Is it an unexpected event or a pre-outbreak situation deserving special attention to control malaria? (T)
- (viii) Are they migrants or residents in this area? What about the addresses of these patients? (T)
- (ix) What is the occupation of these 30 patients? (T)

- (x) I need to do a mapping of these 30 patients to look for foci of transmission; (T)
- (xi) Many probing questions about time, place, person, agent, host, environment, and vector-related questions would come to the mind of an epidemiologist; (T)

The minimal thought process of a state or regional public health director

- (i) He/she will think of the overall malaria control situation in that area; (S-T)
- (ii) The trend of malaria patients admitted to that township hospital over the years for that area compared with other nearby townships; (S-T)
- (iii) Staffing, vacancies, and other issues in that hospital and in that area; (A)
- (iv) Is the malaria control strategy effective in that area or does it need modification? (P)

Apart from the health information systems, the disease surveillance systems should also be quickly reviewed and improved. If we had robust, dynamic, and responsive disease surveillance systems, we could know the challenges of the healthcare delivery system in the context of diseases well in advance and necessary support and changes could be initiated. The details are discussed in the chapter mentioned below.

Specific action points were also discussed and proposed in “**Viewpoint: Disease Surveillance System,**” chapter 18 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

In order to handle the challenges of the healthcare delivery system effectively, systematic and well-planned short training courses should be given to those key staff who are running the disease surveillance system. The most desirable characteristic of the disease surveillance system is that there must be a functioning “**two-way data flow and feedback mechanism**”. It must be put in place and practiced without fail. Special training courses should also be conducted to improve the data analysis capabilities of key staff who are responsible for the preparation of situation analysis reports.

A good situation analysis report can lead to the development of a good policy and strategy for the healthcare delivery system. In a nutshell, for successfully tackling the challenges of the healthcare delivery system, the smooth and effective functioning of the health information systems and disease surveillance systems is the *sine qua non*. ■

PROPOSED ACTION POINTS

- Promote data culture among health staff using various approaches or *modus operandi* in the Ministry of Health;
- A quick review of all health information systems in the Ministry of Health using checklists and conducting key informant interviews as appropriate;
- Transform the existing health information systems to be very responsive and robust, with built-in “two-way data flow and feedback mechanisms”;
- Examine and improve “priority information systems” such as (i) hospital information systems; (ii) hospital laboratory information systems; (iii) research information systems; (iv) expanded immunization information systems; (v) communicable and noncommunicable disease information systems; (vi) supply chain management information systems; (vii) cancer registry information systems; (viii) information systems for promoting health literacy; (ix) information systems for disease surveillance and sentinel disease surveillance; (x) information systems for the food and drug administration; (xi) information systems human resources for health; (xii) information systems for national health account; (xiii) resource flow information systems; (xiv) information systems for undergraduate and postgraduate medical students’ admission; (xv) information systems for health institutions; (xvi) information systems for epidemic outbreaks; (xvii) information systems for research and thesis registry; etc.
- Conduct a series of training workshops to enhance the data transformation into information, data analysis, and inference-drawing capabilities of responsible staff;
- Initiate “diploma course in Health Informatics and Information Systems”;
- Develop guidelines for promoting bidirectional feedback in information systems;
- Encourage data sharing among public health programs of similar nature;
- Encourage special invitations to other program directors of a similar nature to annual evaluation meetings of a program;

Chapter: 9

CONDUCTING CAPACITY-BUILDING ACTIVITIES

A holistic view and action points will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

Many capacity-building activities (workshops, training courses, technical meetings, technical discourses) are being carried out in developing countries but not in a balanced manner. Some departments/divisions/programs have fewer capacity-building activities, and not much attention was given to their importance and usefulness.

Evaluation of each capacity-building activity on the last day is generally not done. Generic evaluation formats and guidelines are also not widely available. Overall or composite evaluations of capacity-building activities are also not made on a regular basis. Follow-up activities to determine the usefulness and benefits after attending the capacity-building workshops are generally not the order of the day.

*Capacity-building activities to be conducted are not explicitly mentioned together with the funding allocation in the program planning documents. More communication should be made to the WHO to get funding support. The WHO is the agency that gives top priority to improving the technical perspectives of various health programs carried out in countries. “**Training of Trainers**” courses for the faculty of capacity-building workshops are generally not widely available.*

Quality capacity-building activities are very cost-effective, time-effective, and very beneficial to the concerned staff in the long run. Guidelines for conducting capacity-building activities are also not available. Individual capacity-building, organizational

capacity-building, and systemic capacity-building are clearly not well understood. The reference documents, PowerPoint presentation slides, and working documents used in the capacity-building workshops are not regularly put up on the web for those participants who could not make it and also for future reference.

Generally, several training workshops and courses for different disciplines are being conducted with little collaboration and coordination among similar institutions, hospitals, public health programs, and various entities. Proper registration or recording of training workshops and courses should be made by the responsible unit/division of the Ministry of Health. If there is no such unit/division, it should be formed as soon as possible. This would also ensure that essential or key staff members would not be left behind to attend the training workshops and courses.

It would be desirable if a unit could be formed in the Ministry of Health to help develop PowerPoint presentation slides and other types of presentations for those faculty who are computer illiterate. There should be a uniform format for all PowerPoint presentation slides used in the Ministry of Health and they should all be posted on the web and also archived. The PowerPoint slides for the clinical domain must be properly vetted by the concerned responsible authority or professors before being put up on the web. These slides must contain the date of preparation, the presenter's designation, and quoted references clearly shown in the slides. We need to be careful as we are dealing with the lives of the patients.

Training workshops and courses should not be conducted just for the sake of being conducted. Each course agenda and program should not only be carefully worked out by the relevant professionals, but also appropriate training methods, training teaching aids, and necessary support should be provided by the Ministry of Health. Proper selection of faculty for the training workshops and courses is very important.

Necessary expenses to conduct the capacity-building activities should be put in the budget of the respective health programs in advance. The budget to conduct training workshops and courses could be provided by the WHO. Conducting capacity-building programs is one of the most cost-effective ways to heighten the caliber and capability of health staff of all disciplines. With Zoom software, more participants from all over the country can attend the capacity-building activities.

All training workshops and courses should be evaluated at the end of each workshop and course to see their effectiveness by doing a qualitative and quantitative assessment. A generic evaluation format could be developed by the relevant medical education units in the Ministry of Health. This is the best approach to improving the effectiveness of training workshops.

All the background materials, working papers that are distributed, and PowerPoint presentations slides used at the training workshops and courses should be put on the Ministry of Health website with password protection for the health staff.

If possible, a videotaping of the lecture or talk should be made and put on the website of the Ministry of Health for those staff who could not attend the training workshops and courses. This could facilitate achieving the overall objectives of the training workshops and courses. Assessment of the effectiveness of capacity-building activities is discussed in a very detailed manner in the reference mentioned below.

Issues to be considered are:

- (i) Before developing plans to conduct capacity-building activities for the next budget cycle;
- (ii) Issues to consider before conducting capacity-building activities;
- (iii) Issues to consider while conducting capacity-building activities for improvement for the future;
- (iv) Issues to consider after conducting capacity-building activities; These issues are discussed in detail in the chapter as mentioned below.

Specific action points were also discussed and proposed in **“Increasing the Effectiveness of Capacity-building Activities,”** part A, chapter 21 of the book titled, **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

Depending on the categories and levels of staff, we need to consider conducting capacity-building activities either for individual capacity-building, organizational capacity-building, or systemic capacity-building activities. As a matter of fact, capacity-building activities should be regarded as a long-term investment for the development, progress, success, and sustainability of the institution or organization. The ultimate beneficiary is the population at large in the country.

(A paper dated 2 April 2019, written by Kent Li, C4H-capacity For Health c/o Asian & Pacific Islander American Health Forum (APIAHF), is a good reference to read.) ■

PROPOSED ACTION POINTS

- A list of all the formal capacity-building workshops and courses (categorization by subject area, number and categories of participants attended, etc.) conducted in the last six months or one year for each health program should be made;
- Quick surveys should be conducted to elicit the existing scenario of capacity-building activities being conducted in the country;
- Comprehensive guidelines for conducting capacity-building workshops and courses should be developed;
- Comprehensive guidelines for generic evaluation of capacity-building workshops and courses should be made available;
- A “Training of Trainers Workshop for Faculty” who are expected to serve as trainers, facilitators, or resource persons should be conducted as soon as possible;
- A “Registry of Capacity-building Workshops and Courses” should be established for the planning of capacity-building activities and budget allocation for the coming year. The registry’s format should be reconsidered in order to improve its utility;
- All the background materials, working papers, and PowerPoint presentations made at the training workshops and courses should be put on the Ministry of Health website;

Chapter: 10

ESTABLISHING A RESILIENT NATIONAL HEALTH SUPPLY CHAIN MANAGEMENT SYSTEM

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The national health supply chain management system in developing countries is not fully developed. Even the existing systems are not properly managed and are not satisfactorily functioning. The degree of resiliency is low. There is a dearth of professionals who could give training on the national health supply chain management system.

Although the spectrum of activities is very broad, there is no full-fledged department to run the system. It is a huge undertaking. The system is generally run by a unit, or division, or section of a department. Each component of the supply chain is equally important. It starts from planning for the procurement of supplies and equipment until it reaches the patient. We have to give equal attention to it.

Major challenges in the healthcare delivery system are due to weaknesses and lapses in the less than satisfactory performance of the national health supply chain system. Every reasonable effort should be made to improve the situation.

The curriculum of MPH courses does not give sufficient time allocation for the teaching of national health supply chain management topics, which are really influencing the smooth functioning of the whole healthcare delivery system. We can even assume it as one of the key predictors for increasing the efficiency of the healthcare delivery system.

*Capacity-building activities for supply chain management are not commonly conducted. Several types of capacity-building activities are required as it has several components. The training sessions should be interactive as the contents of the subject matter are somewhat complicated and wide-ranging. We first need to conduct “**Training of Trainers**” courses for the expected trainers.*

In general, the Ministry of Health did not regard the health supply chain management system as a priority activity. Many staff are not fully aware of the crucial role that proper management of the health supply chain could play in improving the performance of the healthcare delivery system. As the coverage domain and spectrum of the health supply chain management systems are too broad, we need to improve it slowly but on a broad front.

To overcome the challenges of the national health supply chain management system (NHSCMS), we need to structure our line of actions very clearly, carefully, and systematically. It is a very vast area of work. The NNHSCMS starts with the right amount, the right items, and the right time for procurement of quality supplies and equipment, and medicines; transport to the Central Medical Stores Depot from the port of entry into the country; further distribution to sub-depots all over the country; and then to hospitals; down to peripheral hospitals and public health institutions; and ending in rural health centers and sub-rural health centers.

The activities need to be implemented in a phase-wise and step-wise manner. A technical task force on the development of the “**National Health Supply Chain Strategies for Medicines, Medical Supplies, and Equipment**” should be formed. This task force would formulate practical and appropriate strategies and interventions for the country. We need technical collaboration and financial support from UN agencies (UNICEF, WHO, UNOPS, UNFPA, etc.) and development partners such as USAID, JICA, CHAI, JSI, etc.

One of the major challenges of the healthcare delivery system in developing countries is the weak and less responsive NHSCMS, resulting in the disruption of supplies and equipment not only in terms of quantum and specific items but also in nonavailability of supplies at the required time and place. This could unnecessarily increase the morbidity and mortality of various diseases, let alone the psychological stress undergone by the patients and their attending doctors, nurses, and hospital administrators. Many medicines have also expired, which is an unintended loss of budget for the Ministry of Health. If the system is efficient, the government can save a huge amount of money.

An immediate review of the structure and functional status of the NHSCMS should be carried out. The unit/division/section or department which handles the NHSCMS should be expanded immediately and strengthened in many aspects. Before this review, quick assessment checklists should be sent out to elicit the existing scenario at a glance.

The findings emanating from the checklists could be used to frame the full-fledged review process. As this is a very huge task to do, a good and doable plan should be drawn up involving all responsible entities in the Ministry of Health. The team should start the review process as soon as possible. The recommendations proposed and actions to be taken may not be implemented in one go.

It is to be noted that there are several health sub-supply chain systems in many hospitals and health institutions in the country. We should not underestimate the importance of even a small health supply chain management system in a small hospital. Every health supply chain sub-system (medicine, equipment and its spare parts, laboratory reagents, hospital linen, etc.) in the healthcare delivery system is essential and equally important.

All supply chain systems, irrespective of their size, are equally important. One gap or weakness in the linkages of the health supply chain system would result in disruption of health services, leading to many untoward incidents.

We should plan so that all hospitals and institutions receive high-quality supplies and equipment on time, in sufficient quantity, and at a reasonable cost. It is also essential that entities with a similar nature of work be networked electronically so that they can help each other. Networking is very important for the success of any action to be taken.

The role of a computerized NHSCMS cannot be overemphasized. The initial investment to have a fully computerized NHSCMS may be high, but the long-term dividends for the efficient performance of the healthcare delivery system far outweigh the initial investment. We will need several computer-savvy staff in our NHSCMS.

For long-term benefits for the health domain, the schools of public health or other health institutions should offer bachelor's or diploma courses on ***"Health Supply Chain System Management."***

Many countries do not give priority attention to firmly setting up and smoothly running the NHSCMS. We need to lobby the senior officials of the Ministry of Health to give priority attention to the supply chain aspect of the healthcare delivery system. In fact, the NHSCMS is like the vertebral column of the human body. The weak bony structure of the vertebral column can cause the human body to collapse.

Likewise, the functional capacity of the healthcare delivery system will come to a standstill if the NHSCMS is not functioning well. This could affect not only the domain of public health but also other domains and disciplines of medical services and the whole hospital system.

Every effort should be made to make the supply chain system work smoothly. The whole system must be fully computerized and strongly networked. The whole distribution network must be closely monitored electronically by a group of professionals and take immediate reporting to higher levels for urgent issues and take immediate actions for change or improvement. The algorithm should be made available. It is complicated and challenging work, but also very interesting. The dividends gained will be immense for the Ministry of Health.

We should pay special attention to the supply chain system of the Expanded Program for Immunization. It could slow down or even come to a halt if the supply chain system is not working properly. This could result in the emergence or resurgence of vaccine-preventable diseases in various parts of the country and even outbreaks of childhood diseases, leading to unnecessary deaths of children.

The Ministry of Health has to unnecessarily spend a huge amount of budget to control the epidemic of childhood diseases, let alone the enormous burden on the health workforce.

Specifically, weaknesses or lapses in the supply chain system for vaccines, i.e., the cold chain system, could have disastrous effects on the health of children. The normal growth pattern of affected children will be disturbed. A disjointed and uncoordinated performance of the NHSCMS may have unthinkable negative consequences for the efficiency of the healthcare delivery system.

An efficient and transparent NHSCMS will ensure the timely availability of quality and efficacious medicines, other medical supplies, and equipment at all levels of the healthcare delivery system. Many challenges that we commonly face in the hospital domain could be overcome quickly. The health outcomes will also be improved. Detailed discussion and step-by-step action points for improving the NHSCMS are in the chapter mentioned below. ■

Specific action points were also discussed and proposed in **“Supply Chain Management: The Backbone of the Health System,”** chapter 7 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- Do a quick assessment of the existing situation of NHSCMS using a checklist of questions and key informant interviews;
- Get the list of partner UN agencies, organizations, and INGOs who would like to collaborate in this gargantuan task of streamlining and strengthening the NHSCMS in a phase-wise and step-wise manner. Then conduct meetings aiming at having a tentative framework and roadmap of activities;
- Send a team of officials, who are currently working in different areas of the NHSCMS, to some countries that are implementing the work satisfactorily in their NHSCMS. The study teams should be serious in their travels, and proper preparatory work should be done;
- Following this, a series of well-planned capacity-building workshops should be conducted before embarking on the full-fledged improvement activities;
- Capacity-building workshops on enhancing basic computer skills relevant to the health supply chain system should be conducted all over the country;
- A comprehensive SOPs and GLs for different parts of the NHSCMS should be developed by several technical teams;
- The schools of public health or other health institutions in the country should offer bachelor or diploma courses on “Health Supply Chain Management System;”
- All the above activities are extremely crucial and costly for the country. A high-level commitment is required;

Chapter: 11

COLLABORATING WITH THE WHO AND EXTERNAL ENTITIES

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The focal official of the International Health Division or similar unit/section/department needs to communicate more proactively with the country office staff of UN agencies, partners, organizations, associations, and INGOs (mentioned below) to get more collaboration and support. These entities are working in the country to give various types of support to the contemporary health needs of the country. Currently, communication appears to be not that frequent and strong. We have to make the most of their presence by communicating with them frequently.

There is no clear-cut strategy written in black and white as to how to make that relationship strong and last. Because of weak communication, we got funding support for those areas in which we do not need much, and those areas in which we need more are not getting it as they should be.

There are several UN agencies, development partners, organizations, foundations, associations, INGOs, and local NGOs working in the field of health. It is clearly observed that there is redundancy and duplication of work in technical as well as geographical areas. It is a sheer wastage of resources for the external entities, and the country is also not getting the full benefit.

Countries have not developed a “mosaic of activities supported by WHO and external entities” in terms of technical and geographical areas. If we can develop a mosaic of activities, we may be able to reduce the redundancy of activities.

A detailed evaluation or assessment of the external support for the health domain received by the country is generally not available. Only piecemeal evaluation reports are available. Intensified collaboration among all the entities is urgently required. The "Resource Flow Analysis" of the support that the country is receiving is not done in a holistic manner. We need to synchronize many activities to reap the full benefit of the support given by external entities.

Regular meetings between the country's external entities will be extremely beneficial to the country. It would be beneficial to have a basic generic framework for discussion with external entities. For non-confidential matters, the meeting minutes may be distributed to all the external entities. This sharing of information is very important for all the external entities.

We need to intensify the momentum of implementing the collaborative activities with WHO and external entities if we really want to remove the challenges of the healthcare delivery system. To achieve this, each collaborative activity should be thoroughly scrutinized from an epidemiological perspective.

The WHO is the major collaborator in the field of public health. It is crucial in helping the Ministry of Health to lessen the challenges of the healthcare delivery system. We need to get the most from WHO because WHO is purely a technical inter-governmental organization. It is important that we should be in touch with all three levels of the organization, i.e., country level, regional level, and headquarters.

WHO is giving technical and financial support to the Member States in conducting:

- (i) National capacity-building training workshops on various subjects;
- (ii) Workshops on national program evaluation;
- (iii) Research funding and research promotion activities;
- (iv) Extramural training programs;
- (v) International or regional training workshops for country officials;
- (vi) Policy and technical meetings;
- (vii) Supplies and equipment for public health laboratories and other relevant institutions;
- (viii) Assisting and collaborating in management and investigations of disease outbreaks;
- (ix) Providing specialized consulting services and consultants in various technical areas;
- (x) Sharing technical information with national staff, etc.

As WHO is the only UN agency that develops the country's biennial work plan jointly with the Ministry of Health, every effort should be made so that the activities in the plan are in line with the specific requirements of the country. We also need to seriously explore how

to get additional funding support and technical collaboration from the regional office and WHO headquarters. There are numerous resources (funding, human resources, and technical) available at WHO headquarters.

There should be frequent communication between the concerned unit/division of the Ministry of Health and WHO in particular. The Ministry of Health should have clear-cut and doable strategies to harness financial and technical support from WHO, other UN agencies, development partners, organizations, associations, INGOs, and local NGOs.

Specific action points were also discussed and proposed in **“Strengthening International Health Coordination,”** part A, chapter 7 of the book titled **“Reflections of a Public Health Professional”** by Dr. Myint Htwe.

With the proactive support and collaboration from WHO (country, regional, and headquarters), many SOPs and GLs in the field of public health could be updated, and new SOPs and GLs could also be developed. The SOPs and GLs are important traffic lights, especially for basic health services professionals (Health Assistants, Public Health Supervisors, Lady Health Visitors, Public Health Nurses, and Midwives) to perform public health interventions in the right direction.

Many of these staff are posted in rural health centers and sub-rural health centers, which are located in remote, hard-to-reach, and rural areas. They need proper and ready-made references to perform their duties. A compendium of SOPs and GLs would be an extreme advantage for them to effectively and efficiently perform their duties.

Additionally, the WHO could be asked to collaborate in developing:

- (i) Quick assessment tools by using a checklist to assess a system or interventions or the performance of an institution, etc.;
- (ii) Analysis of indicators used in various programs, as well as refinement of these indicators;
- (iii) A checklist for evaluating the performance of rural health centers and sub-rural health centers, township hospitals, district hospitals, and state/regional/provincial hospitals in terms of operational, administrative, logistical, and technical aspects;
- (iv) A checklist to review the performance of nurses, midwives, health assistants, township medical officers, township health officers, station medical officers, medical superintendents, etc.;

The findings of these reviews and assessments should be used to improve the performance of the healthcare delivery system and thereby reduce the challenges. These SOPs and GLs may help tackle many specific challenges of the healthcare delivery system.

Specific action points were also discussed and proposed in **“Getting the Most Out of WHO Support,”** part A, chapter 8 of the book titled, “Reflections of a Public Health Professional,” by Dr. Myint Htwe

The overall public health system could be improved and challenges reduced if we worked closely with the WHO and external entities. The CDC Atlanta defines the public health system as **“all public, private, and voluntary entities that contribute to the delivery of essential public health services within the jurisdiction”**. A strong public health system is, in fact, underpinning the hospital domain significantly in terms of reducing the number of out-patients and in-patients taken care of by hospitals all over the country.

Specific action points were also discussed and proposed in **“Improving the Domain of Public Health,”** part A, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

A strong public health system can deal with the disease outbreak successfully. An outbreak can cost the Ministry of Health in several ways. The support from UNICEF, UNAIDS, UNFPA, UNOPS, UNDCP, UNDP, USAID, US CDC, JICA, KOICA, KOPFI, and INGOs (Save the Children Fund UK, World Vision, Marie Stopes International, Community Partners International, ICRC, IFRC, NRC, Oxfam, SIDA, CIDA, The Nippon Foundation, URC, Water Aid, MSF, PSI, ARC, AFXB, ACF International, ADRA, American Leprosy Mission, American Red Cross, Asian Harm Reduction Network, B. K. Kee Foundation, Burnet Institute, FHI 360, Hellen Keller International, Japan Heart, Malaria Consortium, Pact, Path, etc.) and big local NGOs are essential in collaborating and tackling specific challenges of the healthcare delivery system.

Once the challenges of the healthcare delivery system are identified, these agencies and organizations can meet and discuss their role in helping the Ministry of Health. Through this mechanism, there will be cohesiveness between the external entities and the Ministry of Health, which is desirable in the long run.

Specific action points were also discussed and proposed in **“Harnessing the Contribution of NGOs,”** chapter 15 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

A strong network of UN agencies and INGOs should be promoted and facilitated by the Ministry of Health. Generally, this is not happening in many countries. All UN agencies and INGOs should closely study the national health plan, national health policy, and major health strategies of the country and consider how they could support it. Tackling the challenges of the healthcare delivery system is the responsibility of all the stakeholders in the health domain. ■

PROPOSED ACTION POINTS

- **Review in detail the existing status of collaborative work with WHO, other UN agencies, development partners, organizations, associations, INGOs, and local NGOs;**
- **Develop a “mosaic of activities” in collaboration with WHO and external entities” in terms of technical and geographical areas;**
- **Formulate doable and practical strategies to enhance collaboration with WHO, other UN agencies, development partners, organizations, associations, INGOs, and local NGOs;**
- **The frequency of communication between the responsible unit/division/section of the Ministry of Health and external entities should be improved;**
- **The absorption capacity of funding support given by external entities should be enhanced by applying various mechanisms;**
- **“Resource Flow Analysis” should be done on the financial support given by WHO, other UN agencies, development partners, organizations, associations, INGOs, and local NGOs;**

Chapter: 12

REMOVING THE DEMARCATION LINE BETWEEN THE CLINICAL DOMAIN AND THE PUBLIC HEALTH DOMAIN

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

In real life, clinicians and public health professionals do not work much in tandem. Each profession is concentrating on their areas of work without noticing the development, progress, newer findings, and challenges being met in other professions. Each profession is not realizing the fact that their activities are, in fact, complementary and reinforce each other.

The regular platforms or forums to share experiences and viewpoints between the two professions are not generally available. The two technical channels should not be allowed to go unhindered in different directions. Avenues should be sought so that two channels can be connected, converged, and combined into one. Here, personal ego also needs to be removed. There should be equal footing in discussion forums, and professionals should support and respect each other. All the barriers leading to this demarcation line should be dissolved once and for all.

We are not getting the full benefits from the collaborative work between the two domains. Both the domains should reinforce each other, and the final beneficiaries will be the population at large.

The “quality-adjusted life years” (QALY) of the population could be increased, as could the life span of the people in the country. Therefore, removing the demarcation line between the two

domains could result in multiple benefits for all the partners involved and the population they are serving. Many challenges in the healthcare delivery system could be eliminated without anyone noticing.

The two major domains in the healthcare delivery system are the clinical domain and the public health domain. The professionals working in the clinical domain generally treat patients on an individual basis, are involved in the management of disease outbreaks together with public health professionals, teach and train medical and post-graduate students, conduct research projects, etc. Public health professionals, on the other hand, deal mainly with groups of people, communities, whole regions, and provinces, conducting research projects, being involved in the management of disease outbreaks, teaching and training students, etc.

In fact, the work performed by these two groups of professionals is complementary to each other. Therefore, it would be an advantage, especially in terms of removing the challenges, if the demarcation line between clinicians and public health professionals were removed through the application of various avenues and means.

Specifically, the underlying notion is that the clinical domain and the public health domain are intricately linked and complementary to each other. Combined, concerted, and synchronized efforts between clinicians and public health professionals are indispensable in managing the challenges of the healthcare delivery system. Generally, a good public health program can dramatically reduce the number of patients suffering from communicable and noncommunicable diseases. This could have enormous benefits for the clinical domain.

One clear-cut example is that the quality performance of the Expanded Program on Immunization could noticeably reduce the incidence and prevalence of vaccine-preventable diseases, both childhood diseases and adult diseases. This could effectively reduce the workload of clinicians, nurses, and paramedical professionals working in hospitals. They could, therefore, give more time to render quality services to other patients, resulting in a reduction in nosocomial infections, length of stay in the hospital, and hospital mortality rates. The use of medicines and laboratory and radiological investigations could also be reduced. Many challenges could be automatically resolved.

Specific action points were also discussed and proposed in **“Improving the Domain of Public Health,”** part A, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

It would be highly desirable if clinicians were to attend public health strategy formulation meetings and annual evaluation meetings of various health programs. Clinicians and public health professionals could work closely together in the following areas:

- (i) Numerous public health promotion activities;
- (ii) Clinical and public health research projects;
- (iii) Developing health education materials;
- (iv) Institutional Review Boards (IRB) or Ethical Review Committees (ERC);
- (v) Development and updating the SOPs and GLs on various subjects;

- (vi) Improving the hospital administrative and management issues;
- (vii) **"Time and Motion Studies in hospitals";**
- (viii) Improving the hospital information systems;
- (ix) Lowering the incidence and prevalence of communicable, noncommunicable, and chronic diseases;
- (x) The development of an updated curriculum for various courses and training programs;
- (xi) National health research policy formulation and revision;
- (xii) National health policy formulation and revision;
- (xiii) National health plan formulation and revision;
- (xiv) Disease outbreak management and control in the country;
- (xv) The development of national strategies for various public health programs, etc.;

We need to have a national seminar on **"Working Cohesively Between the Clinical Domain and the Public Health Domain in the Country"**. This seminar could aim to develop a **"roadmap and framework of action to intensify the collaboration between the two domains."** ■

Specific action points were also discussed and proposed in **"Tripartite Collaboration for Promoting Public Health,"** part A, chapter 3 of the book titled, "Reflections of a Public Health Professional" by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- **A national seminar on "Working Cohesively Between the Clinical Domain and the Public Health Domain in the Country" should be conducted;**
- **As the clinical domain and public health domain are complementary and reinforce each other, various platforms should be created so that challenges and issues in the healthcare delivery system can be sorted and ironed out by the professionals collectively;**
- **Epidemic outbreak prevention and control teams should be headed jointly by professionals from two domains;**
- **For certain contemporary technical topics and issues, professionals from both domains should be represented in Technical Working Groups (TWG), Scientific Working Groups (SWG), Technical Advisory Groups (TAG), Institutional Review Boards (IRB), Ethical Review Committees (ERC), Special Task Forces (STF), and Ad Hoc Committees;**
- **Clinicians should be put on board when public health strategies and interventions are formulated;**
- **Clinicians should be invited to annual evaluation meetings of public health programs;**
- **Clinicians and public health professionals should work together on the areas mentioned in the text above so that the degree of cohesiveness can be strengthened to greater heights;**
- **Epidemiologists and public health professionals should help review the performance of hospitals in terms of administrative, management, logistical and technical aspects in collaboration with clinicians;**

Chapter: 13

REDUCING THE NUMBER OF PATIENTS IN HOSPITALS

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

There is an overload of patients being treated at outpatient departments, and admitted patients are overflowing in hospitals. The work of the hospital staff is overwhelmed and under great stress, leading to mismanagement of patients, treatment failures, increased nosocomial infections, increased hospital management cost, prolonged duration of hospital stay, congestion at the bathrooms and toilets, compromised patient safety, and dealings with patients being heavily compromised.

Due to this, nursing care could not be rendered in a quality manner as per the standard of nursing care. The whole scenario is not conducive to obtaining a favorable working environment for the hospital staff. The patients are also suffering from several perspectives, and the patient satisfaction indices would be very low. These are challenges commonly seen in hospitals in developing countries.

A series of undesirable problems can occur in hospitals, and some can lead to unnecessary complications and even patient death. The supplies and equipment could not cope with the increasing number of patients and the supply chain management system would be negatively affected. Ways and means should be sought as to how to reduce patient congestion happening in hospitals. Various options should be identified and selected as the best approach suitable to the hospital in question. Sometimes, the scenario can be blown out of proportion and could tarnish the image of the hospital and the Ministry of Health. The vicious cycle between the patients and the health staff interactions could set in, leading to an uncontrollable situation.

There are several interventions that can reduce the number of patients admitted to hospitals as well as the number of patients coming to outpatient departments of hospitals. One of the most cost-effective interventions is to promote the health literacy level of the population. The level of health literacy of the population has a direct linkage with the quantum of the healthy population.

The population would be practicing healthy lifestyles because of the high level of understanding of health promotive and preventive measures for diseases and conditions. The number of sick people in the community will be lower, and there will be fewer reasons for the population to go to hospitals. The population will also know the early signs and symptoms of many chronic diseases and malignancies, and their chances of survival will be high. Knowing the early signs and symptoms of the disease is good for the patient, and the disease can be treated early and cured easily. The number of chronic patients being treated in hospitals could be reduced. In other words, we should give topmost priority to promoting the health literacy of the population through various avenues and approaches.

Specific action points were also discussed and proposed in **“Health Literacy Promotion: A Far-Sighted Strategy,”** chapter 2 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

The health knowledge of the population is crucial not only for the overall improvement of the health status of the population but also for reducing the many challenges of the healthcare delivery system. Good health knowledge and practicing healthy lifestyles by the population would lead to a decreased incidence and prevalence of communicable, noncommunicable, and chronic diseases. This has a direct positive effect on the reduction of outpatients and inpatients admitted to hospitals. We need to formulate and seriously implement a **“National Strategy for Promoting Health Literacy of the Population at Large”**.

It could reduce the workload of hospital staff; less use of medicines; fewer operations; fewer laboratory and radiological investigations; etc. Several challenges faced by the staff in hospitals could be relieved to a significant extent. Promoting health literacy in the population should be done by basic health services health staff together with community-based organizations and associations. If the population is healthy, people coming to hospitals to get treatment will be significantly reduced.

These organizations and associations should form a network to be more effective in their health literacy promotion activities. Networking is a dynamic process. It has certain principles and modes of operation, which need to be followed strictly.

The most important thing is that networking requires information sharing, implementing collaborative activities, offering mutual respect and understanding, and working together on areas of common interest. The benefits of networking are for all the entities in the

network. We need to heed all these points so that networking is effective. Details are discussed in the **“Networking of Health Institutions”**, as mentioned below.

Specific action points were also discussed and proposed in **“Networking of Health Institutions,”** part A, chapter 19 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Another highly cost-effective, sustainable, and long-lasting strategy for reducing the number of outpatients and inpatients in hospitals is to promote the health knowledge base of the student population, which constitutes a large chunk of the population. We need to have a healthy student population. One of the best approaches is to practice **“Exercise is Medicine”** in all schools in the country. In order to achieve this, the Ministries of Health and Education should work in tandem. A **“Technical Committee on Health Promoting Schools,”** involving staff of both ministries, should be formed to develop a **“Roadmap and Action Points”** to be followed.

Some basic health promotion and common preventive measures for communicable, and noncommunicable diseases; anatomy and basic physiology of the human body; nature and spread of sexually transmitted diseases; early signs and symptoms of common diseases and conditions; the importance of personal hygiene including dental health, menstrual health, eye health, skin health; micronutrients, and nutrition-related information; the relationship between types of food taken, food eating habits and healthy body; the immediate and long-term dangers of using tobacco products, alcohol, and narcotic drugs; how to live a healthy lifestyle; physiological and psychological benefits of regular exercise should be included in student curricula from primary school level to university level. It could have an unbelievable impact on the reduction of the number of outpatients and inpatients taken care of in hospitals. The effect is also sustained. ■

Specific action points were also discussed and proposed in **“Domino Effect on Population Health,”** chapter 6 of the book titled, “Health System Challenges: A Developing Country Perspective”, by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- **Formulate and implement a “National Strategy for Promoting Health Literacy of the Population at Large;”**
- **Promote health literacy among different population groups by applying various avenues and approaches;**
- **Promote “health literacy among the student population” through a variety of avenues and approaches;**
- **Promote “health literacy and health lifestyles among the industrial and factory workers” through a variety of avenues and approaches;**
- **Advise the population to “practice healthy lifestyles” through the support of community-based organizations and associations;**
- **Give various types of support to “community-based organizations and associations”;**
- **A “Technical Committee on Health Promoting Schools” should be formed;**
- **Implement “Exercise is Medicine” programs in all schools and the population throughout the country;**
- **“Health screening programs” for noncommunicable diseases should be conducted if resources are available;**
- **Enhance “coverage of immunization programs” throughout the country;**
- **Restrict the sales and increase the tax of “tobacco, tobacco related products and alcoholic beverages”;**

Chapter: 14

BE PREPARED TO TACKLE FUTURE PANDEMICS

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

It is noted that many countries, including developed countries, are not ready or well prepared for the recent SARS-CoV-2 pandemic, especially the pandemic of the respiratory route of transmission. For pandemic preparedness, the core capacity-building for IHR (2005) is very important. It was not fully fulfilled or implemented in many countries.

We have met with an unprecedented number of challenges due to the SARS-CoV-2 pandemic. It was not a typical pandemic for the following reasons:

- (i) It was caused by a novel virus, the natural history of which we do not fully understand;*
- (ii) The virus is constantly evolving with several mutations;*
- (iii) There is an extremely rapid spread through the respiratory tract and mucous membrane lining areas of the body;*
- (iv) There are changing patterns of signs and symptoms;*
- (v) The virus's infectivity is high;*
- (vi) At the start of the pandemic, health systems were completely unprepared;*
- (vii) Personal protective equipment was not widely available at the beginning of the pandemic;*
- (viii) Diagnostic facilities and rapid test kits were not readily available at the start of the pandemic;*

- (ix) *Many health-care workers were unaware of the virus's changing clinical course; Many health workers died as a result of the disease;*
- (x) *Specific medicines to treat SARS-CoV-2 infections were not available;*
- (xi) *Misinformation and disinformation were prevailing;*
- (xii) *Vaccines were not available until after a year or so;*
- (xiii) *Vaccines are expensive;*
- (xiv) *The population's cooperation was not that high;*
- (xv) *It is difficult to control the movement of the population;*
- (xvi) *Coordination issues among all the players were there, leading to confusion among the players, etc.;*

Many countries' health systems are on the verge of collapse as a result of these challenges. We need to seriously review all these challenges in detail and prepare for the control of future pandemics, especially the respiratory spread of pathogenic organisms.

The role of the population is very crucial. Because of the low health literacy level on SARS-CoV-2, misinformation (incorrect or misleading information presented as fact) and disinformation (deliberately made deceptive information), collaboration from the population side is not strongly felt. This has prolonged the duration of the pandemic. This particular challenge is a major one, and we need to strategize to circumvent this situation. Another challenge is a weakness in synchronized coordination, as there are many players in controlling the pandemic.

The health literacy promotion programs are also not fully off the ground. The SOPs and GLs for managing epidemic and pandemic diseases of respiratory route transmission were not available in early 2020. These guidelines, after slight modification as appropriate, could be used for future pandemics of respiratory spread.

Because the pandemic is still spreading, many countries have yet to conduct a detailed and comprehensive review of how the SARS-CoV-2 pandemic was handled in their respective countries. Lessons learned, challenges met, drawbacks seen, and success obtained should be recorded and used to draw plans not only to prevent future outbreaks or pandemics but also to successfully contain future epidemics or pandemics at an early stage.

In any healthcare delivery system, there is always an element of surprise. We need to contemplate in advance and plan appropriately for any possible untoward events likely to be encountered. One of the elements of surprise is the unexpected occurrence of an epidemic or pandemic disease.

Every attention should be accorded so that the core capacity of IHR (2005) can be strengthened. If the **“core capacity of IHR (2005)”** was sufficiently adequate, any upcoming epidemic or pandemic could be controlled successfully in a short period of time. An epidemic or pandemic of respiratory virus origin is a serious matter, and it could become a grave challenge to the healthcare delivery system.

The SARS-CoV-2 pandemic has resulted in:

- (i) Unprecedented suffering in the population and resulted in unheard of deaths;
- (ii) Severe economic loss to the country;
- (iii) Disruption to the social fabric of the population;
- (iv) An increasing number of personal losses and bereaved families;
- (v) Tearing of the psychological fabric;
- (vi) A very heavy burden on the healthcare delivery system,
- (vii) The near collapse of the healthcare delivery system;
- (viii) Extreme work stress for all categories of health staff in hospitals;
- (ix) Unmanageable workloads for all categories of public health professionals and basic health care workers;
- (x) The hospital's workload is overwhelmed;
- (xi) Negatively affecting people's livelihoods;
- (xii) Having a negative impact on the human development index;
- (xiii) Many people continue to suffer from long-term COVID;
- (xiv) Unnecessary psychological and economic burden on the population; etc.

Therefore, we should not let it happen again. Therefore, all the challenges that we face should be thoroughly explored, critically analyzed, and systematically taken care of collectively by all stakeholders without fail.

Detailed preparedness activities to make the healthcare delivery system ready to tackle any epidemic or pandemic disease are mentioned very succinctly in the chapter mentioned below.

Specific action points were also discussed and proposed in **“Preparedness for Future Waves of COVID-19;”** chapter 5 of the book titled, **“Health System Challenges: A Developing Country Perspective,”** by Dr. Myint Htwe.

When a big epidemic or pandemic occurs in a country, there is a disruption of other disease control activities, apart from health staff fully occupied with containing the big epidemic or pandemic. This challenge is very real. It could lead to deficient performance of other disease control activities and public health program activities. It could lead to a surge of other diseases and conditions. Every effort should be made to contain the epidemic or pandemic by applying the principles and steps for managing an epidemic or pandemic as mentioned in detail in the chapter mentioned below. ■

Specific action points were also discussed and proposed in **“Principles and Steps for Managing an Epidemic/Pandemic,”** chapter 4 of the book titled, **“Health System Challenges: A Developing Country Perspective”** by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- **A detailed and critical review of the challenges in controlling collaboration, and coordination issues, concerning pandemic control should be undertaken;**
- **Based on the findings, the preparation of necessary SOPs and GLs covering the whole spectrum of the course of the pandemic should be developed;**
- **Strengthening in all areas found to be weak should be done immediately;**
- **Create practical, cost-effective, and rational strategies and interventions with all partners, including technical and administrative representatives from various disciplines and domains;**
- **Improve the efficiency of communicable disease surveillance and sentinel disease surveillance systems;**
- **Full strengthening of the border area surveillance systems;**
- **Core capacity-building as per IHR (2005) should be done quickly;**
- **Develop a network system and a framework for early detection of disease outbreaks, especially respiratory transmission and rapidly transmitted diseases;**
- **Detailed activities are clearly spelled out in the chapter “Preparedness for Future Waves of COVID-19” as mentioned above in the box;**

Chapter: 15

CONDUCTING IMPLEMENTATION RESEARCH

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

There are many public health programs or projects being implemented in developing countries. As an example, like in many other developing countries, Myanmar has more than 40 WHO-supported public health programs or projects. Built-in implementation research activities are not commonly incorporated into these public health programs. Generally, program staff consider the conduct of implementation research as an extra burden for them, not realizing the fact that it could improve the effectiveness and efficiency of their programs or projects they are managing.

Similarly, projects fielded by INGOs do not have many implementation research projects being conducted. The responsible senior health program directors/managers are also not fully aware of the utility of implementation research. The research culture among some health program directors and managers is not strong.

Programs or activities to inculcate a research culture among the staff of the Ministry of Health are not freely available. Collaboration between researchers and health program implementors needs solid backup from the senior officials of the Ministry of Health. There are no regular capacity-building training programs on research in general for health program staff.

Clear-cut strategies to enhance the conduct of implementation research are generally not available, and funds are also not allocated for conducting implementation research. The methodology to conduct implementation research is not freely available to the staff running various health programs.

Implementation research is a multi-method approach that considers both qualitative and quantitative data to assess the performance of programs and the effectiveness and efficiency of strategies and interventions being used by health programs. It is an essential tool for all program directors and managers. They must be well versed in the technical perspectives of implementation research. The findings of the implementation research should be discussed by directors and managers of relevant health programs on the common platform. This is one way to promote the utility of implementation research.

Many of the challenges of the healthcare delivery system can be elicited and proper solutions could be worked out if we conduct quick implementation research projects. Small implementation research projects should be incorporated into all health programs to determine their impact and effectiveness on population health.

This would also ensure an increase in the analytical capability of staff running the program in terms of administrative, management, logistics, and technical perspectives. The findings of the implementation research could reveal not only the causes but also the facilitating and impeding factors.

Specific action points were also discussed and proposed in **“Research Institutions and National Health Development,”** part B, chapter 3 of the book titled, “Reflections of a Public Health Professional,” by Dr. Myint Htwe.

The research institutions present in the country should help to increase the capability and capacity of the staff of all health programs to conduct implementation research in a quality manner. A series of training workshops together with actual implementation research proposal development should be carried out. In that context, we need to simultaneously strengthen the research institutions with the support of WHO or other relevant internal and external entities.

Senior researchers should conduct training workshops for the health program staff on:

- (i) An overview of conducting implementation research;
- (ii) The basic principles of qualitative and quantitative research;
- (iii) Responsible conduct of research;
- (iv) Research ethics;
- (v) How to conduct key informant interviews and focus group discussions;
- (vi) Qualitative research methods, data analysis, and interpretation of qualitative data;
- (vii) Quantitative research methods, data analysis, and interpretation of quantitative data;
- (viii) Research monitoring;
- (ix) Methods of data collection;
- (x) Questionnaire design and interview methods;

- (xi) Methods for presenting qualitative and quantitative data;
- (xii) Research management;
- (xiii) Informed consent; etc.;

At the beginning, a senior researcher should be principal investigator and junior staff from a health program should be co-investigator to conduct an implementation research project. This is learning by doing. Once the staff from the health program has confidence in conducting research, he or she can be a principal investigator for future implementation research projects.

Research and development always go hand in hand. If our health staff were implementing their activities and conducting implementation research simultaneously, we are sure that we would be achieving the objectives of the health programs and reaching our goals. The challenges of the healthcare delivery system will become less and less. ■

Specific action points were also discussed and proposed in **“Strengthening Health Research Institutions in Support of Public Health,”** part B, chapter 2 of the book titled, **“Reflections of a Public Health Professional,”** by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- **Conduct capacity-building workshops on implementation research for responsible personnel of health programs on a regular basis;**
- **Guidelines on the conduct of implementation research should be made available for health program staff;**
- **It is preferable that senior researchers jointly conduct implementation research projects with health program staff in order to create or rekindle an interest in conducting implementation research in the future;**
- **Allocate sufficient funds to health programs to conduct implementation research. Funding support from WHO/UNICEF/UNAIDS/UNFPA could also be requested;**
- **Create a common platform to present the findings of implementation research projects carried out by different health programs in the Ministry of Health. All health program directors and managers should attend the workshops;**
- **A compendium for list of implementation research projects carried out in the country should be developed for easy reference for health program directors or managers;**
- **Implementation research should be in the curriculum of MPH courses;**
- **The utility of implementation research should be thoroughly explained to basic health care services workers on a regular basis;**

Chapter: 16

INITIATING RATIONAL BUDGET ALLOCATION

KEY CHALLENGES

*R*ational allocation of budget in the Ministry of Health is always a contentious issue as the previous fiscal year's budget allocation, utilization, and wastages are not properly evaluated by doing "**Resource Flow Analysis**". The staff are not realizing the fact that budgetary issues are equally as important as the implementation of program activities. When we develop health programs, serious discussions are generally held to identify program activities and formulate the objectives of the program. However, less attention was given to funding aspects of the program activities. This notion must be changed.

Generally, the budget and finance units are understaffed and not strong technically. The coordination between health programs and budget and finance units is also not that strong. We need to strengthen this coordination process by all means. The benefit to be accrued is immense.

Budget and finance staff review the utilization aspect of the budget only, and linkages with the technical outputs and outcomes are generally not scrutinized. This should be done by health program staff together with budget and finance staff. There are few studies on the efficiency of health programs vis-à-vis budget allocation and utilization. There are also very few studies done on the allocation of budgets to different health programs. This budget and finance aspect can offer many interesting topics for conducting implementation research. We need to promote this seriously.

The reports and returns of budgetary forms are commonly not submitted on time to the budget and finance unit by the health program staff. The feedback from the budget and finance units to all health programs in the country is also few and far between. The capacity-building activities for budget and finance staff working in regions and provinces should be clearly spelled out and done as per schedule. The review and analysis of the

national health account for each fiscal year has not been done seriously. We need to promote this review and analysis as a matter of importance.

There should be a mandatory annual review of the budget allocated to different health programs in the clinical domain and the public health domain. The challenges of the healthcare delivery system may arise because programs that need more budget are receiving less and programs that need less budget are getting more. In the Ministry of Health, some of the programs that need to be faded out are still getting budget allocation.

A thorough review of budget allocation patterns and budget utilization should be done, or implementation research should be conducted. It could help solve many of the challenges of the healthcare delivery system. A thorough review of the utilization pattern of the health budget should be initiated before submitting the overall health budget to the parliament.

An ethical dimension is involved in budget allocation. Resources are almost always limited, and therefore, a strong and unbiased prioritization of health programs is required using a set of objective and subjective criteria. There is always a tug-of-war between the budget requirements of various health programs. When we are allocating budget to health programs, there is a contentious ethical issue to consider, i.e., ***“the benefit to the population versus the benefit to the individual patient,”***. Therefore, although it is difficult, we have to abide by the principles of public health ethics in allocating budgets to health programs.

Health professionals working in the Ministry of Health are generally not aware of the importance and utility of rational budget allocation and monitoring the use of the allocated budget. The technical professionals are interested more in the technical aspects of their programs. We need to promote the importance of budgetary allocation and utilization issues by conducting several workshops, meetings, or seminars so that more attention will be given by health staff to issues relevant to budget or monetary aspects. Many small challenges could disappear through proper budget allocation.

It would be a great advantage if ***“Health Budget Utilization Monitoring Groups”*** were formed at various levels of the healthcare delivery system with specific terms of reference. It is also important that the proposed recommendations and suggestions put forward by this committee be given serious attention by the Minister for Health. It would be an added advantage if a special meeting or workshop were held before submitting the budget proposal to the parliament for the subsequent fiscal year.

This meeting should be chaired by a very high-level official of the Ministry of Health with full support from the Ministry of Planning and Finance. It is essential that several ***“Budget Planning Process Workshops”*** be conducted together with strengthening the ***“Budget and Health Planning Units”*** available in the Ministry of Health. The value for money motto should be the order of the day. ■

PROPOSED ACTION POINTS

- When budget allocations are made to different health programs and entities, findings of recent research, recommendations of annual evaluation meeting reports of various clinical and public health programs, special assessment (monitoring and evaluation) reports of various health programs, annual reports of various health programs, recommendations of World Health Assemblies and WHO Regional Committees meetings, national health policy, national health plan, and national health strategy are all considered. The “principles of public health ethics” should be strictly applied;
- Findings from the “National Health Account Systems” and results of “Resource Flow Analysis” on various health programs should be referenced;
- A “Computerized System for Monitoring Budget Utilization” should be established as soon as possible;
- A detailed review of last fiscal year’s budget utilization should be completed before budget allocation for the current year;
- Several “Budget Planning Process Workshops” should be conducted together with strengthening the “Budget and Health Planning Units” available in the Ministry of Health;

Chapter: 17

MINIMIZING THE CHALLENGES OBSERVED IN THE HOSPITAL DOMAIN

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The challenges observed in hospitals in developing countries are numerous. The challenges probably stem from: insufficient budget allocated to hospitals; a lack of quality human resources; many staff positions are vacant; an increasing trend of outpatients treated and inpatients admitted to hospitals; demand from patients is increasing due to information from social media; staff and patient ratios are imbalanced; weak hospital supply chain management system; communication skills of hospital staff are compromised due to heavy workload; facilities (resting places, staff quarters, canteens, and fringe benefits) for hospital staff are insufficiently available; weak management and administrative skills of hospital administrative staff; hospital maintenance and hospital environmental sanitation are not well taken care of for several reasons.

The hospitals are not built as per the standard building codes, leading to inconvenience in patient and staff movements (location of laboratories, radiological and radiation units, physiotherapy units, toilets and shower rooms for patients and staff, emergency department and ward location patterns) inside the hospital; and sewage and waste (biological, hazardous, ordinary) disposal systems are not functioning smoothly.

The patients also want to air their health rights in terms of getting quality and timely care. However, some of the complaints from patients are also not well-justified. Patients are also

under stress (psychological, financial, social, family, and personal) as they are presently suffering from diseases. The SOPs and GLs for hospital management and technical aspects for different categories of staff are not regularly updated, and some important SOPs and GLs are not available.

*The aforementioned issues could result in a certain degree of compromise of the patient's safety. Patient safety issues are not given enough attention due to the heavy workload of staff. It becomes a vicious cycle of challenges. Very few people are thinking of breaking the vicious cycle. Detailed challenges are mentioned in the chapter "**Challenges in Managing the Hospital,**" as referenced below.*

The repercussions of non-action on the challenges faced in hospitals may be wide-ranging, far-reaching, and could even tarnish the image of the Ministry of Health. The challenges noted in the hospital domain should be taken care of on a priority basis. It is to be emphasized that a hospital may face some of the challenges mentioned above, but not all.

We need to give undivided and special attention to the challenges emanating from the hospital domain as hospitals are dealing with the lives of patients. Here, the time factor is critical. It is worthwhile to have a small team in each hospital to monitor the challenges, if any. The challenges should be reported directly to the hospital director or medical superintendent of the hospital for urgent attention and action.

The challenges of the hospital generally arise due to weak logistics and supply chain systems, patchy hospital information systems, and less than desirable ethical behavior of the staff. There should be regular meetings among the medical superintendent, the nursing superintendent, key administrative staff, clinicians, nurses, paramedical staff, and other relevant people to have a general discussion on improving the performance of the hospital. Several issues could be easily sorted out before they are blown out of proportion.

As alluded to earlier, most of the challenges and complaints came from the hospital side, as the hospital work environment is such that patients have direct interactions with the clinical staff. Naturally, human-to-human interactions could have some issues. The patient safety perspective should be given special attention. This is a very broad domain, and no hospital in the world can fully satisfy the full requirements for patient safety.

To improve the hospital system holistically or reduce the challenges encountered in hospitals, we must review and improve hospital sub-systems, including: outpatient department systems; emergency or casualty department systems; laboratory systems; information and patient record systems; imaging systems; chemotherapy and radiotherapy systems; blood transfusion and blood safety systems; physical medicine and physiotherapy systems; patient education giving or health literacy promotion systems; on discharge information giving systems to patients and their attendants; paging systems for hospital staff; operation room systems and its affiliated systems; post-op and rehabilitation systems; sewage and biological waste disposal systems including biohazard waste disposal

systems; water supply systems; laundry systems; in-house catering systems for staff, patients, and visitors; hospital environmental sanitation systems; referral and discharge systems; building management and maintenance systems; information communication systems; logistics and supply management systems; drug warehouse management systems; car parking systems for staff and patients; security systems; duty roster systems for all categories of staff; private medicine shop systems; social welfare systems for staff; mortuary management; patient reception systems; patient complaint systems; etc. Each systems should be dealt with effectively and efficiently by the **“Hospital Management Committee”**. It is better to review these systems using a checklist of questions so that a situation can be elicited in a short time.

The availability of a favorable working and resting environment for hospital staff is particularly important so that they can serve the patients comfortably. The challenges identified in all these sub-systems should then be prioritized and dealt with step-by-step and phase-by-phase by the **“Hospital Management Committee.”** The committee should be represented by all concerned parties in a balanced manner, including representatives from the general population and patients, as well as one or two active local NGOs working in the health field.

Conducting **“time and motion studies”** and **“implementation research on hospital administration and management systems”** in crowded hospitals would yield many innovative ideas for easing the flow of patients in hospitals and improving administrative and other logistics issues. The improvements could increase patient satisfaction significantly. One way to improve hospital performance is to have a competition of hospitals of similar size and nature by applying a set of criteria, including **“patient satisfaction indices.”** A decent prize and high recognition at the national level should be awarded to good performing hospitals.

The side benefit is that several challenges could be reduced or removed dramatically. The hospital could then be graded with stars like in the hotel industry. This could be a positive stimulating factor for the hospital’s performance. The staff working in the hospital do not want their hospital to be downgraded to a lower number of stars. ■

Specific action points were also discussed and proposed in **“Challenges in Managing the Hospital,”** chapter 13 of the book titled, **“Health System Challenges: A Developing Country Perspective,”** by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- Surveys on “Hospital Patient Satisfaction”, “Hospital Staff Satisfaction”, and “Hospital Performance Assessment” using a checklist of questions and “key informant interviews” for issues of importance should be carried out as soon as possible;
- The issues and challenges observed from the above activities for various categories and levels of hospitals should be categorized into (i) administrative and management, (ii) supply and logistics, (iii) general, and (iv) technical;
- Based on the findings of the above surveys and key informant interviews, SOPs and GLs used in hospitals should be updated and new ones developed;
- Capacity-building workshops should be conducted based on the review of challenges and issues related to administrative and management, supply and logistics, clinical and paramedical areas;
- Special orientation and experience-sharing workshops for medical superintendents or hospital directors should be conducted;
- Special orientation workshops for administrative and financial staff of hospitals should be conducted;
- All information systems available in hospitals should be reviewed and improved in a step-by-step and phase-by-phase fashion;
- The patient admission systems and the patient discharge systems should be reviewed and improved;
- Depending on the resources available, “time and motion studies” and “implementation research on hospital administrations and management systems” should be carried out;
- The work of the “Hospital Management Committee” should be reviewed and improved;

Chapter: 18

LAUNCHING STAFF BRIEFING PROGRAMS FOR NEW EMPLOYEES

KEY CHALLENGES

Meticulously prepared staff briefing programs are generally not available in many developing countries. Senior and responsible officials usually take it for granted that the newly recruited staff will learn themselves by doing. They do not realize the wide-ranging and long-term benefits of staff briefing programs and sessions. Staff briefing programs are required in view of rapid developments in public health, disease control, and clinical and paramedical domains.

Many briefings are conducted informally, like a few minutes of conversation or talk with the senior staff of the concerned units, divisions, or sections. Even the transfer of staff to a new area or position requires them to be fully briefed as to what they should be doing in their new positions.

*There are no ready-made briefing notes or packages or documents or compendia for incoming staff or newly recruited staff. The importance of staff briefings is not well illustrated. Available briefing packages in some units, divisions, and sections are not updated regularly. There are no directives issued by the respective heads of the departments that “**staff briefing programs**” should be compulsorily conducted.*

Staff briefings are generally not given serious attention. Even the transfer or promotion of staff to a new position or new geographical areas should be briefed thoroughly, not only verbally but also through black and white briefing packages. These briefing packages will be very useful for future reference and will make the staff great. Many of the challenges of the healthcare delivery system can be overcome if we have regular briefing sessions for staff working in different domains and disciplines.

These briefing packages should be prepared by the “**Committee for Developing Staff Briefing Packages**” in consultation with the concerned senior staff of respective

disciplines and also in collaboration with various UN agencies and other big organizations working in the country. Collective effort is important. There are many good staff briefing procedures used by these external entities, especially for the public health domain.

The briefing packages should become compendia for the staff of the Ministry of Health, and they could be referred to as and when necessary. It is also important that these briefing packages be updated regularly as required. The format of the briefing packages should be approved by the **“Committee for Developing Staff Briefing Packages”**. Field testing should be completed before finalizing the briefing packages.

The briefing packages should commonly include administrative, management, logistics, finance, and budget perspectives, as well as some relevant technical perspectives. The required references or further reading materials may be mentioned in the annex. There is no need to put all the facts in the briefing packages. Only essential and priority facts should be included.

The job description should also be considered when preparing the briefing packages. Try to have clarity, brevity, consistency, and uniformity of content in the briefing packages. After the briefing packages have been used for some time, we should conduct an evaluation or implementation research to determine the utility and clarity of these briefing packages for staff of different disciplines. ■

PROPOSED ACTION POINTS

- A **“Central Technical Committee”** to oversee the development of staff briefing packages for different key categories of staff in the clinical domain and public health domain should be formed with specific terms of reference;
- A seminar-cum-brainstorming session should be conducted to get the guidelines, and generic framework for staff briefing packages;
- **“Committees for Developing Staff Briefing Packages”** for different disciplines should be formed, followed by field testing of the packages;
- Compendia for staff briefing packages should be developed for each discipline, and a *modus operandi* for briefing sessions should be worked out;
- Implementation research should be carried out to see the viewpoints of the recipient staff on the staff briefing packages and briefing sessions;

Chapter: 19

REINFORCING THE NURSING PROFESSIONALS

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

KEY CHALLENGES

The challenges, issues, or problems are more commonly noticed in the hospital domain because health staff have to deal with the patients. Every patient is experiencing some form of stress because they are suffering from one or more diseases.

A small challenge, issue, or problem in the hospital can be blown out of proportion. Nursing staff have more interactive time with patients compared to other categories of staff. Thus, we need to give full support to our nursing staff in various aspects. Another factor contributing to the nursing staff shortage and attrition is the stressful working conditions of the nurses.

The patients are generally under stress, and some of the demands they make may not be rational. However, we need to cater to the demands of the patients to the extent possible. The problems arise when the demand is unrealistic and such demands cannot be taken care of in government hospitals. Here, the role of medico-social workers assigned in hospitals comes into importance. We also need to strengthen the caliber of this group of workers so that they can deal with such an untoward situation with ease.

There must be a balanced assignment of nursing staff work schedules in the hospital. The matron of the hospital, in consultation with the medical superintendent or director of the hospital, should develop a balanced duty roster for nurses. Conducive working environments for nurses are not available in many hospitals. We have to try to create a

hospital environment where nurses feel that they are one of the important team members taking care of the patients. This feeling of confidence is very crucial for nurses to render quality and ethical services to patients.

The improvement of patient-nurse communication is crucial and every aspect needs to be considered to improve the situation. Socio-behavioral subjects should be included and emphasized in the nursing curriculum of teaching institutions. Seminars or lunchtime talks on this subject should be held frequently in hospitals or teaching institutions.

The nursing domain is very important for the efficient functioning of the healthcare delivery system. Many challenges in the healthcare delivery system arise from an insufficient number of nursing professionals and less than the perfect standard of performance of nursing staff in hospitals. One way is to increase the production of nurses and reduce the attrition rates of nursing staff for several reasons. This is not that difficult to do so.

For that matter, proper **“Human Resources for Health Planning for Nursing Domain”** is essential, which requires the collective effort of the Nursing Council, Nursing Association, School of Nursing, and responsible department of the Ministry of Health. A detailed framework and roadmap for the long-term production of nurses should be developed and implemented effectively. If we can do this successfully, many issues and challenges faced in hospitals could be solved to a certain degree, and nursing professionals could become a very strong and reliable workforce for the Ministry of Health.

Much more importantly, we should make the working environment of nursing professionals in hospitals suitable to the needs of nurses and convenient for them. The duty roster system should be modernized and a **“computerized duty roster system”** for each hospital (e.g., <https://calendar.nursegrid.com>) should be put in place. Proper resting stations for night-duty nurses should be made available in all hospitals. If the government can afford it, special fringe benefit packages for nurses should be considered.

The salaries of nurses working in developing countries are very small compared to their counterparts in developed countries. It is strongly recommended that the allowances received by nurses be increased as soon as possible. If we are not doing this, external brain drain will happen with increasing momentum.

The government should seriously consider providing nurses with quarters near the hospital where they are working. Other packages, such as the occupational hazard risk package, should also be made available. Incentives for nurses such as, e.g., **“The Outstanding Nurse of the Month,” “Nursing Angel of the Month,”** etc. All these awards should be given points for their career development and other things. We need to consider this very seriously.

Institutions producing nurses should play a proactive role in overcoming the challenges seen in the nursing domain. We should try to create a higher learning atmosphere in

teaching institutions. Nursing is a noble profession. The idea should be ingrained in the minds of nurses at all times. We should make nurses proud of their profession. We must not overlook faculty capacity-building in nursing institutions. Faculty exchange programs with schools of nursing in other countries should be considered.

The Ministry of Health should support the nursing association and nursing council to have **“a quarterly e-newsletter”**. This e-newsletter could make the nurses more cohesive, more ethical, and their nursing acumen could be increased. There will be a sense of belonging to their work places. Thus, they can serve the population or patients most effectively. The challenges seen in hospitals could be naturally reduced. The benefits of e-newsletters are huge.

To get qualified and mature nurses, we should enhance the technical, social, as well as ethical perspectives of nurses by applying state-of-the-art teaching methods, using contemporary teaching aids, well planned practicums in hospitals, instituting a good teaching-learning environment, and making available an updated curriculum as per the contemporary requirements of the country concerned. The curriculum should be dynamic. The availability of a good and contemporary curriculum for nurses is very important and it is a strong predictor of getting quality and ethical-minded nurses.

Research and nursing ethics should be taught very seriously in every scholastic year of the Bachelor of Science in Nursing (BSN), as well as in Master and Doctoral courses. There should be **“a strong research department”** and **“Institutional Review Boards (IRB) or Ethical Review Committees (ERC)”** constituted in schools of nursing. If funds are available, a **“Department of Research Integrity”** should be established in schools of nursing.

Funds should be made available for nursing students to do implementation research while studying. In order to stimulate and generate interest in research in their nursing work, we need to give them funding support to conduct implementation research. The possible research areas are nursing clinical care, patient management, patient satisfaction, patient safety, daily workload, and other related issues in their work setting. Top priority attention and support should be given to nurses to conduct research. It would have multiple beneficial benefits for the nurses as well as for the patients.

As part of the capacity-building for the faculty, they should be required to compulsorily attend **“Continuing Professional Development (CPD)”** or **“Continuing Nursing Education (CNE)”** courses. Attendance at these courses should be part of their job description. These courses should be jointly developed by the schools of nursing, nursing associations, nursing councils, clinical professors of nursing, and WHO Collaborating Centers for Nursing and Midwifery Education, Research, and Practice. If the nursing discipline were strong, the overall healthcare delivery system would be strong as well.

“Faculty exchange programs” with schools of nursing in other countries should be established through the signing of the Memoranda of Understanding. Avenues for in-service nurses should be opened so that they can pursue their master’s and doctoral courses. Post-doc studies should also be made available.

“Specialty diploma courses” for several nursing disciplines (e.g., cardio-respiratory, Nephrology, Emergency, Neurology, Geriatrics, Pediatrics, Trauma, Orthopedics, etc.) should be opened and priority attendance given to in-service nurses. From the service perspective, a promising career for nurses should be considered. Regular and short-term capacity-building activities for in-service nurses should be made available. The attendance of these courses should be considered as plus points in promotion and transfer.

We could learn a lot if we conducted surveys on **“Job Satisfaction of Nurses in Hospitals”**, **“Patient Satisfaction Towards Nursing Services in Hospitals”**, and **“Nursing Students’ Attitudes Towards the Nursing Education System.”**

Do we have a specific **“National Policy on Nursing and Midwifery”** in the country? If not, we need to formulate it as soon as possible. If we do have it, we need to review it to judge whether it is still in line with the rapidly changing nursing scenarios in the country. A country with a **“Responsive and Responsible Nursing and Midwifery Policy”** is bound to be successful in many aspects. ■

Specific action points were also discussed and proposed in **“Strengthening the Nursing Domain: An Issue of Critical Importance,”** chapter 14 of the book titled, **“Health System Challenges: A Developing Country Perspective,”** by Dr. Myint Htwe.

PROPOSED ACTION POINTS

- The working environment of nursing professionals in hospitals should be immediately improved after discussing it at the **“National Seminar on the Working Environment of Nursing Professionals;”**
- Fringe benefits for nursing staff due to occupational hazards should be worked out and necessary directives issued for immediate implementation;
- The career ladder for nursing professionals should be immediately reviewed and made more attractive and enticing;
- Ethical perspectives should be put to the forefront by way of inculcating an ethical culture in the working environment, especially while interacting with patients in hospitals and the general population while implementing public health programs;
- Enhance the working relationship among the four key players in the nursing domain, i.e., the Nursing Council, the Nursing Association, the Schools/Universities of Nursing, and the Ministry of Health;
- The **“National Policy on Nursing Workforce”** may be reviewed and made more contemporary with the existing situation, if necessary;
- Formulate **“National Strategies for Promoting Nursing Professionals;”**
- **“Continuing Professional Development (CPD)”** or **“Continuing Nursing Education (CNE)”** courses should be made available throughout the year;
- Diploma courses for several nursing disciplines (e.g., cardio-respiratory nursing, trauma, orthopedics and casualty nursing, geriatric nursing, etc.);
- Urgently promote nursing research in collaboration with teaching institutions, research institutions, and hospitals;

Chapter: 20

BACKING UP THE PARAMEDICAL PROFESSIONALS

KEY CHALLENGES

Paramedical professionals are one group of specialized health staff who are contributing behind the scene. Without their services, the hospital's work would come to a standstill. Their service output is critical in treating patients to get cured. A patient cannot be cured without the services of paramedical professionals. Their service is very critical and essential. The paramedical services will help in getting the right diagnosis for the doctor to give the correct treatment to the patient. Their services are essential until the patient is discharged from the hospital. There will be numerous challenges if their service is not available or not up to the mark.

The definition of a paramedic varies from country to country. Some of the categories within the paramedical domain are laboratory technicians, pharmacists, radiographers, medical technologists, perfusionists, dental technicians, physiotherapists, orthoptists, speech therapists, dieticians, nutritionists, sanitarians, etc., who have received diplomas, bachelor's, or even master's or doctoral degrees.

They were not given due attention as much as they deserved it. Capacity-building activities for paramedics were few. The higher the technical caliber of the paramedics, the better will be the clinical outcome of the patient. Every effort should be made to enhance the paramedical acumen of this category of staff by the Ministry of Health. It could definitely reduce the number of challenges seen in hospitals. As the functions of paramedics are linked with the medical professionals' work, the associations and councils of paramedic disciplines should closely network with the medical associations and medical councils. The linkage among the disciplines is not that strong.

The generic term ***“paramedical disciplines”*** will be used for all disciplines of the paramedical domain. The World Health Organization defined paramedical staff as ***“healthcare assistants, laboratory technicians, technologists, therapists, nutritionists, sanitarians, among others, who are actually working in the country and are graduates of two-year to five-year courses in recognized training institutions”***. The definition used by each country is different. Whatever the case may be, discussion will be focused around the generic term ***“paramedical disciplines”***.

In order to promote the paramedical domain, consisting of several paramedical disciplines, we need to develop a good career ladder, provide reasonable fringe benefits, create conducive working environments, provide free uniforms, allow reasonable housing and car loans, provide hostels or apartments with normal rent, give acceptable health insurance, have attractive pensions, and make them feel proud of their disciplines. In many countries, paramedical disciplines have national-level associations and councils.

These two entities, along with the Ministry of Health, should work together to uplift the respective paramedical disciplines. The associations and the councils of the respective paramedical disciplines are actually the prime movers for the growth of the respective paramedical disciplines. The Ministry of Health should give all its support to push paramedical disciplines to greater heights.

To increase the image of various paramedical disciplines, paramedical ethics should be promoted by the inclusion of paramedical ethics in the respective discipline’s teaching curriculum. An ethical paramedical staff is the prerequisite for making the foundation stone of the paramedical disciplines strong, sustainable, and sturdy.

Several capacity-building programs in the paramedical disciplines should be conducted in a systematic manner. We need to conduct several continuing paramedical professional education courses for different paramedical disciplines. The ***“continuing paramedical professional education”*** (CPPE) units thereby accrued should be considered for promotion of the paramedical staff. The essential nature of paramedical staff cannot be emphasized more. For example, if there is no qualified imaging technician or technologist to take an X-ray in the hospital, what will happen? To get a good image, the machine as well as the well-trained paramedical professionals are necessary.

One of the most effective interventions to promote paramedical disciplines is to review the curricula of the respective paramedical discipline’s bachelor, master, and doctoral courses in terms of whether they reflect the contemporary requirements of the country; the inclusion of the latest developments in the respective paramedical disciplines; paramedical ethical issues; various research topics, etc. This is the key to the long-term development of paramedical disciplines in the country. If the paramedical disciplines were strong, the overall healthcare delivery system would be strong as well, and there would be fewer challenges.

The Ministry of Health should facilitate various associations of paramedical disciplines to have a quarterly e-newsletter. This e-newsletter could make the members of each paramedical discipline more cohesive and their technical acumen could be increased. This would be an eye-opener for them as well. Thus, they can serve the population or patients most effectively. The challenges in hospitals could be naturally reduced.

In order to have long-term national policies and strategies to promote the paramedical domain as a whole, associations and councils of each discipline and relevant officials of the responsible department of the Ministry of Health should hold national seminars or meetings to develop frameworks and roadmaps of activities. If we could do this, the paramedical domain would definitely grow systematically and effectively. ■

PROPOSED ACTION POINTS

- **The associations and councils of the paramedical domain should hold national-level seminars to develop a generic framework and roadmap of activities for the long-term development of the paramedical domain;**
- **Review and update the curricula of the respective paramedical discipline's bachelor, master, and doctoral courses given at teaching institutions;**
- **A quarterly e-newsletter should be produced by the associations and councils of paramedical disciplines;**
- **Continuing paramedical professional education (CPPE) courses should be conducted on a regular basis;**
- **Develop “fringe benefit packages” as mentioned above for paramedical professionals;**
- **Provide a favorable working environment for paramedical professionals;**
- **Put in place a very “promising career ladder” for paramedical professionals;**

Chapter: 21

EXPANDING THE USE OF COMPUTERIZED SYSTEMS

KEY CHALLENGES

For several reasons, the use of computerized information systems is not widespread in the healthcare delivery systems of developing countries. In the curriculum of degree courses run by health institutions or schools and universities, the teaching of basic computer skills and the utility of different software are not commonly included.

For the long-term benefit of health staff and the healthcare delivery system, we must begin priming students on the utility of computerized information systems right away by holding training courses or diploma courses at the country's health institutions. There is an insufficient number of faculty appointed in the teaching institutions who could run such courses. The resources to procure the necessary equipment and software and the cost of conducting the courses are not available in the regular budget.

It is for this reason that the health data systems in developing countries are still struggling to make their health information systems robust, responsive, and perform well. The interest in computerized systems could only be nurtured if the multiple utilities of these systems were widely shared and propagated. We must disseminate information and the benefits of using computerized systems in the following areas:

- (i) Epidemic prediction;*
- (ii) Identification of epidemic trajectory;*
- (iii) Timely and correct procurement of needed supplies and equipment for health institutions;*
- (iv) Timely transfer or posting of staff in vacant posts;*
- (v) Estimation of the number of postgraduates for different disciplines;*
- (vi) Estimation of the number of medical doctors, dental surgeons, nurses, paramedical and basic health services staff;*

- (vii) *Yearly estimation of various vaccines required for the Expanded Program of Immunization;*
- (viii) *Computation of morbidity and mortality rates of different diseases for proper planning and resource allocation;*
- (ix) *Rational budget allocation for different health programs;*
- (x) *Elicitation of geographical distribution pattern of diseases for proper planning and resource allocation;*
- (xi) *How overall health planning for the country and individual health programs can be made rationally and objectively;*
- (xii) *How effectively we can deal with UN agencies, organizations, INGOs, and development partners, etc.*

It is only then that the staff will have an interest in the use of computerized systems. The workload of staff would also be dramatically reduced.

Networking of various computerized systems is not smooth. Thus, there is not only unnecessary overspending for running the computerized systems but also an unintended loss of benefits. Strategies to promote the use of computerized information systems are not widely available. The culture of using computerized systems is generally not prevailing for many reasons.

In this rapidly progressing computerized age and with the easy availability of different software, some of the basic computerized systems, as mentioned below, may have already been in place in some developing countries. However, the systems need to be updated as and when necessary. These are:

- (i) A computerized human resources database system for all staff categories;
- (ii) System of computerized disease surveillance for communicable and noncommunicable diseases;
- (iii) System of computerized sentinel surveillance for communicable and noncommunicable diseases;
- (iv) Computerized systems for disease outbreak management and algorithms;
- (v) Computerized laboratory systems for hospitals and public health institutions;
- (vi) Computerized imaging systems in hospitals;
- (vii) Computerized hospital chemotherapy and radiation systems;
- (viii) Hospital patient identification systems;
- (ix) Computerized office memo processing systems;
- (x) Computerized national budget allocation and budget utilization monitoring systems;
- (xi) Computerized national health accounting systems;
- (xii) Computerized resource flow monitoring systems;
- (xiii) Computerized geographical information systems;
- (xiv) Computerized research registry systems;

- (xv) Computerized thesis registry systems;
- (xvi) Computerized national health supply chain and logistics systems;
- (xvii) Computerized medical stores information systems in hospitals,
- (xviii) A computerized database for INGOs and NGOs that are officially affiliated with the Ministry of Health;
- (xix) Computerized undergraduate and postgraduate students' admission and expected graduation systems;
- (xx) Computerized databases for capacity-building programs;
- (xxi) Computerized databases for all health institutions; etc.;

The above computerized systems should be promoted depending on the budget availability of the Ministry of Health. These systems could streamline, reduce the workload of staff, and expedite the work of many in-house administrative and management procedures, resulting in increased efficiency of the healthcare delivery system. Many challenges could also be overcome and resolved.

Relevant staff of the Ministry of Health should be informed of the plans to conduct reorientation training courses required to run the aforementioned systems. Because of staff turnover, relevant training courses should be held continuously. As these are big tasks, it is preferable that a separate division for overseeing all these activities should be made available in the Ministry of Health.

In the initial phase, there will be some hitches and glitches, but in the long run, it will be very beneficial to the country. Some of the senior staff may be reluctant to undergo training. They should be given basic training on the use of computers. As much as possible, paper work should be kept to a minimum.

The availability of computerized information systems has the potential to significantly improve the performance of health staff in a variety of areas, including:

- (i) The preparation of reports and returns;
- (ii) Advanced understanding on the changing pattern of disease occurrence;
- (iii) Outbreak prediction;
- (iv) Supply and equipment requirements in hospitals in the event of disasters or large outbreaks of diseases;
- (v) Six-monthly or yearly estimation of supplies and equipment in the context of changing patient loads in hospitals;
- (vi) Staff transfer and recruitment planning;
- (vii) Opportunities for doing operational and implementation research;
- (viii) Forecasting disease outbreaks and man-made disasters;
- (ix) Immunization coverage pattern and detection of missed immunization opportunities;
- (x) Production of specific types of health-related human resources;
- (xi) Staff vacancies and attrition pattern for a variety of reasons;

- (xii) Identification of geographical and technical areas in need of assistance;
- (xiii) Many weaknesses, deficiencies, and sub-standard performance of interventions could be easily identified;

The efficiency of all public health programs as well as the services given to patients in hospitals will be greatly increased. The *“patient satisfaction indices”* could be improved. The work of health staff could be smooth and uneventful. Data will be readily available for analysis and decision-making. Data standardization and accuracy could be improved. The transformation of data into information becomes easier and quicker. The decision-making process becomes healthier and smoother. There will be no files piling up in the office and more office storage space can be made available. It could be used for any other purpose. The beauty is that health staff can customize the way they want to suit their purpose, either in the hospital domain or public health domain.

In view of the above discussion, we should strive to initiate and establish computerized health and hospital information systems. We have to think of the cost of the investment. However, in the long run, the advantages far outweigh the disadvantages. ■

PROPOSED ACTION POINTS

- **Basic training courses (certificate courses) on the use of computers, networking, and relevant software for staff working in health information systems, disease surveillance systems, health institution surveillance systems, hospital information systems, hospital laboratory systems, cancer registry systems, human resources for health information systems, information systems of various public health programs, research information systems, research registry systems, thesis registry systems, geographical information systems, etc., should be held on a regular basis. The “Certificate of Passing”, and not the “Certificate of Attendance”, should be awarded at the end of the course;**
- **Depending on the financial resources available, upgrade all the computer hardware and software;**
- **The culture of “Working and Living with Computerized Electronic Systems” should be promoted among the staff;**
- **To have long-term beneficial effects, basic computer and software knowledge should be part of the curriculum in all health-related degree courses;**
- **Disseminate widely the benefits of using computerized systems;**
- **The resources to procure the necessary equipment and software and the cost of conducting the courses should be reflected in the budget of the Ministry of Health;**

Chapter: 22

INTENSIFYING THE COLLABORATION AMONG MINISTRIES: ROAD TRAFFIC ACCIDENTS *VIS-À-VIS* THE COST TO THE MINISTRY OF HEALTH

A reduction in the incidence of road traffic accidents can be achieved if the relevant ministries are working collaboratively. Road traffic accidents *per se* are not related to the causal factors for diseases and conditions in the health domain, but the Ministry of Health is the service department to take care of the accident victims. The reduction in the incidence of road traffic accidents can not only relieve the health budget but also reduce the work load of various categories of health staff in hospitals and beyond.

Thus, road traffic accidents have become a very big issue for the Ministry of Health, especially in district and township hospitals where various specialists, required medicines, and equipment are not available. Many unnecessary complications and deaths are happening throughout the year. It is an ethical duty of policymakers in the Ministry of Health to prevent the deaths and sufferings of patients and their families.

In addition to road traffic accidents, the Ministry of Health alone cannot effectively prevent and control some diseases, including zoonotic diseases, occupational diseases, and man-made disasters. Realistic mechanisms should be developed to make this inter-ministerial collaboration a reality as soon as possible.

Regular platforms are required to share experience and exchange innovative ideas among the officials of the ministries. Prevention and control strategies to reduce road traffic accidents should be formulated jointly by the ministries. The role of local NGOs

and community-based organizations is also important in this endeavor to reduce the incidence of road traffic accidents. The increasing incidence of road traffic accidents is one of the upcoming challenges for the healthcare delivery system. Thus, collaboration among the ministries is essential not only to reduce the workload in hospitals but also to reduce the unnecessary expenses incurred by the Ministry of Health and the families of the victims.

Road traffic accidents are eating away the health budget of the Ministry of Health unnecessarily. We need to reduce the number of road traffic accidents by working collaboratively with other relevant ministries. For several reasons, the number of road traffic accidents is increasing every year in many developing countries. The causes of accidents are many.

An example of a motorcycle accident *vis-à-vis* helmet wearing will be illustrated. The cost of a good quality motorcycle helmet is very minimal compared to the cost incurred by the Ministry of Health when a patient is admitted to the emergency department of a hospital due to a road traffic accident, i.e., motorcycle accidents and car accidents. The head injury to the motorcyclist is more severe if the motorcyclist is not wearing a helmet.

This will include the patient's and the family members' suffering; medical complications and long-term sequelae to the patient as a result of the accident; inability to return to work; hospitalization expenses; social and economic disruptions; psychological disturbances to the patient and family members; loss of life; and so on. Long-term sequelae may lead to becoming a handicapped person. The cost of caring for a disabled person is so high that it becomes unbearable for the family members. It will be worse if the accident victim is a breadwinner. A series of family problems could ensue. The **"quality-adjusted life years"** (QALY) of the accident victim will be badly affected.

Depending on the severity and sites of the injury, we have to first do the necessary clinical assessments, laboratory investigations, and diagnostic radiological procedures before giving treatment. The following procedures will also cost and have to be borne by the Ministry of Health:

- (i) Ultrasounds, X-rays, and CT scans;
- (ii) Blood tests for transfusions and pre-operative preparation for surgical procedures;
- (iii) Medicines for injuries, ranging from pain relievers to antibiotics;
- (iv) Anesthetic gases and surgical materials required for various types of surgical procedures;
- (v) Intensive Care Unit costs and immediate post-operative procedures;
- (vi) A number of man-hours for staff nurses, different specialty nurses, doctors, physicians, neurosurgeons, general surgeons, maxilla-facial surgeons, orthopedic surgeons, vascular surgeons, neurologists, radiologists, medical

technologists, laboratory technicians, medico-legal experts, lawyers, psychiatrists, medical examiners, medico-social workers; and other specialists as needed;

Apart from the cost, hospital staff will be overworked and the burden of stress on the hospital staff may be too much, compromising time for quality care of other patients. We can just imagine that if three or four accident victims are admitted simultaneously, the burden on the hospital staff will be overwhelmed.

In order to reduce the burden on the healthcare delivery system, the best approach is to initiate preventive measures such as:

- (i) The mandatory wearing of motorcycle helmets while driving on the roads;
- (ii) The wearing of seat belts by the driver and all occupants inside the car;
- (iii) Imposed a hefty fine for failing to wear helmets while riding motorcycles and failing to wear seat belts while driving;
- (iv) Levying a very high fine for jumping red lights and flouting traffic rules;
- (v) Revoking a motorcycle driving license or a car driver's license for at least six months to a year if a person is not wearing a helmet or not using seat belts while driving;
- (vi) Mandatory attendance (followed by an exam) at driving rules orientation courses for drivers renewing their licenses;
- (vii) Community health-promoting groups conducting health talks about road traffic accident prevention in communities;
- (viii) Collaboration in the promulgation of relevant rules and regulations by the ministries of health, education, road and transport, information, social welfare, trade and customs, and home affairs;

To reduce the incidence of motorcycle and car accidents, each ministry has a specific role to play (which will not be elaborated on here). The causes of an accident are many, and these can be reduced or removed if all the aforementioned ministries play their respective roles.

Due to the increasing number of vehicles, road traffic accidents are causing an enormous burden of work in our hospitals. As these accidents are man-made events, we can improve the situation. These days, car accidents far surpass motorcycle accidents in number. We may need to improve the transport of accident victims by establishing a computerized network of ambulance systems. At the same time, the Ministry of Health should review the performance of emergency departments of hospitals in the country.

In essence, if we can reduce the incidence of road traffic accidents, many of the challenges of the healthcare delivery system can be resolved. Proactive collaboration between relevant ministries and the population is the key to success. Interactive, practical, and dynamic strategies and targeted interventions should be thought of collectively. We cannot eliminate road traffic accidents, but we can definitely reduce the number of road traffic accidents. ■

Chapter: 23

SENIOR OFFICIALS OF THE MINISTRY OF HEALTH *VIS-À-VIS* STRATEGIC CHALLENGES

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

Senior officials of the Ministry of Health working at the policy and strategic levels should always be on the lookout for the strategic challenges faced by their staff and health institutions all over the country. This should be part of their job descriptions. Currently, they are just waiting to receive the complaints, challenges, problems, or issues faced by the staff and health institutions. These senior officials should play an active role in all aspects related to the healthcare delivery system.

A practical mechanism should be developed so that the information on strategic challenges encountered by the staff and health institutions reaches these senior officials on a real-time basis. This mechanism is not present currently in most developing countries. There should be an **“oversight team”** composed of hospital administrators, epidemiologists, public health professionals, clinicians, nurses, paramedical professionals, social scientists, research managers, clinical psychologists, ethicists, basic health service professionals, representatives from the community, representatives from local NGOs, representatives from community-based organizations, etc. This team should meet regularly and discuss the strategic challenges faced by the health staff and health institutions all over the country.

This team, as mentioned above, should serve as scouting and oversight functions for challenges, analyze them, and put up the suggestions or recommendations to the senior officials of the Ministry of Health as per the in-house procedures.

Specific action points were also discussed and proposed in “**Ringing the Bell for the Ministry of Health,**” chapter 20 of the book titled, “Health System Challenges: A Developing Country Perspective,” by Dr. Myint Htwe.

This chapter specifically emphasizes alerting the senior officials of the Ministry of Health to give attention to some of the key issues, problems, and challenges commonly seen in developing countries. Ringing the bell connotes informing, reminding, or warning the responsible officials of the Ministry of Health regarding the priority prevailing issues, problems, and challenges seen in the healthcare delivery system.

As the remedial measures cannot be carried out in one go, we have to prioritize the issues, problems, and challenges. It clearly stated the fundamental minimum requirements that must be met in order for the healthcare delivery system to function satisfactorily and at an acceptable level.

The “**twenty minimal requirements**” mentioned in the chapter may be different from one country to the next. I have attached that chapter, “**Ringing the Bell for the Ministry of Health,**” as annex 1 in this book. If we can take care of these twenty minimal requirements, many of the challenges of the healthcare delivery system could be resolved to a certain extent.

The caveat is that new challenges will definitely emerge in the healthcare delivery system because of:

- (i) Rapid modernization in terms of the emergence of sophisticated and new treatment methods and regimens;
- (ii) Availability of state-of-the-art diagnostic techniques;
- (iii) Appearance of novel diseases;
- (iv) Increase in the number of hospital inpatients;
- (v) Increase in population demand;
- (vi) Flourishing “Patient Rights” groups;
- (vii) Shortage of human resources for health, especially doctors and nurses;
- (viii) Re-emergence of old and neglected diseases;
- (ix) Epidemics and pandemics caused by viral diseases;
- (x) Rapidly changing lifestyles of the population leading to an uncontrolled incidence of noncommunicable and chronic diseases, accidents, and malignancies;
- (xi) Natural and man-made disasters; etc.;

Senior officials should be looking forward to these new challenges and be prepared to deal with the upcoming scenarios. Senior officials should also do some preparatory work to deal with the outcomes arising out of the following circumstances.

Additionally, internal and external brain drain is happening in developing countries at an increasing pace. Internal brain drain is usually due to improper management of human resources for health, unequal incentives, and a weak career ladder system. Realistic strategies need to be formulated to curb this from happening to the extent possible. External brain drain could be deterred to some extent by having a set of regulations and having a firm human resource for health policy. Many challenges are happening due to this brain drain phenomenon.

By promoting the conduct of research, especially implementation research on the performance of the overall healthcare delivery system in the country, we can identify the challenges and definitely reduce the number of challenges encountered in the healthcare delivery system. The reason is that by conducting implementation research, critical thinking skills and the ability to view things from different perspectives of the staff could be improved, which is a preliminary requirement for tackling the challenges. This matter is so important that senior officials of the Ministry of Health should see to it and make it happen.

Specific action points were also discussed and proposed in **“Strengthening Health Research Institutions in Support of Public Health,”** part B, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Research Institutions and National Health Development,”** part B, chapter 3 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

The challenges are linked either directly or indirectly to the **“national health policy”** and **“national health plan.”** Generally, national health policies and strategies were formulated several years ago in many developing countries. The health, political, economic, and social conditions might be changed at the present time. If there is a need, a **“Quick Review of the National Health Policy, Plan, and Strategies”** should be contemplated. This review should be done under the close guidance of senior officials from the Ministry of Health.

Specific action points were also discussed and proposed in **“Research and Health Policy Formulation,”** part B, chapter 5 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Promoting Health Policy Research,”** part B, chapter 9 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

The national health plan was drawn up based on the national health policy of the country. The review of the national health plan would be an advantage to reduce the number of challenges faced in the healthcare delivery system. Senior officials from the Ministry of Health should consider this matter seriously.

Specific action points were also discussed and proposed in **“Reviewing and Revising the National Health Plan; A Practical Perspective,”** part A, chapter 14 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

The senior officials of the Ministry of Health must be cognizant of the importance of the health literacy level of the population. In the developing country context, the health literacy level of the population is the most important determinant for having a healthy population. Therefore, we need to have a **“National Strategy for Promoting the Health Literacy Level of the Population”**. The low health literacy level means a low level of health knowledge. Knowing the early signs and symptoms of diseases is a great advantage for the population. They can seek medical advice and treatment at an early stage, leading to a quick and complete cure of many diseases. Without proper health knowledge on preventive and promotive aspects of diseases and conditions, the population may be practicing unhealthy lifestyles. It can result in:

- (i) Facing unwanted health conditions by the population;
- (ii) An increasing number of cases of antimicrobial resistance;
- (iii) An increasing number of vaccine-preventable diseases;
- (iv) An increasing number of chronic and non-communicable diseases;
- (v) A prolonged period of outbreaks of diseases;
- (vi) An increasing number of disease outbreaks;
- (vii) An increasing number of premature deaths due to many causes;
- (viii) A reduction in **“quality-adjusted life years”** (QALY) of the people;
- (ix) An increasing number of patients with noncommunicable and chronic diseases, such as malignancies, diabetes, and diseases of various organs, are coming late to hospitals;
- (x) An increasing rate of spread of communicable diseases;
- (xi) An increasing number of road traffic accidents;
- (xii) An increasing number of occupational diseases;

The above scenario can exert an enormous strain on the healthcare delivery system, especially the hospital system. It can lead to a health budget being eaten away by diseases and conditions that could have been prevented. ■

PROPOSED ACTION POINTS

- **“Issues and Challenges Scouting and Oversight Teams” should be formed as soon as possible. The team should analyze and prioritize the issues, problems, and challenges and put the findings before the committee consisting of senior officials from the Ministry of Health and representatives from various technical disciplines of the Ministry of Health as per the procedure;**
- **Interconnections between priority issues, problems, and challenges should be identified and addressed;**
- **Strong support should be given to conduct implementation research in all health programs;**
- **If necessary, strategy or policy changes or even modifications in the national health plan can be made;**
- **Immediate attention should be given to developing and implementing a “National Strategy for Promoting the Health Literacy Level of the Population.”**
- **Senior officials of the Ministry of Health should act as prime movers in tackling the strategic challenges of the healthcare delivery system;**

Chapter: 24

STOPGAP MEASURES TO EASE THE CHALLENGES OF THE HOSPITAL SYSTEM

Stopgap measures are required before the full-fledged strategy and interventions are in place. The following stopgap measures are urgently required to be carried out in developing countries. Although we call them stopgap measures, they will directly or indirectly contribute positively to the 15 long-term strategies as proposed in chapter 28 of this book as well as to the existing strategies being implemented in the country. These stopgap measures could solve a significant portion of the challenges facing the hospital system in the country.

One of the general challenges is that developing countries are losing a sizeable quantity of foreign exchange due to patients going to nearby countries where state-of-the-art medical treatment facilities are available. In one aspect, this may affect the image of the self-sufficiency of the healthcare delivery system in the country. We cannot totally prevent this from happening. However, we need to reduce the number of patients going to other countries to seek medical treatment as much as possible. In order to do so, we have to further develop and improve our healthcare delivery system, especially the hospital system, as a priority activity. We need to improve the scenario on all fronts.

We also need to create scenarios in hospitals so that the population has confidence in them. The following measures could be considered for improvements in order to increase the confidence of the population in the country's hospital system. The hospital system comprises of several components, such as administrative, management, and logistics systems; health supply chain systems; clinical care systems; surgical care systems; radio imaging and radiotherapy systems; paramedical care support systems; nursing care systems; outpatient and follow-up systems; hospital laboratory systems; hospital staff capacity-building systems; sanitation inside the hospital and general environmental

sanitation systems of the hospital; paging, on-call, and staff duty roster systems; hospital canteen systems; convenience store management systems; drug shop management systems; staff welfare systems; general waste and biohazardous waste disposal systems; hospital building management systems; emergency and casualty management systems; ambulance systems; patient admission, referral, and discharge systems; patient health education systems; mortuary management systems; hospital records and information management systems; and so on. It is not that easy to improve all the systems in one go. We need to prioritize and act accordingly.

(i) PROMOTING PUBLIC-PRIVATE PARTNERSHIPS

In that context, we need to seriously promote public-private partnerships in the healthcare delivery system in the country. We need to coordinate various aspects of this public-private partnership. The government may consider reducing the taxes on imported diagnostic and treatment equipment (e.g., radiotherapy, radio-imaging, physiotherapy, etc.). The procedures for importing medicines, treatment and diagnostic equipment should be streamlined and simplified. Concise, clear-cut, and easy-to-understand SOPs and guidelines must be made available.

“A committee for promoting public-private partnerships” should be formed. This committee must be proactive in initiating the activities as per its terms of reference, and regular reporting should be made to the Minister for Health. Public-private partnership is a very broad area consisting of many components and avenues, and proper attention must be given to make it smooth sailing.

We should not consider private hospitals competitors; they are, in fact, our partners. We need to coordinate with the ***“Private Hospital Association”*** in the country to increase and strengthen partnerships. Many beneficial effects on the patient population could be obtained. The reason is that there are many services which are far better than the government hospital services. The moot point is that hospital charges should be within the reach of the general population. A rational system should be developed so that exorbitant charges on patients by private hospital care should not be a burden for the general population.

(ii) CONDUCTING CAPACITY-BUILDING TRAINING WORKSHOPS AND COURSES FOR PROFESSIONALS WORKING IN CLINICAL DISCIPLINES

In order to have a high degree of patient satisfaction and quality care for patients, we need to improve the technical, clinical, nursing, and paramedical acumens of staff working in hospitals. Reorientation training workshops and courses (preferably giving CME credit units to participants) should be conducted domain-wise and discipline-wise. These

reorientation training workshops and courses should be properly planned, prioritized, conducted, evaluated, and registered. The course materials should be uploaded on the respective discipline's website for future reference. Each discipline should make a decision regarding the specific subjects of the courses. We need to promote conducting regular paper reading sessions, clinicopathological meetings, and inter-discipline discussion forums in large hospitals and some training institutions.

(iii) PROMOTING HIGH-IMPACT PUBLIC HEALTH INTERVENTIONS

We need to give priority attention to implementing effective public health interventions such as effective noncommunicable and communicable disease prevention and control; expanded program on immunization activities and increasing the population coverage in remote and difficult-to-reach areas; prevention and rapid control and containment of epidemic diseases; increasing the population health literacy level; promoting the population to practice healthy lifestyles; practicing the *“Exercise is Medicine”* motto, conducting surveys on population health and taking necessary actions on the findings, etc.

These activities should be conducted with involvement of community-based organizations and local NGOs. These activities would definitely reduce the number of patients hospitalized. This would have multiple positive effects on the healthcare services given in hospitals. This would increase the confidence of patients in healthcare services given in hospitals. The Ministry of Health should also promote the establishment of *“National Association of Community-based Organizations”* and *“National Association of Non-governmental Organizations”*.

(iv) REVIEWING AND STREAMLINING THE CAREER LADDER OF STAFF

Having a good career ladder for hospital staff can lead to job satisfaction. The job satisfaction of the hospital staff is related to the quality of services rendered by them. The patient satisfaction indices could be increased, thereby increasing the confidence of patients in healthcare services given in hospitals. Currently, it appears that there is an imbalanced growth pattern in the career ladders of different disciplines. Staff have great expectations for the career ladders of their respective disciplines.

(v) REVIEWING JOB DESCRIPTIONS OF HOSPITAL STAFF

It is highly advisable to do a job description review of various categories of hospital staff. A *“Job Description Review Task Force”* could be formed. Many redundancies and duplications of work can be exposed. It could be appropriately streamlined and the work of the hospital could be smoothened. In the new version of job descriptions, the first priority and second priority of work should be identified. Priority work activities are essential work activities.

(vi) PROVIDING MEDICAL AND DIAGNOSTIC EQUIPMENT TO HOSPITALS

Many hospitals in developing countries need various types of equipment for diagnostic, treatment, and rehabilitative purposes. These should be fulfilled to the extent possible but subject to the availability of the health budget of the Ministry of Health. One example is that the waiting time for cancer patients in developing countries is a long period of time for them to undergo radiotherapy. It is unethical for us to see cancer patients waiting to get treated. In fact, we could not provide the equipment to each hospital. It is proposed that a cancer diagnostic and treatment center be established so that all cancer patients can go to one place to get quality treatment. Please refer to chapter 28 of the book for the establishment of the National Center of Excellence for Radio-imaging and Radiotherapy. This will be cost-effective not only for the patients but also for the government.

(vii) FULFILLING THE SOCIAL REQUIREMENTS OR WELFARE OF THE STAFF

While we are improving the healthcare services for patients in hospitals, we should also give equal attention to the welfare of the staff working in hospitals. Hospitals should have a good working environment, including resting places for hospital staff; subsidized canteens for hospital staff and patients; occupational hazard allowances for different categories of hospital staff; special perks and benefits for the hospital staff (subject to the policy of the government); special car loans or housing loans for hospital staff; hostel arrangements for non-married hospital staff; not-for-profit convenience stores in large hospitals; funds for social activities for hospital staff; provision of ferry services for hospital staff, etc.

To increase the morale of staff, we may think of awarding ***“outstanding staff for the month”***, ***“outstanding staff for the year”***, etc. These awards should be taken into account for various purposes, such as promotion of staff, attendance of foreign training courses, etc. We need to strengthen the ***“Hospital Management Committee”***. The committee should have quarterly meetings to improve the overall hospital management and performance. These activities may directly or indirectly improve hospital services, ensuring that patients are satisfied with hospital services.

(viii) ENHANCING THE ROLE OF MEDICO-SOCIAL WORKERS AND COUNSELORS

In the clinical domain, we have to aim not only to cure the disease but also to achieve patient satisfaction. The role of medico-social workers and counselors is very crucial to making sure patients are satisfied with hospital services. The morale of patients is also related to the quick recovery of diseases. In addition to their routine services for the patients, medico-social workers and counselors should also inform patients about their role in several aspects while they are in the hospital. The responsibilities of patients should also be posted in various locations inside and outside the hospital.

Likewise, medical ethics and the Hippocrates oath should also be posted at strategic locations in the hospital just to serve as a reminder for hospital staff. To enhance the caliber of medico-social workers and counselors, we need to get help from the associations of medico-social workers and counselors. Networking of medico-social workers and counselors is one of the avenues to enhance the quality of their work.

(ix) REDUCING THE PRICE OF MEDICINES, DIAGNOSTICS, AND MACHINES FOR TREATING DISEASES

The government should give special privileges and exemptions from various forms of taxes and custom duties for imported machines for radiation therapy, hemodialysis and peritoneal dialysis, CAT scan, PET scan, mammography, cardiac catheterization laboratory, neurological care, rehabilitative care, ophthalmological care, various types of surgical procedures, liver and kidney transplant procedures, all types of microscopes, dental chairs, OPG X-ray (orthopantomography) machines, sophisticated laboratory equipment and reagents, medicines for chemotherapy, other life-saving expensive medicines, etc. Together with this, training of staff to handle these sophisticated machines should be arranged. Government hospitals can, therefore, get more items with the available budget. This would also reduce the cost of diagnosis and treatment in private hospitals. Even if the patient is receiving treatment in a private hospital, the cost will be lower. This idea of exemptions may be counterintuitive to some policymakers.

(x) ESTABLISHING A CONSULTATION COMMITTEE FOR MEDICAL TOURISM

We should establish a consultation committee to give free advice, ideas, and suggestions if a person would like to seek treatment outside the country. The consultation committee cannot bar the person from getting treatment outside the country. The committee can discuss and give advice on the pros and cons of getting treatment outside the country. The committee should also develop generic advice, suggestions, and guidelines related to people wanting to get treatment outside the country. People should not undergo treatment in other countries where similar and quality services can be given in their country.

(xi) ESTABLISHING PAY ROOMS AND WARDS IN LARGE HOSPITALS

Establishing more paying rooms and wards in government hospitals is a way to entice rich patients to get treatment in government hospitals instead of going to other countries for medical checkups, investigations, and treatment of diseases. The money obtained from paying rooms should be divided using certain ratios between government coffers and all categories of staff taking care of the patients admitted to paying rooms. A national level committee for the management of paying rooms and wards should be formed. This committee will give SOPs and guidelines for running the pay rooms and wards of hospitals in the country.

(xii) IMPROVING THE AESTHETICS, SANITATION, AND CLEANLINESS OF HOSPITALS

Many government hospitals are not properly maintained in terms of construction, painting, etc. The untidy look of hospitals can affect the general confidence of patients in getting treatment in hospitals. As a matter of fact, the wearing of duty coats and relevant uniforms by the staff is important in enhancing the confidence of patients in government hospitals. Therefore, we should try to spruce up the looks of the hospital subject to the availability of funds. Proper environmental sanitation and drainage systems inside the compound of the hospital are also important. There are many things that we can do to improve the aesthetics, sanitation, and cleanliness of hospitals.

In essence, by implementing the above interventions, the challenges commonly encountered in the hospital system can be alleviated to a significant degree. It would also strengthen the hospital system in the country in the long run. Several components of the hospital system, as mentioned above, should be taken care of in a step-by-step and phase-by-phase manner. Patients will be getting quality care and their satisfaction with the healthcare system could be increased. It is a win-win situation for the population and the ministry of health.

Strengthening and improving the above twelve areas will enhance the performance of the hospitals in the country. ■

Chapter: 25

STOPGAP MEASURES TO INCREASE THE EFFECTIVENESS OF PUBLIC HEALTH PROGRAMS

As discussed in the preceding chapter regarding stopgap measures for the hospital system, stopgap measures for the public health system are also supportive of existing public health strategies and interventions being implemented. The purpose of initiating stopgap measures is to get additional force to support currently deployed public health interventions. It could also serve as a catalyst for ongoing public health interventions.

The stopgap measures will directly or indirectly contribute positively to the 15 long-term strategies as proposed in chapter 28 of this book as well as to the existing public health strategies being implemented in the country. These stopgap measures could solve a significant portion of the challenges facing the public health system in the country.

Before we initiate the stopgap measures, it is worthwhile to do a quick review of the following major entities. Reviewing this group of activities is essential as the public health domain is too broad. It will not take much time to do these quick reviews as they will be done by different groups of professionals simultaneously.

- (i) A quick review of the human resources for health for public health programs, especially the basic health services workers such as health assistants, public health supervisors, public health nurses, lady health visitors, midwives, and so on.
- (ii) A quick review of the performance of the health information systems of various public health programs using checklist questions.
- (iii) A quick review of the trend of the general epidemiological situation of communicable diseases, noncommunicable diseases, zoonotic diseases, maternal and child morbidity and mortality rates, immunization coverage rates, etc. There are more than forty public health programs being implemented in Myanmar.

- (iv) A quick review of the findings of implementation research studies on public health issues being carried out during the last two years in the country.
- (v) A quick review of the disease outbreaks occurred during the last year.
- (vi) A quick review of the existing SOPs and guidelines on public health matters.
- (vii) A quick review of the job descriptions of basic health services workers.
- (viii) A quick review of the status of core capacity of IHR (2005) in the country.
- (ix) A quick review of external evaluation mission reports on various public health programs during the last two years.
- (x) A quick review of recent annual reports of various public health programs.
- (xi) A quick review of reports of recent annual review meetings of various public health programs.
- (xii) A quick review of minister's speeches related to the public health domain.
- (xiii) A quick review of the general viewpoints of the population on the ongoing public health programs in their respective geographical areas.
- (xiv) A quick review of the performance and activities of a health education or health literacy promotion unit of the Ministry of Health.

After doing the above reviews, we can have a sense of direction as to what the Ministry of Health has to do as stopgap measures. However, it is to be noted that public health is a very broad area and every effort should be made to tackle the specific weak areas identified. Strengthening one public health program will also strengthen other public health programs.

Generally, medical officers, epidemiologists, and public health experts draw up public health programs and strategies. This scenario must be changed. The plan would be more realistic if public health workers at ground level were involved. This particular point is crucial for public health programs to be realistic, effective, and sustainable.

The most critical thing is that we have to create a scenario where these public health programs are owned by the basic health care workers and the communities. They must be involved in the planning stage of public health programs. Active representatives from community-based organizations and some local NGOs should be involved in the planning stage of public health programs. The roles of community-based organizations and local NGOs should be clearly spelled out.

The following stopgap measures are proposed.

1. The activities for each public health program should be categorized into first priority activities, second priority activities, and general routine activities. This is to prevent spreading human and financial resources thinly over broad fronts. The impact could be felt sooner rather than later.
2. The priority activities should be listed under a Gantt chart and start to implement them. It is important not to be too enthusiastic by implementing too many activities within a short time frame. The supervisors and responsible staff needed to carry

out the activities should be identified. The line of reporting, frequency of reporting, etc. should be mentioned. By using the Gantt chart, important activities will not be missed. It is also easy to review the status of implementation.

3. Fine tune the indicators to know the real effectiveness of the activities of the program. Generally, there are many indicators that are not specific, and collecting input data for these indicators is a waste of time for data gatherers. The information systems will be overloaded unnecessarily with non-usable data. It could create confusion and defeat its purpose.
4. Many public health activities are reinforcing each other. Therefore, networking and coordination are important entities to be reckoned with and do it accordingly. Once the network is established, it will be easier to continue. Coordination issues are sensitive and we need to be careful. Certain compromises should be made in coordinating the activities.
5. Do additional deployment of staff to initiate health literacy promotion activities together with community-based organizations and local NGOs. This activity should be carried out in the whole country. This is an extremely important and effective activity. Every effort must be made to make it happen. Here, the role of community-based organizations and local NGOs is vital.
6. Do quick surveys to elicit population perspectives on the public health programs being carried out in the community. Generally, many issues related to public health and public health interventions are taken for granted to be realistic by public health professionals and epidemiologists. They are not seeking the viewpoints of the recipient population. Public health interventions can be streamlined and adjusted based on the viewpoints of the recipients.
7. Initiate screening programs for some noncommunicable chronic diseases and conditions, and give health education and treatment at various health centers all over the country, especially hypertension, diabetes, and heart diseases. This could have a long-term beneficial effect on the overall health status of the population. This will also lessen the burden on the healthcare delivery system. The benefits are very crucial for getting more "**quality-adjusted life years**" (QALY).
8. Enhance immunization activities in low immunization coverage areas and give health education on childhood diseases during the immunization sessions. It is worthwhile to strengthen hospital-based immunization sessions. This would reduce the incidence of vaccine-preventable diseases. The physical and cognitive development of the children will not be negatively affected.
9. Draw specific plans for strategic public health promotion activities depending on the findings of the abovementioned 14 quick reviews.

10. Conduct simple data analysis and data interpretation training workshops for senior basic health care workers. They will, therefore, appreciate the importance and utility of data. They will then ensure quality data for transmission to the district, provincial or regional level health information centers. It can also create a sense of ownership of data by basic health care workers.
11. Immediate strengthening of health education or health literacy promotion unit from all aspects, including more budget allocation. Health literacy promotion should be part and parcel of the work of all public health programs. They should give their **“health literacy information package”** to the health education or health literacy promotion unit for further dissemination to the population.
12. Public health experts, epidemiologists, representatives from community-based organizations, and local NGOs should meet province-wise or region-wise and chalk out the plans to carry out the above stopgap measures and beyond. This will make the plans more rational and realistic.

The full impact of some of the action-oriented interventions mentioned above can be felt after some time. However, some would provide immediate benefit. It can be seen in the promising levels of health indicators as time goes on and is sustainable. By initiating these stopgap measures, the population will be alerted about the importance and benefit of public health interventions. This would create an interest in public health by the population, which is good for the country in the long run. The involvement of community-based organizations is indispensable in implementing the stopgap measures. ■

Chapter: 26

ENHANCING THE EFFECTIVENESS OF DISEASE SURVEILLANCE SYSTEMS

INTRODUCTION

Recent SARS-CoV-2 infections have drawn a lot of attention to disease surveillance systems (DSS). Additionally, the DSS are active in every country on the planet. The DSS are our healthcare delivery system's lifeline. We can compare our DSS to the human body's central nervous system. They are all working at varying levels of effectiveness. Our response mechanisms towards prevention and control of diseases depend on the information that we receive from our DSS. It is worthwhile to review its guiding principles and methods of operation to make them more effective and efficient. How well-suited are our currently operating DSS to fulfill our particular data and information needs in terms of validity, reliability, timeliness, robustness, and responsiveness? Our ultimate goal is to have a DSS that is effective and quick to respond across the country.

The DSS act as the health ministry's eyes and ears. Both the eyes and ears must be entirely unobstructed. As a result, we must do the necessary system checks. There should be no hesitation in amending or improving it if a certain issue or problem is discovered. It should be amended or improved as soon as possible. The issue or problem may be due to administrative, management, logistics, human resources, or technical deficiencies. After rigorous discussion or study, the root cause of the issue or problem needs to be taken care of or removed.

REVIEWING THE OVERALL EFFECTIVENESS AND EFFICIENCY OF DSS

In that regard, it is essential that we periodically evaluate the DSS overall effectiveness and efficiency, initially by using checklist questions and subsequently in-depth studies of the areas or components that require improvement. This is the first thing we should do to gauge the DSS existing performance. When creating checklist questions and training materials, a minimum of six relevant aspects stated below should be taken into account. In addition to the data gathered through checklist questions, focus group discussions and key informant interviews can be used to elicit the issues or problems. Referring to "**Quick Assessment of Health Information Systems**" in chapter 12 of the book "**Reflections of a Public Health Professional**" at <https://mbdsnet.org/publication/reflections-of-a-public-health-professional/> will be helpful when designing checklist questions for DSS.

It is crucial to consider how to improve the following entities in order to make the most of the DSS: (i) *the capacity and capabilities of data gatherers*; (ii) *the data collection forms currently in use*; (iii) *the data transmission system*; (iv) *the data collation and analysis systems*; (v) *the data analytical capacity and capability of staff working at the district, provisional, regional, and central levels*; and (vi) *the feedback system downstream to the health centers in the country*.

A review of the DSS overall plan and strategy will also be beneficial. Holding a national seminar on the DSS and inviting all professionals working at all levels of the DSS, including those working in private clinics, polyclinics, and private hospitals, will yield more details regarding the current performance in all segments of DSS.

When reviewing the DSS's actions, it is crucial that we look at how the entire health information systems are performing. "**Consolidating the Health Information Systems**", chapter 8 of this book contains in-depth discussions and suggestions. We should also check to determine if our DSS, via the Ministry of Health, have strong connections to key WHO Collaborating Centers on Communicable and Noncommunicable Diseases as well as the "**Global Outbreak and Response Network**" (GOARN).

An additional benefit would be the networking of DSS among countries with similar epidemiological conditions. We need to learn from each other to improve ourselves. A national dash board for DSS should be made available and updated on a real-time basis. It is strongly proposed that an annual review and evaluation meeting of the responsible staff of DSS be convened and recommendations emanating from it should be seriously considered for implementation.

CAPACITY-BUILDING ACTIVITIES FOR DSS STAFF

The DSS staff has access to a variety of training programs. We also need to review our training initiatives. Does it genuinely succeed in achieving the desired results? On the final day of a training session, reviews are not usual. It is imperative to assess its utility of the training program by means of applying a succinct general evaluation approach. The central level health information division must be able to provide a generic format for evaluation.

Several capacity-building activities should be implemented to enhance the aforementioned six entities. It is critical that lower-level healthcare professionals comprehend the rationale and utility of the data they are transmitting to higher levels. Understanding the value of data and converting it into information that can be used to take action is essential for the country's DSS to be effective. Please see "*Transforming data into information*" in chapter 20 of the book titled "*Reflections of a Public Health Professional*" at <https://mbdsnet.org/publication/reflections-of-a-public-health-professional/>.

In order for the Ministry of Health's DSS to be truly functional, the staff members responsible for it must first get thorough training and understanding of:

- DSS goals, framework, components, and key activities;
- The challenges of DSS;
- The predictors of DSS success;
- The definitions of diseases included under DSS;
- The need to identify practical, precise, and realistic DSS parameters and indicators;
- The critical role of the laboratory perspective in DSS;
- The significance of a two-way information feedback mechanism along the healthcare delivery system's hierarchical levels;
- The DSS data transmission system and its likely inconsistencies;
- The basic skeletal framework of the computerized DSS;
- The job descriptions of those involved in the work of DSS;
- The emergency hotline between staff working at ground-level and central-level focal points;
- The importance of transforming data into information and its interpretation;
- Drawing graphs and diagrams, basic data presentation and analytical skills;
- The standard operating procedures and guidelines related to the work of DSS;
- The importance of sending quick feedback to ground-level staff;
- The importance of networking with community-based organizations, the General Practitioners Society, private hospitals, polyclinics, and some associations;
- The relationship between the population's level of health literacy and the availability of information for DSS for early detection of disease outbreaks;
- DSS newsletter design;
- The DSS website of the Ministry of Health;
- The significance of DSS in the formulation and reformulation of communicable and noncommunicable disease prevention and control strategies in the country; etc.

Epidemiologists, public health experts, statisticians, and healthcare workers on the ground must work in small teams at different levels of the healthcare delivery system. These teams will keep an eye on how the DSS various operating parts are performing and make necessary improvements.

Please also refer to chapter 18, titled **“Viewpoint: Disease Surveillance System”** of the book **“Health System Challenges: A Developing Country Perspective”** at – <https://mbdsnet.org/publication/health-system-challenges-a-developing-country-perspective/>. In-depth discussion was given in this article regarding the DSS as a whole, the function of oversight teams, important DSS-related issues, the value of implementation research in enhancing DSS quality, the intention to create a full-fledged **“public health surveillance system”** in the future based on DSS experience, etc.

In reality, when we talk about DSS, we should also talk about the surveillance system for noncommunicable diseases. Noncommunicable DSS are significant in proportion to their prevalence because, if not treated promptly, they may have long-term negative repercussions on community health. It could also reduce the **“quality-adjusted life years”** (QALY) of the populace. This article will concentrate mainly on communicable DSS. The noncommunicable DSS ought to make an effort to encompass the collection of data and information from private clinics, polyclinics, and private hospitals as well.

NOTIFIABLE DISEASES DSS

In each country, notifiable diseases are also identified. This is also part of the national DSS. Population involvement and awareness of the signs and symptoms of such diseases are key prerequisites to having a near-complete number of notifiable diseases happening in the community. Basic health service workers such as health assistants, public health supervisors, midwives, and public health nurses should receive thorough training regarding their responsibilities in notifiable DSS. We also need to periodically assess the notifiable DSS. Disease outbreaks can be effectively stopped if we have a well-defined workflow process in notifiable DSS. Here, the involvement of private clinics, polyclinics, and private hospitals is crucial.

BENEFIT OF HAVING A SOLID AND RESPONSIVE DSS

One of the best results of having a strong DSS is that we can prevent disease outbreaks or be able to control imminent epidemics of diseases at an extremely early stage. Thousands of dollars would be saved in the health budget, the social fabric or social life of the communities would not be disrupted as much, the population's morbidity and mortality would decrease, financial aspects of the families would not be affected, the

children's education and adults' work would not be disturbed, the workload and stress of the health staff would not be felt, and the long-term effects of the diseases, if any, would not be seen.

CONCLUSION

In essence, a solid DSS can lead to a strong healthcare delivery system in the country. Additionally, it might lessen the pressure on medical facilities like hospitals and clinics. A strong **"data culture"** among the staff is a good predictor for successful control of communicable and noncommunicable diseases. An efficient DSS could improve public health response and public health readiness of the overall healthcare delivery system.

If the data collectors on the ground were aware of the value of the data they were gathering, the quality of data in DSS could be significantly improved. Hence, they need to be taught how to design simple line graphs, bar graphs, histograms, various types of tabulation, spider diagrams, pie diagrams, and other types of data presentation. They ought to be instructed on how to draw basic conclusions from looking at these graphs and diagrams. This would stimulate them to inculcate a **"data culture"** among themselves.

Technically sound strategies for the prevention and control of diseases are possible. However, if the DSS fall short of expectations, it will fail and waste money, time, materials, and human resources. The population's degree of health literacy is one of the key determinants of having a robust, sustainable, and dynamic DSS in the country. The weak DSS in the country will also result in repeated outbreaks of communicable diseases. Last but not least, it is safe to draw the following conclusions: **"Information is power"** and **"Available data should be translated into information for use in multiple purposes."** Strong and responsive DSS are necessary for strong healthcare delivery systems. Therefore, we need to enhance the effectiveness of DSS. ■

PART. 4

DISCUSSION AND
FORWARD-LOOKING THOUGHTS

Chapter: 27

ENHANCING THE WORK EFFICIENCY OF THE DIRECTOR OF COMMUNICABLE DISEASE CONTROL

It is a true privilege to serve as the director of a national program for the prevention and control of communicable diseases. However, the challenges are huge and the workload is massive. It is also an interesting, exciting, fascinating, and demanding job. The challenges are constantly changing and new ones are always evolving. The effectiveness and efficiency of the work of director of the country's communicable disease control can be influenced by a number of variables related to the population as well as the healthcare delivery system. The competence and aptitude of the director is one of the fundamental aspects that control the success of the program.

CAPABILITY OF THE DIRECTOR IS CRUCIAL

The director's technical skills and abilities are vital to successfully running the communicable disease control program. The director's expertise in epidemiology and public health could have a significant positive impact on the disease occurrence in the community. Thus, people are able to live in areas with relatively less communicable diseases. The director must have holistic and forward-looking viewpoints, exercise balanced reasoning, and capable of making logical, unbiased, and ethical decisions on program management in order to effectively carry out the tasks at hand. Preferably, an experienced epidemiologist fits the position. The director should always follow the principles of public health ethics.

Additionally, the director must be open-minded and practice systems thinking and adopt systems approach. The director also needs to be completely conversant in the complex

epidemiology of communicable illnesses, as well as current developments and research discoveries in the field of communicable diseases. Maintaining open lines of contact with all relevant experts, organizations, agencies, and institutions is also crucial. If the director has these qualities, the challenges could easily be overcome successfully. This article will focus on one generic communicable disease, "X". (The "X" may be one or more than one disease. The generic facts listed below could also be used if the director is in charge of more than one disease.)

OVERCOMING THE CHALLENGES

It is essential that the director be capable of giving sound technical guidance to the staff to deal with issues and challenges that can arise in the prevention and management of communicable diseases. The director must cleverly plan to overcome them by way of: *(i) lowering the incidence and prevalence of disease "X" in question; (ii) bending disease "X" morbidity and mortality trend curves to an acceptable level; (iii) controlling and containing disease "X" outbreaks; (iv) raising the population's disease "X" literacy level using a variety of interventions; (v) collaborating closely with other disease control program directors; (vi) sharing data and information of disease "X" control program with other pertinent programs; (vii) conducting various types of training courses for disease "X" program staff working at all levels of the healthcare delivery system; (viii) doing planning and budgeting for the program for subsequent years; (ix) ensuring that all decisions are ethical in nature and adhere to the principles of public health ethics, medical ethics, and other relevant ethical standards; (x) consideration for the social welfare and career ladder of the staff as much as possible; (xi) conducting annual evaluation meetings or workshops for disease "X" program; (xii) ensuring that the program's information system is technically sound, robust, integrated, and responsive; (xiii) adjusting and fine-tuning the program's parameters and indicators, (xiv) issuing regular newsletter so that the staff are up-to-date about disease "X", (xv) making disease "X" surveillance system effective and efficient, (xvi) reviewing the policy and strategy for the program as and when necessary, (xvii) conducting staff satisfaction surveys as well as population satisfaction surveys; (xviii) regular communication with like-minded UN agencies, organizations, community-based associations, INGOs, and NGOs; (xix) encouraging teamwork and a collaborative approach among the staff, (xx) doing research projects related to the work of the program; (xxi) striving to be a capable and impartial leader for the program, (xxii) exploring external funding support for the program, (xxiii) analyzing the program's resource flow; (xxiv) reviewing and improving the job descriptions of the staff, etc.*

Under the able guidance of the director, there are a series of tasks to be performed by staff members for each of the items mentioned above. "**A task mosaic chart or Gantt chart**" should be made for follow-up action because there are so many tasks to perform. This would significantly help to realize the director's goal.

FORMULATE A REALISTIC PLAN AND STRATEGY

The director should think of a comprehensive plan and strategy in light of the existing epidemiological situation for disease "X" and the aforementioned twenty-four activities. These activities should be part and parcel of the strategy. It should also be prioritized and managed in accordance with the needs of the situation. The activities should be completed in a step-by-step or phase-by-phase method depending on the available resources.

ACTIVITIES REQUIRING IMMEDIATE ATTENTION

The director should give particular and immediate attention if the disease "X" control program is to proceed forward smoothly. It will set the tone for successfully preventing, managing, and controlling disease "X" on the following activities.

1. A brief analysis of the morbidity and mortality trends of disease "X" over the previous 5 - 7 years;
2. Any disease "X" epidemic breakout within the previous three years, as well as a thorough assessment of the outbreak reports with a view to preventing such outbreaks;
3. A quick review of the human resources for health for running disease "X" control program at various hierarchical levels of the healthcare delivery system;
4. Actions taken on the recommendations made at the past two annual evaluation meetings of disease "X" and some important meetings on disease "X";
5. Examine the SOPs and guidelines for disease "X" that are currently in place to ensure that they are updated to include all necessary details for effective program management;
6. Conduct a quick **"staff satisfaction survey"** to determine what needs to be improved regarding the personnel working on disease "X" control programs; (Focus group discussions and key informant interviews can be conducted instead.)
7. Do a quick **"population satisfaction survey"** on disease "X"; (Focus group discussions and key informant interviews can be conducted instead.)
8. Review the utilization of resources and the analysis of resource flow for disease "X" control program;
9. Do a brief assessment of disease "X" control program's existing strategy;
10. Do a quick review of disease "X" surveillance systems;
11. Do a brief analysis of the most recent annual report for disease "X";
12. If available, do a brief assessment of the most recent disease "X" evaluation report;

ESTABLISHING TECHNICAL COMMITTEES

In order to obtain more technical backups, the director needs to establish several *ad hoc* committees or task forces (TF) or technical advisory groups (TAG) or scientific working groups (SWG) or expert advisory panels (EAP) with specific terms of reference. These entities could help in: (i) *monitoring the effectiveness of disease "X" prevention and control*; (ii) *launching new initiatives as necessitated by the disease "X" evolving epidemiology*; (iii) *evaluating the disease "X" surveillance systems*; (iv) *reviewing the performance of the overall communicable disease information systems*; (v) *controlling epidemics of disease "X"*; (vi) *overseeing research activities pertaining to important aspects of disease "X"*; (vii) *reviewing the human resources for health and job descriptions of staff working for disease "X"*; (viii) *streamlining various technical, management, logistical, financial, and training perspectives of disease "X"*; etc.

CONCLUSION

The director of communicable disease "X" prevention and control should perform the minimum necessary tasks listed above. In any situation, the director must instill a sense of pride in the staff members for the program in which they are involved. Even though the director has a lot of work to do, the activities might be carried out successfully if there is a sense of teamwork among the staff and ownership of the program. The duties and activities must be carried out in a well-coordinated way as well. The director needs to be aware of the actions aimed at promoting public health that are being carried out on the ground that complement the efforts to prevent and control disease "X." The necessity for coordinated engagement with public health programs is therefore critical. Last but not least is that dynamic and robust monitoring of the trend of morbidity and mortality of disease "X" in all geographical areas throughout the years is one of the key responsibilities of the director of communicable disease "X" prevention and control. Listening to the voice of the population could give great dividend to the program. In conclusion, it is reasonable to infer a connection between the director's overall talents and the drop in the frequency and prevalence of disease "X." The leadership and epidemiological skills of the director are *sine qua non* for enhancing the work efficiency and effectiveness of disease "X" control.

FURTHER READING

Specific action points were also discussed and proposed in "What If Scenario A", chapter 16 of the book titled, "**Health System Challenges: A Developing Country Perspective**" by Dr. Myint Htwe. (<https://mbdsnet.org/publication/health-system-challenges-a-developing-country-perspective/>) ■

Chapter: 28

THINKING “OUTSIDE-THE-BOX” IN THE CONTEXT OF DEVELOPING COUNTRIES’ HEALTH SCENARIOS

A holistic view will be obtained if this chapter is read in conjunction with the referenced chapters shown in the boxes.

In the field of public health, we are dealing with communities and population groups. As these groups of people have different background scenarios, it is crucial that we monitor the health conditions and factors affecting their health conditions all the time. We must not do **“business as usual”**. We need to practice **“outside-the-box”** and **“futuristic thinking”**. We have to strategize to have public health interventions that are results-based, realistic, action-oriented, and cost-effective. Communication channels with the public must be smooth and active.

The public health environment is constantly changing due to a number of contributing variables, many of which are outside the control of the Ministry of Health, thus there is a strong case for **“not doing business as usual”** in this field. The environment of public health is also being impacted by socioeconomic factors, and population-specific elements. The clinical domain has been impacted secondarily by this.

The long-term solution to inculcating the practice of **“outside-the-box thinking”** by health staff should start at the time of attending training, diploma, and degree courses in their respective disciplines. It is especially important for public health professionals because they are generally in charge of formulating health policies, crafting strategies, developing

interventions, and coming up with answers to numerous problems and challenges. While they are enrolled in diploma and degree programs, a variety of platforms and forums ought to be developed for them. **“lateral, critical, and epidemiological thinking”** is more than **“outside-the-box thinking”**. This idea of unconventional thinking should be promoted by the deans or rectors of educational institutions.

CHANGING EPIDEMIOLOGICAL CONDITIONS

The health situations and conditions around us are changing all the time. Major and minor epidemiological transitions are happening due to fluctuations in the factors influencing a particular epidemiological situation. We need to critically analyze these **“changes”** to know their root causes. Some causes are deeply rooted and it is difficult to revert back to normal. It is to be emphasized that **“changes”** are also interconnected and influence one another. Taking care of **“one change”** could improve **“more than one change”**. Taking an analogy from the clinical domain, it is like making a differential diagnosis and then getting to the specific diagnosis for the disease.

Likewise, in the field of public health, we have to select the best possible option from among several options or solutions available to solve the problems or overcome the challenges. We need to do several brainstorming sessions to arrive at the most appropriate solution to improve a particular situation. This cycle of review and analysis should be reiterated on a continual basis. It would also inculcate a sense of ownership of the health staff in the healthcare delivery system. This will make the healthcare delivery system dynamic, responsive, robust, realistic, and lively.

AVAILABILITY, UTILITY AND SHARING OF DATA AND INFORMATION

To acquire a good and reasonable outcome from thinking **“outside-the-box”** and **“futuristic thinking”**, we need to have valid, timely, accurate, and reliable information. Before making a decision, the time, place, personal aspects, and epidemiologic triad (agent, host, and environment) of the scenario must be taken into account. For vector-borne diseases, the role of vector(s) must be taken into account. Data must always be transformed into information before making a rational and ethical decision. Rational decision-making should always conform to the principles of public health ethics and medical ethics.

Another critical issue for all developing countries is that health staff, especially basic health services (care) workers, working at grass-root levels, are generally not aware of the high importance and utility of data. This is a serious matter. We need to strategize how to make them internalize this notion of the importance of data and the utility of data. One of the simplest approaches is that we can plan and systematically give basic training courses, applying various approaches and methods regarding the data they are collecting, transmitting, and handling. A national-level special task force should be formed to plan, strategize, and systematically implement it.

Data is essential for rational decision-making in both the public health and clinical domains. Without data, it is like sailing a ship without a rudder or compass. It would not reach its set destination. All administrative, management, technical, public health, and clinical decision-making hinges upon the outcome of the scrutiny and analysis of the data at hand. It is also important that the data at hand be reliable, accurate, precise, and reflect the contemporary situation. Various principles of epidemiology and public health should be applied when dealing with and interpreting data so that it becomes information. Senior officials of the Ministry of Health should promote it.

In order to facilitate the *“outside-the-box thinking”* process of the health staff, it is important that experiences emanating from each epidemic or disaster or health incidence or big event be shared among relevant staff. Several platforms (technical meetings, seminars, symposia, lunchtime talks) should be created. These hard-earned experiences are very useful for upcoming health professionals (clinical domain and public health domain). All these events should be properly documented in terms of:

- (i) How they were managed or handled;
- (ii) Challenges encountered;
- (iii) Supply and logistic weaknesses observed;
- (iv) Lessons learned; and so on.

In public health textbooks, these incidents are typically not recounted seriously or in great length. For the prevention, management, and control of upcoming events, knowledge on the management of each epidemic, disaster, health incident, or big event is invaluable.

IMPORTANCE OF COMMUNITY-BASED ORGANIZATIONS

We need to note the fact that community-based organizations and associations play a crucial role in the management of epidemics, disasters, untoward health incidences, and major health occasions. We have to think of how to effectively harness their strength in implementing the activities of the Ministry of Health.

One of the ways that we can stimulate the health staff to be associated with many activities involving communities is to create platforms and let representatives from community-based organizations attend these platforms to share their experiences. These platforms must be properly handled and should be facilitated by well-experienced and senior health professionals. The discussion should be led by the representatives of community-based organizations rather than by health staff. The health staff will arrange these platforms and serve as resource persons or facilitators. The outcomes of the discussions should be seriously considered by the Ministry of Health. Community-based organizations should feel a sense of ownership over health-related activities in their geographical areas. It is highly likely that health programs will become more realistic and effective if we get support from community-based organizations and associations.

HOLISTIC VIEWPOINTS BEFORE DECISION-MAKING

Another fundamental aspect of public health is always trying to have holistic viewpoints in an unbiased manner on any issue, or event, or challenge. A holistic perspective or holistic approach should be at the back of our minds when we are going to analyze a novel, changing, or even static epidemiological situation. Whatever the case may be, data and information are essential ingredients if we want to make rational decisions in public health. Senior officials of the Ministry of Health should have the above notions in mind when dealing with public health issues.

INTENTION TO IMPROVE THE HEALTH STATUS OF THE POPULATION *VERSUS* STRATEGIES

Every developing country is striving hard to improve the health status of their population by way of implementing the following actions:

- (i) Lowering the incidence and prevalence of communicable, chronic, and noncommunicable diseases;
- (ii) Preventing and managing natural and man-made disasters;
- (iii) Increasing public health readiness and preparedness; (This includes several activities.)
- (iv) Hospitals’ readiness and preparedness for quality care of patients;
- (v) Enhancing the ethical and technical skills of all categories of health staff;
- (vi) Promoting field research;
- (vii) Producing technically competent, ethically conscious, forward-thinking, optimistic, and team-oriented professionals;
- (viii) Make the human body strong, fit, and healthy through the “**Exercise is Medicine**” motto;
- (ix) Promoting a healthy way of life; and so on;

We need to see whether we have good strategies to carry out the above activities. Each of the above-mentioned activities is complementary to one another. If we look at the morbidity and mortality of diseases and conditions in the population, disease-causing organisms (viruses, bacteria, protozoa, fungi, etc.), unwanted items, and hazardous materials can enter or attack the human body through various portals of entry, such as the mouth, nose, skin, eyes, mucous membranes, ears, blood vessels, and sexual organs, including the anal canal. It is only through these portals of entry that organisms and unwanted things enter our bodies, resulting in various infirmities. If we can take some effective preventive measures at these portals of entry, we will be healthy.

Therefore, the health status of a person mainly depends on the following:

- (i) The quality, the amount, type, cleanliness, freshness, and wholesomeness of the food that we are eating are linked to liver diseases, kidney diseases, cardiovascular diseases, gastrointestinal diseases, diabetes, malignancies, acute medical conditions, and so on; (mouth)

- (ii) The medications we take orally, consumption of infected meat, and the cream we apply to our skin; (mouth and skin)
- (iii) Blood products, chemotherapeutic agents, and radioisotope materials that we take through our blood vessels are linked to many untoward health conditions; (blood vessels)
- (iv) The quality of the water that we are drinking is linked to gastrointestinal diseases, liver diseases, kidney diseases, and so on; (mouth)
- (v) The consumption of hazardous materials and liquids, carbonated and sweetened soft drinks, and alcoholic beverages has been linked to liver diseases, heart diseases, diabetes, and other complications; (mouth)
- (vi) The quality of the air that we breathe, as well as polluted air, tobacco smoke, microorganisms, and viruses that enter our lungs, is linked to malignancies, various lung diseases, asbestosis, various viral diseases, the novel SARS-CoV-2 disease, and so forth; (nose)
- (vii) Unprotected skin has been linked to: vector-borne diseases, cancers, and various skin diseases, etc.; (skin)
- (viii) Microorganisms entering through the eyes and ears are not very common, but we need to be careful; (eyes and ears)
- (ix) Our unhealthy lifestyle is linked to a variety of diseases, accidents, sexually transmitted diseases, and unfavorable conditions;
- (x) Our daily activities, or activities of daily living (ADL), are linked to common accidents, mood swings, and psychological imbalances, etc.;
- (xi) Our social activities are linked to sexually transmitted diseases, liver diseases, alcoholism, drug addiction, accidents, and other problems;

If we are careful about the portals of entry, the chance of having a disease is slim, except for autoimmune, congenital, hereditary, and other genetic disorders. Mental illnesses and physical illnesses are linked and related. Poor mental health is one of the risk factors for chronic physical conditions. These are issues that we need to pay attention to. Therefore, our strategies should focus on these portals of entry and on having psychological well-being.

ACHIEVING PHYSICAL, MENTAL, AND SOCIAL WELL-BEING

For public health professionals, we need to heed the definition of health as pronounced in the preamble of the WHO constitution, i.e., ***“Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”*** However, for psychological well-being, strategies are different and it is much more difficult to implement them. The causes of this psychological well-being are beyond the purview of the Ministry of Health. As a result, these strategies should be formulated in collaboration with other relevant ministries.

When senior officials of the Ministry of Health formulate the health policies and strategies of the country, they should consider the definition of ***“health”*** as given in the

preamble of the WHO constitution. To achieve a healthy state of the population, the Ministry of Health and development partners should work together to formulate long-term strategies for promoting the health of the population.

We should also not forget to intensify preventive and surveillance activities for zoonotic, emerging and re-emerging communicable diseases, and disease outbreaks. Many epidemics are related to or linked with zoonotic diseases. This area of work deserves special attention, together with core capacity building as per the *“International Health Regulations (2005)”*. These days, many developing countries are facing an increasing incidence and prevalence of noncommunicable diseases. This is related to the psychological well-being of a person and *“quality-adjusted life years”* (QALY). Special attention should be given to noncommunicable disease prevention and control.

ASSESSING THE EXISTING STRATEGIES

As an initial step, we need to do a quick analysis of the existing healthcare strategies in the country. Their performance should be assessed using a set of criteria (somewhat like the criteria mentioned in part A, chapter 14 *“Reviewing and Revising the National Health Plan: Practical Perspective,”* of the book *“Reflections of a Public Health Professional.”* Based on the findings, we may:

- (i) adjust or modify the strategy;
- (ii) sunset the strategy;
- (iii) reinforce the strategy; or
- (iv) replace the strategy with the new one.

The following strategies need to be formulated by the Ministry of Health, involving partners such as like-minded organizations; INGOs; local NGOs; community-based organizations; medical, nursing, public health, and paramedical associations and councils; relevant UN agencies and organizations working in the country.

Of the many strategies that we can think of, it is felt that the following fifteen strategies are noteworthy. These strategies are overarching and encompass many aspects, and they have several long-term benefits and positive impacts on the healthcare delivery system. A strategy will bear fruit only if it is systematically and collectively implemented, monitored, and evaluated.

The key point is that monitoring the implementation of the strategies is essential. Some of the strategies are already in place in many countries. They may have developed some years back. In view of the changing epidemiological situation, it is imperative that they be reviewed in detail and updated.

MOST EFFECTIVE AND OVERARCHING STRATEGIES

The following *“fifteen prioritized national strategies”* may be considered as appropriate.

- (i) **“Promoting the Health Literacy Level of the Population.”** This is one of the most important overarching strategies that can have the widest impact and long-term beneficial effect on the population’s health. It is also the most cost-effective strategy. It can nurture the interest of the population in healthcare activities and encourage them to adopt healthy lifestyles.
- (ii) **“Strengthening Information Systems in the Clinical Domain and Public Health Domain.”** This strategy can facilitate all the health programs to be dynamic, go in the right direction, increase the responsiveness of health programs, improve hospital performance, and even the strategic thinking of policymakers. There will be a multitude of benefits not only to the healthcare delivery system but also to the population.
- (iii) **“Reinforcing Human Resources for Health.”** Without capable, ethical, and sufficient human resources in public health and clinical domains, the healthcare delivery system cannot function in full swing. As this is a very broad domain, we need to do it in a phase-by-phase, step-by-step, domain-wise, and discipline-wise manner.
- (iv) **“Improving the Performance of Hospitals.”** Many issues, challenges, and problems arise in the hospital domain as this is the point of contact between the health staff and the population. Here, the application of epidemiological thinking and unbiased decision-making are essential. Collective action among all disciplines of staff working in hospitals, hospital administrators, and representatives of the people is required.
- (v) **“Achieving a Resilient and Responsive Public Health Domain.”** This strategy is an overarching strategy that can improve the infrastructure and public health system in the country. It has several sub-domains, and the strategies of each sub-domain must be properly coordinated, linked, and synchronized to the extent possible.
- (vi) **“Reviewing and Refining Communicable and Noncommunicable Disease Surveillance and Sentinel Disease Surveillance Systems.”** The purpose of refining both systems is to make them compact, more responsive, and robust in informing the program managers or directors to take necessary and timely actions in their respective programs’ activities. It will be very useful for forecasting epidemics of diseases.
- (vii) **“Expanding Universal Health Coverage through Primary Health Care.”** In developing this strategy, several relevant ministries should be involved. The professionals of the Ministry of Health should explicitly mention the role that other ministries need to play. It will take time to achieve the objectives of universal health coverage, as defined by the World Health Organization. However, this should be our ultimate goal.

- (viii) **“Launching Health Promoting Schools.”** This strategy should be formulated jointly among key players such as ministries of health and education, representatives of parent-teacher associations, student unions, and student leaders. It has a very important long-term impact on the population’s health. Schoolchildren who are health-literate can also act as peers for their parents and relatives. The positive domino effect of **“health knowledge and healthy practice”** can be observed.
- (ix) **“Reinforcing the Expanded Program for Immunization.”** Multiple benefits for the child population could be obtained if the immunization program is functioning properly. The physical and cognitive development of children will not be hampered as these children will not be afflicted with vaccine-preventable diseases. The workload in hospitals will also be reduced, and health staff can give more attention as well as giving quality treatment to other patients. The overall welfare of the children will be improved.
- (x) **“Strengthening the Food and Drug Domain.”** This is also one of the overarching strategies to improve the overall health status of the population. The consumption of unhealthy food and taking sub-standard and spurious medicines is increasing at an alarming rate in many countries. This is due to several factors. At least the available medicines and food items, including meat and other products, sold on the market should be approved by the relevant authorities. This strategy can ensure the availability of healthy food and quality medicines.
- (xi) **“Promoting the Motto - Exercise is Medicine throughout the Country.”** This strategy should be developed in collaboration with the ministry of sports, the ministry of education, parent-teacher associations, and community-based organizations. This strategy has a long-term positive impact on the health of students and the general population. This strategy should be put into effect as soon as possible.
- (xii) **“Promoting the Research Domain.”** This is an important strategy for the country. The health staff should be research-oriented or research-minded. It is only through research that we can pinpoint the issues, difficulties, faults, challenges, and problems with the healthcare delivery system. Every health program should include built-in research initiatives, and many research activities should be promoted to be carried out in the clinical setting, particularly in hospitals.
- (xiii) **“Reviewing and Refining the Indicators of the Healthcare Delivery System.”** This strategy is extremely important. Using weak and non-specific indicators can lead to bad decision-making. There is a surplus of indicators in many health programs. The number of indicators should be reduced to only quality and specific indicators. There should also be a balance among input, process, output or outcome and impact indicators. Development of a data dictionary, an indicator mosaic, and capacity-building for the interpretation of indicators should be part of the strategy.

- (xiv) **“Establishing a National Health Insurance System.”** It is a very big undertaking and a tedious task to initiate, establish, and run the national health insurance system. Many preliminary activities are required, including scouting of experience of other countries in similar political and socioeconomic situations that had a national health insurance system. Developing countries should have a national health insurance system.
- (xv) **“Establishing National Centers of Excellence.”** For example, The National Center of Excellence for Cardiovascular and Respiratory Diseases; The National Center of Excellence for Blood Diseases; The National Center of Excellence for Neurological Diseases; The National Center of Excellence for Gastrointestinal Diseases; The National Center of Excellence for Genitourinary Diseases; The National Center of Excellence for Endocrinology; The National Center of Excellence for Rehabilitation; The National Center of Excellence for Communicable Disease Prevention and Control; The National Center of Excellence for Environmental Health; The National Center of Excellence for Epidemic and Zoonotic Diseases; The National Center of Excellence for Research Promotion and Development; The National Center of Excellence for Liver Diseases; National Center of Excellence for Oral Medicine; The National Center of Excellence for Radio- imaging and Radiotherapy; The National Center of Excellence for Traditional Medicine; The National Center of Excellence for Sports Medicine; The National Center of Excellence for Medical Education; The National Center of Excellence for Research Promotion and Development; etc. The creation of these centers of excellence will undoubtedly accelerate the nation’s advancement in the clinical and public health fields. These centers of excellence could be formed depending on the money and other resources available.

Some of these National Centers of Excellence will not only provide treatment of diseases but also conduct clinical studies, clinical trials, and research on various aspects of the diseases, disorders, and conditions; develop SOPs and guidelines; and teach undergraduate and postgraduate medical, nursing, public health, dental, and paramedical students. Each center of excellence should have its own website, and networking should be promoted among centers of excellence of similar nature. These centers of excellence ought to share knowledge and carry out multicentric research projects with domestic and foreign institutions. Pharmaceutical companies and biotechnology industries should be invited to get involved in multicentric research activities. As part of corporate social responsibility, they ought to be involved.

STRATEGIC THINKING ON STRATEGIES

When formulating national strategies, including the establishment of national centers of excellence, appropriate budgeting should be reflected in the national health budget. In view of the huge budget requirement, it would be appropriate to adopt a step-by-step and phase-by-phase approach, over a time line of five to ten years.

There must be **“national, regional, and provincial level oversight teams”** to monitor the implementation status of the strategies being fielded. Over the years, some strategies may need to be readjusted or fine-tuned. All the strategies must include provision for relevant implementation research, clinical research, and public health research activities.

Taking into consideration the overall scenario, the above-mentioned strategies are very strategic and have the following inherent characteristics:

- (i) It would be very **“relevant and cost-effective”** to improve the overall health status of the population;
- (ii) It could result in a **“long-term positive impact”** on the health status of the population by way of increasing the efficiency of the healthcare delivery system;
- (iii) **“Improvement in the clinical domain and public health domain”** could be seen and felt noticeably;
- (iv) The strategies appear to be **“broad but specific in reality”** in a technical sense;
- (v) All the strategies are **“complementary and reinforcing”** each other;

It is important to note that each strategy has several interventions. It is worthwhile to combine or link some of the similar interventions. If possible, interventions should be prioritized. The key to success is to monitor the implementation of the interventions by a group of professionals, and a biennial evaluation of each strategy should be conducted.

When formulating or updating the strategies, the discussion points and action points proposed in the following chapters mentioned below could serve as valuable inputs. It is hoped that major or strategic challenges to the healthcare delivery system will fade away over time.

NATIONAL HEALTH INSURANCE SYSTEM

It is strongly advised that countries that do not already have a **“national health insurance system”** start the process of setting one up. Although it is not quick and simple, it is not insurmountable either. If there is a national health insurance system in place, many problems and challenges can be solved. There is no national health insurance program in Myanmar. The populace wants access to free medical care. Long-term free medical care could not be provided by the government. We may consider alternative choices if the government is unable to manage a full-fledged health insurance system, so that it is not completely responsible for providing free medical care.

As a matter of fact, all the above-mentioned discussion points and facts are geared towards achieving good population health. This is our ultimate aim. The population must themselves practice healthy lifestyles. We should, therefore, strategize as a matter of priority that the population’s health literacy level should be high. Then, we should think of supporting and facilitating the population to utilize that health knowledge to attain **“a state of practicing healthy lifestyles”** throughout their life span.

Crystallization of new ideas and thoughts can only be achieved if we think collectively. The viewpoints shared by different parties should be carefully noted and considered in light of the existing epidemiological situations in the health domain and beyond. The viewpoints of the population are no less important than the viewpoints given by various health professionals. In other words, the role of the population is pivotal in many activities of the healthcare delivery system.

In essence, our ultimate aim is to improve the overall health status of the population through the collective action of all stakeholders in the health domain. For that matter, we need to have a rational national health policy, a practical and doable national health plan, and strategies that work together with ethical and quality healthcare professionals. ■

Chapter: 29

MANAGING A HEALTH PROGRAM WITH A SUBOPTIMAL NUMBER OF HEALTH STAFF

INTRODUCTION

It is intended that this article will be an excellent stimulant for health professionals working in the Ministry of Health to improve and deepen their reflective processes as well as a useful teaching resource for MPH and DrPH students. The ideas that can emerge out of the discussion may be different from one discussion session to another and from time to time. The time provided for a discussion session, the participants' categories and disciplines, their competence and expertise, and their familiarity with the healthcare delivery system can all have an effect.

The discussion might go on for an entire day or longer. Allocate enough time for discussion. It will be a really nice interactive process that can broaden our perspectives and thought processes. The value of expressing different points of view, the development and crystallization of new ideas can be observed. Additionally, a variety of issues might be explored. Some unconventional thinking and unique ideas may also be observed. It is possible to significantly improve the discussants' **(i) ability for analytical and critical thinking; (ii) capacity for handling administrative and managerial issues; (iii) thought processes from an epidemiological perspective.**

The chief facilitator for the discussion should be a skilled epidemiologist who also works in the healthcare delivery system and who is open-minded, moral, and possesses unbiased decision-making stance. The facilitator group should consist of a senior epidemiologist, a senior public health expert, a senior social scientist, a public health ethicist, a senior medical superintendent, the head of a community-based organization, the head of an active NGO, a knowledgeable representative of the population, etc. The facilitator group's participants ought to be compatible with the health program under discussion.

OPERATING THE HEALTH PROGRAM WITH SUBOPTIMAL STAFF STRENGTH

Many health programs in developing countries are operating with a staffing level below optimal. The below optimal could be assumed as less than 70% of the normal staff strength. In such a situation, the program's director must plan, strategize, and manage very prudently so that the goal and objectives of the program can be achieved to an acceptable level.

A special meeting for key staff members should be called to discuss how to overcome the current understaffing situation. They can freely air their views on overcoming the suboptimal staff strength they currently face. The major goal is to give the current staff members "**a sense of ownership**" over the program structure they will be working for in the future.

Under the capable direction of the responsible program director, numerous expert groups should discuss the below-mentioned activities concurrently. The main goal is to run the program as effectively and efficiently as possible with the available staff strength.

- (i) A detailed review of the available **human resources** in terms of technical staff, management and administrative staff, budget and finance staff at different levels of the healthcare delivery system is necessary at the very outset. The review will encompass current number of staff, approximate attrition rate due to various factors, expected number of new staff that may be available year by year, motivation and commitment level of currently working staff, number of staff who were wrongly assigned *vis-à-vis* background qualifications and experience, etc. This activity is crucial for multitasking, staff readjusting, and staff reassignments.
- (ii) Assess the **quality, capacity, and capability** of each category of staff and immediately plan to give in-service training courses to them, if necessary. It needs a special group of staff to work out the assessment methods and processes. It can take time but the results will be very rewarding in the long run. The methodology used could also be improved as we go along.
- (iii) Get a detailed **epidemiological situation** (including the trend pattern of various variables and indicators) of the technical domain responsible by the concerned program in terms of different geographical areas (provincial, regional, district, township), and special groups or population affected. Special and detailed attention should be given in doing the epidemiological analysis. The future course of actions depends on the findings of the epidemiological analysis.
- (iv) Organize the **activities** of the program into (a) essential activities, (b) routine activities, (c) activities that can be implemented jointly with another program, and (d) activities that can be deferred until required human resources are available. The *modus operandi*

for implementing the above four categories of activities should be outlined. It is also important to identify straightforward assessment criteria and metrics for tracking how actions are being carried out.

- (v) **Activity mapping** should be meticulously done depending on the gravity of the health situation in each geographical area or region or province or district. It should be determined by several variables, such as the trend of the morbidity and mortality rates if it is a disease control program (e.g., communicable or noncommunicable) or overall health situation or specific conditions. Special attention should be given when activity mapping is undertaken. This is an extremely complicated and important undertaking. Several brainstorming sessions or meetings are required to complete the activity mapping. This process of work can also improve the epidemiological thinking skills of staff as well as reasoning power.
- (vi) Contemplate **integrated approach** to effectively complete the work with programs that have similar generic activities. Activities such as collection, reporting, and transmission of data could be done by staff of programs having similar nature of work. This is also one form of resource sharing. Integrated disease surveillance, response, and integrated vector management are two examples of successful techniques.
- (vii) Review the **job descriptions** of staff and identify the first priority and second priority activities to be performed. First priority activities should again be positioned as per the degree of importance. The supervisors should work together to create a workable system to track whether the first-priority activities are carried out and the causes of non-performance.
- (viii) **Staff reassignment and multitasking** should be taken into consideration. Consider working collaboratively with programs that are comparable to one another and that share common activities. This is an important task that can improve the healthcare delivery system's integration.
- (ix) To reduce work load, think of having **computerized systems of work** such as computerized health information systems, computerized disease surveillance systems, computerized human resources for health systems, computerized laboratory systems, computerized budgeting, utilization, and monitoring systems, computerized training registry systems, computerized research information systems, computerized hospital information systems, computerized cancer registry systems, etc. This activity will not only result in a significant reduction of staff workload but also the health system will be quick and responsive.
- (x) Think of **integrative working** with similar health programs which have similar generic activities. This is a very big undertaking and careful discussion and planning are required. Otherwise, it can result in system chaos. A series of brainstorming sessions

and meetings are required. It will be wiser to use a “*step-by-step*” and “*phase-by-phase*” strategy. The chairperson of the brainstorming sessions and meetings must be knowledgeable and well experienced senior professionals. A certain amount of management and leadership skills are also required.

(xi) **Administrative and management style** need to be adjusted in light of the reduced number of staff available. This is easier said than done. But we have to strive to achieve our purpose. It will take time for the change in administrative and management styles. We may need the support of a management expert.

(xii) We must immediately start looking for substitutes for the vacant staff members performing specialized job. It is important to consider all possible means for finding the appropriate **specialized workforce**.

EXPECTED FINAL OUTCOMES

The above-mentioned activities will ultimately lead to the following outcomes: *(i) an improvement in staff quality, capacity, and capability; (ii) a broadening and strengthening of staff knowledge; (iii) a clear understanding of the epidemiological situation and the general health situation related to the program in question; (iv) updated job descriptions of staff and multitasking of work will make healthcare delivery more efficient; (v) a more integrated approach to carrying out public health initiatives; (vi) the ability to carry out priority activities across the nation with suboptimal staff strength; etc.*

CONCLUSION

Given that we constantly have to work in a resource-limited environment, operating the healthcare delivery system in developing countries is the main challenge that the responsible personnel must overcome. Therefore, our top priority is how to utilize various types of resources most effectively and efficiently. Resource flow analysis and resource utilization must always be on our radar. The strategies to overcome this scenario will be very different from one country to another. Be that as it may, with combined strength, integrated approaches, collaborative and coordinated efforts, we are fully confident that we shall win and achieve our goals and objectives in the not-too-distant future. ■

Chapter: 30

DECISION MAKING IN PUBLIC HEALTH

Decision-making in public health is a very intriguing and challenging subject. It has a substantial impact on the scope, direction, coverage, efficacy, effectiveness, efficiency, and impact of public health efforts on the populace. At several stages of the healthcare delivery system, there is a hierarchy of decision-making. Every choice has equal weight. The population's health, however, might be more significantly impacted by decisions made at higher levels of the hierarchy.

KEY AREAS FOR DECISION-MAKING IN PUBLIC HEALTH

The overall health status of the population across the nation could be significantly impacted by decisions made in the public health field, particularly if key decisions are made in the following: (i) *policy formulation or reformulation*; (ii) *establishing new or additional strategies or major interventions for projects and programs*; (iii) *launching new projects and programs*; (iv) *discontinuing some existing projects and programs*; (v) *merging the existing projects and programs*; (vi) *establishing a new system of work and monitoring system for the projects and programs*; (vii) *modifying or fine-tuning public health professionals' jobs*; (viii) *changing public health professionals' career ladders*; (ix) *collaborating and coordinating mechanisms with stakeholders, organizations, associations, and like-minded entities*; (x) *budgeting or allocating funds to projects and programs*; (xi) *changing the system for staff transfer and promotion*; (xii) *changing the healthcare delivery system's infrastructure*; (xiii) *changing the organogram of the ministry of Health*; and so on.

RESPONSIBILITY OF THE DECISION-MAKERS IN PUBLIC HEALTH

The decision-makers also have a great deal of responsibility when deciding how to allocate resources for different public health projects and programs. The issues of human resources for health, budgeting, and resource allocation are important decisions that we need to be very careful in managing. The selected choices must be unbiased,

reasonable, and consistent with epidemiological and public health ethical norms. It is to be noted that the social and economic aspects of the population may be positively or negatively affected by a decision in the field of public health. The socioeconomic status of the population and public health are intricately connected. All in all, the spectrum of decisions in the public health domain ranges from technical matters and resource allocation to policy and strategy change. Public health professionals must be aware of the fact that each and every entity mentioned above (thirteen in total) is important and that these entities are also deeply interconnected.

Evidently, decisions in the field of public health ought to be backed up by the conduct of research, ideally decisions that are founded on evidence. To begin with, we must assess the strength of the evidence supporting the information's veracity or authenticity. Additionally, we must take into account the perspectives of the community, the availability of financial and human resources, potential short-term and long-term implications or repercussions, the benefit that is likely to be realized, etc. while evaluating the evidence-based facts or information for decision-making.

POINTS TO BE CONSIDERED BEFORE MAKING A MAJOR DECISION IN PUBLIC HEALTH

Generally speaking, clinical professionals have to make quick decisions to treat each patient as soon as possible. The provisional diagnosis could be selected from among the differential diagnoses tentatively identified. However, in the field of public health, during the process of decision-making, we need to consider the following: *(i) Is it really necessary to make the decision to change or modify the policy, strategy, and interventions pertaining to the public health field? (ii) what are the potential short- and long-term consequences or ramifications for the population or people living in a specific area or groups of people with similar characteristics? (iii) What extra expenses would the Ministry of Health face? (iv) Could the new tasks, activities, or interventions be completed by my staff? (v) Will my decision have negative repercussions on other public health initiatives? (vi) Does my decision conflict with Ministry of Health's primary strategies and the current national health policy? (vii) Have I completed the necessary planning so that I can put my new decision into action? (viii) How should I monitor whether the new decision is effective? (ix) Does my decision comport with the guiding principles of public health ethics? (x) In light of epidemiological concepts and public health standards and norms, is my decision technically sound? (xi) Do I need to provide the personnel with additional orientation training as a result of my decision? (xii) Do I need to create new standard operating procedures and guidelines in light of the decision I made? etc.*

PUBLIC HEALTH DECISION-MAKING DURING AN EPIDEMIC OR PANDEMIC

In the event of an epidemic or pandemic, public health decisions should be made extremely quickly. But based on the frequently changing information at hand, serious thought should be given before making a firm decision. Numerous deaths could occur from a bad decision, and an outbreak or pandemic could go haywire. Therefore, group decision-making should be the order of the day during epidemics or pandemics instead of individual decision-making. There may be repeated decisions during an epidemic or pandemic due to the changing pattern or trajectory of an epidemic or pandemic. It must be underlined that during an epidemic or pandemic, all decisions should be based entirely on accurate, timely, and reliable data and information.

EVIDENCE-BASED DECISION MAKING IN PUBLIC HEALTH

Evidence-based decision-making has many definitions. Some are difficult to implement in practical settings. In the realm of public health, the simplest, most useful, and most frequently used definition is that ***"the decision should be based on reliable, valid, timely, and repeatable facts and information in light of the existing epidemiological situation, capability and capacity of human resources for health, funding availability, and health condition of the community."***

Protecting people's health is a responsibility of public health professionals. They have a lot of freedom in how they carry out this responsibility, and they must weigh a lot of different risks when making decisions about new threats. These risks include the risk of acting hastily based on incomplete information and the risk of waiting until they have more information to help them make decisions. A proper use of discretion requires considering options, taking into account the information available at the time, and applying sound judgment.

PUBLIC HEALTH ETHICS IN PUBLIC HEALTH DECISION-MAKING

The United States Centers for Disease Control and Prevention (CDC) mentioned that public health ethics is ***"a systematic process to clarify, prioritize, and justify possible courses of public health action based on ethical principles, values and beliefs of stakeholders, and scientific and other information"***. Based on scientific data and in conformity with established norms and standards of right and wrong, public health ethics aids in guiding practical decisions impacting population or community health. The role of ethical decision-making becomes important in the resource allocation process for the public health domain *versus* the clinical domain. It is very difficult to compare the advantages of public health measures *versus* clinical therapies in terms of reducing morbidity and mortality in the population. It is also very tough to decide a comparative reduction between the morbidity and mortality of diseases due to public health activities and those due to clinical interventions.

PROFESSIONAL JUDGEMENT IN PUBLIC HEALTH DECISION-MAKING

In this circumstance, professional and innate judgment or conscious reasoning should be applied. Even within the field of public health, it is critical to consider: (i) *the differences in benefits that can be attained for different population groups*; (ii) *morbidity reduction versus mortality reduction with reference to the size of the beneficial population*; (iii) *the relative importance of short-term versus long-term benefits*; (iv) *social benefits versus economic benefits*; (v) *acceptance by the population versus acceptance by public health professionals*; (vi) *higher work load for health staff versus lower work load for health staff*; etc.

CONCLUSION

Public health decision-making is a very important topic in the field of public health. The complexities and nuances of the decision-making process should be well understood by all public health professionals, from the highest level down to entry-level healthcare service providers. The varied viewpoints on the public health decision-making process should be made available on a variety of platforms, including seminars, symposiums, and lunchtime discussions in health institutions.

Additionally, it is recommended that studies be carried out on the country's decision-making processes in the public health sector. Many suggestions for enhancing the decision-making process could come from it. There may be variations in the decision-making procedures amongst the countries. It is crucial that we public health experts work arduously to simplify and facilitate the country's public health decision-making process. ■

PART. 5
CONCLUSION

Chapter: 31

CONCLUSION

Tackling the challenges of the healthcare delivery system is itself a challenging one. Be that as it may, as alluded to earlier, we will assume the challenges as opportunities to further sharpen our public health acumen, clinical acumen, nursing acumen, paramedical acumen, administrative, management, logistic, and epidemiological thinking skills. The healthcare delivery system and its challenges are like **“conjoined twins with one heart and one brain.”** It is impossible to separate. So long as there is a healthcare delivery system, there will be challenges.

Therefore, health professionals should not run our **“healthcare business”** as **“business as usual.”** The analogy is like **“fighting a war.”** We must all be on the lookout for potential challenges to the healthcare delivery system, no matter how minor they may be. **“A small challenge may be a harbinger of a big challenge or a series of challenges,”** or it can be **“a catalyst”** for many untoward things to happen. As a result, we should view the challenge as one of the factors undermining, covertly or overtly, our healthcare delivery system.

“Twenty-two desirable characteristics of a public health professional” are mentioned in **“Being a Versatile Public Health Professional,”** chapter 1 of the book titled **“Health System Challenges: A Developing Country Perspective”** by the author. We should try to possess these characteristics as much as possible. It would be of tremendous help in tackling the challenges of the healthcare delivery system.

These desirable characteristics should be thoroughly discussed in several public health forums, platforms, and training workshops conducted by the Ministry of Health. It is also suggested that these characteristics should be deliberated in-depth in the schools of public health and related teaching institutions.

There are several public health programs in the Ministry of Health. The heads of programs or program directors should meet on a regular basis to share their views, challenges, and

experience among themselves as to how they are running their respective programs. **“A network of program directors”** should be formed. Many innovative ideas and how some programs are tackling the challenges can be noted. They can learn from each other. This is the most cost-effective and time-effective way to obtain solutions. The healthcare domain is very broad and many incidents are developing, improving, and happening at a fast pace, such as many medical advances, surgical techniques, laboratory diagnostic techniques, radio-imaging techniques, vaccinology, sophisticated medical equipment, public health methods and interventions, and so on. We have to plan our work with the changing scenarios.

The responsible professionals of each relevant sub-domain have to think, discuss, and work collectively in order to achieve our common goal, which is to deliver quality preventive, promotive, curative, and rehabilitative services to the population at large. All the services that we are rendering to the population should be within the boundaries of medical, public health, nursing, paramedical, and research ethics. In line with the changing situation around us, we should not do business as usual. Instead, we have to think **“outside-the-box”**.

People’s involvement is essential in all endeavors of the ministries of health in serving the population. To achieve this, people must have adequate knowledge of health issues, which can be achieved by implementing the **“Promoting Health Literacy of the Population”** strategy. We also need to give undivided attention to the viewpoints of the people so that our targeted interventions are effective.

My final message is, **“Where there’s a will, there’s a way.”** So let us work collectively to weed out all the challenges of the healthcare delivery system in a **“phase-by-phase, step-by-step, domain-by-domain, and discipline-by-discipline”** manner. Health policymakers should have forward-looking views so that health professionals are always cognizant of changing epidemiological situations. ■

Specific action points were also discussed and proposed in **“Approaches to Achieving Universal Health Coverage,”** part A, chapter 5 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Strengthening Research Institutions in Support of Public Health,”** part B, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Research Institutions and National Health Development,”** part B, chapter 3 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Achieving Long-term Dividends in Population Health,”** part A, chapter 4 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Improving the Domain of Public Health,”** part A, chapter 2 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Quick Assessment of Health Information Systems,”** part A, chapter 12 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Reviewing and Revising the National Health Plan: A Practical Perspective,”** chapter 14 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Health Literacy Promotion: A Far-Sighted Strategy,”** chapter 2 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Role of Population vis-à-vis Health Status of the Country,”** chapter 10 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Basic Characteristics of a Good Health Program Development,”** part A, chapter 16 of the book titled, “Reflections of a Public Health Professional” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Domino Effect on Population Health,”** chapter 6 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Viewpoint: Disease Surveillance System,”** chapter 18 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Improving the Health Status of the Population,”** chapter 21 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Restructuring the Ministry of Health,”** chapter 19 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Challenges in Managing the Hospital,”** chapter 13 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Basic Health Staff *vis-à-vis* Achieving UHC,”** chapter 12 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“What If Scenario “A,”** chapter 16 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“What If Scenario “B,”** chapter 17 of the book titled, “Health System Challenges: A Developing Country Perspective” by Dr. Myint Htwe.

Specific action points were also discussed and proposed in **“Inaugural Speech”** delivered by Dr. Myint Htwe,” annex 2 of this book.

PART. 6
ANNEXES

ANNEXES

1. RINGING THE BELL FOR THE MINISTRY OF HEALTH

(This article gives a consolidated view of points mentioned in the chapters of this book.)

There is always room for improvement in the activities of the Ministry of Health. **“Ringing the bell”** means alerting the senior officials of the Ministry of Health to give attention to some of the key issues, problems, and challenges commonly seen in developing countries. As per my experience, there are some priority actions to take care of for the smooth running of the Ministry of Health. In any developing country, we cannot fulfill all the requirements in one go.

However, the following basic minimum requirements should be fulfilled in order for the healthcare delivery system to function satisfactorily at an acceptable level. The requirements are mainly focused on the human resources for the health area because they are the ones running the healthcare delivery system. If we can improve the human resource perspectives, we are confident that the work of the Ministry of Health is under control and it can function very smoothly. All the requirements could be fulfilled in a step-by-step and phase-by-phase manner.

As a matter of priority, it is necessary to form several teams or working groups to carry out the below-mentioned tasks. Several brainstorming sessions, key informant interviews, focus group discussions, seminars, quick field visits, and meetings are required to carry out the tasks. In tackling the tasks mentioned below, the principle of **“fact-finding and not fault-finding or no finger-pointing approach”** should be practiced. Teamwork, team spirit, and team approaches are desirable. The requirements can be prioritized (administrative, management, logistics, operational, and technical) and regrouped to start working on them. The requirements may be different from one country to another.

All the **SOPs and guidelines** (administrative, management, logistics, operational, and technical) in hospitals and public health institutions should be updated and marked with the date of updating. These should be made available in hospitals and other health institutions all over the country. Some of the SOPs and guidelines have been in existence for more than five years or so. It is to be noted that the updating business is continuous and never-ending. Some of the obsolete SOPs and guidelines must be taken out of the system. A compendium

of SOPs and guidelines for the public health domain as well as for the clinical domain should be developed. Each and every updated SOP and guideline should mention the references quoted. A standard format for SOPs and guidelines should be developed. The quality of work of the staff could be greatly facilitated and improved if updated SOPs and guidelines were made available in hospitals and public health institutions.

The [Human Resources for Health Computerized Systems](#) should be updated on a real-time basis. A cross-reference with the production capacities of various universities in the country should be made. The availability of this system could greatly facilitate the forecasting of staff requirements for specific disciplines in the clinical, public health, and paramedical domains in the coming years. It could aid in the reformulation of human resources for health policies and strategies for the country. It would be very beneficial to the country concerned.

A quick review of [sanctioned/appointed/vacant posts](#) in hospitals, public health institutions, medical and allied universities, and departments under the Ministry of Health must be done.

[Career ladders](#) for all categories of staff should be clearly spelled out. It is important to have a balanced career ladder without giving undue advantage to some groups of professionals. Otherwise, it will defeat its purpose. A firm, attractive, and rewarding career ladder are promising incentives for the staff to have full commitment and work hard.

[Job descriptions](#) of all categories of staff in the Ministry of Health should be reviewed and modified, if required. Generally, the staff usually do not care about their job description, resulting in lapses in their duties. A survey on job satisfaction may be carried out to show the ground reality of job satisfaction for several categories of staff.

The frequency of [staff transfers](#) should be kept to a minimum. When the transfer is made, a thorough briefing of the expected work in the newly assigned job is conducted by the concerned senior staff. A review of the last three-year transfer pattern of staff should be conducted. It could give concrete ideas for reformulation of the **"Transfer Policy"** of the Ministry of Health.

An [on-entry job briefing](#) must be taken seriously. An information booklet on how to conduct an on-entry briefing for newly recruited employees and those transferred to new positions must be provided for future references. Currently, it is not done in several developing countries for several reasons.

[Health Information Systems](#) should be computerized. If not, **"step-by-step"** and **"phase-by-phase"** computerization must be done. This is the lifeline of the healthcare delivery system. It is equal to the Central Nervous System of the human body. The efficiency of the healthcare delivery system can be enhanced greatly if the health information system is computerized.

Because of the ease of travel all over the world, disease surveillance systems, including sentinel disease surveillance systems, generally need a quick review and also in view of the occurrence of several diseases during this time. Epidemic-prone diseases from other countries can easily creep in if our disease surveillance systems are not responsive and not performing well.

Continuing Professional Development (CPD) programs for different disciplines should be institutionalized and practiced seriously. Quality public health activities as well as quality clinical care can be obtained.

Implementation research projects must be built-in to key projects, and research findings must be considered and implemented as appropriate without fail. The conduct of implementation research projects on management, administrative, logistics, and technical aspects of various programs would be very beneficial to the country's healthcare delivery system performance. The conduct of implementation research projects must be a mandatory task of all the health programs run by the Ministry of Health as research and development always go together.

All **strategies of major health programs** should be reviewed and revised as needed. The strategies must be responsive to the changing epidemiological situations of communicable and noncommunicable diseases as well as other relevant conditions. Applying the old or obsolete strategies would be very costly and would be a waste of resources. The strategies must always be in line with the changing epidemiological conditions in the country.

Responsible officials or program managers of each specific health program in the Ministry of Health should sit down with their staff and evaluate the challenges, strengths, and weaknesses of their respective programs and develop realistic adjustments to run the programs effectively and efficiently. Inter-program integrated activities should also be identified and implemented accordingly.

Criteria for promotion of staff should be strictly adhered to without prejudice or vested interest. It is a very complicated issue as many subjective social factors need to be considered in life. The nature of human beings is very complex. The Ministries of Health in developing countries had a system of promotion for different categories of staff, but due to changes in several perspectives of the work of the healthcare delivery system, it needs to be reviewed to suit the current situation. It is a very complex endeavor.

The **National Supply Chain Management Systems** must be assessed using checklists and acted upon accordingly. This is extremely important. Weak management of the national and sub-national supply chain systems can be disastrous, and the work of the healthcare delivery system can even come to a standstill.

Develop [checklists for quick assessment](#) of issues of importance for the laboratory systems; radio-imaging systems; radiotherapy systems; cancer registry systems; physiotherapy systems; accidents and emergency care systems; patient referral systems; rural health center and sub-rural health center systems; township health systems; hospital care systems; etc. We need to promote a checklist type of assessment in the Ministry of Health. It has numerous advantages. It is the least costly, and results can be obtained very quickly.

A [staff performance appraisal system](#) should be developed. The current staff performance appraisal system is not satisfactory and very subjective, leading to many biases and untoward scenarios. Reference could be made to the UN agencies, although not perfect. This could also stimulate the staff to work seriously, harder, and with commitment.

A quick review of the **"Budget and Finance Systems"** and **"Resource Flow Analysis"** should be conducted to increase the efficiency and cost-effectiveness of the work of the Ministry of Health. The availability of the national health account document would be an advantage.

Develop a quick checklist and conduct [post-market surveillance](#) on food, drugs, cosmetics, and equipment approved by the Food and Drug Administration Department.

Generally, the national health policies and strategies were formulated several years ago. The health, political, economic, and social conditions might be changed at the present time. If there is a need, a quick review of the **"National Health Policy"** and **"National Health Plan and Strategies"** should be considered.

If we take care of the above issues, health care services delivered by the Ministry of Health would be smooth and effective. As alluded to earlier, the above-mentioned issues should be prioritized and considered. Regional and provincial, township, and sub-township level contexts should be given due attention. Preliminary findings obtained, if necessary, should be pilot-tested before finalizing them. The above issues are common across most developing countries. Be that as it may, the ultimate success of the above endeavor depends on whether the staff adhere to the set rules and follow them strictly. ■

2. INAUGURAL SPEECH DELIVERED BY DR. MYINT HTWE ON 1ST APRIL 2016 TO SENIOR STAFF OF THE MINISTRY OF HEALTH.

Dr. Myint Htwe delivered his inaugural speech as Union Minister for Health of Myanmar on April 1, 2016 to health professionals from six departments under the Ministry of Health, and the Department of Sports and Physical Education in Nay Pyi Taw, Myanmar. (The majority of the facts are generic in nature, and they are still valid up to now.)

Good afternoon, Permanent Secretary, Directors-General, Deputy Directors-General, specially invited guests, Rectors, Medical Superintendents, State and Regional Public Health Directors and Medical Directors, Directors, Deputy Directors, Program Managers, and all officials present in this hall. I appreciate and thank you very much for attending this event.

First of all, I would like to greet all of you with my warmest regards and good wishes. This is the start of our new journey at the Ministry of Health to deliver our services more effectively and efficiently to the specific needs of our population. Our main focus of attention will be on the population that we are serving. We will work together as a team to achieve our ultimate objective of improving the health status of the population.

I am glad to be back in the Ministry of Health after a physical hiatus of about 22 years. In terms of working relationships with officials of the Ministry of Health, I am still in close contact with many of you on a regular basis, contributing technical suggestions and inputs through various avenues and means, such as the Myanmar Academy of Medical Science, Preventive and Social Medicine Society, Ethical Review Committee of the Department of Medical Research, Liver Foundation, and attending several meetings, workshops, forums, and conferences being conducted by the Ministry of Health in the country.

I am here as per the duties assigned by the new government. I pledge that I will do my utmost to the best of my capacity and capability, especially with sincerity and without prejudice, together with undivided support and collaboration from all the officials sitting in this room as well as all those Ministry of Health staff from states and regions in our country. I am hoping that my 17 years of country experience working in the Ministry of Health and 16 years of international experience accumulated while working in the WHO Regional Office for South-East Asia will help facilitate managing the Ministry of Health effectively and efficiently to achieve our common objective of making the Ministry of Health strong, dynamic, and efficient to improve the health status of the population in our country.

The contents of my speech reflect the general direction and road map of what we intend to consider, inculcate, and implement as a team in the coming years as per the current health scenario and the epidemiological situation prevailing in the country. From the very outset, I would like to mention that the slogan of the National League for Democracy (NLD) is ***“Time for Change.”*** This is for the betterment of the country in several ways. Health is no exception. People are longing and waiting for that change.

As per this slogan, we should not be afraid of changing things in technical, administrative, management, and logistics aspects for improvement in rendering our health services as well as sports and physical education services to the population. We will think of it together and strategize it in a realistic and down-to-earth manner for the benefit of the population of our country.

The reason for **“change”** is **“not just for the sake of change”**. Here, I would like to quote what one CEO said during the takeover of his company by another company: **“We didn’t do anything wrong, but somehow, we failed and lost.”** The economic environment is changing, and they did not pay attention to the changes happening around them. Likewise, the health scenario, together with its determinants and demand from the population in our country, is changing fast, and the challenges facing us are also too many, some of which are unexpected and sudden. If we are not observant and not adapting to the changing situation by modifying or improving the way we are working; the way we are planning; the way we are managing the programs; the way we are assessing our work; the way we are collaborating with partners; we will not be able to improve the health status of the population. We will not be able to meet our goals.

Therefore, we will do **“outside-the-box thinking,” “innovative thinking and identifying new approaches,”** and **“practicing epidemiological thinking”** altogether. In this new management, if there is a strong and reasonable indication for changes to be made in either administrative, management, logistics, or technical matters, we should have no hesitancy to do so. But these changes should be bound by a certain set of realistic criteria and rules. We will not change it haphazardly.

As we go along, we will streamline and fine-tune our programs and activities in a systematic manner so that it will be more realistic and efficient to serve our population effectively. I will also pay due attention to all of your suggestions and inputs in the process of change. What I mean to say is that irrespective of your positions, your suggestions and inputs will be treated equally in terms of importance and taken care of to the extent possible. We will devise mechanisms so that all your suggestions and voices can be heard together with the voices of the people.

We should always envision the faces of the people, note the plight of the people, and perceive from the perspectives of the people whenever or whatever health, sports, and physical education services that we are going to render to them. Our focus of attention should be on the population that we are serving. I will consult with my senior team to make it happen as a matter of routine habit at all levels of the healthcare delivery system. Ignoring the suggestions given by the team members and other people will totally defeat our purpose. We will practice combined and concerted effort together with constructive criticism. Generally, people are reluctant or uncomfortable if they are criticized. In fact, constructive criticism is good for the recipient. If the criticism is destructive in nature or has an ulterior motive, we can just ignore it.

We will change our mindset in line with the current need or situation. Changing our mindset overnight is impossible. However, if the majority of us are changing, peer pressure can greatly facilitate our mindset in the right direction. Senior professionals, including me, have to set exemplary and selfless actions, I repeat, senior professionals, including me, have to set exemplary and selfless actions to become role models for others to follow suit. Otherwise, there will be a vicious cycle and we will never ever achieve our common objective of improving the health status of our population on our way to attaining Universal Health Coverage.

Here, I am referring to mindsets in terms of sense of responsibility, sense of accountability, spirit of collaboration and coordination, spirit of positive attitude and positive thinking, unbiased decision-making, instilling team spirit and team approach, supporting and respecting each other, dutiful attitude, fact-finding rather than fault-finding, giving sincere suggestions or ideas or advice from a constructive point of view or constructive criticism, consideration of people-centered approaches, doing this for the sake of our country, initiating good ethical practice by applying principles of public health ethics, medical ethics, research ethics, nursing ethics, paramedical ethics, sports ethics, and ethics in general. It is a tall order, but we all will try our best to do it as we go along.

We will strive to achieve these desirable mindsets as much as possible and as soon as possible. I can assure you that, together with senior professionals from the Ministry of Health, we will facilitate and promote changing mindsets as we go along. To facilitate the change in mindset, we will also take care of the welfare of staff from several perspectives, to the extent allowable by the budget and other factors. We have to give priority to the welfare of staff working in remote and hard-to-reach areas. I will elaborate on this in the latter part of my speech.

With this changed mindset, the main principles that we are going to practice in managing the Ministry of Health are:

- (i) Teamwork with a sense of team spirit;
- (ii) A compromise attitude;
- (iii) Truthfulness and objectivity;
- (iv) Fact-finding rather than fault-finding;
- (v) Respecting one another;
- (vi) Looking at things in a positive light;
- (vii) Supporting one another;

In addition, we will do our utmost to upgrade and strengthen staff capacity and ability in doing things in the public health and clinical domain and the sports and physical education domain, especially at the grass-root level. We need to be at least on par with neighboring ASEAN countries in delivering effective and efficient health services and sports and physical education services, especially to those residing in underserved, remote, and border areas. In the context of this perspective, we will see that ***“the right person must be in the right place”*** in the Ministry of Health. A person trained in subject “A” should not be working in the subject “B” area, in which he or she has no technical ability. Only in exceptional circumstances will we allow this to happen.

To effect these changes in a successful way, we will work as a team in a team-spirited manner and respect each other. Each one of us has a role to play as per our job description, and the role of each of us is equally important. The analogy is that even the proper tightening of a small screw in a plane engine is important. A loose screw can make the plane crash. In other words, we will pay attention to the voices raised and suggestions offered by the community at large and the patients.

Starting with me, I will listen to the suggestions or ideas given by you and by all those staff working at all levels of the health system, sports and physical education system. This would be one form of change in management style in the Ministry of Health. My door is open to all of you, irrespective of your position, throughout my tenure in the Ministry of Health. I repeat, **“My door is open.”** We should open up our lines of communication. Only then will policymakers get enough information to make rational and ethical decisions.

Team spirit and teamwork are important not only at the personal level but also at the departmental level, such as among the departments, including our new member – the Department of Sports and Physical Education, under the umbrella of the Ministry of Health. Proactive collaboration between the Department of Public Health and the Department of Medical Services is crucial. The two departments’ requirements should be fulfilled by the Department of Health Professional Resource Development and Management and the Department of Medical Research, and *vice versa*.

Another collaboration that is equally important is between the Department of Traditional Medicine, the Department of Medical Services, the Department of Medical Research, and the Department of Sports and Physical Education. We will make this team approach happen as we go along, so that all the departments are working in tandem. There must be a free flow of thoughts among the officials of the departments under the Ministry of Health. We will create regular and informal fora or platforms to do so. After all, we are all staff members of the Ministry of Health or closely knitted members of one family. Unrestricted collaboration with respect and good reciprocity are desirable characteristics as we go along the road map for achieving Universal Health Coverage.

Along this line of thinking, there must be no boundary in the sharing of thoughts and views among the relevant ministries. Inter-ministerial collaboration is a must and must be practiced without fail on many health and health-related issues such as disaster management; environmental sanitation; including bazaar sanitation and water sanitation; hospital and laboratory waste disposal; zoonotic diseases; school health; workers’ health; prison health; occupational hazards; food safety; quality drugs; physical fitness of the community; etc. We will review and improve our mechanism of collaboration with other ministries.

Here, I would like to point out that efficient administrative and good management skills are as important as technical skills. These skills cannot be obtained as easily and quickly as technical skills. We will nurture the administrative and management skills of our staff

at all levels of the healthcare delivery system. We have to learn from each other, and we should not be ashamed of doing so. In-house processes, standard operating procedures, guidelines, and office circulars must be rational, realistic, and meaningful to make our management process efficient.

These should not become stumbling blocks in our work. If these entities are inappropriate, there should be no hesitancy to change them. In fact, these entities are made by us. These are also not etched in stone. Even if it is etched in stone, we will use the new stone. In other words, these entities must be dynamic and realistic in line with changing situations or changing epidemiological conditions.

Rational decision-making is one of the determining factors in putting our work on track in the right direction. We will promote this aspect. Decisions are always there, either small or big. Even as I write this speech, I must decide what to include and exclude. We make hundreds of decisions every day. For important decisions in the field of public health, we have to follow the principles of public health ethics.

I just wanted to let you know that, by definition, public health decision-making must be collective to the extent possible, taking into consideration relevant ethical principles as well as short-term and long-term population implications; i.e., population-centered or population implications must be at the forefront of our decision-making process. This is also applicable in the field of sports. We tend to forget this perspective.

This is important when we allocate resources for various purposes; for example, the selection of cost-effective interventions for a particular group of the population, getting support from external agencies, etc. What I would like to emphasize to you is that we should not go for donor-guided or donor-driven activities. We will seriously consider, by applying the principles of public health ethics, whether it is really necessary to accept it because we have a finite number of human resources. I do not want your precious time devoted to these so-called **“not so relevant”** activities.

If the proposed offer is in line with our requirements or the needs of the population, we will accept the support or collaboration of the collaborating partners. We will carefully strategize to get the most out of it from our development or collaborating partners. I have already charted out our line of approach and this will be discussed and shared with development or collaborating partners when I meet with them.

I have noted that you have been implementing the assigned services in your respective technical areas as long as the opportunity and enabling working environment allow you to do that. I, together with my senior team, will expand the opportunities and make the working environment conducive and suitable so that you can contribute more for the benefit of the population at large. **“The enabling environment constitutes both the physical and the so-called mental or psychological environment.”** Senior management must be supportive and guide the work of program managers rather than fault-finding or hindering the activities.

With regard to this, one basic point that we need to be aware of is that to perform a particular task correctly, we need (i) a knowledge base, (ii) experience, and (iii) an enabling working environment. The knowledge base can be obtained very quickly through various means, but the experience that you all have accumulated cannot be read in the books and it will take months or years to obtain it.

Therefore, my task is to harness your experience by creating an enabling working environment. I am, therefore, very much looking forward to your innovative thoughts, renewed and increasing quantum and momentum of contribution to our priority health programs and activities based on your vast experience, which you have accumulated all these years. I do not want your experience to evaporate for no clear reason.

Before we start the process of efficiently managing our health system, the most important issue is: ***“Knowing the ground realities genuinely.”*** We will quickly review the scenario from a holistic perspective. What do we mean by ***“ground realities”***? We must know what is really happening at the village or community level or service points at various hospitals, health institutions, and health centers in terms of ***“How are people getting health and medical services from our rural health sub-centers, rural health centers, township health centers, and various categories of hospitals?”*** ***“What are the challenges and problems actually happening or facing our staff as well as the people?”***

These two questions can elicit many things which we need to consider in improving the performance of our healthcare delivery system, including the hospital care system. We will specifically and quickly review the scenario, including those in remote and underserved areas, and will also consider developing intensified or special programs to cater to the needs of this population.

We do not want our health professionals to be armchair epidemiologists and theoretical health planners. If these two categories of professionals formulate the health plan together, it can result in the so-called top-notch health plan, but it may not be implementable in real-life situations. It means that we all need to be proactively involved in sharing our real-life experience in the process of formulating a good health plan together with state/regional medical directors and state/regional health directors. If the information required for formulating a good health plan is not available or incomplete, we will conduct a quick review using qualitative methods and also using checklist questions.

In fact, true ground realities are known and can be reflected and depicted genuinely by staff working at the township level and below. We will get the information when health staff travel to various townships and village tracts in the country. Linkages and effective communication among staff working at different levels of the health system are crucial. I will be promoting in-country staff duty travel with clear-cut objectives, and we will consider remedial actions based on their findings or recommendations.

One burning challenge which we will promote is ***“enhancing the feedback systems,”*** both upstream and downstream. This feedback system is especially important for health information systems. Let the staff at the downstream level be aware that professionals at the central level

are analyzing the data transmitted by them and sending them feedback. The side benefit is that the quality of data will eventually improve as we go along because the professionals at the downstream level realize that the data that they have transmitted upstream is being utilized at the central level for decision-making and for many other purposes. We will also develop a system or strategy for creating a sense of ownership of data by basic health staff in their respective townships or village tracts, together with a short training on transforming data into information. This could finally ensure that the health data for the country will actually reflect the real health situation of the country. I have a package for initiating this activity.

As per the election campaign manifesto of the National League for Democracy (NLD), the mission of health is to reach out to the health services so that people will be able to access them easily. In other words, we have to go for Universal Health Coverage. To that effect, the following priority activities, as mentioned in the NLD campaign manifesto, will be given due attention:

- (i) Increasing the coverage of primary health care;
- (ii) Reducing the mortality of pregnant women and under-5 children through the implementation of effective projects and programs, together with improvement in the availability of required medicines and prevention of nutritional deficiencies;
- (iii) Children will have good health habits through the conduct of intensified school health programs
- (iv) Intensified drug abuse prevention, treatment, and rehabilitation programs for adolescents in collaboration with civic societies;
- (v) Intensified programs for rendering health care to the elderly and handicapped people with the objective of extending the life expectancy at birth to 64 years and above;
- (vi) Intensified programs for prevention and control of communicable diseases, especially to reduce morbidity rates of TB, malaria, HIV/AIDS, and hepatitis by providing necessary medications;
- (vii) Intensified programs for prevention, control, and treatment of noncommunicable diseases (diabetes mellitus, hypertensive heart diseases) with the objective of reducing the morbidity rates;
- (viii) The provision of quality medicine and initiating modern treatment practices in government health institutions, together with improving the clinical acumen and inculcating the ethical practice of physicians and nurses;
- (ix) Allowing the registration of private health institutions according to rules and regulations so that they can provide quality health care services to the population;
- (x) Collaboration with international agencies and organizations for advancement in areas such as the production of pharmaceuticals, medical education, treatment of diseases, and research;
- (xi) Improvement of health management information systems based on reliable data and information;

- (xii) Emergency health care and management for people living in disaster-prone areas, as well as nationals living in difficult-to-reach areas;
- (xiii) Advancement in the domain of traditional medicine;
- (xiv) Preventing the use of dangerous western and traditional medicines, harmful foods, and unsafe drinking water;
- (xv) Increasing the health budget while also lowering disease treatment costs for people;

We will quickly do an overall review of performance in these areas together with program managers and appropriately strategize to further speed up the momentum of our work in a quality manner;

As per the manifesto of the National League for Democracy, we will uplift the physical and mental state of young people and we will go for:

- (i) Establishing sports training centers and institutes;
- (ii) Building and renovating sports stadiums and arenas;
- (iii) Promoting sports and physical education programs at schools;

Before we start the process, we will do a quick review of the scenario of these sports training centers and stadiums and physical education programs using a set of assessment criteria and a framework. Based on the findings of the review, we will plan for the activities to be carried out in the first 100 days, six months, and one year. In fact, the health promotion activities of the departments of the Ministry of Health are highly complementary to those of the recently incorporated Department of Sports and Physical Education. The joint actions of these departments will make the activities of the Ministry of Health stronger and more effective.

Today, I am going to highlight some of the generic issues concerning all health staff and principles focusing on improving the general perspectives on public health and the notions we have to abide by. Clinical aspects and detailed issues related to universities of medicine and other training institutions and hospitals, as well as sports and physical education domains, will be dealt with separately when I meet the professionals from those domains early next week or so. I cannot call all of them here because of limited space. As this is my first encounter with you officially, I would like to convey some points of importance to all of you so that we can move ahead in unison with renewed strength, vigor, and commitment in the coming months and years.

We used to think of the patient-centered approach in the clinical domain when we are treating patients. In public health, whenever we develop or set up or implement a program or activity, the first thing that should come to our mind is our customers, i.e., the people and people-centered approach or population perspectives. From their perspective, how will they perceive or evaluate our services (public health and clinical)? Here, the role of public health ethics and findings from implementation research are important in rational and ethical decision making. Generally, we tend to forget these aspects as we are bogged down with all the technical details of delivering health services, i.e., not considering them from the recipients' side or perspectives.

I would like our professionals to think in the following way when performing their duties. Job satisfaction for our staff is crucial. For instance, when professionals in immunization programs are performing their duties, the following facts should be on their minds:

- (i) Many of the children will be immune to vaccine-preventable diseases;
- (ii) Their parents and families will not have psychological stress because their children are disease-free;
- (iii) Parents do not need to spend time and money treating the disease;
- (iv) School days lost will be minimal;
- (v) Their children's physical growth and cognitive development will not be affected because of several factors related to childhood diseases;

Similarly, when MCH program professionals are planning program activities, discussing program improvements, or performing routine duties, they should imagine pregnant women will have less stress and fewer problems delivering their children, and nothing untoward will occur as the result of their good services during the postpartum period.

This form of envisioning can lead to job satisfaction for professionals, as they foresee that they are doing something good for the children and pregnant mothers, something good for the country, etc. This line of thinking is similar to doctors working in hospitals, where the benefits to the patients can happen very quickly.

Before I elaborate on the technical details of our overall direction, I would like to mention that we are going to pay priority attention to the welfare of our health staff, especially to those working in remote and hard-to-reach areas, after thorough discussion with responsible professionals of the administrative and management section of the Ministry of Health, directors working at state and regional levels, and also with medical superintendents of big hospitals. We will streamline the *modus operandi* of taking care of the welfare of our staff.

This welfare issue is equally as important as the program delivery aspects. I need suggestions in this regard from all of you as well. Welfare is a very broad domain and we will do our utmost best in a "**phase-by-phase**" and "**step-by-step**" manner, subject to the availability of funding and other issues. We will also make sure that funds are made available and must be available.

Another generic issue that we need to handle is, as much as possible, reducing the number of layers in decision-making. We will immediately review this process of decision-making, especially at the central level, and make it realistic and efficient. We do not want to delay the decision-making process, which would have several untoward implications. Decision-makers must also take full responsibility for what they have decided and ensure that decisions are fair and square with no prejudice against anybody or any vested interest.

We are working for the country. Generally, we will give authority to technical professionals or program managers for technical decision-making if it does not have policy and untoward

administrative implications. They just need to inform the relevant senior team for information.

For management and administrative decision-making, we have to discuss it carefully among the concerned senior officials because it could have budgetary and other direct or indirect positive or negative implications. To facilitate our professionals, especially program managers, in making technically sound decisions, we will provide a generic and broad framework for them. All aspects will be considered. All responsible people will be put on board to be able to contribute their views and ideas so that high-level decisions will have both short-term and long-term benefits.

We will also review together and consider giving more decentralization of decision-making to state and regional level directors. In fact, the main job of central level officials is to oversee policy and strategic direction, monitoring and review processes, and the development of standard operating procedures and guidelines for different health programs, etc. This is similar to the job of professors and clinical professors in the various clinical disciplines.

In this context, I would like to reiterate that we will review the decision-making processes in the Ministry of Health as a whole to make them more realistic, transparent, and fast. These are changes that we have to make by all means if we are to be successful in our work. We do not want to be quoted as saying **“the case file has been on the Minister or Director-General’s desk for two months.”** Likewise, we do not want to be informed by development partners and external agencies that **“we have not yet got the feedback from the Ministry of Health for months.”** We have to reply with at least something that action is being taken or being processed or something along that line. We need to inculcate this nature of responsiveness.

Here, I would like to ask the staff to use emails as much as possible to hasten our internal and external communications and the exchange of important information. We will also see that efficient and fast Wi-Fi is available at least in central level offices, followed by state and regional offices. Until and unless this is happening, our progress will be significantly slow. I will discuss this with the responsible officials of the computer section of the Ministry of Health.

Having said that, we all should be aware of the fact that administrative and management aspects are as important as technical perspectives, especially in the field of public health, health institutions, and hospital management. Many of the hitches and glitches occurring in performing the health system activities or management of health institutions and hospitals can be removed if we improve management and administrative issues.

It is all the more important at operational levels such as in states and regions, districts, townships, and below. For clinical domains such as hospitals at various levels, rural health centers and sub-centers, management and administrative issues related to the smooth flow of medicine, equipment, and supplies are crucial.

Therefore, we will seriously consider improving the supply chain management system. This system is currently running at a sub-optimal level of performance. One simple example is that there will be an ample supply of quality medicines at the central medical store depot, but it will not reach its intended hospitals or centers in time for want of a signature of the responsible person or a missing information sheet. We do not want this type of scenario to happen. If our supply chain system is efficient or follows the standard operating procedures, we can save millions of dollars or kyats and also ensure quality medicines will reach their targeted sites in time for use by the doctors or health professionals at hospitals and health centers.

We are all aware of the weak performance of health system activities in remote and hard-to-reach underserved areas for several reasons. Some of the reasons are beyond the purview and control of the Ministry of Health. We will seriously discuss various ways and means, including innovative programs, with other relevant ministries for improving the situation in a phase-wise and step-wise manner. State/regional directors of the respective areas will be closely involved.

The use of mobile clinics and general practitioner (GP) networks may be some of the options to be considered. This is also one of the top priorities in our mosaic of activities that we plan to do for our population residing in hard-to-reach areas. Your sage input is crucial in this endeavor.

Many activities of the Ministry of Health can be greatly facilitated by working in close collaboration with other relevant ministries, especially at the operational level. We also need to note that although the Ministry of Health is the main player in improving population health, collaborative support from other relevant ministries is also necessary. We will develop and establish realistic mechanisms to enable this collaboration as well as effective donor coordination. Here also, we will harness your practical experience in this process.

To effectively work with UN agencies and organizations, development partners and INGOs and to get the desired outcome and output, the existing "**Myanmar Health Sector Coordinating Committee**" (M-HSCC) and other mechanisms will be reviewed and modified to make them more realistic and productive. The role of the International Health Division (IHD) is very crucial, and we will strengthen IHD as soon as possible to serve the existing health programs better and do effective donor coordination. This will be one of the priority activities in the coming weeks and months.

I would just like to tell you that I have already outlined what we are going to do in the first 100 days, preferably starting after our Thingyan holidays. These activities will be finalized after incorporating your inputs. These technical, administrative, and management activities concerning quick reviews will set the tone to make our foundation stronger. It will be relayed and discussed in detail with program managers, professionals from the curative domain, and professionals from training institutions at different levels of the health care delivery system when I meet them sometime next week.

I plan to have separate meetings with officials from:

- (i) UN agencies and organizations; INGOs; large local non-governmental organizations; and development partners;
- (ii) Medical universities and training institutions;
- (iii) The Myanmar Medical Association and its affiliated societies; the Health Assistants Association; etc.;
- (iv) Medical, Dental, Nursing, Councils etc. ;
- (v) Universities of Public Health and Community Health;
- (vi) State and regional hospitals and specialized hospitals;

I will coordinate with my senior team at the Ministry of Health to plan these meetings.

As a matter of change in the style of management, we will listen very carefully and with seriousness to the **“ideas and suggestions given by all of our counterpart staff”** working at the ground level and also **“the voices of the people.”** Otherwise, whatever we decide at the central level will be absolutely fine and technically acceptable, but it may not be implementable at the ground level.

To make this happen smoothly, we should be equipped with **“epidemiological thinking skills.”** It is nothing but seeing and analyzing an issue or problem from different perspectives, taking into consideration the epidemiologic triad of causation of disease or conditions (**“agent, host, environment”**) together with facilitating and conditioning factors. In the clinical domain, it is equal to deriving a correct diagnosis from among a set of differential diagnoses.

Think along this line of approach. Do not react or act instantly when you receive a piece of administrative, management, or technical information, like a **“knee-jerk reaction.”** Please think carefully, taking into consideration various perspectives and acting rationally. The majority of the staff here in this room are public health professionals, epidemiologists, health administrators, and senior management officials.

There are very few clinicians and full-fledged researchers in this room. What I would like to highlight here is that public health professionals need to work very closely, as a team, with relevant clinicians working in various hospitals as well as professionals working in training centers, universities, and the Department of Medical Research along our path to attaining Universal Health Coverage.

The combined strength is far greater than the individual strengths combined. It is geometric rather than arithmetic. We will create a regular platform so that experience can be shared comfortably among these professionals. The performance of our health system can only be improved if we all work together as integrated teams in a team spirit manner.

To move the Ministry of Health in a much more efficient way, each of us has a role to play and duties to do. If we fulfill the role to be played by each of us, the system can run smoothly. Thus, it is essential to know the priority activities and essential actions that we have to do in line with specific job descriptions. As far as I am aware of it, these job descriptions have not been reviewed for a certain number of years. We need to quickly review the job descriptions and adapt them to contemporary needs. In epidemiologic terms, it is a quick and dirty analysis of job descriptions of key categories of health professionals in the Ministry of Health.

Another prime activity that we are going to do as soon as possible is a quick review of the implementation of recommendations made by all of you in recently conducted policy meetings, workshops, symposia, and fora. You have spent a sizeable quantum of time and racked your brains to get all these priority recommendations. I do not want them to be on the shelves or just evaporate for no apparent reason. In fact, our future directions have already been outlined in these recommendations made by all of you.

We will develop and set up a transparent, efficient, and doable system of work. It does not mean that we have to revamp the system. Systems are already in place and functioning at different levels of efficiency. We need to pinpoint the weaknesses in our health system and strengthen them accordingly. The system is as strong as its weakest point, or link in the chain. The systems that were developed before may be really good and efficient. But the point we need to be aware of is that the system, together with its controlling environment, is always in a state of flux.

From time to time, we have to review the system and modify its *modus operandi* to be in line with contemporary epidemiological conditions and the needs of the population. I repeat, **“Not to revamp the system”**. The system just needs to adapt to changing epidemiological situations. Your valuable advice in this regard is crucial. Here, I would like to go on record and thank previous Ministers, Deputy Ministers, and their teams for their untiring efforts in improving the system. It would not be difficult to continue improving the system in accordance with current requirements.

Here, I would like to express the notion that the strength and performance of the public health domain, physical education domain, and clinical domain are directly proportional to the level of the health status of the population in the country. In other words, we need to strengthen the domains of public health, sports and physical education, and the clinical domains simultaneously and collectively at all costs, not one after another. This can be done with the support and contributions of all of you. The decisions of the National Health Committee, the policy of the Ministry of Health, relevant directives, circulars, standard operating procedures, and guidelines must reach or permeate to the lowest level in the hierarchy of the Ministry of Health.

The policies and strategies of the Ministry of Health are generally reflected in the opening remarks of the Chair of the National Health Committee, the Minister, and the Deputy

Ministers in the Ministry of Health. In that context, we have to devise ways and means of reaching out to all our staff by way of establishing a dynamic intranet system in the Ministry of Health, the development of a compendium, or other means. Details will be discussed as soon as possible with relevant and responsible officials of the Ministry of Health to achieve it. We will urgently review the existing circulars, directives, and memoranda currently being applied in performing our tasks. The relevant ones will continue, and some may need modification, and some may need to be nullified.

One pressing need is to do a quick review of the National Health Plan (2012 to 2016) or the newly developed National Health Plan. To what extent we have been implementing it or to what extent we have achieved our targeted plan, while reviewing this, many issues will be exposed, i.e., the good as well as the bad, or the facilitating factors as well as hindering factors. Together with this, we will see the extent of the involvement of development partners, agencies and organizations, INGO and local NGOs, etc., in the activities spelled out in our National Health Plan. It is high time that we drew up our new National Health Plan. I am sure it will be a very exciting job to do it.

We should also take our time in formulating the new national health plan. There are a series of steps in formulating it. You all are very experienced professionals, and I hope that we can be able to have a very realistic National Health Plan, taking into consideration the 15 points mentioned for the field of health and 3 points for the field of physical education, in the campaign manifesto of NLD. Here, we will get the support or involvement of retired public health professionals and clinicians, representatives from entities such as societies under MMA, MAMS, councils, associations, development partners, agencies, and organizations, INGOs, local NGOs, and professionals from relevant ministries. I will not elaborate on the details here as it is a bit broad and technical.

Together with the quick review process on the National Health Plan, we will see the overall direction and rationale of the existing National Health Policy, which was promulgated in 1993, and the draft National Health Research Policy. We will do a quick review of the functions, terms of reference, and output of several existing technical, management, and administrative committees of the Ministry of Health. Too many committees will also defeat the purpose. We will make the committees efficient, nimble, and realistic. The formation of ad hoc think tanks, task forces, scientific working groups, and technical advisory groups may be considered. These will be called off after their tasks are completed.

I would like to reiterate that ***“too many such entities are not conducive to the efficient functioning of Ministry of Health or any organization”*** and that it could actually slow down the pace of work of Ministry of Health. We will discuss this with you in the coming weeks so that we can have the best scenario or approach. Here, the important role of the Myanmar Academy of Medical Science must be reviewed and considered for increasing its involvement in terms of giving sage advice to the Ministry of Health. It is currently serving somewhat as a general think tank for the Ministry of Health. We do not want to duplicate its work by forming another policy or strategic committee.

The arms and legs of the Ministry of Health are state and regional public health teams, together with state, regional, and township hospitals. We will make them strong by all means. I have great confidence in their work. If they are strong and efficient, the Ministry of Health will be strong and efficient to serve our country. Capacity-building or real scenario review workshops will be held state/region-wise, involving township and district level staff of all categories, rather than at the central level. We will also involve professionals from the Department of Sports and Physical Education.

I have noted that many capacity-building workshops are being held at the central level. We will quickly review the scenario. We may even develop a system of healthy competition through performance using a certain set of criteria among the rural health centers, township health centers, and township hospitals in respective states and regions.

This area is too wide, so we will discuss it separately, and I will share my views and thoughts when we meet state and regional directors separately on Saturday, April 02. Central officials from the Department of Medical Services, the Department of Public Health and the Department of Medical Research can give a helping hand. These issues will also be considered in light of the recently approved organogram of the Ministry of Health. We may also need to review the appropriateness of our new organogram in light of the finite number of human resources available and the nature of the work of the Ministry of Health.

One caveat is that the work of the Ministry of Health could not be equated to that of a production factory. Therefore, changing the structure of the organization frequently must be carefully considered, taking into account the pros and cons of changing it, as well as its long-term and short-term implications.

During my tenure in the Ministry of Health, I will also give special attention to:

- (i) *Basic health staff working at district and township hospitals, township health units, rural health centers, and sub-centers in terms of their capacity building, their welfare, and modus operandi of activities being rendered, etc. These professionals are really the backbone of our health system. Our health system will be strong and efficient if its employees are capable and dedicated to their jobs;*
- (ii) *The performance of community-based health workforces, such as community health workers and collaboration with community-based organizations;*
- (iii) *The role to be played by councils (medical, traditional medicine practitioners, nursing and midwifery, etc.), particularly in promoting teaching and capacity-building activities in the nursing and midwifery domain; and associations such as Myanmar Health Assistant Association and Myanmar Medical Association and societies affiliated with them, especially the General Practitioners Society. They are part and parcel of the health system. They need to be put on board. We will systematically harness the important contributions made by the associations.*

Undivided attention will be accorded to health and medical services rendered in various states in the country where health development in various aspects is below the national standard. The central internal review and technical assessment unit, in collaboration with state health and medical directors, will continuously monitor the situation and necessary actions will be initiated as much as possible on a real-time basis. We will review and further strengthen the electronic communication system between the central and state/regional offices. The necessary actions will be implemented with support and collaboration from local government authorities.

The role of local government authorities and the General Administration Department will be solicited and harnessed as much as possible, especially for public health activities in the communities. For difficult areas, such as in hilly regions, we will think of having mobile health units, and detailed strategies to this effect will be communicated to concerned officials in due course of time.

We have a finite number of human resources in the Ministry of Health. In our road map towards Universal Health Coverage, the increasing importance of the role of GPs in the national healthcare delivery system is now coming into prominence. The modus operandi of the healthcare delivery system can be greatly improved and facilitated through the involvement of GPs, who are the first-line point of contact with the population at large.

We will strategize appropriately through the several branches of the GPs Society of the Myanmar Medical Association (MMA). After all, some of our in-service medical doctors can be subsumed under GP, although they are rendering general and specialist services. We will also discuss this with the private hospital association, and we will promote public-private partnerships in a variety of areas.

Another area that is pivotal is to firmly set up a robust, dynamic, and real-time HRH computerized system covering both public health and the clinical field. If we have this system, we can correctly plan the production of health professionals from our training institutions. We will also know the attrition of our staff so that we can appropriately strategize to reduce the attrition and also plan for replacement. All developing countries face the internal and external brain drain of health staff. Myanmar is no exception. There are several advantages to having this system. I am not going to elaborate here either. At specific meetings with concerned officials, this subject will be discussed to obtain the best possible solution for containing the situation.

Other areas that we are going to give special attention to are: health information systems, hospital information systems, health education, and health promotion (IEC), school health programs, strengthening rural health centers and township hospitals and township health centers from several perspectives, non-communicable disease prevention and control, the status of availability of and other supplies in hospitals, the overall health supply chain management system, emergency care at various state and regional hospitals, disaster

management, capacity building programs in the clinical domain, medical education, hospital and laboratory waste disposal systems, and international health coordination.

I am not saying that others are not important, but these particular areas are very basic and generic in nature. They are not only facilitating the effectiveness of the performance of all program areas but can result in a long-term beneficial impact on the country. For instance, health information systems are like the central nervous system of the Ministry of Health. We will know what is happening so that we can respond effectively.

When we are referring to the morbidity and mortality rates of diseases and conditions, we have to ask one big question, ***“To what extent are we sure that it is actually reflecting the real situation?”*** If the data were not reliable, we would not be able to set our target realistically. The whole planning process will be futile.

Similarly, a hospital information system is really important from several perspectives for the medical superintendents and clinicians working in the hospitals. The ***“Human Resources for Health Computerized Systems”*** is indispensable for the projection and production of different types of graduates from our health institutions. We will make this system user-friendly and robust. During my tenure in the Ministry of Health, we will firmly establish these systems.

The health knowledge, attitudes, and practices of our people can be effectively improved if our health education activities are simple, interesting, effective, and widespread all over the country. School health programs, physical education activities, and health education programs at factories can contribute significantly to population health in terms of reducing the incidence of noncommunicable diseases as well as communicable diseases.

We will promote these three areas in collaboration with relevant ministries. We will also promote sports and physical education activities in our workplaces by having small gymnasiums, etc. The intention is to have a snowball effect on the family members and relatives of the staff. We will make the budget available or get some funding support through the mechanism of corporate social responsibility.

In the context of equity and rendering equitable health services to our population, we are going to pay attention to the ***“health of isolated population groups or migrants”, “health of internally displaced population groups”*** and “health of prison population groups”. Isolated population groups for big construction sites as well as prisons are located in several parts of the country. We have prison doctors also. The Department of Medical Services will need to develop a strategy for improving the health services to these population groups in collaboration with the concerned ministries. I have information that external entities are ready to give a helping hand in terms of providing funding support to cater to the health needs of these groups.

The points of contact for a significant proportion of patients or the population seeking care are rural health centers, township health centers, and township hospitals. In order that our rural population gets satisfactory and quality health services, we will significantly strengthen these points of contact. This can also reduce the workload at state and regional hospitals. The Departments of Medical Services and Public Health will strategize it in a realistic manner.

We will systematically and effectively harness the support given by development partners, UN agencies and organizations, and INGOs. For that matter, we will discuss this with these entities as soon as possible. I have already developed a practical framework to initiate the process. To facilitate this matter, as I alluded to earlier, we will also meticulously strengthen the International Health Division as a priority activity.

Along this line of thinking, we need to systematically strategize to harness the services of the diaspora population of Myanmar doctors working all over the world. As per the available information, they want to give support back to our motherland by way of rendering several types of services when they visit Myanmar.

I have already thought of the framework to materialize this untapped resource systematically and officially. I will work with my senior management team, clinicians from different disciplines, the Myanmar Medical Council, the Myanmar Medical Association, and its affiliated societies to make it happen. Another area that deserves attention is the ongoing meetings and capacity-building training workshops being conducted by the Ministry of Health. We will quickly review it and improve the scenario. I have already developed a practical framework to further improve the situation.

Generally, we will try to reduce these events at the central level, and more will be conducted for health professionals working at the district and township levels and below.

The role of research or the Department of Medical Research is crucial if we are aiming to reach a high level of performance in all our technical programs to serve the population and to improve the clinical acumen and treatment of patients. We need to have built-in small **“implementation research”** activities in our technical programs. Implementation research can quickly yield information on administrative, management, logistics, and technical aspects of the program. The findings will be considered together with the information emanating from our monitoring and evaluation system at the Ministry of Health to streamline and improve program activities. We should also not be afraid of reducing or sunseting some of the program activities or even ceasing the programs altogether if they are not required anymore or redundant. We will do it accordingly.

The collaborative activities that can be carried out by the Department of Medical Research with other departments under the Ministry of Health will be imparted when I specifically meet with the officials of respective departments next week. The Department of Medical Research is doing very well. But in this so-called **“time for change”** and **“process of change”**, we have to think **“outside-the-box”**.

I would like to have no unnecessary red tape because of the fact that research is a highly specialized technical area like the clinical domain and teaching domain. Research scientists have many innovative and bold ideas, but their ideas cannot be materialized if there is red tape hindering their work. We will do our level best so that these red tapes are no more.

The status of development of the research domain is equivalent to the status of development of the country. In collaboration with professors of the clinical domain, the Department of Medical Research should give a helping and supporting hand in inculcating a research culture in universities of medicine and other universities under the Ministry of Health. There are many faculty members who are interested in conducting research, including clinical research. We will further strengthen clinical research units in specialist hospitals as well as state and regional hospitals. The research department will also lend a helping hand for many activities of the sports and physical education department.

I have many points of interest to relay to research scientists as I have been involved in research as Chair of the Ethics Review Committee, Department of Medical Research since November 2011 and also as Regional Advisor for Medical Research for almost 6 years in WHO SEARO from 1994 to 2000. The Department of Medical Research Ethics Review Committee has already reviewed and approved a total of 310+ research proposals since November 2011. Some of these proposals were submitted by renowned universities in the USA, Australia, UK, New Zealand, and Korea; international NGOs; Master's and PhD students studying all over the world; and our local researchers. The research topics covered the whole spectrum of the field of health.

In this context, we will promote the strengthening of Ethics Review Committees (ERC) or Institutional Review Boards (IRB) in universities under the Ministry of Health and also capacity-building activities for their committee members. Strengthening the work of the Ethics Review Committee or the Institutional Review Board is one way of improving the quality of research. In fact, the quality of research reflects the developmental status of the country.

We will, therefore, strategize to improve the quality of our research so that our papers are accepted by peer-reviewed international journals. The national budget allocated to the Department of Medical Research will be increased substantially. I am expecting that the Department of Medical Research can one day become an independent entity above the departmental level. We will discuss in detail promoting the research domain in our country when I meet the officials of the Department of Medical Research very soon.

The central role of the Department of Health Professional Resource Development and Management must not be underestimated. The department needs to work very closely with the Myanmar Medical Association and its affiliated societies for capacity-building activities of professionals of different disciplines. The first and foremost activity of this department is that we are going to do an in-depth review and analysis of the HRH situation, both public and private sector, in the country.

Here, I would like to specifically point out as a matter of urgency that we need to further strengthen our university of community health and the university of public health, especially for updating the curriculum, methods of teaching, teaching-learning support system, library system, selection of relevant visiting lecturers, enabling environment for the students as well as for visiting professors, honorary professors, etc. As soon as possible, a brainstorming session will be organized between the appointed visiting professors, honorary professors, and faculty members with the objective of getting more focused and innovative ideas, leading to the production of ethically minded, committed, and technically savvy graduates who can effectively serve the country.

Similarly, sessions for respective clinical disciplines including nursing, midwifery, and medical technology will be conducted in light of the recommendations coming out of the recently conducted 10th Medical Education Seminar. The recommendations coming out will be the final strategy in our roadmap to improve the medical education system in the country. These graduates are the backbone of our overall health care delivery system. Only then will we be able to effectively improve both the domain of public health and the clinical domain, which is our immediate aim.

I have pledged that our medical education system must come up again to the standard of teaching during my faculty member days at the Institute of Medicine (1), when the Directors-General sitting here were medical students. I have a special interest in promoting this area because I have served as a demonstrator in two departments of the Institute of Medicine (1) in the seventies and eighties.

The Ministry of Health, through the medical education units, will give full support from all angles in implementing the recommendations coming out of these brainstorming sessions. We will also strengthen and provide special attention and support to the medical education units of the department. The role of this unit is very crucial in uplifting the medical education sector and for doing continuous monitoring of the medical education system of the country. Strengthening of the medical education units will be done in a "**phase-by-phase**" and "**step-by-step**" manner.

A special review will be conducted on the curriculum of the final MBBS part 1 Preventive and Social Medicine subject. I want the relevant professors, senior public health professionals, and professors of medicine to lead this activity in a realistic approach. We need tripartite collaboration to successfully do it. Tripartite refers to professionals from public health, professionals from clinical disciplines, and professionals from the medical education units.

In light of the current situation, another top priority activity of this department is to initiate and strengthen the teaching of medical ethics and ethics in general to students of all universities under the Ministry of Health. We will also teach public health ethics at the universities of public health and community health. The faculty members responsible for this subject should be professors and clinical professors. The impact of the teaching of medical ethics can create peer pressure among medical professionals to adhere to the principles of medical ethics.

We will craft a proper and realistic road map to start the process seriously and immediately. The positive impact on our medical community will be enormous in the long run, and the benefit will go to the population of our country. The overarching framework for human resources for health development in our country is the Health Workforce Strategic Plan (2012-2016). We will thoroughly review and prioritize it for implementation in a phase-by-phase and step-by-step manner. This activity will start immediately.

The food and drug administration areas are extremely important for the population, including all of us in this room together with our families. Any laxity in the performance of this department will have serious and untoward short-term and long-term implications for the population of Myanmar. We will also consider increasing the budget allotted to this department to expand its activities so they can perform in a quality manner. I hope that the food and drug administration can one day become an independent entity above the departmental level, and that the public will have great confidence in having adulteration-free, dangerous and toxic chemical-free, and insecticide-free food, portable drinking water, safe cosmetics, quality medicines, and so on.

Similarly, in the future, as alluded to earlier, the Department of Medical Research should be an independent organization or institute where there will be fewer bureaucratic rules. One generic issue that I would like to highlight here is that many activities of the food and drug administration can get useful input and good technical support from the Departments of Public Health, Medical Research, and Medical Services.

We need to develop a realistic framework for outlining those collaborative activities in the areas of sentinel surveillance, quality control, safety alerts, evaluation of medical products and safety issues, post-marketing surveillance, etc. We will expand and strengthen our sentinel surveillance on food and drug issues in the community in collaboration with private organizations or associations and with school health programs.

We will also think of issuing a regular newsletter of this department for advocating and propagating important information to alert the public and also increase the momentum of advocating for the public on several fronts. The activities of this department require a lot of effective collaboration with other ministries.

We have to think of several guiding principles and guidelines to get smooth collaboration. If we stick to these guidelines, we will have fewer problems, and our work will be efficient. As this department is relatively new compared with other departments in the Ministry of Health, we need to refer to the well-established guidelines of the food and drug administration in some developed countries. We need to adapt it to suit our requirements and do not need to copy it wholly. Another way that we are going to enhance the services of the food and drug administration is by way of developing and updating regulatory guidance documents.

We also need to have the latest, dynamic, and computerized drug registration process, including an expedited review process. The department has to deal with outsiders and pharmaceutical companies who naturally have vested interests. We, therefore, have to be extra vigilant in performing our duties by strictly following our internal guidelines and standard operating procedures.

We also need to emphasize the corporate social responsibility of pharmaceutical industries and companies. The specific technical activities related to this department will be discussed and guided in detail, and to give further support to the department, when I meet with the staff of Food and Drug Administration soon.

We will also give the traditional medicine field strong support and upgrade our traditional medicine field. Here, the role of research is very important if we really want to promote the safe use of traditional medicines by the population. I would also like to ask the relevant units of the Department of Medical Research to lend a hand in this endeavor.

We will strengthen the research unit in the Department of Traditional Medicine so that many clinical studies can be carried out to strengthen the domain of traditional medicine. We will give support to, especially, conducting basic research and clinical trials on traditional medicines to strengthen them. Without research, the growth of the traditional medicine field will be retarded.

This department also needs to seriously strengthen further networking with countries where traditional medicines are very much developed and flourishing. Many over-the-counter medicines or health supplements in developed countries are based on traditional medicine ingredients. Here, we need to get advice from our respected traditional medicine Sayargyis (senior traditional medicine teachers). Regular and realistic mechanisms to get valuable advice from them must be further strengthened and established firmly. Proper documentation of many aspects of traditional medicine is crucial if we are going to promote this area.

I am sure that the department has already embarked on this aspect. Here, the role of universities of traditional medicine, associations of traditional medicine practitioners, and traditional medicine hospitals is *sine qua non* in supporting the Department of Traditional Medicine. In the coming days, we will discuss in detail our road map in traditional medicine with concerned officials.

Another issue on which I want your consideration and support is that we should **“try to cut the number of meetings”** to the extent possible. We do not want you to invest too much of your precious time in attending meetings. However, high-level officials may need more meetings at the beginning of this new administrative machinery because we want to set the right direction for our Ministry of Health to pursue further improvements in population health. Most of our time must be devoted to monitoring and assessing perspectives and

improving the performance of activities within programs. At the same time, we will not forget the welfare of our staff, especially the issues related to duty travels of the staff.

After all, we are all members of the same medical family. We have to carefully consider the selection of the right people together with second or third-in-line people to attend meetings such as Scientific Working Groups meetings, Technical Advisory Groups meetings, program managers' meetings, training workshops, symposia, and fora outside the country. We need to promote, as a matter of priority, our upcoming young clinicians and public health professionals to strengthen ***"The Future of the Ministry of Health"***.

We will also have short debriefing sessions for relevant professionals from those who come back (both from public health and clinical domains) after attending international meetings, workshops, training courses, and symposia. We will discuss this matter with senior officials of the Ministry of Health in the coming weeks to strategize it. I will organize these short debriefing sessions for the benefit of all of us and, ultimately, our entire population.

As a former WHO staff member, I would like to say that we need to cleverly manage our WHO country budget as well as other funding support from outside agencies and organizations in the best interest of the Ministry of Health to effectively serve the population. We will have one specific session with concerned professionals to discuss this subject. Your additional inputs will be much appreciated, and I am eagerly waiting for your thoughts, inputs, and contributions in the coming days and weeks. In terms of the government budget, we will carefully and quickly review the current allocation and utilization pattern. We will try our level best to make the most of it to get ***"value for money"***. After all, this is the taxpayer's money.

Rational allocation of the budget using some set of generic criteria and guidelines will be done firmly and unbiased. These guidelines and criteria will be updated to suit contemporary needs and be practiced accordingly. In this context, we will also update our ***"National Health Account."*** Previously, it was developed by the now-defunct Department of Health Planning. We will also get technical support from WHO, as WHO has been advocating this aspect for many years.

Some of the national budget lines will also be used for the welfare of staff, starting from subsidized canteens, housing quarters, and guest houses for staff attending meetings to the availability of gymnasiums in some workplaces, etc. I will discuss these issues with senior officials of the Ministry of Health and with the administrative and budget section of the Ministry of Health later.

I plan to have a very strong consolidated National Center for Disease Control (NCDC) in Myanmar, which will serve as:

- (i) A training institution;
- (ii) Doing some research in collaboration with the Department of Medical Research;
- (iii) Preventing, controlling, and containing disease outbreaks;
- (iv) Working collaboratively with health education units in developing "good" health education pamphlets;

- (v) Hosting its own excellent and informative website of our professionals and lay people;
- (vi) Doing innovative investigative procedures in collaboration with the National Health Laboratory;
- (vii) Establishing and revising guidelines and standard operating procedures for various entities;
- (viii) Serving as a repository of resources and a reference center;
- (ix) Collaborating with like-minded institutions in developed countries and Southeast Asian countries, and with relevant WHO Collaborating Centers;

We should finally aim at becoming the WHO Collaborating Center on certain aspects of disease control;

We will also strengthen public health laboratories at the township level. This initiative will be considered and developed jointly by the Department of Public Health in collaboration with the National Health Laboratory. But it will depend especially on staff availability and budgetary aspects. This is one of the most effective measures to curb the incidence of communicable as well as, to some extent, non-communicable diseases. It could serve as one of the supporting pillars for sentinel surveillance of communicable and non-communicable diseases. The Department of Medical Research and the National Health Laboratory must work very closely for the benefit of the health of our population.

I have heard that there are several administrative and management issues or teething problems emerging due to the new organogram of the Ministry of Health being approved without proper preparatory work, especially at the state and regional levels. As a first step, we will think together to overcome these challenges, problems, and issues. I assume that this is the biggest hurdle that will slow our work, which has been going on for years somewhat smoothly and successfully. We need to solve these as a matter of urgency, applying all the best possible means and approaches. If this is not working, we will think of other options. We will work collectively with sincerity and with good intention for the sake of quick progress in the field of health in our country.

After all, we are members of one family in the field of health. Regarding the activities of the Department of Sports and Physical Education, we will strategize for:

- (i) promoting physical fitness among the general population, particularly among schoolchildren;
- (ii) initiating physical education activities for groups in the community;
- (iii) establishing self-help townships' physical fitness centers and community gymnasiums;

As this is a new department for the Ministry of Health, I will first discuss and review the activities together with the officials of this department, and we will develop a realistic road map as soon as possible.

In fact, I am just touching the tip of some of the important points that we need to be aware of and to start the process of tackling them systematically. These points are not exhaustive. We will develop a doable roadmap for our activities with your sage inputs. We have a full menu to start with. We have to prioritize matters or issues facing all of us and take action accordingly. There are several practical ways in which we can strengthen public health and the clinical domain. We will discuss this separately in the relevant sessions.

I am also distributing some articles written by me from the practical point of view to some concerned officials next week as food for thought for promoting health system performance, public health, research, clinical domains, etc. I hope these articles will serve as useful input for promoting several domains in the medical field. I will meet separately with professionals from different domains, and we will be sharing our views and thoughts candidly before we embark on our long journey to improve population health with full commitment, sincerity, and zest. I would like to ask you to do a quick read of relevant articles in your domain of work before we meet starting next week.

My key take-home messages are:

- (i) We have to change our mindset;
- (ii) Our actions and interventions must reflect actual ground realities, and we will try to expose what is actually happening at the grass-root level and take action to the best of our capability and capacity;
- (iii) We must listen to the voices of the people as well as our front-line health workers;
- (iv) Our approaches or interventions must be pragmatic and people-or population-centered;
- (v) The welfare of our staff is equally as important as technical program implementation, and we will do our utmost;
- (vi) Concerned individuals and collaborative partners will be brought on board to foster a sense of ownership;
- (vii) We will focus on fact-finding rather than fault-finding;
- (viii) We need to practice ethical decision-making;
- (ix) Our actions must be transparent and answerable;
- (x) Rational budget allocation and appropriate utilization must be the rule of the day;
- (xi) Think logically and realistically;
- (xii) Clinicians and public health professionals must work together;
- (xiii) We recognize that our real and key players are health professionals working at the state/regional/township hospitals, health centers, and rural health centers, and that we will recognize them in various ways;
- (xiv) As we strive for universal health coverage, we must make our health system that is firm, robust, dynamic, responsive, and strong;

CONCLUSION

Let us work together as a team to improve population health, and at the same time, we should all be proud to work as Ministry of Health employees! Necessary support and utmost facilitation will be rendered by our senior management team to further clarify the ideas and points I have alluded to in my speech and to make you proud of being a staff member of the Ministry of Health. There should be no hesitation in changing or modifying our working methods in response to changing epidemiological situations in order to improve the overall health status of the population on our way to achieving Universal Health Coverage.

We have many things to do, but we will carefully consider and prioritize and do the work in a "**phase-by-phase**" and "**step-by-step**" manner with technical inputs from all of you. We will expose the facts on the ground and act accordingly. I am confident that we will be successful in achieving our objective of serving the population far and near equally and equitably.

My last stance is that ***“if we work collectively with team spirit, we will never ever fail in our endeavor, and we will be successful in effectively serving the population of our country.”***

“So, let us move ahead in unison.”

Thank you for your kind attention.



Dr. Myint Htwe

Union Minister for Health and Sports
(1 April 2016 – 31 January 2021)

3. AUTHOR'S PROFILE

Dr. Myint Htwe, MBBS, DP & TM, MPH, DrPH, took on the responsibilities of Union Minister for Health and Sports in the Union of Myanmar from 1 April 2016 to 31 January 2021. He earned his medical degree (MBBS) in 1973 and a diploma in preventive and tropical medicine (DP & TM) from the Institute of Medicine 1, Burma in 1979. He also holds a master's degree in public health (MPH) from the Institute of Public Health, the University of the Philippines Systems in 1982; and in 1992 he received a doctorate in public health (DrPH) from the Johns Hopkins University, School of Hygiene and Public Health, Baltimore, MD, U.S.A. He took the health policy-making role in the Government of the Republic of the Union of Myanmar and, prior to becoming the Union Minister, he held a number of key positions, including Chair of the Preventive and Social Medicine Society of the Myanmar Medical Association and Chair of the Ethics Review Committee (Institutional Review Board) of the Department of Medical Research at the Ministry of Health. He is a former member of the Executive Committee of the Myanmar Academy of Medical Sciences. He also served as Vice-Chair of the Myanmar Liver Foundation. He also received the prestigious award from his alma mater, "Distinguished Hopkins Alumnus for 2020".

Dr. Myint Htwe is a public health professional with a long history of service in the health sector. He has spent over 16 years with the WHO, serving in a variety of positions in the South East Asia Regional Office, including Regional Advisor (Research and Policy Cooperation), Regional Adviser (Evidence for Health Policy), Coordinator (Regional Director's office and Liaison with WHO

country offices), Chief of Internal Review and Technical Assessment, and Director of Programme Management, managing and giving guidance on all the technical programs of the WHO Regional Office for South East Asia.

Dr. Myint Htwe joined the WHO Regional Office for South-East Asia in 30 August 1994 and worked until 30 September 2010. He worked in the Ministry of Health from 1976 to 1994 in various capacities, such as faculty member of the Department of Anatomy; the Department of Preventive and Social Medicine, Institute of Medicine I, Rangoon; epidemiologist/malariologist for the Vector-borne Diseases Control Division; Health Systems Research unit in-charge; and Chief of the International Health Division.

While serving in the WHO Regional Office for South-East Asia as Director of Programme Management, he gained extensive experience in international health, including coordinating and providing overall technical guidance to health professionals of the WHO Regional Office for South-East Asia, who worked in a variety of technical areas such as communicable and noncommunicable disease control programs (vector-borne and zoonotic diseases, surveillance programs), family and community health services, expanded immunization programs, emergency and humanitarian assistance, epidemiological and outbreak control services, medical education, hospital management, research promotion, health information, human resources for health, and other areas such as health system strengthening and regional collaboration. ■