

# CROSS CUTTING HEALTH ISSUES

IN COUNTRIES WITH  
LIMITED RESOURCES

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**Dr. Myint Htwe**

“ Public health is an art, in actuality.

The art needs to be developed steadily, appropriately, and firmly.

There is no one-man show in public health. We have to work as a team.

Let us work together to improve the performance of healthcare delivery systems.”

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## **Cross-cutting Health Issues in Countries with Limited Resources**

By Dr. Myint Htwe

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*Let* the population enjoy  
the fruits of the health system.

# ACKNOWLEDGEMENT

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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 April 1, 2016 to January 31, 2021.

This is the fifth in a series of books produced by him. All the articles in the five books complement each other and are interlinked. This fifth book focuses on improving the current and evolving cross-cutting issues in providing healthcare services to the public. The cross-cutting issues discussed in this book are centered on the resource-constrained environments of developing countries like Myanmar.

Nonetheless, the ideas and suggestions put forth can be applied to many other developing countries. These could be particularly helpful for policymakers, epidemiologists, health administrators, and public health professionals managing the healthcare delivery systems in developing countries. All developing countries share a lot of common health problems, similar cross-cutting issues, and comparable evolving challenges. In light of this, MBDS is excited to release this important work for the field of public health.

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 and use the experiences that have been documented and the actions that have been suggested in this book. This applies not only to Myanmar but also to other LMICs.

Health administrators and health-related decision-makers may pay special attention to discussion articles related to community participation, patient satisfaction, beyond-the-box thinking, the clinical acumen of doctors, diabetes and cardiovascular diseases, public health associations, public health surveillance systems, occupational hazards of health workers, IDP camps, prison healthcare, and national health policy, which appear to be key challenges for all of us.

**Dr. Moe Ko Oo**

Secretariat

Mekong Basin Disease Surveillance (MBDS)

7 April 2023

# PREFACE

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**T**his is the fifth in a series of books on practical issues in public health and healthcare delivery systems in developing countries. The issues or articles in this book were written from the perspective of real-world situations commonly encountered in countries with limited resources.

The twenty-one cross-cutting issues covered in this book are cross-sectional in nature and are mainly related to the operations of the health ministry's healthcare delivery systems. These issues are not only connected to one another, but they are also intricately tied to several elements and processes that make up the healthcare delivery systems. In other words, solving or fixing one issue may have a favorable impact on a number of other related issues. As a result, solving or improving an issue is incredibly cost-effective.

The twenty-two key predictors that can support the good performance of the healthcare delivery systems mentioned in article 14 of this book are connected to these cross-cutting issues. Senior responsible officials of the health ministry should see whether the twenty-two key predictors are put in place and functioning well or not. Weaknesses or deficiencies detected in each key predictor should be strengthened or improved as soon as possible. This would guarantee swift response times and efficient operations of healthcare delivery systems. A potpourri of cross-cutting issues is included. It was written from a practical standpoint in the context of what is actually happening in countries with limited resources.

Aspiring public health professionals, health administrators, directors of health programs, BSPH, MSPH, MPH, and DrPH students are strongly encouraged to read each article and engage in group discussions in order to extend potential courses of action in line with the specific scenarios of individual countries. Therefore, rather than reading an article and getting a response from one person, it is advised to debate each article with a group of professionals or a group of postgraduate public health students. It is suggested that the articles be used as background discussion papers for MPH, MSPH, and DrPH postgraduate degree courses in schools of public health.

The major objective of writing these articles, as mentioned in my previous books, is to pique the interest of health professionals, directors of health programs, and health administrators working in the field of public health, including hospital management. Furthermore, it specifically aims to enhance public health professionals' critical, analytical, beyond-the-box, and epidemiological thinking abilities. If a public health practitioner wants to advance to the level of a full-fledged public health professional, they must possess these abilities.

Beyond-the-box thinking is a skill that all health professionals should nurture because the epidemiological circumstances surrounding many health issues are ever-changing. They are undergoing constant changes, either in a positive or negative direction. According to the evolving circumstances, we must adjust our plans and interventions. The health ministry has no control over some of the elements that contribute to it. It is, therefore, necessary to work closely with the pertinent ministries, organizations, associations, councils, agencies, and bilateral and multilateral entities. Throughout the discussion in this book, the value of working as a team in the field of public health becomes increasingly relevant and obvious.

Good population health is always the result of the interaction of a number of diverse elements, which must constantly be acknowledged. The improvement in efficiency of the healthcare delivery system, however, cannot be attributed to a single person. To accomplish our shared goals, we must all work together in harmony. Aspiring public health professionals will become tomorrow's leaders in the field. Experienced public health professionals and veteran epidemiologists should spare no effort in sharing their knowledge and experience with up-and-coming public health practitioners.

Public health is an art, in actuality. The art needs to be developed steadily, appropriately, and firmly. There is no one-man show in public health. We have to work as a team. Ten fundamental traits that every health practitioner should cultivate along the way are analytical prowess, rational thought processes, adherence to ethical principles, team-spiritedness, futuristic thinking aptitude, exhibiting holistic viewpoints, a spirit of introspection, a sense of mutual respect, good inference-making skills, and balanced decision-making talents.

As a former staff member of the World Health Organization, it gives me great pleasure to introduce this fifth book in honor of the organization's 75th birthday. My final take-home message is to **“let the population enjoy the fruits of the health system fully and equitably.”** If all the parties involved in public health work together adhering to the principles of mutual respect, mutual understanding, the spirit of compromise, medical ethics, and public health ethics, there is no way that we cannot achieve the shared goal of enhancing the health status of the population. Let us work together to improve the performance of healthcare delivery systems.

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# HOW TO GET THE MOST OUT OF READING THIS BOOK

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**T**he part I of this book elaborates on twenty-one priority cross-cutting health issues encountered in countries with limited resources. Each cross-cutting issue or article is linked or related to previous articles, that are mentioned as further reading at the end of each issue or article. A more in-depth understanding of issues can be achieved if we further make reference to previous articles cited.

It is a reality that the most cost-effective way to enhance the general state of the population's health is to promote public health. Collaboration and coordination amongst the stakeholders are essential to promoting public health. Even if it is a difficult endeavor, it is not insurmountable. In light of this, the articles are essentially written for aspiring professionals who are passionate about public health and who may wish to further their knowledge horizons after reading them.

The articles cover a wide range of topics in the field of public health, from fundamental public health issues, hospital management aspects, and challenges encountered in carrying out healthcare delivery system's operations to the promotion of research in countries with limited resources. There are also a few articles under the heading "Beyond-the-Box Thinking" that are thought provoking. These articles were written from a practical standpoint based on the ground realities of countries with limited resources. The most effective way to improve analytical, critical, and epidemiological thinking skills is to examine the discussion points raised in the articles in more detail. The more in-depth the discussion among the readers, the better the impact it may have on them. We need to encourage a culture of face-to-face discussion on issues related to public health while maintaining a constructive mindset.

The part II of this book maps all the 102 articles (plus an inauguration speech on assuming the position of the Union Minister for Health and Sports in Myanmar) on public health and healthcare delivery systems written by the author. The intention of listing and grouping these articles in one place under twelve headings is for quick reference for the readers. It is grouped into twelve different headings: (i) Public Health; (ii) Population Health; (iii) Hospital Systems; (iv) Health Systems; (v) Health Programs; (vi) Communicable and Noncommunicable Diseases; (vii) Collaboration; (viii) Health Information; (ix) Human Resources for Health; (x) Methodology; (xi) Beyond-the-Box Thinking; and (xii) Research. ***(The links of the first four books are mentioned in page 112 and 113 of this book.)***



## DISCLAIMER

The views expressed in this book are those of Dr. Myint Htwe and do not necessarily reflect the views, opinions, or policies of Myanmar's Ministry of Health and Sports, the World Health Organization, or various organizations, associations, and committees with which the author has been associated for many years. The author alone is responsible for the ideas and opinions expressed. The articles or contents of the book can be freely reviewed, abstracted, reproduced, or translated in part or in whole, but not for sale or use in conjunction with commercial purposes. In no event shall the author be liable for inconveniences or damages arising from the use of facts and information contained in the book and web page.

## APPRECIATION

I want to express my appreciation to the editor, Dr. Soe Kyaw, of MEDIART, an 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 solid foundation from a variety of perspectives, particularly moral and ethical perspectives.

I would personally appreciate and thank the professionals and staff of all fields and disciplines working in fourteen 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, sixteen medical and paramedical universities, fifty-two 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 April 1, 2016 to January 31, 2021. I gained unique experiences while interacting and working with them for nearly five solid years. I also learned many valuable lessons from them, for which I will always be grateful.

I would also like to convey a special thanks to my wife, Dr. Nang Kham Mai, retired Training Team Leader for the Department of Health, Rangoon Division, Burma, for her unflinching support throughout the writing of this book.

# PART: A

## ARTICLES

# 1.

## PROMOTING COMMUNITY PARTICIPATION

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

All disease surveillance and public health initiatives must involve the community in order to be responsive, functional, practical, effective, and successful. Hence, the disease surveillance and public health initiatives of the health ministry must encourage a notion of community ownership. Active community participation could significantly enhance early detection of outbreaks of both infectious and mass occurrences of noncommunicable diseases, as well as man-made calamities. ***Involving the community in health initiatives can have a number of advantages.*** When executing their jobs, health professionals should always keep this idea in the back of their minds.

The level of community participation directly affects how much the health of the community improves. The key to improving community participation is that there should be a ***“National Strategy on Improving Community Participation and Community Health”*** embedded in the national health policy and strategies. A group of stakeholders should develop precise, practical, cost-effective, and cost-evaluated strategic interventions for the improvement of community participation and community health while working under the general strategic directions of senior officials of the health ministry.



***The community's sense of ownership over the health ministry's public health initiatives is what drives community participation.***



## 1. Promoting community participation

Stakeholders should work together as a team with a distinct and well-defined division of labor to encourage community participation. A simple checklist-type monitoring system for the overall performance of the work on community health should be put in place, and mechanisms should also be worked out as to how to take action on the findings of the monitoring system. Evaluation of the work should be done every three years or so, depending on the availability of resources. The findings will definitely pinpoint areas for further improvement by intensifying community participation.

The participation of the community would not happen on its own. Several elements, among others, can strengthen the process of community participation. Here are some of the elements:

1. People who live in a particular geographic area should be adequately ***informed about the common diseases*** that are prevalent there in terms of modes of transmission, early signs and symptoms, preventive measures, etc. They should also be informed of concrete steps or general measures they could take to help improve their community's health;
2. The existence of a well-managed ***network of community-based organizations***;
3. Availability of a ***practical and unambiguous line of communication*** among community-based organizations;
4. The existence of a ***platform or channel of communication*** between representatives of community-based organizations and the local health officials who are in charge of that region or province;
5. To increase people's level of health awareness, opportunities for ***regular health talks*** by responsible health staff in the community should be made available. This might increase local residents' interest in and involvement with health-related matters. General practitioners in the area who are well-liked by the local populace should, if possible, present health talks;
6. The ***responsiveness of the health team*** to health problems or challenges that the community may be experiencing should be prompt and efficient;
7. Community-based basic healthcare providers at the community level should be ***knowledgeable about health issues***, understandable to people, practice amicable dealings, and be ethical;
8. The existence of a ***community-wide sentinel disease surveillance system*** that is well managed;
9. Presence of a ***network of local NGOs*** working in the field of health;
10. Strong ***collaboration***, at different levels of the healthcare delivery system, among concerned departments of the health ministry, the veterinary department, the water and sanitation department, the municipal corporation, and community-based organizations for early detection of communicable and zoonotic diseases;
11. The ***people's knowledge*** on health matters is crucial for them to participate proactively, and a strategy to promote the ***health literacy level of the population*** should be fielded simultaneously;

## 1. Promoting community participation

12. The **community's young people** need to be well-informed on the risks associated with consuming salty meals, excessively sweetened foods and beverages, excessive alcohol use, chewing betel nuts and smoking cigarettes, etc. They will become interested in health issues as a result. These might result in a greater number of health-conscious individuals;
13. A mass sports campaign with the slogan **"Exercise is Medicine"** can also help increase community participation in health activities;
14. Biennial conduct of a **national seminar** on promoting community participation and community health;
15. The existence of a **user-friendly website** for the health ministry would be an advantage for community-based organizations and the population to get involved in disease surveillance and other public health initiatives;

The aforementioned initiatives must be properly taken into account in order to increase community involvement in disease surveillance and other public health initiatives. Also, the community ought to be informed about the causes of zoonotic diseases, seasonal viral diseases, vector-borne diseases, water-associated diseases, vaccine-preventable diseases, and how to prevent and stop their spread in layman's terms.

Many communicable and zoonotic diseases have their origins in wet markets. The sanitation of these wet markets should always be under the scrutiny of community-based organizations. **Participation by the community in promoting environmental cleanliness can act as a powerful stimulus for further accelerating community participation in enhancing community health.** The main takeaway message is that we need to plan to get people to care about local health problems. Following that, community involvement will automatically rise.

Implementation of **"National Strategies for Raising the Health Literacy Level of the Population"** has had a strong positive impact on community participation and improving community health. This is the most cost-effective strategy for involving the community in health matters. It should be implemented as effectively and efficiently as possible. The health ministry needs to take this notion seriously.

[For instance, as part of health literacy promotion in the population, the Ministry of Health and Sports in Myanmar distributed (free of charge) approximately 30,000 eight-inch, internet-connected tablets to basic healthcare providers and other medical professionals. Each tablet also contains a 332-page **"Standardized Health Messages- version 01"** book prepared by the staff of all seven departments and health institutions of the Ministry of Health and Sports, Myanmar. It contains health topics such as (i) newborn and child health; (ii) immunization; (iii) Nutrition; (iv) school health; (v) adolescent health; (vi) maternal and reproductive health; (vii) twenty-two communicable diseases; (viii) eighteen noncommunicable diseases; (ix) healthy lifestyles; (x) elderly health; (xi) disasters; (xii) traditional medicine; (xiii)

## 1. Promoting community participation

sports and physical education; (xiv) food and drug; and (xv) eight other general health issues. The tablets also include updated directives of the health ministry, websites of health institutions and seven departments of the Ministry of Health and Sports, SOPs, and guidelines for various entities issued by the health ministry. Numerous important topics that healthcare providers on the ground level need to be aware of are constantly being uploaded to the tablets. In actuality, the tablet serves as a kind of ready-made reference book for local healthcare providers. They can refer to a wide range of common health problems. For healthcare providers working in remote areas, the tablets are quite helpful. The knowledge and abilities of healthcare providers will also greatly improve. They will then employ a variety of techniques to disseminate health knowledge to the public.]

The management and operation of the slaughterhouse or abattoir, the establishment of hygienic wet markets, and other routine environmental cleanliness initiatives in the community should all be actively participated by the residents. Community-based organizations should notify local health authorities as soon as possible about the appearance of novel diseases' distinctive signs and symptoms, as well as any unexpected human behavior that can cause health problems. ***In this context, a platform or realistic communication channel between community-based organizations and local health authorities is essential.***

A nationwide conference for exchanging knowledge about the activities of community-based organizations would be useful. The conference will focus on community-based organizations' proactive engagement in health issues in their local communities. A ***“National or Regional Strategy for Involving Community-Based Organizations in Health Issues”*** can be formulated based on the conference's discussion points. It is also possible to create pertinent standard operating procedures and recommendations for enhancing community participation.

Many disease outbreaks can be averted or mitigated by taking appropriate precautions in advance based on the available information if the aforementioned elements are available and put into practice by the health workers as well as by the community. Communities should have a sense of ownership over the health initiatives or programs being implemented in their community, as was previously said. ***In other words, we need to finally create a health-conscious community.***

## Conclusion

Whatever the circumstance, a sense of community ownership over the health initiatives or programs is the key factor in boosting the momentum of community participation in disease surveillance and public health initiatives. This should be the ultimate goal of our disease surveillance and public health initiatives. ***The overall takeaway message is that all public health programs, including disease surveillance and control programs, will have a positive impact on the community once the community becomes part and parcel of the program.***

## 1. Promoting community participation

Therefore, we must address at least the fifteen items mentioned above if we wish to encourage active community participation.

***Another crucial idea is that healthcare personnel should always think about themselves from the viewpoint of the community or patient who will be receiving their services.*** It can expose many deficiencies in the healthcare services that we have provided to communities for many years. ***In essence, the community should be part and parcel of the healthcare team.*** In order to engage the community in our effort to enhance community health, networks of community-based organizations play a critical role. The health ministry is responsible for coordinating the efforts of community-based organizations and providing them with as much technical assistance as is required.

**NB.** *The scenario described above can be used to fully involve the local population in any health effort, project, or program for the community.*

### FURTHER READING

- ***"Viewpoint: Disease Surveillance System,"*** article 18 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Enhancing the Effectiveness of Disease Surveillance Systems,"*** article 26 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***"Health literacy Promotion: A Far-sighted Strategy,"*** article 2 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Role of Population vis-à-vis Health Status of the Country,"*** article 10 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Improving the Health Status of the Population,"*** article 22 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

# 2.

## IMPROVING PATIENT SATISFACTION IN HOSPITALS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

Patient satisfaction is such a huge area that it is impossible to achieve 100 percent patient satisfaction in hospitals. It is also technically unfeasible to do so. We should work to address those prioritized areas where patient dissatisfaction has the potential to harm the patient's health and welfare. Nonetheless, we should make every effort to achieve the highest level of patient satisfaction possible, taking into account the various types of resources (human and financial) available in the country's hospitals. ***Some of the elements and factors influencing patient satisfaction are related to patient safety issues.*** But, from the standpoint of the medical community, patient safety is also crucial.

The reasons why patients are unsatisfied can differ from hospital to hospital and from time to time. As a result, we must first address the underlying causes of patient dissatisfaction or satisfaction in various kinds of hospitals located in different geographical areas before implementing the actions outlined in the ***"National Strategy and Activities to Improve Patient Satisfaction"*** step-by-step and phase-by-phase. This national strategy must be made widely available in



***There is a symbiotic relationship between patient satisfaction and patient safety in hospitals.***





## 2. Improving Patient Satisfaction in Hospitals

all the hospitals in the country. This strategy is not commonly available in many developing countries.

Several elements contribute to patient satisfaction with the care they receive. To the greatest extent possible, we ought to maintain, strengthen, and improve these elements. The underlying enabling elements for patient satisfaction are typically:

1. **Good clinical acumen\*, decent interpersonal communication skills, and ethical performance** of the medical doctors; (please refer to “Enhancing the clinical acumen of doctors,” article 6 of this book)
2. Good **nursing care\*, decent interpersonal communication skills, and ethical performance** of the nurses;
3. **Good professional acumen\*, decent interpersonal communication skills, and ethical performance** of the paramedical staff;
4. The **responsiveness of the healthcare staff\*** towards the needs of the patients;
5. Proper **briefing sessions for preoperative patients\***;
6. Good communication, management style, and administrative skills of the **hospital administrative staff**;
7. The presence of a **welcoming hospital setting**;
8. Efficient **electronic hospital information systems**;
9. Efficient **health supply chain management systems** for hospitals;
10. Properly managed **medical store depot** in the hospital;
11. Efficient **hospital laboratory system\***;
12. Properly staffed **intensive care unit\***;
13. Properly managed small **blood bank\***;
14. Properly managed **hospital mortuary system**;
15. Level of **health knowledge\*** possessed by patients;
16. Availability of updated **standard operating procedures and guidelines\*** on clinical, administrative, logistical, and management aspects of the hospital;
17. Regular **fumigation\*** of operating rooms and sterilization\* of hospital wards;
18. Correctly done **sterilizing processes\*** for medical devices and other items;
19. A good and **enabling environment** for patients inside and outside the hospital;
20. The presence of **directional signs** and the proper location of various wards and rooms in the hospital;
21. A good **waste disposal system** (general, biological, radiological, laboratory, and sewage) in the hospital;
22. Availability of a good **laundry system, sanitary toilets, and bath facilities** for patients and hospital staff;
23. Availability of competent **medico-social welfare personnel**;
24. Availability of the **“Hippocratic Oath\*”** banner posted in strategic locations in the hospital;
25. Existence of a well-functioning **hospital management committee**;
26. **Friendly interactions** between hospital staff and patients;
27. Availability and accessibility of a **reliable patient referral system**;
28. Properly managed **intra-hospital ward transfer and inter-hospital transfer** of patients;

## 2. Improving Patient Satisfaction in Hospitals

29. A well-organized system for **patient discharge**;
30. Availability of an efficient **ambulance system\*** at the hospital;
31. Existence of a **subsidized hospital canteen and medicine shop** located inside the hospital compound;
32. Quick availability of **hospital engineers** (civil, mechanical, electrical, and electronics) and electricians for minor repairs of the hospital;

The above-mentioned elements are not listed in order of importance. We need to implement corrective measures in accordance with the unique problems at each hospital. Apart from the above facilitating elements, the following factors are associated with patient satisfaction or dissatisfaction:

1. Factors related to the **characteristics of patients**, such as educational level, past experiences with hospitalization, and socioeconomic status;
2. Long **waiting time** in the waiting room; long waiting time for laboratory investigations, radiological procedures, and other diagnostic procedures; long waiting time for laboratory and radiological results;
3. Overcrowded **hospital beds** or very high bed occupancy rates;
4. An efficient **patient appointment scheduling system** is not available;
5. Nonavailability of **information notice boards\*** for patients as well as responsibility of patients;
6. The **medicine dispensing system\*** for discharged patients is not systematically practiced;
7. Proper **briefing rooms\*** for discharged patients, together with the distribution of relevant health pamphlets, are not available;
8. The **strategic location** of the emergency room, patient wards, nursing stations, doctors' rooms, laboratory investigation rooms, radiological investigation rooms, physiotherapy rooms, etc. is not there;
9. No proper **lighting system**, no backup **water supply system**, and the nonavailability of a powerful automatic **electric generator**;
10. Insufficient number of **janitors**;

Several of the aforementioned elements and factors may seem commonplace, yet they can have a big impact on how satisfied patients are. We must enhance and favorably improve these elements and factors. The medical superintendent or hospital director has primary responsibility for making a hospital patient-friendly. **Achieving patient-friendly hospitals should be the main task of the medical superintendent or hospital director.**

Our ultimate aim is to have safe and patient-friendly hospitals. The aforementioned elements are brought up in the context of a country that is developing when resources are limited. The degree of patient satisfaction can be increased if we have more resources, such as a first-rate physical setting, cutting-edge diagnostic and treatment equipment, and qualified hospital staff.

***There should be a forum where hospital administrators, medical directors, or medical superintendents can routinely discuss matters related to***

## 2. Improving Patient Satisfaction in Hospitals

**patient satisfaction.** This information exchange is necessary to improve hospital patient satisfaction ratings. When attempting to enhance patient satisfaction, it is important to keep in mind the thirty-two elements and the above-mentioned ten factors. It is significant to note that there are several ramifications of the thirty-two elements that demand our attention. ***The hospital management committee is crucial to the development of hospitals that are friendly to patients.***

Hospital staff must be able to properly communicate treatment information, relevant information regarding the patient's medications, and discharge information in order to ensure patient satisfaction. The hospital staff are so overburdened that this cannot be done fully and effectively. However, when patients are discharged from the hospital, they should be given explicit information about the disease's potential long-term effects, the side effects of medications they should continue to take, specific disease prevention methods, dos and don'ts, etc.

We can develop a checklist of questions based on the thirty-two elements and the additional eleven factors mentioned above to do a rough assessment of the status and performance of hospitals. The thirty-two elements have many offshoot issues that need to be incorporated into the checklist of questions. Based on the findings, we can improve the patient satisfaction indices in a step-by-step manner. ***We need to review the recommendations from the hospital management committee meetings.*** We can then prioritize the action points and take care of them accordingly. To raise the standard of patient care provided in large hospitals, three-monthly discussions on a variety of hospital issues (technical, administrative, management, and logistical) should be held.

### Conclusion

It should be highlighted that a patient's perception of whether or not their expectations for medical contact are satisfied is a subjective issue. Also, it will depend on the patient's prior experiences with the healthcare delivery system and the degree of health information they currently possess. ***One patient may find an occurrence/incident satisfying, but another patient may find it unsatisfactory.*** Achieving patient safety can be viewed from the standpoint of a health practitioner as achieving patient satisfaction and happiness.

We need to have a good system for referring patients and a follow-up system for discharged patients in order to further increase patient satisfaction. ***The responsiveness of hospital staff towards patients' demands is also vital.*** The patient's educational background also plays an important role in achieving patient satisfaction. ***Patient satisfaction is a continuous process that will never end.*** Be that as it may, we, as health professionals, should try our level best so that patients are satisfied when receiving healthcare at our health institutions. Patient satisfaction indices and indicators can also be used to measure the quality of health care given in hospitals.

## 2. Improving Patient Satisfaction in Hospitals

The WHO and UNICEF launched the **"Baby-Friendly Hospital Initiative"** (BFHI) in 1991 to encourage breastfeeding, and we might consider doing the same with the **"Patient-Friendly Hospital Initiative"** (PFHI). However, patient safety should be our ultimate goal as we pursue patient satisfaction initiatives. Patient satisfaction and patient safety are mutually reinforcing and complementary. The reasons for patient dissatisfaction are precursors to the non-achievement of patient safety.

**NB:** *Public hospitals in developing nations are the focus of this article. The asterisks denote issues with patient safety.*

### FURTHER READING

- **"Stopgap Measures to Ease the Challenges of the Hospital System,"** article 24 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **"Challenges in Managing a Hospital,"** article 13 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **"Reducing the Number of Patients in Hospitals,"** article 13 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **"Minimizing the Challenges Observed in the Hospital Domain,"** article 17 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 3.

## ENHANCING THE PERFORMANCE OF THE NCD DIRECTOR

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**he director of noncommunicable disease (NCD) prevention and control has considerably different responsibilities than the director of communicable disease prevention and control from several perspectives. ***The importance of collaborative networks in NCD prevention and control is enormous.*** The networks' coordinated efforts are crucial for lowering NCD incidence and prevalence. In addition to spreading more slowly than epidemics of communicable diseases, epidemics of non-communicable diseases frequently include a sizable number of unreported or hidden cases.

It is epidemiologically significant from a control standpoint because NCD epidemics may last for a long time and because many coordinated efforts are needed to unearth hidden cases and stop the momentum of the spread or trajectory of NCD epidemics in the country. ***The duties of the director of NCD prevention and control are extremely varied.*** Thus, they should be of the highest caliber and exhibit flexible public health professional qualities.



***Apart from technical and management savviness, the degree of spirit of collaboration exhibited by the NCD director largely determines the success of the program.***



### 3. Enhancing the Performance of the NCD Director

In many countries, NCDs contribute significantly to both overall morbidity and mortality and premature mortality. The NCDs have a negative impact on the population's quality-adjusted life years (QALYs). **Therefore, a highly qualified, experienced, and knowledgeable individual must be in charge of the nation's NCD prevention and control program.** Since there are numerous stakeholders involved in NCDs prevention and control, the individual in charge should be very good at coordinating and working as a team.

Then, how can we increase the effectiveness of the work of the director of NCD prevention and control? Prior to taking any action, the director in charge of NCD prevention and control must assess the extent and gravity of the existing challenges and problems of NCDs in light of several epidemiological parameters. **It is important to identify the precise epidemiological circumstances, both obvious and less obvious, as quickly as feasible.** Additionally, it is crucial to examine the trends in a number of indicators associated with NCDs.

While it would be costly to undertake large-scale surveys to ascertain the situation, it makes sense to perform secondary data review and analysis, key informant interviews, and focus group discussions with a variety of experts from different disciplines and representatives of community-based organizations.

**Another significant concern is that the director of NCD prevention and control has a duty to improve population QALYs.** In actuality, QALY is the cumulative effect of many factors related to noncompliance with health promotion activities, unhealthy lifestyles, and the early occurrence of NCDs when the population is young. The director of NCD prevention and control should take note of the aforementioned essential facts as well as the following important issues, and take appropriate action.

#### Collaboration among the players

The director of NCD prevention and control should be completely aware of how many groups are working to reduce the incidence and prevalence of NCDs in the country. One of the players is the health ministry. All organizations working to reduce the incidence and prevalence of NCDs should be able to function in unison with the help of the director of NCD prevention and control. They should cooperate, but they should also work more synchronously and in unison. **Synchronized coordination is more significant in terms of benefits than straightforward collaboration.** We should all strive for it, even though it is easier said than done.

The population itself is one of the key players. The participation of the populace is essential to lowering the incidence and prevalence of NCDs. Every single player is equally significant. Therefore, the director of NCD prevention and control must immediately review the existing **“National Strategies for Noncommunicable Disease Prevention and Control”** to ensure that they are consistent with the existing scenarios. The strategies should be realistic and cost-effective. It is to be

### 3. Enhancing the Performance of the NCD Director

noted that strategies are not static. Depending on the changing epidemiological situation, modification, reinforcement, or adjustment of the existing strategies, together with interventions, is necessary.

***NCDs are complex in their occurrence. Prevention and control should be multidisciplinary and multisectoral as well.*** Therefore, the director of NCD prevention and control should set up a number of working groups so that the health ministry and the entities listed below may communicate and collaborate closely. Any partnership with these departments, associations, institutions, and organizations must adhere to a set of established standards and a precise, workable framework.

1. Ministry of Education;
2. Ministry of Information, including radio and television stations;
3. Food and Drug Administration Agency;
4. Department of Customs;
5. Department of Internal Revenue;
6. Border Control Authorities;
7. Restaurant and Hotel Associations;
8. Department of Trade and Commerce;
9. Consumer Unions and the Department of Consumer Affairs;
10. Wholesale markets and large supermarkets;
11. Nutrition division, the food safety division, and the health literacy promotion division of the Department of Health;
12. Health program directors of the Ministry of Health;
13. Department of Medical Research and research institutions;
14. Teaching institutions such as the schools of public health, community health, pharmacy, traditional medicine, medical technology, nursing, dental medicine, and medicine;
15. Community-based organizations;
16. Local non-governmental organizations;
17. Local sports and physical associations;
18. Tinned food, general food, and beverage production industries;
19. Local elderly groups;
20. Association of journalists and writers;
21. Medical, nursing, and midwifery associations, etc.;

We must establish a practical road map and effective strategies in order to make sure that the aforementioned entities are operating in a coordinated manner. The most difficult challenge facing the health ministry is preventing and controlling NCDs. The names of the entities correspond to the circumstances in Myanmar. (*Different names may apply to other nations.*)

#### **Strengthening and refining the NCD strategies**

As there are numerous players involved in the prevention and control of NCDs, it is preferable that strategies allow for the proactive participation of



### 3. Enhancing the Performance of the NCD Director

each player. **Therefore, multisectoral, multidisciplinary, multifaceted, and multipronged strategies are needed.** The presence of "**National Strategies for Noncommunicable Disease Prevention and Control**" that are practical, attainable, and feasible affects the effectiveness of the director of NCD prevention and control's job directly or indirectly.

Sound public policies from other ministries are also essential. It could facilitate and make it much easier to carry out the health ministry's NCD prevention and control initiatives. The national NCD strategies must at least mention and address the following issues:

1. In order to promote and practice **healthy lifestyles** and engage in physical exercise at a young age, close collaboration between the ministries of sports, education, and youth affairs, regional organizations, and local groups participating in sports activities is essential. Sports activities should be held at schools, colleges, and universities with the cooperation of the ministry of education and the aforementioned institutions.
2. The ministries of health, education, and information must work closely together to improve **health literacy** in terms of awareness of NCD preventative and control interventions.
3. Effective collaboration with relevant ministries and industry is vital when discussing issues with **tobacco, tobacco products, and alcohol**.
4. School health teams should be reinforced to effectively carry out **school health education initiatives and health examinations** of students. It is advisable to institutionalize early detection of NCDs in schools, colleges, and universities.
5. Addressing the underlying causes of NCDs by lowering **risk factors for NCDs**, particularly (i) habitual consumption of unhealthy diets, (ii) taking excessively sweetened beverages, (iii) consumption of salty foods frequently, (iv) excessive alcohol drinking, (v) habitual cigarette smoking, (vi) regular tobacco leaf chewing, and (vii) physical inactivity. These entities can be improved by reducing or restricting the marketing or importing of unhealthy food, beverages, etc., and by increasing taxation on tobacco products, alcohol, and unhealthy beverages.
6. Workable solutions to deal with **behavioral, social, and environmental factors** leading to NCDs should be incorporated into the strategy.
7. Clearly defined, realistic strategies for **effective stakeholder engagement** in the prevention and control of NCDs are required.
8. If there are strong indications, provisions should be made for **screening** some of the NCDs in certain geographical locations.
9. **Diagnosis and primary care for NCDs** (diabetes and cardiovascular diseases, including hypertension) should be made available at the lowest level of health institutions in rural areas.
10. Updating the **health ministry's websites** with information about NCD prevention, early detection, and risks;
11. Conducting **capacity-building training courses** for staff working in the NCD prevention and control program;



### 3. Enhancing the Performance of the NCD Director

12. Mechanisms for enhancing **data analysis skills** for staff of the NCD prevention and control program;
13. *Modus operandi* for fine-tuning the **information systems for NCDs**;
14. Country-wide systems and mechanisms for **early detection of NCDs**;
15. Expected role of **private practitioners and private hospitals** for prevention and control of NCDs;
16. Practical mechanisms for **proactive collaboration with the twenty-one entities** mentioned above;
17. Strengthening **rehabilitation programs** in hospitals and national rehabilitation facilities for patients with NCDs;
18. Strengthening the **national registry systems** for cancer, diabetes, and other chronic diseases;
19. Establishing a strong system for conducting **implementation research** concerning NCDs;
20. Establishing practical mechanisms for effective collaboration with **external entities**, especially INGOs dealing with NCDs;
21. Establishing mechanisms for effective collaboration between the NCD prevention and control program and other **relevant health programs** in the health ministry;
22. Strengthening and promoting special health programs like **“Preventive Cardiology Program”, “Health Literacy Promotion Program”, “Health Promoting Schools Program”, “Elderly Healthcare Program”, “Cancer Cervix Screening Program”, “Diabetes Screening Program”, “Occupational Hazards Reduction Program”, “Mental Health Promotion Program”, “Community Health Clinics for Early Detection of NCDs”, etc.**

#### Monitoring the situation of NCDs

Monitoring indicators are good predictors for the adjustment of strategies and activities for NCD prevention and control in different population groups and geographical areas. **The director of NCD prevention and control should know the trajectory of incidence and prevalence of NCDs in various population groups and geographical areas of the country.** In collaboration with the pertinent senior authorities of the health ministry, the director must also outline the tasks assigned to the accountable entities under his/her supervision. The proper assignment and reassignment of tasks to various entities engaged in the prevention and control of NCDs can smoothen the work of NCD prevention and control.

#### Enhancing the role of the population

Public participation will considerably increase if the general public has access to reliable information regarding the various aspects of NCDs. In this context, a **“National Strategy for Promoting the Health Literacy Level of the Population”** is necessary. The populace practicing healthy lifestyles is one of the goals of this

### 3. Enhancing the Performance of the NCD Director

strategy. Consequently, it is essential to provide accurate information concerning NCDs. This component is necessary for effectively managing, preventing, and identifying NCDs.

#### Conclusion

Effective NCD prevention and control may have long-term favorable impacts on the population, in contrast to communicable disease prevention and control. ***The prevention and control of NCDs have a high cost-benefit ratio.*** It is also possible to significantly lessen the social and financial burden on the families of NCD patients. Also, it might lead to a rise in seniors' QALYs, which would have a lot of advantageous impacts. Thus, the health ministry should provide the NCD prevention and control program with the highest funding possible.

The concerns and potential courses of action mentioned in this brief article are crucial problems that developing nations must deal with. For more in-depth information, the reader can refer to ***"WHO's Global Action Plan for the Prevention and Control of NCDs (2013–2020),"*** key issues as mentioned in the ***"WHO Package of Essential NCDs"*** (WHO PEN Model), ***"NCD Alliance Strategic Plan (2016–2022),"*** and ***"National Strategic Plan for Prevention and Control of NCDs in Myanmar (2017–2022)."***

#### FURTHER READING

- ***"Being a Versatile Public Health Professional,"*** article 1 of the book titled ***"Health System Challenges: A Developing Country Perspective,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Health Literacy Promotion: A Far-Sighted Strategy,"*** article 2 of the book titled ***"Health System Challenges: A Developing Country Perspective,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Improving the Health Status of the Population,"*** article 22 of the book titled ***"Health System Challenges: A Developing Country Perspective,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Basic Characteristics of a Good Health Program Development,"*** article 16 of the book titled ***"Reflections of a Public Health Professional,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***"Enhancing the Work Efficiency of the Director of Communicable Disease Control,"*** article 27 of the book titled ***"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 4.

## SELECTING A HEALTH PROGRAM DIRECTOR

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

One of the goals of health professionals working for the health ministry is to become the director of a health program. It also has respectable status. For the health ministry in Myanmar, there are more than 40 program directors who oversee a variety of diseases, conditions, and entities connected to the healthcare delivery system. Similar situations are also observed in other developing countries.

Selecting an appropriate and competent program director should be taken very seriously. It is not advisable to give a health professional the permanent position of director of a health program right away. Before the appointment is officially confirmed, a particular trial or probationary term must have passed. The personnel should then be evaluated based on a set of standards. ***Criteria such as technical expertise, administrative skill, management aptitude, and working style with program staff are all possible considerations.***



***The selection of a health program director should be neutral, devoid of bias, and based on the candidate's level of technical expertise, administrative prowess, management ability, and working style.***

#### 4. Selecting a Health Program Director

For the health program activities to be conducted properly, successfully, and effectively, the role of a health program director is crucial. **Technically speaking, it is essential to have broad perspectives on program challenges and the ability to think holistically, futuristically, and epidemiologically.** Good administrative and management skills are also required. Equally crucial are the supportive nature shown towards the staff of the program and the ability to instill a sense of ownership in program activities by the staff. All of these factors have a direct relationship with how effective and efficient the health program is.

At the very least, the health program director should have most of the characteristics listed below. These are listed randomly and not in order of importance.

1. The ability to instill a **sense of ownership** in his or her staff regarding the health program activities they are in charge of;
2. The capability to streamline the health program activities into something compact, integrated, and responsive using **clear-cut indicators and parameters**;
3. **Research-minded** and the ability to incorporate built-in implementation research into the health program itself;
4. As needed, a keen sense for **conducting checklist-type monitoring and evaluation**;
5. Capable of setting up **regular discussion platforms** among the concerned staff;
6. Keen to conduct an **annual evaluation of the health program** involving all categories of staff;
7. Receptive to listening to **the voices of the staff and the populace** through various channels;
8. Possessing **epidemiological reasoning skills**, making rational inferences, and initiating feedback mechanisms from the staff;
9. The ability to create a **conducive work environment** in the program;
10. Eager to provide **social support** to the staff in need;
11. A **fact-finding** approach rather than a **fault-finding** approach;
12. Committed to leading and conducting **capacity-building initiatives**;
13. Recognizing the value of **information systems** and the **reliability and validity of data**;
14. The capacity to **collaborate effectively** with similar health programs;

As alluded to earlier, the ability to foster a sense of ownership among his or her team for the program is one of the indispensable qualities a program director should possess. This is essential for success. Based on the aforementioned fourteen characteristics, the program director should regularly be able to facilitate or take action in the following situations:

1. Produce a program **annual report** that has a chapter on challenges and future directions;
2. Develop a plan (Gantt Chart) for staff **capacity-building initiatives**;
3. Construct checklist-style assessment questions and carry out **program monitoring**;

#### 4. Selecting a Health Program Director

4. Establish **discussion forums** as necessary;
5. Review the **resolutions** adopted at the annually held World Health Assembly and WHO Regional Committee meetings and take the required actions;
6. Strengthen **ties** with relevant ministries, pertinent INGOs, and local NGOs in the country;
7. Conduct **staff assessments** on a regular basis;
8. Review **program strategies** and make necessary adjustments, if required;
9. Update regularly all the **standard operating procedures and guidelines** of the program;
10. Review the **recommendations** made at meetings of the WHO Technical Advisory Groups (WHO TAG), WHO Scientific Working Groups (WHO SWG), and WHO Expert Advisory Panels (WHO EAP), and take into account any information relevant to the respected national health programs;
11. Regular interactions with relevant **WHO Collaborating Centers**;
12. Give close attention to the recommendations made at the **meetings of the WHO's program directors and managers** on diverse topics;
13. Conduct **program evaluation** (internal and external) from time to time;
14. Do a yearly **program budget review** (allocation and utilization);
15. Consistently maintain **excellent communications** with pertinent UN agencies, organizations, INGOs, and organizations with similar goals;
16. Keep an eye out for significant **international gatherings and forums**;
17. Always keep an eye out for **UN General Assembly (UNGA) sessions on health-related topics** like the world drug problem, HIV/AIDS, etc.;
18. Always be on the lookout for **reports of external evaluation missions, consultant reports, etc.**
19. Be ready to work collaboratively with **like-minded program directors or managers**;
20. Maintain consistently **updated program web sites** for the public and the health ministry's staff in particular;
21. Always do a critical and unbiased review of the **findings of implementation research projects** carried out on its program;

#### Conclusion

The program director or manager must assess their own performance and make necessary adjustments. In fact, program directors are the main workhorses of the health ministry. **We need to develop a very good system for selecting the program director.** Effective program directors can significantly advance the health ministry's primary goal. We might even think about creating an effective training program for potential program directors. Other health programs may suffer as a result of a poor program director, either directly or indirectly.

**It is suggested that program directors get together once a year to discuss real-world experiences.** It might also serve as a training ground for newly posted

#### 4. Selecting a Health Program Director

or appointed program directors. It is advised that experienced program directors participate as needed in management and administrative capacity-building programs. The newly appointed program director should carefully consider the points mentioned above. It is highly recommended that the program director read many of the articles found in the author's first four books.

##### FURTHER READING

- ***“Eight Basic Probes Before Initiating a Health Program: Drinking Water and Health,”*** article 17, part A, of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Being a Versatile Public Health Professional,”*** article 1 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Getting the Most Out of WHO Support,”*** part A, article 8 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Harnessing the Contribution of NGOs,”*** article 15 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Ring the Bell for the Ministry of Health,”*** article 20 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Managing a Health Program with a Suboptimal Number of Health Staff,”*** article 29, part 4, of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 5.

## ENCOURAGING BEYOND- THE-BOX-THINKING

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**o improve the efficacy and success of health efforts, health practitioners in developing countries must continually be innovative, futuristic, and forward-thinking. It is not appropriate for us to carry on “business as usual”. We might need to change the conceptual framework in which we think, if necessary. This is crucial because of shifting socio-ecological perspectives, unusual patterns of disease occurrence, rising incidences of zoonotic diseases, frequent outbreaks of emerging and reemerging diseases, increasing demand for health services by the population, and the polarization of unhealthy societal lifestyles. These are the scenarios that call for beyond-the-box thinking: **“the ability to think differently from others”**.

It is high time that we change the way we think. Around the world, there are numerous innovations and new developments taking place in a variety of fields and disciplines, such as:

**“Practicing beyond-the-box thinking is an entrance ticket for the success of a professional entering into the field of health.”**

## 5. Encouraging Beyond-the-Box Thinking

1. Innovative public health initiatives, programs, and approaches;
2. Innovative strategies in the health domain;
3. Application of artificial intelligence for health matters;
4. New vaccines;
5. Genetic basis of disease occurrence;
6. Newer concepts for the treatment of diseases from stem cell research;
7. Findings from basic biological research;
8. Newer techniques for organ transplants;
9. Novel or unexpected diseases;
10. Cutting-edge clinical treatment methods;
11. Robotic surgical techniques;
12. Novel medications;
13. Sophisticated diagnostic tools and methodologies;
14. Novel radio-imaging methods;
15. Novel radiotherapy techniques;
16. Novel chemotherapy drug combinations and approaches;
17. Innovative epidemiological approaches for the prevention and control of communicable and noncommunicable diseases; etc.

Many scientific advancements serve as a veritable informational gold mine for our brain processes, or beyond-the-box thinking. In the future, genetic engineering, organ transplantation, vaccination, and immunological modulation will be used in the treatment of diseases. ***We must plan ahead for how to approach these problems from an ethical standpoint.*** Researchers and healthcare professionals from emerging nations should begin to consider how to keep abreast of the rapidly changing environment in the health domain.

To ensure that we are all aware of these rapidly changing patterns, we need to employ a variety of ***innovative strategies*** to keep ourselves informed of these developments. This knowledge ought to inspire creative problem-solving. We can significantly shorten the time it takes for us to catch up to the healthcare delivery systems of developed countries if we can consistently urge our healthcare personnel to think beyond-the-box. There are several techniques to do beyond-the-box thinking. It will not be discussed in this article.

When thinking creatively beyond the box, we should pay close attention to the discussion points mentioned below. In the sphere of public health, this concept should be used as and when necessary. The following circumstances call for beyond-the-box thinking:

1. Changing ***epidemiological situations*** or conditions that lead to unfavorable outcomes;
2. When a ***new program or initiative*** is about to be launched;
3. Following the ***evaluation of a program or an initiative***;



## 5. Encouraging Beyond-the-Box Thinking

4. When there are **differing viewpoints** on an issue, situation, or condition;
5. When **different recommendations** are compared and analyzed for further action;
6. When discussions are held to finalize the **evaluation framework** for a program or initiative;
7. Before **finalizing the format** of a program's annual report;
8. When **contentious issues** are to be solved collectively;
9. When **national health policies and strategies** are formulated or reformulated;
10. When **national health research policies and strategies** are formulated or reformulated;
11. When **specific strategies** for various domains (clinical disciplines, hospital management, food and drug administration, traditional medicine, human resources for health, health information systems, disease registries, communicable and noncommunicable diseases, general public health, continuing professional development programs, sports and physical education, etc.) are developed;
12. When the **national health plan** is formulated;
13. When contemporary **research topics** are explored and identified;
14. In managing **unforeseen natural calamities and man-made disasters**;
15. When an impending **outbreak** or uncontrollable health condition is identified;
16. When **inter-ministerial projects** are about to be launched;
17. When **new teaching methods** or approaches are considered, such as integrated teaching in medical schools and other schools and capacity building initiatives for faculty members in teaching institutions;
18. When any innovative or **new initiative in the health ministry** is contemplated;
19. When the **organization's infrastructure or organogram** of the health ministry is reviewed for change;

When professionals or experts from other areas participate in group discussions for such sessions, beyond-the-box thinking might result in the formation of more objective and rational concepts or actions. A senior professional with substantial experience should oversee or lead the sessions. **We should not be reluctant to make concessions while using creative thinking to look beyond-the-box.**

The currently practiced strategies and major interventions of the health program may have been ideal when they were first formulated. Due to changes in various epidemiological characteristics, it may not be that appropriate anymore at the current time. It calls for beyond-the-box thinking. **This beyond-the-box thinking approach is very beneficial for health planning.**

## 5. Encouraging Beyond-the-Box Thinking

Beyond-the-box thinking will produce a far more logical and useful final output if the discussants are informed about the topic at hand and are also aware of the issue from a holistic standpoint. ***It is crucial that the participants in the discussion set aside preconceived notions and biased opinions.***

### Conclusion

Overall, beyond-the-box thinking will make the health initiatives dynamic, responsive, adaptive, effective, and successful. For health professionals, it might also offer a number of extra advantages that go beyond health. ***Health professionals should regularly practice beyond-the-box thinking so that it becomes a habit.*** Being knowledgeable about the topic at hand will help us think beyond-the-box most effectively and efficiently. Fundamentally, rational thought processes are what will contribute to the effectiveness, productivity, and efficiency of our work.

A national seminar on ***"Approaches for Beyond-the-Box Thinking"*** will be valuable. It would be wise to include experts from a variety of fields outside of health. After that, smaller seminars should be held at the regional and provisional levels. Through these seminars, participants will be prepared, and their minds will be ingrained with the value of thinking beyond-the-box. ***"Beyond-the-box thinking"*** is to be distinguished from ***"epidemiologic thinking,"*** which was described in ***"Public Health Approaches and Epidemiologic Thinking,"*** article 10 of the book titled ***"Reflections of a Public Health Professional,"*** available at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>

### FURTHER READING

- ***"Thinking Outside the Box in the Context of Developing Countries,"*** article 28 of the book titled ***"Tackling the Challenges of Healthcare Delivery System in Developing Countries,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***"Thought Process of a Seasoned Public Health Professional,"*** page xiv of the book titled ***"Health System Challenges: A Developing Country Perspective,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Principles and Generic Approaches to Tackle the Strategic Challenges,"*** and ***"Initial Steps for Consideration"*** article 1 and 2 of the book titled ***"Tackling the Challenges of Healthcare Delivery System in Developing Countries,"*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

## 5. Encouraging Beyond-the-Box Thinking

- **“*Ring the Bell for the Ministry of Health*,”** article 20 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **“*Managing a Health Program with a Suboptimal Number of Staff*,”** article 29 of the book titled *“Tackling the Challenges of Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **“*What if Scenario “A”*,”** article 16 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **“*What if Scenario “B”*,”** article 17 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

# 6.

## ENHANCING THE CLINICAL ACUMEN OF DOCTORS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**o increase the effectiveness and performance efficiency of the healthcare delivery system, among others, we must fundamentally improve the clinical acumen or clinical judgment of medical doctors and the public health knowledge of professionals working in the system. This process of strengthening ought to be done simultaneously, and oftentimes even jointly.

Clinical acumen is the capacity to make the best decisions or draw the best conclusions possible when it comes to patient-related clinical challenges by making intelligent use of the knowledge that is available. ***A doctor with good clinical acumen can make good clinical judgments.*** In light of this, it is important to expand doctors' knowledge bases, sharpen their analytical skills, and increase their knowledge horizons. The general public will benefit significantly if doctors' clinical judgment gets better.



**Developing clinical acumen is a long-term endeavor and every effort should be exercised to ingrain it.**



## 6. Enhancing the Clinical Acumen of Doctors

The clinical field is large and contains a wide range of specialties. Our discussion will be centered on the field of general medicine. The style of basic thinking and the means of carrying it out are essentially the same for all other clinical disciplines, with the exception of surgery, obstetrics and gynecology, radiological imaging, radiotherapy, and some paramedical disciplines. Some subjects require additional methods to hone their thinking.

***From a long-term perspective, we need to start improving the teaching practices used in medical and allied schools.*** The health ministry should allot sufficient funds for procuring state-of-the-art instructional materials, establishing networks of electronic libraries, instituting an electronic teaching system, and establishing faculty capacity-building programs to further enhance the lectures and sessions given at educational institutions.

The best course of action is to establish a ***"National Task Force for Enhancing the Clinical Acumen of Medical Doctors"*** that will formulate workable strategies and a time-bound framework of activities and implement them phase-by-phase, step-by-step, within the context of the existing clinical picture. This national task group should also look into the teaching approaches used in renowned educational institutions in industrialized countries, particularly the USA and UK.

Sufficient time should be given to develop the framework for action. The activities to be carried out within the framework of action should be closely monitored and adjusted as needed. The use of websites, zoom training sessions, and electronic communications will significantly facilitate it. In other words, it is possible to quickly acquire clinical acumen to a level that is at least acceptable.

Clinical professors, lecturers, and senior doctors from relevant clinical departments, medical associations, medical councils, medical education departments, private hospital associations, general practitioner groups or societies, etc. all play an important role in enhancing doctors' clinical judgment. Furthermore, it is important to understand the difficulties that undergraduate and postgraduate medical students encounter when participating in training sessions, attending didactic lectures, receiving one-on-one instructions, and learning at the bedside, among other things. In this attempt, ***we should not undervalue the ideas given by medical students during their undergraduate and postgraduate studies.***

The relevant medical schools should collaborate and create a thorough plan for ***"Improving the Clinical Acumen and Clinical Judgment of Doctors."*** After roughly a year, the whole implementation of the plan for enhancing doctors' clinical acumen and clinical judgment should be evaluated. The health ministry is ultimately responsible for providing any ongoing assistance required during the full process of improving doctors' clinical acumen and clinical judgment.

## 6. Enhancing the Clinical Acumen of Doctors

The following entities should be taken into account for improvement by utilizing various approaches and methods. The activities listed below will help doctors' clinical judgment and acumen in one way or another. ***It is important to stress that acquiring good clinical acumen and clinical judgment is a lifelong process*** that should continue for as long as one practices medicine. To take care of each of the entities listed below, we must carry out a number of tasks.

1. Revise and improve the ***curricula, instructional materials, teaching methods***, and easy accessibility of teaching aids in medical institutions. This is particularly important because the curriculum needs to stay current at all times. It ought to cover fresh, current topics such as preventing SARS-CoV-2 infections, Ebola virus infections, SARS, MERS, mpox, Nipah virus disease, and Marburg virus disease, among others. The applied pharmacology part should address novel drugs because the pharmaceutical industry is rapidly evolving. The importance accorded to different topics should not be the same.
2. It is preferable to form a ***curriculum monitoring group*** in order to give undergraduate and postgraduate medical students a dynamic and condensed curriculum. The improvement of doctors' clinical judgment is actually more significantly impacted by instructional tactics.
3. In addition, a focus on ***research and medical ethics*** is necessary. A top-notch doctor who disregards medical ethics and does not uphold the principles outlined in the ***Hippocratic Oath*** is not a good doctor. Thus, it is advised that the Hippocratic oath be displayed on some hospital walls to serve as a simple reminder of the code of ethics in medicine.
4. Enhance the teaching capacity and capability of faculty members in medical and allied schools by having regular ***faculty development programs***. All academic staff members at medical institutions should participate in these professional development programs. All faculty members should be aware of the fundamental principles of medical education, the various instructional methods, and the faculty's role in improving doctors' clinical judgment. Consider a ***faculty exchange program*** as one way to help faculty members become more competent.
5. Establish regular ***forums for the exchange of the most recent developments in medicine and the sharing of experience*** from various perspectives in the clinical domain among clinicians and academic members.
6. Encourage formal or informal ***student-faculty engagement sessions*** to resolve any conflict and offer guidance to students on how to improve their academic performance, e.g., the ***mentor-mentee program***.
7. Establish a ***medical education unit*** at every institution of higher learning, and make sure this network of medical education units is firmly linked. This can definitely raise the teaching system for medical students to a higher level.

## 6. Enhancing the Clinical Acumen of Doctors

8. **Every teaching institution should establish an institutional review board (IRB), a research promotion unit (RPU), and an office for research integrity (ORI). Capacity-building exercises for IRB, RPU, and ORI members must be taken into account.** This can directly or indirectly raise the overall thinking skills of clinicians and academic members of institutions of higher learning. The quality of research projects carried out by faculty members of teaching institutions will be high.
9. Establish **student welfare initiatives** through student unions at each institution of higher learning. This may foster a sense of camaraderie among academic staff and medical students.
10. Create a thriving **network of academic institutions** for the national advancement of medical education and, in particular, for the enhancement of doctors' clinical judgment. The improvement of doctors' clinical expertise should be one of the top debate topics at the **National Medical Education Seminars**, which should be held about every two years.
11. Conduct regular **clinicopathological conferences (CPCs) or gatherings** in sizeable hospitals where a variety of clinical specialists are available. An invitation to professionals from other countries may be considered. This activity is really supportive of the clinicians achieving good clinical judgment. The Zoom system may be used by doctors all over the country.
12. Establish **clinical research units (CRU)** at large hospitals to conduct a significant number of clinical trials, drug studies, case studies, long-term follow-up studies on patients, and case-control studies from various clinical perspectives. These units can act as cornerstones for strengthening doctors' clinical judgment.
13. Guarantee that the libraries of medical schools have the most recent editions of **textbooks and journals**. The accessibility of medical journals online should be promoted as one of the top priorities.
14. Create a **board certification program for physicians** in order to have board-certified physicians. This is being done in the USA. It could be duplicated in accordance with the resources available in the relevant country. It is to be noted that a developing country's setting is quite different from that of a developed country like the USA.
15. **CME credit units** for various training programs should be calculated and a standard established. A physician must maintain a minimum number of CME credit units to maintain their license.
16. **Special lectures** on contemporary topics of importance by professors and lecturers should be videotaped and posted on the **webpages** of the health ministry and relevant walls of the institutions, subject to the agreement of the lecturing professors and lecturers. It is important to create standards for video clips and ensure that they follow those standards. The most important things to include are the lecturer's full name and designation, the date of the presentation, and the cited sources. This activity will have multiple benefits for undergraduate and postgraduate students.

## 6. Enhancing the Clinical Acumen of Doctors

17. Each institution's customized **dash board for the clinical domain** should be regularly updated with crucial information for clinicians all over the country.
18. All hospitals should have access to the most recent **standard operating procedures and disease treatment guidelines**. They must be periodically updated, and outdated versions must be removed immediately. Here, it is mandatory to state the date and time when the standard operating procedures and disease treatment guidelines were printed.
19. The importance of the country's main **medical association** cannot be overstated. The association should be requested to collaborate with the concerned clinical departments of the teaching institutions to enhance the clinical acumen and clinical judgment of doctors.

The main objective of improving doctors' clinical judgment cannot be fully achieved without the cooperative support of allied disciplines such as laboratory, radiology, nursing, medical technology, public health, and clinical research. **It can take years for doctors to possess excellent clinical judgment.** It cannot be obtained easily. One way to help doctors develop good clinical judgment is through bedside clinical teaching. Giving bedside clinical teaching a significant amount of time is important.

Once obtained, clinical acumen can be sustained for a very long period of time. The role of educational institutions is crucial, especially when it comes to the teaching of fundamental basic science disciplines like general and surgical anatomy, general and applied physiology, general and applied pathology, general and applied pharmacology, general and applied microbiology, and general and applied virology. A thorough knowledge of these subjects will be very helpful in accurately diagnosing and treating diseases. **One needs clinical aptitude to be a well-qualified doctor, but only if their work is morally correct.** As a result, medical ethics should be thoroughly discussed and taught throughout the academic year.

### Conclusion

Coordination and teamwork among the academic members of medical institutions should be appropriately upheld and preserved. **If the clinical acumen and clinical judgment of doctors are high, the mortality rate of patients can be dramatically reduced.** Patient congestion in hospitals can be relieved. The level of patient satisfaction can be improved. The hospitals will become patient-friendly hospitals.

**We might conclude that clinical aptitude is a combination of art and science.** When compared to increasing the clinical knowledge base, developing clinical acumen is a rather slow process that takes time. **"A strong clinical knowledge base alone cannot result in good clinical acumen and sound clinical judgment."** It takes skill to translate clinical knowledge into sound clinical judgment. The key



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to developing sound clinical judgment is experience. To convert clinical knowledge into solid clinical judgment requires ability. The aforementioned discussion points are intended to help doctors develop good clinical acumen and clinical judgment in the long run.

**NB.** *Clinical acumen and clinical judgment are used interchangeably.*

### FURTHER READING

- ***“Producing Ethically Minded and Future-oriented Health Professionals,”*** article 3 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Updating the Standard Operating Procedures and Guidelines,”*** article 7 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Conducting Capacity-building Activities,”*** article 9 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Removing the Demarcation Line Between the Clinical Domain and the Public Health Domain,”*** article 12 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Increasing the Effectiveness of Capacity-building Activities,”*** part A, article 22 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Networking of Health Institutions,”*** part A, article 18 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>

# 7.

## IMPROVING PRISON HEALTHCARE

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**he health of the inmates and the population at large are equally important. However, when considering how to improve the inmates' health, it is important to keep in mind that this particular group of people has certain intrinsic characteristics (such as physical and mental behavior, attitude, thought process, outlook, aim, etc.) that are slightly different from those of the general population. Aggressiveness and an unwillingness to fully listen to suggested actions are two of the major challenges experienced by the health staff working in prisons. As a result, we have to strategize our actions accordingly.

The health of the inmates or prison healthcare is generally not given serious attention due to a variety of reasons. ***It would be unethical if the relevant health personnel assigned to each prison ignored the inmates' preventive, promotional, curative, rehabilitative, and even mentally uplifting activities.*** If inmates could continue their healthy habits after being released from prison, they would benefit the broader populace. We must tailor or customize the health services given to them in light of this.



***We will be failing in our obligations under medical ethics if we do not give the required healthcare to the inmates with humanity and morality, regardless of the reasons for their detention.***



## 7. Improving Prison Healthcare

Because inmates are frequently housed in groups in crowded cells, small rooms, and hallways, it is essential to carry out the necessary public health preventive work to stop disease outbreaks and the transmission of common infectious diseases like tuberculosis, respiratory tract infections, gastrointestinal infections, various viral infections, and skin diseases in prison. An infectious illness outbreak will spread quickly and might easily spiral out of control, particularly if it involves the respiratory system or involves airborne transmission. ***In addition to illnesses, there are psychological problems, nutritional deficiencies, and accident management that call for attention.***

Also, we must ensure that inmates who suffer from chronic illnesses like diabetes, autoimmune disorders, tuberculosis, HIV/AIDS, hypertension, cardiovascular disorders, and other ailments have access to long-term medications. With these things in mind, we must devote all of our care to the inmates' health. We must offer the inmates' health our full attention while keeping these ideas in mind. It is worthwhile to develop a ***"Health Package for the Inmates"*** to take care of the inmates' health in the context of developing countries situations. There is a book called ***"Health in Prisons: A WHO Guide to the Essentials in Prison Health,"*** published by the WHO Regional Office for Europe. It is an extremely complete and comprehensive guide that takes into account all perspectives on prison health. We may not be able to do everything mentioned in that guide. Even the developed countries will not be able to do it fully.

Nonetheless, it is our duty to safeguard inmates' inherent dignity as human beings and treat them with humanity and morality, regardless of the reasons for their detention. ***The medical staff who operate in prisons should strictly abide by the ethical norms of medicine and public health.*** From the perspective of public health, we must create practical preventative and health promotion programs in prisons in collaboration with the relevant officials of the Department of Prisons.

In a developing country or in a situation with limited resources, it is worthwhile to complete at least the following activities (not in order of importance).

1. To quickly and thoroughly assess the ***health-related issues*** in each prison using checklist-style questions in collaboration with the medical team assigned to each prison. Brief focus group discussions with the long-term inmates and the responsible staff members of each prison should be held. The staff of the Departments of Public Health and Prisons should collaborate on the drafting of checklist questions.
2. A quick assessment of the ***environmental and sanitary conditions*** inside the prisons and the compounds of each prison should be conducted. Poor environmental cleanliness can lead to the development of many diseases. Water supply, ventilation, drainage, garbage disposal, lighting, and sewage

## 7. Improving Prison Healthcare

systems should be quickly assessed. The inmates should maintain the sanitation of the prison grounds and the cleanliness of the restrooms. This will become a habit when they are released after serving their respective prison terms. They can then continue to practice these healthy habits at home.

3. The capacity and capability of the **health unit** in each prison should be assessed. The inmate **referral systems** to general and tertiary care hospitals should be reviewed and improved.
4. It is important to emphasize the need for incorporating **medical, nursing, and public health ethics** into the everyday work of the medical staff assigned to each prison. These training and knowledge-sharing sessions ought to be led by the pertinent personnel of the Department of Public Health.
5. The job descriptions of each category of health staff working in each prison should be outlined with guidance from the relevant senior officials from the Department of Public Health. All **vacant posts for health staff in prisons** should be filled to the extent possible. Appropriate **capacity-building training courses** should be given to health staff working in prisons.
6. A **sufficient budget** should be made available to enable the timely acquisition of the supplies and equipment needed for health-related activities to be carried out in prisons. It would be ideal if each prison had a **gymnasium**. This will guarantee that when they are released from prison, exercising will become a habit. The prisoners' long-term health must be considered.
7. There should be mandatory **morning free-hand workout sessions**. Quick five-minute talks on **exercise and health** should be delivered before the morning exercise sessions (physical and mental).
8. The inmates should also be informed of the **numerous benefits of regular exercise or physical activity** in terms of cardiovascular health, bone and muscular strength, lung health, psychological wellbeing, body immune system improvement, mental health, etc. As and when necessary, a formal communication in the form of a lecture should be given. The knowledge offered will be helpful to inmates as they become more health-conscious when they are let out of prison and reintegrate into society. Senior inmates who are knowledgeable and well-educated in health matters should give **health talks** to the inmates. The goal is to instill a sense of ownership in the inmates. Officials from the Department of Public Health should draft the talks' language and outline. Finally, the **transcripts of the talks** should be fine-tuned and compiled, and a printed version should be made for future reference to be used in prisons all over the country. It should also be updated regularly.
9. Various types of **intramural sports** activities should be promoted. The aim is to gain physical fitness as well as psychological satisfaction for the inmates. Sporting equipment should be made available through donations from well-wishers or other means.

## 7. Improving Prison Healthcare

10. **Counseling services** should be made available for depressed and psychologically disturbed inmates.
11. If necessary, before transferring infectious disease-suffering inmates to the infectious disease hospitals, an **isolation ward** in the prison should be made available to stop the spread of infectious diseases in prisons. The isolation ward's conditions should be evaluated and improved. Skin, gastrointestinal, viral, and other respiratory diseases, including tuberculosis, should receive extra attention as they can spread easily.
12. The foods served to the inmates should be assessed for a **balanced diet**. It will also depend on the availability the budget. **Kitchen sanitation**, including **food storage systems**, should both be properly maintained. The health of the cooks should be assessed, and they will get any required health counseling. The standard operating procedures and guidelines for food storage and preparation should be provided to them for reference.
13. **Religious activities** for different religions, although not mandatory, may be allowed to be practiced in order to make inmates gentler and more reasonable when they are released. This particular aspect is very important for long-term human development.
14. To find out about **inmates' overall perceptions** of the prison environment, an assessment study should be conducted annually using qualitative methodologies such as inmate interviews, focus group discussions, and key informant interviews with senior inmates. The responsible staff members of the Departments of Public Health and Prisons should analyze the results and make necessary improvements.
15. In coordination with responsible representatives of the Departments of Public Health and Prisons, inmates should get **routine health examinations**. As many of the inmates may have diabetes, hypertension, or other chronic diseases, health talks regarding these diseases should be given. As the inmates have ample time, we can even have a small booth where health-related pamphlets and books may be made available for them to read. The inmates should pass their prison time gainfully.
16. The **personal hygiene** of inmates should be given due attention, and required health information also be given (dental health, menstrual health, skin health, eye health, sexual health, etc.). There should be a plentiful supply of water available for inmates to bathe. A **center for the dissemination of critical health information** should, wherever possible, be open for business at a specific time each day.
17. **Six-monthly brainstorming sessions** between officials of the Departments of Public Health and Prisons should be organized in an effort to improve the general quality of health services offered to inmates in all prisons throughout the country.

### Conclusion

Providing inmates with adequate health care for their wellbeing includes ensuring that they will be in good health, knowledgeable about good health, and leading healthy lifestyles when they are released from prison. ***We must treat inmates as a distinct population with unique characteristics and special healthcare needs.*** The activities listed above will benefit the inmates' physical and emotional well-being. After they are released from prison, they could use it to be ready to resume their regular lives. We must provide medical care that is ethically at least on par with, if not better than, that provided to the broader population.

As alluded to earlier, we must prepare the inmates so that they can rejoin their families, communities, and places of employment in excellent spirits and physical condition. This will benefit not only the country as a whole but also the neighborhood in which they reside. We need to engage them as much as we can in health promotion and prevention initiatives while they are in prison. They may alter their behavior for the better if they feel responsible. ***As with "health as a bridge for peace," we might opt for "health as a seamless passage back to the community."***

# 8

## STREAMLINING THE FDA'S OPERATIONS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**he domain for which the FDA is responsible is huge. The technical disciplines involved in the FDA's work are also numerous. The FDA is directly dealing with pharmaceutical companies, trading companies, food industries, import-export networks, small-scale food production enterprises, consumer affairs departments, consumer associations, food-and drug-related organizations, etc. The FDA employees should aware of these basic facts as they carry out their assigned jobs in a way that is both technically and morally sound. ***They should also note the fact that their actions have a long-term positive or negative impact on the population's health in the country.***

Strengthening the regulatory work of the FDA is essential for the general improvement of the health status of the country. The FDA's work is equally important as the preventive, promotional, curative, and rehabilitative activities for communicable and noncommunicable diseases carried out by the health ministry. ***The effectiveness and efficiency of the FDA's work have a favorable impact on the population's health both now and in the future.***



***The general health status of the population is correlated, either directly or indirectly, with the effectiveness and efficiency of the FDA's operations.***

## 8. Streamlining the FDA's Operations

A properly, effectively, and efficiently functioning FDA can guarantee the accessibility of:

1. **Food** items such as meat, fish, and fish products; poultry; dairy products; canned foods; **alcoholic and non-alcoholic beverages; cooking oil; processed foods; and portable drinking water** that are safe and of high quality;
2. Safe, effective, and quality-assured **drugs** (oral, topical, and parenteral);
3. Safe and quality-assured **biological products**, including blood products, cellular and gene therapy products, tissue and tissue products, laboratory reagents, vaccines, etc.;
4. High-quality **diagnostic equipment** and all types of **medical devices** that meet international standards;
5. Safe **cosmetics** and other beauty products;
6. Safe **radiation-emitting products**;
7. Quality-assured **dietary supplements**;
8. Safe and potent **fertilizers and pesticides**;
9. Properly labeled **nutrition information** on food products;
10. Safe and efficacious **traditional medicines** for the population;

***The health of the population is significantly correlated with and influenced by at least ten of the broad elements mentioned above.*** The FDA should closely monitor and regulate these ten large entities' safety. Food poisoning, foodborne illnesses, liver and intestinal disorders, renal disorders, cardiovascular diseases, unnecessary complications from diseases brought on by subpar or ineffective medications, adverse effects from fake and subpar cosmetics, malignancies of various organs brought on by adulterated and tainted foods, and chronic illnesses are all on the rise in many developing countries. The good services of the FDA can at least help improve the above situation.

***The FDA staff should be aware of the value and significance of the work they are doing.*** The workload of different categories of health professionals would be greatly reduced if the aforementioned adverse effects were seen less frequently in the general population. As a result, hospital staff can also focus more of their attention on a smaller number of patients. Not only will the health ministry benefit from this, but the entire public will as well. ***The FDA staff should be proud of the fact that their work, in one way or another, contributes to the general improvement of the population's health.***

Therefore, the FDA's broad range of actions must have the full support of the health ministry. It is essential to simplify and carry out all approved processes for licensing, inspection, and assessment of locally manufactured as well as imported products. In other words, the process of giving approval for use by the population on various entities should be smoothed out and expedited as much as possible.



## 8. Streamlining the FDA's Operations

With today's cutting-edge information technology, achieving this goal is not difficult. Before approving a license for domestic or imported medications, cosmetics, medical devices, and so on, a team of relevant experts should carefully analyze all relevant scientific data. ***There should be several intramural technical and administrative committees with specific terms of responsibility for decision-making on significant technical and administrative issues.*** All laboratories at the FDA should, preferably, get ISO accreditation.

In order to determine the FDA's future course and streamline its operations, we must assess its existing performance. The following steps need to be taken:

1. Create a ***central task team*** to evaluate the FDA's current performance. This task team will establish review committees to evaluate the performance of each major division of the FDA in addition to providing general guidelines.
2. Respective ***review committees*** will discuss and frame generic checklist questions under the rubric of:
  - (a) Administrative and management issues;
  - (b) Technical issues;
  - (c) Logistical issues;
  - (d) Human resources for health issues;
  - (e) Supply and equipment issues for relevant divisions such as laboratories, post-marketing activities, etc.;
  - (f) Availability, completeness, and clarity of standard operating procedures and guidelines used by the FDA;
  - (g) Staff welfare, including career paths and development, the office canteen, monthly or quarterly selection of outstanding or devoted staff, transport of staff to and from the office to home, and a gymnasium;
  - (h) A conducive working environment for staff;
  - (i) Availability of mobile laboratory vans for on-site checking of food in markets;
  - (j) Issues in the expedited review process;
  - (k) Post-marketing issues;
  - (l) General and specific in-house computerized information systems;
3. The ***generic checklist questions*** submitted by various review committees will then be fine-tuned by the senior officials of the FDA and finalized for action.
4. ***Finalized checklist questions*** will be fielded to collect information.
5. Conduct ***key informant interviews*** with key staff from major divisions of FDA, key stakeholders, and representatives of entities working with the FDA.
6. An ***analysis*** of the findings coming out of the checklist questions and key

## 8. Streamlining the FDA's Operations

informant interviews should be made, and detailed recommendations for both short-term and long-term action plans should be proposed to the senior officials of the FDA and health ministry.

7. The **budget and finance review** of the FDA should be done by financial and budgetary employees in addition to external technical experts.
8. Important information for pharmaceutical enterprises, trading companies, the food sector, import-export networks, small-scale food producers, the consumer affairs department, consumer associations, and other organizations should be posted on the **FDA's website**.
9. A **computerized system** should be implemented as much as possible for data management, application form submission, licensing, etc.
10. It is imperative to hold **regular discussion forums** where the FDA staff and those who are affected can talk about **contentious issues** and other crucial problems. It is possible to find a number of original ideas and concepts to enhance how the FDA functions.
11. Guidelines for doing **post-marketing surveillance** work should be spelled out clearly, and a yearly timetable should be made available.
12. There should be **platforms for holding regular technical talks** on contemporary topics related to FDA issues by invited speakers from institutions both inside and outside the country.
13. **Themes for MPH thesis papers** should examine various perspectives on the work of the FDA.
14. The **curriculum for the MPH courses** offered at the schools of public health should contain information about the FDA's current activities and future goals.
15. The FDA should be made available as a **regular field trip** destination for students in schools of pharmacy, medical technology, medicine, nursing, public health, community health, traditional medicine, etc.
16. The WHO **fellowship program** and other UN agencies should finance FDA officials' study or research trips to renowned FDAs in other nations.
17. The FDA ought to have a **well-maintained library** with access to online journals.
18. A **high-speed Wi-Fi connection** should be available across the divisions of the FDA.
19. **Capacity-building workshops** for different categories of FDA staff should be regularly held with a built-in evaluative process to determine their effectiveness.
20. The **staff welfare** should come first because it may act as a strong motivator for them to work diligently at their tasks.

To improve the effectiveness and efficiency of the FDA's operations, a neutral or independent committee should continuously assess the agency's overall performance. All avenues for collaboration with organizations and groups

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that uphold the FDA's values must be properly established and maintained due to the agency's broad range of operations.

Most critically, post-marketing surveillance needs to be expanded and improved in a variety of ways. It is crucial to provide enough staff members to carry out post-marketing surveillance. Specific standard operating procedures and guidelines should be developed and updated often to enable post-marketing surveillance to be carried out in a systematic manner. ***Post-marketing surveillance is essential for assessing how well the FDA is performing its duties.*** This aspect requires particular attention.

The FDA needs specialists in a variety of fields, including pharmacologists, biologists, microbiologists, virologists, physicists, chemists, nutritionists, doctors, nurses, social or behavioral scientists, medical technologists, veterinarians, researchers, public health specialists, epidemiologists, engineers, data management specialists, statisticians, information communication technicians, health educators, etc., to address the wide range of the aforementioned issues.

Building workforce capability and capacity ought to be done often. Every country needs a powerful FDA. ***The country's national health policy should take into account the significance and operations of the FDA.*** The FDA needs a reasonably sufficient budget in order to function effectively.

The work of the FDA can be a huge help to the director of noncommunicable diseases prevention and control when it comes to reducing chronic noncommunicable diseases, cardiovascular diseases, diabetes, kidney diseases, and liver diseases brought on by consuming contaminated, fatty, salty, and excessively sweetened foods and beverages.

Given the FDA's diverse and increasing services and workload, the agency's organizational chart should be reviewed and improved to meet the demands of the situation. There are several disciplines working for the FDA. It is crucial to increase the FDA staff's capabilities. ***A suitable training schedule should be designed, and several training packages should be created.***

The chief of the FDA must ensure that all divisions are working in harmony and that the staff's general welfare is given the utmost attention. ***It is also important that the FDA be a totally independent entity.*** The head of the government should appoint the FDA's chief, and his or her tenure should coincide with that of the government. In other words, the FDA should not report to the health ministry.

The general public should be adequately and effectively informed about the grave risks connected to the consumption of unhealthy foods and drinks (contaminated, fatty, excessively salty, industrial or unpermitted dyes containing food products, and over-sweetened foods and beverages), the risks connected

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to the use of subpar cosmetics and other beauty products, and the potentially fatal risks connected to taking medications that have not been FDA-approved. ***The FDA should carry out this task in collaboration with the health ministry's arm that promotes health literacy.***

### Conclusion

***The services of the FDA in a country are crucial to the population's long-term health development.*** It can be aptly stated that having a strong FDA for the country is *sine qua non*. All available means must be used to achieve this goal. A strong FDA would contribute to a positive public health scenario for the population. Although the FDA's performance in developing countries might not be on par with that in developed countries, we should nevertheless try to address the crucial and challenging issues faced by each country. In essence, the FDA needs to work much harder than before.

The country's FDA should maintain close international and interagency interactions to stay abreast of the most recent advancements in its sector. It is important to pay attention to how the FDA's rules and regulations are followed and enforced. For the always-changing food and drug challenges, the FDA needs to come up with new solutions and take full responsibility. ***A strong FDA is equivalent to having a healthy population in the country.***

### FURTHER READING

- ***"Increasing the Effectiveness of Capacity-building Activities,"*** article 22, part A of the book titled *"Reflections of a Public Health Professional,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***"Conducting Capacity-building Activities,"*** article 9 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***"Expanding the Use of Computerized System,"*** article 22 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 9.

## RUNNING THE IDP CAMP EFFICIENTLY

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

There are several populations of internally displaced people in many countries due to a number of reasons. One of the key causes is the political upheaval in the nation. Natural and man-made disaster-related displacement of people is typically well managed, and managing it is also simpler. Other IDP camps vary in their level of systematic organization and management, with many being poorly run.

As per our principle of medical ethics, we need to give them as many equitable healthcare services as possible. ***They are a unique group of people who require particular and immediate attention.*** Thus, we must provide them with special health services (preventive, promotional, curative, and rehabilitative). IDPs have a little bit higher incidence of illness and mortality when compared to the general population. In fact, they run a higher risk of getting sick, getting into mishaps, or getting attacked.



*Even if there will be a ton of difficulties in providing equitable healthcare services to the IDPs, we must nevertheless do it in accordance with our principle of medical ethics.*



## 9. Running the IDP Camp Efficiently

One caution is that the background scenarios of IDP camps differ significantly from one another in terms of population size, demographic characteristics, especially the proportion of children, adults, and elderly groups, security or safety of location, location distance from the general population, location environment, including climatological aspects, availability of electronic communications, religious belief variation, socioeconomic differences, reasons for becoming IDP, etc.

Apart from the diseases and conditions they are already suffering from, as mentioned below, they are exposed to unusual environments and harsh living conditions. Exposure to mosquitoes, insects, rodents, snakes, etc. is an additional threat for them. ***As they are living in groups under one roof, sleeping without a mosquito net, in unsanitary conditions, and in crowded conditions, the chance of having respiratory diseases and epidemic outbreaks of diseases is high.*** Lack of personal hygiene can lead to many diseases. The scarcity of drinking water and domestic use of water could result in water-associated diseases.

We must be aware of and examine the aforementioned features of IDPs as well as their living conditions before providing healthcare services to them. ***In other words, we must modify our health services in accordance with the circumstances.***

They are generally poor people living in remote villages and towns. They might suffer from a few of the following ***medical conditions***:

1. Relatively malnourished and emaciated;
2. Worm infestations;
3. Skin conditions such as scabies and ringworm infections;
4. Tuberculosis, HIV/AIDS, and other sexually transmitted diseases;
5. Locally endemic diseases such as malaria, filariasis, and schistosomiasis;
6. Children who have not had a full course of immunization;
7. Children with signs and symptoms of micronutrient deficiencies;
8. Children with disturbed growth patterns (age, weight, height, mid-arm circumference);
9. Protein energy malnutrition or malnourished children;
10. Pregnant women suffering from iron deficiency anemia;
11. Elderly persons with general debility;
12. Bedridden persons due to various causes;
13. Psychological disturbances and mental instability;
14. People suffering from hypertension, diabetes, cardiovascular diseases, lung diseases, and other chronic conditions;

## 9. Running the IDP Camp Efficiently

The healthcare services for the IDPs represent a vast domain, and the provision of basic essential activities is mentioned below for consideration. ***It is somewhat like healthcare services given to a small town.*** Depending on the allowable situation, we need to start the ball rolling as quickly as possible. It may not be possible to do some of the below-mentioned activities. However, every effort must be made to render health services to IDPs. The following line of actions may be considered before we render healthcare services to the population in IDP camps:

1. A quick assessment of the ***general health conditions*** of the IDPs, including a rapid mental health assessment;
2. A quick assessment of the ***general characteristics of the population***, as mentioned above, using appropriate and practical approaches;
3. A quick assessment of the ***environmental sanitation situation*** of the IDP camps, as mentioned above, using appropriate and practical approaches;
4. Establish a ***small clinic*** to treat common diseases and explore the availability of required medicines and basic medical equipment. All health needs should be identified and met as much as possible. Try to scout out the possibility of getting health staff to run this. If medical staff were available in the IDPs, it would be an advantage. Commonly used medicines (oral, parenteral, and topical), medicines for emergency care, insect bites, food poisoning, extreme diarrhea, cholera, anti-tetanus toxoid, and freeze-dried anti-snake venom (ASV), should be made available. (If possible, supplies and equipment required for a rural health center should be made available.) Reproductive health, elderly health, and child health issues need to be taken care of as well. The establishment of the clinic is a very important part of the healthcare services to be delivered to the IDPs.
5. ***Practical treatment guidelines*** for common diseases that can occur in IDP camps should be made available, such as treatment for (i) snake bites; (ii) TB, HIV/AIDS, and malaria; (iii) insect bites; (iv) common skin diseases; (v) hypertension and common heart diseases; (vi) epilepsy; (vii) depression; (viii) diabetes; (ix) nutritional deficiencies; (x) severe diarrhea; (xi) medical emergencies, etc. Guidelines for ***first-aid care*** for various ailments or accidents should also be made available.
6. Develop a realistic and attainable action ***plan for weekly health discussions*** with the IDP by health staff or health-related persons from among the IDPs. If we can do it effectively, there will be a reduction in the incidence of many common diseases. This practice is crucial since poor health literacy can result in a variety of untoward health conditions.
7. Create a ***weekly timetable for environmental cleanliness*** tasks that the IDPs themselves will perform, such as appropriate garbage disposal and maintaining sanitary latrines;
8. Assign one person to ***monitor the overall health scenario*** of the IDP camp, and based on that, necessary actions can be taken.

## 9. Running the IDP Camp Efficiently

9. To the greatest extent practicable, an effort should be made to give the IDPs **a sense of ownership over public health initiatives** to be carried out in the camp.
10. Consider a functional **patient referral system** for those patients that cannot be treated at the clinic in the camp.
11. Work closely with **UN agencies** such as UNHCR, UNICEF, WHO, and other relevant organizations and the **social welfare department** to get additional financial and material support.
12. Take into account for providing **mental health support**, as many people may experience anxiety disorders and insomnia.
13. Distribute Department of Public Health-produced **health leaflets** if at all possible.
14. Create a **patient registry** and a **proper record** of all the clinic's actions as well as public health activities so that they can be referenced in the future and for the improvement of healthcare services given to IDPs.
15. Get a list of IDPs who are taking maintenance **medications for chronic diseases** like tuberculosis, HIV/AIDS, hypertension, cardiovascular disease, diabetes, etc. and explore getting the medicines.
16. Ensure that married couples can obtain **contraceptive pills**.
17. If at all feasible, eligible youngsters should receive the necessary **vaccination**.

***There will be a mountain of challenges in delivering healthcare services to the IDPs.*** The main issues are security and the extreme anxiety and stress of the IDPs in the face of many requirements that could not be fulfilled. Be that as it may, the person responsible for rendering healthcare services should collaborate and coordinate with local NGOs to the extent possible.

We might need to devise a plan at the same time to send the IDPs back to their original residence. ***There may be multiple IDP camps at times, necessitating medical personnel coordination.*** It is advisable to prepare documentation of the actions we have taken to improve the IDP's health. Health professionals will find this to be very helpful because every IDP camp is different. The duration of the existence of the IDP camp is uncertain. Therefore, to be on the safe side, we have to plan for at least one year.

### Conclusion

The UN had enunciated certain principles regarding IDPs, i.e., ***"IDPs shall enjoy, in full equality, the same rights and freedoms under international and domestic law as do other persons in their country." "They shall not be discriminated against in the enjoyment of any rights or freedom on the ground that they are internally displaced."*** As a result, when we provide them with healthcare services, we must adhere to these values.



## 9. Running the IDP Camp Efficiently

The UNHCR has published a manual for the protection of IDPs. It is comprehensive and well written, but we may not be able to do all of it due to several reasons. Many good references can be found on the WHO, UNICEF, UNFPA, and ICRC websites. Websites of countries with IDP camps can provide many practical solutions. ***It should nevertheless be remembered that every IDP camp is different.*** This short article may not be able to give comprehensive guidance on healthcare for IDPs, but essential services are covered for consideration.

### FURTHER READING

- ***“Health Literacy Promotion: A Far-sighted Strategy,”*** article 2 of the book titled ***“Health System Challenges: A Developing Country Perspective,”*** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

# 10.

## ADDRESSING DIABETES AND CARDIOVASCULAR DISEASES

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The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**D**iabetes and cardiovascular diseases (DCVD) are both on the rise worldwide. There is no exemption for developing countries. To address the undesirable conditions, there are two key areas where we can take action. The first involves altering the trajectory of DCVD case load through intensive case finding and appropriate treatment, and the second entails lowering the incidence of DCVD among young people who do not already have it.

Both entities might be significantly under control if we formulate and implement two major strategies, i.e., the **"National Strategy for Prevention and Control of DCVD"** and the **"National Strategy for Health Literacy Promotion."** It is crucial that the strategies be realistic and practical, not theoretical. These should be implementable with the available resources in the context of a developing country.

***The national health policy and national health plan should highlight the importance of DCVD.*** We should also promote implementation research on DCVD in the context of reducing the incidence and prevalence of DCVD in



***Health literacy promotion is one of the most cost-effective strategies to reduce the incidence and prevalence of diabetes and cardiovascular diseases.***



## 10. Addressing Diabetes and Cardiovascular Diseases

developing countries. DCVD prevention and control must be given top national priority because they not only consume a significant portion of family income but also have several unfavorable effects on the affected families. People's QALYs can be badly affected if we do not take care of the prevention and control of DCVD.

The following factors should be considered when formulating new strategies or fine-tuning existing ones:

1. Available **human and financial resources** of the health ministry;
2. Existing level of **health literacy** among various demographic groups;
3. Proactivity and networking situations of **community-based health organizations**;
4. The readiness, responsiveness, and operational status of **health centers** in the country;
5. The level of emphasis given on DCVD in the **curricula of institutions** teaching medicine, nursing, public health, and community health;
6. The amount of basic health knowledge included in the **curricula of primary, middle, and high schools and universities**;
7. The amount of time allotted for **physical education and athletic competition** in primary, middle, and high schools, including intramural, interschool, and interuniversity sport events;
8. The degree to which the Ministries of Health and Education collaborate to create "**health-promoting schools and institutions**" throughout the nation;
9. The availability of **gardens or outdoor spaces** with pathways for biking, walking, etc.;
10. The accessibility of publicly funded **gymnasiums** for the general public;
11. The existence of the "**National Preventive Cardiology**" program;
12. The degree of proactiveness of the **health literacy promotion division** in the health ministry.
13. The degree of **collaboration** between the Ministries of Health and Sports, and Physical Education;
14. Availability of a **checklist-type monitoring system** for DCVD prevention and control programs;
15. Allocation and utilization of **budgets** for DCVD prevention and control programs;
16. **Human resources for health** in the scenario of DCVD prevention and control programs;
17. The importance accorded to conducting **implementation research**;
18. Availability of the report on the **impact assessment** of the DCVD program;
19. The current pace of carrying out pertinent **capacity-building activities**;
20. Availability of findings from **significant surveys** on DCVD during the previous three years;
21. Current report of the **epidemiological situation** of DCVD;

## 10. Addressing Diabetes and Cardiovascular Diseases

The two updated strategies will succeed if the aforementioned twenty-one points are taken into account. The strategies will become more practical and realistic. ***We need to implement the two strategies carefully, prudently, simultaneously, and systematically in a technically acceptable manner.*** Although it may take time, the result will be long-lasting and sustainable.

The benefits of regular physical activity or exercise on the overall health of a person, particularly for cardiovascular health and diabetes, should be discussed in several forums. This message should be communicated all the way down to the village level through a network of community-based organizations and basic healthcare providers.

While considering DCVD prevention, the following components, among others, should be given special consideration to be incorporated into the strategies:

1. Specific interventions to ***improve dietary habits*** (avoid excessively salty foods, over-sweetened beverages, fatty foods, and adulterated foods);
2. Specific interventions to ***practice healthy social life styles*** (avoid excessive drinking and smoking, etc.) in the population;
3. Specific interventions to ***make exercise doing a habit*** or live by the maxim, ***“Exercise is Medicine”***;
4. Specific interventions to ***manage a hectic and demanding lifestyle***;
5. Specific interventions to ***educate the populace*** about the significance of receiving DCVD treatment as soon as possible;
6. Specific interventions to ***educate schoolchildren*** about healthy living and eating to prevent DCVD;
7. Specific interventions to ***get early diagnosis and treatment*** of DCVD in the population;
8. Specific interventions to ***promote health literacy*** about DCVD prevention in the population;
9. Specific interventions to ***promote conducting implementation research*** for the effectiveness of the strategies;
10. Specific interventions to ***promote the conduct of “National Preventive Cardiology Program”***;
11. Specific interventions to ***strengthen the health literacy promotion division*** of the health ministry;
12. Specific interventions to ***strengthen collaboration with like-minded departments and organizations***;

***In other words, the prevention of DCVD necessitates multifaceted, multipronged, and multisectoral approaches.*** The behavior of friends and family members has a big impact on a person's healthy lifestyle. The strategic considerations mentioned above should be taken into account while developing

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national programs to reduce DCVD. Most importantly, we must work toward the early detection and treatment of DCVD. Targeted interventions, as identified, should be fielded in health centers located all throughout the country.

For DCVD, it is preferable to offer drugs without a fee at public hospitals and clinics. If this is not possible, DCVD drugs should either be exempt from taxation or made available at a discounted price through government subsidies. Low-income people could not afford long-term treatment. The quality-adjusted life years (QALYs) will be dramatically decreased as people age if DCVD cannot be prevented. ***The investment made in prevention and control of DCVD will have long-term benefits for the population in many aspects.*** It is one of the most cost-effective health programs of the health ministry.

### Conclusion

A reduction in the incidence and prevalence of DCVD is a possible scenario if we are serious enough to work on it. We have to tackle this as a very long-term, continuous activity. We need to work very closely with the Ministry of Education and Higher Learning. If the students in schools and universities practice healthy lifestyles and stick to the motto ***"Exercise is Medicine"***, we will have a very large cohort of healthy young adults in the country in the foreseeable future. The actionable points are mentioned in the articles mentioned below. Currently, the government as well as the families of patients suffering from DCVD are shelling out millions of dollars to treat them instead of using the money for other important matters. We need to work collaboratively with the director of NCD prevention and control. (Please see article number 3, ***"Enhancing the Performance of the NCD director,"*** in this book.)

### FURTHER READING

- ***"Health Literacy Promotion: A Far-sighted Strategy,"*** article 2 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Improving the Health Status of the Population,"*** article 22 of the book titled *"Health System Challenges: A Developing Country Perspective,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***"Thinking outside-the-box in the Context of Developing Countries' Health Scenarios,"*** article 28 of the book titled *"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 11.

## ENHANCING THE ANALYTICAL SKILLS OF HEALTH PROFESSIONALS

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The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**A**nalytical skills are something that all public health practitioners should strive to have throughout their careers. One of the important qualifications for a public health practitioner to be considered fully qualified is the possession of analytical skills. ***The four skills—analytical, epidemiological, beyond-the-box thinking, and rational decision-making—are not only interconnected but also mutually beneficial to one another.***

Since public health is a dynamic field, thought processes should be ongoing. Moreover, epidemiological circumstances around diseases and conditions are evolving. ***While dealing with any unique, innovative, or emerging public health issue, one should possess these skills.*** To put it another way, these are the crucial abilities a successful public health practitioner has to have.



***Possessing analytical skills is not an inborn acquisition for a health professional, but it must be nurtured all along our career.***



## 11. Enhancing the Analytical Skills of Health Professionals

The analytical skill is the first and most important one that we must possess out of these four abilities. It is partially acquired through arduous academic preparation or after earning a master's or doctoral degree in public health from a public health institution. ***Without proper analytical skills, epidemiological thinking skills, beyond-the-box thinking skills, and rational decision-making skills will not achieve their intended purposes.*** A public health practitioner might not be able to properly use the other three skills or talents without the support of analytical skills. In other words, we might not be able to create or accomplish results of high caliber without analytical skills.

The understanding of essential statistical concepts, fundamental epidemiological principles, data presentation skills, and inference-making abilities all support one's capacity to draw the appropriate conclusions from a circumstance. As a result, in order to enhance public health conditions and address hospital management challenges, we must strengthen the analytical skills and capacities of the staff of the health ministry.

Our epidemiological thinking skills and beyond-the-box thinking skills will only be fruitful if we have the proper background knowledge and information on the issue or problem at hand, such as for improving public health situations or resolving hospital management issues. By conducting an appropriate review and analysis, we can obtain accurate background information and possible causes for the scenario in question. This may result in rational decision-making. For all these matters, we need analytical skills to accomplish them.

***We can only fully comprehend the beauty of the analysis by actually doing it on the current problems.*** These abilities must be developed and instilled as much as possible if we are to become competent public health practitioners. The curriculum for preventive and social medicine subjects in MBBS, BSPH, MSPH, MPH, DrPH, and other postgraduate health sciences courses should include special packages for data presentation methods and inference-making.

Conducting training programs for the health workers, especially those working at the health facilities in peripheral areas, is one way to generate interest in data and its utility for accomplishing the skills mentioned above. They should be introduced to the basic methods of data presentation, such as different kinds of tables, a line graph, a pie chart, an area chart, a bar diagram, a histogram, a scatter plot, a tree map, a spider diagram, and a box plot, in order to help them draw conclusions or understand what is actually going on. A booklet should also be produced after a series of training sessions to serve as a resource for new staff.

The following topics must be covered in a variety of forums or platforms to aid health professionals in better understanding the value of data and honing their analytical skills:

## 11. Enhancing the Analytical Skills of Health Professionals

1. "The need for valid, timely, and dependable data for outbreak control"
2. "How can we extract information from the massive amounts of data we have?"
3. "Creating information for decision-making from hospital data"
4. "Developing cognitive abilities in epidemiology"
5. "Thinking creatively beyond-the-box"
6. "Turning data into intelligence"
7. "Rational decision-making in the public health and clinical domains"
8. "Enhancing data presentation skills"
9. "Becoming a good epidemiologist"
10. "Public health ethics and informed decision-making"
11. "Is there a limit to beyond-the-box thinking?"
12. "Quantitative data analysis techniques"
13. "Qualitative data analysis techniques"
14. "Management techniques for solving administrative issues"
15. "Utilization of data for health planning and policy making"
16. "Data: an ultimate input for logical decision-making"

***The main purpose of having these forums or platforms is to stimulate public health practitioners' interest in the utility of data and its benefits.*** The above-mentioned skills of public health practitioners will gradually but undoubtedly improve through the aforementioned actions. It will ultimately improve the performance of the healthcare delivery system in the country to the benefit of the general public.

***In this data-driven society, all of our judgments should be founded on solid and trustworthy data.*** Modern data science is developing very quickly, and we need to keep up with the pace of development. Finally, the interest of healthcare personnel in data review and analysis will improve not only the data quality of the healthcare delivery system but also the development of the four skills listed above.

Analytical skills cannot be acquired in a short period of time. We need to nurture it slowly and carefully. ***The initial requirement is "interest in data and its utility."*** The whole domain of public health is grounded in the data and information of any scenario under consideration. The data will be more useful if it is first transformed into information. When we do analysis on data, we are actually transforming it into information for action.

When a set of data in a given condition or circumstance is reviewed, we must consider or analyze the pertinent aspects along the following lines:

1. Is the information accurate and up-to-date in terms of the condition or circumstance?
2. Scrutinize the condition or circumstance with reference to the time and place of occurrence, persons affected, agents involved, recipient hosts, vectors involved, background environment involved, etc. (as relevant).
3. Is the data a rate, an absolute number, or a proportion?
4. What is the area coverage of the rate, absolute number, or proportion?
5. If it is a rate, is the denominator correctly used?



## 11. Enhancing the Analytical Skills of Health Professionals

6. Is the quantum of the data sufficient to draw a conclusion?
7. Check whether the data received is an outlier;
8. Short- and long-term trends of the condition or circumstance;
9. Compare with similar conditions or circumstances;
10. Questions of “*what if*” and “*what if not*” for the condition or circumstance should be explored;

Is it a one-time event, a less frequently occurring event, or a commonly occurring event due to the condition or circumstance? Before we can decide definitively on the condition or circumstance, at least these eleven points should be clarified.

### Conclusion

As previously said, having analytical skills is one of the key qualifications for a public health practitioner. ***Analytical skills cannot be acquired easily.*** We should initially have a natural curiosity about data and its applications. For health professionals to share opinions and ideas on various approaches to data analysis, we need to conduct a number of discussion platforms or forums. The aforementioned sixteen topics will aid in the development of one's capacity for logical thought and the ability to draw the appropriate conclusions from events or conditions. ***Together, let's improve our analytical skills.***

### FURTHER READING

- “***Thinking Outside the Box in the Context of Developing Countries,***” article 28 of the book titled “*Tackling the Challenges of Healthcare Delivery System in Developing Countries,*” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- “***Decision Making in Public Health,***” article 30 of the book titled “*Tackling the Challenges of Healthcare Delivery System in Developing Countries,*” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- “***Rational Decision Making in Public Health,***” article 11, part A of the book titled “*Reflections of a Public Health Professional,*” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- “***Transforming Data into Information,***” article 20 , part A of the book titled “*Reflections of a Public Health Professional,*” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- “***Encouraging Beyond-the-box Thinking***” article 5 of this book.

# 12.

## EFFECTIVE UTILIZATION OF HOSPITAL DATA

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

Public health-related data and hospital-related data are the two main categories of data in the health domain. ***There are several key data sources channeled into the data system of the health domain.*** These are data coming out of the following entities: (i) research domain; (ii) routine health information system; (iii) hospital system; (iv) disease registry system; (v) routine and sentinel surveillance system; (vi) epidemic and pandemic events data monitoring system; (vii) food and drug administration system; (viii) traditional medicine system; (ix) occupational health promotion system; (x) human resources for the health domain; (xi) teaching institutions; (xii) health systems; (xiii) disease prevention and control programs; (xiv) natural and man-made disaster prevention and control programs; (xv) surveys and studies; etc.

The data generated from the hospital domain deserves special attention as it is related to the sick population of the country and activities related to providing care to the sick population. The entire national system of comprehensive hospital planning and management hinges on the completeness, timeliness, validity, and reliability of hospital data. ***It is crucial that we carefully consider how to best use this vast amount of data to our benefit.***

***Data as such has no utility unless it is transformed into information for action.***

## 12. Effective Utilization of Hospital Data

There are numerous types and sizes of hospitals in any developing country. A hospital information management system (HMIS) is available in every hospital. The hospital's administrative staff, doctors, nurses, paramedical staff, and technical staff need to be informed of the utility of these data in terms of:

- (i) Increasing the productivity of their work;
- (ii) Lowering their stress levels at work;
- (iii) Boosting patient satisfaction;
- (iv) Enhancing the hospital's reputation;
- (v) Uplifting the overall performance of the hospital;
- (vi) Streamlining the health supply chain of the hospital;
- (vii) Rationalizing duty rosters for hospital staff; and
- (viii) Facilitating the overall hospital planning from all angles;

The HMIS should be fully utilized to obtain all the necessary data and information. There is an abundance of data of all kinds. It makes sense to assume that the compiled hospital data will prove to be a gold mine for the nation's health and hospital sectors. The outcomes of the data and information analysis should be applied first to improve the efficacy and efficiency of hospital management. A medical practitioner with an MPH degree should be appointed to accomplish this for large hospitals with various specialty fields because there are numerous public health-related information and data sources for overall hospital planning. ***Hospital data systems ought to be compulsorily computerized.***

The hospital's yearly report should be prepared on an obligatory basis using the data coming from the HMIS. The report's final chapter should discuss the hospital's future plans. ***The Hospital Management Committee should hear the report and take any required action.*** If the report is put to use, it will be beneficial to the hospital, the patients, and the country as a whole.

HMIS can range in size from a small, straightforward one to a large, complex one. The basic framework of the HMIS needs to be updated regularly to meet our requirements. The data produced by the HMIS can be used for several purposes in planning, as follows: (Only a few examples are mentioned below.)

### 1. Laboratory Management Information System (LMIS):

The laboratory management information system data is helpful for:

- (i) advanced purchase or indent of laboratory reagents from the Central Medical Store Depot (CMSD);
- (ii) advanced purchase or indent of spare parts and new equipment for use in the laboratory;
- (iii) planning capacity-building activities for laboratory staff;
- (iv) additional recruitment and placement of laboratory staff;
- (v) workload determination and work distribution of laboratory staff for the individual hospital or among the hospitals;

## 12. Effective Utilization of Hospital Data

- (vi) composite information from hospitals is essential for CMSD to procure laboratory supplies and equipment for hospitals all over the country;
- (vii) planning for the repair of laboratory equipment;
- (viii) proper storage place for laboratory reagents, supplies, and equipment;
- (ix) various laboratory testing procedures to be carried out in the hospital;
- (x) purchasing advanced laboratory equipment against novel diseases and for research;
- (xi) identification of a referral for laboratory testing for rare diseases;
- (xii) developing the necessary standard operating procedures and guidelines for using laboratory equipment;
- (xiii) a database for overall planning and research for further improving the laboratory services given in hospitals;

### 2. Morbidity and Mortality Management Information System (MMMIS):

The system can:

- (i) yield information for hospital bed management;
- (ii) estimate the amounts and types of drugs and parenteral fluids to procure or indent;
- (iii) predict disease outbreaks;
- (iv) compute a rough estimation for the prevalence of diseases if the hospital's catchment area is large;
- (v) support the hospital's human resources for health management;
- (vi) estimate nosocomial infection rates;
- (vii) compute the average duration of hospital stay for patients with different diseases;
- (viii) estimate the bed occupancy rates;
- (ix) compute hospital referral rates;
- (x) determine postoperative infection rates;

These details can be used to enhance hospital management.

### 3. Human Resources Management Information System (HRMIS):

This is the most crucial information system for hospitals. This system can assign staff members to the relevant work stations as well as draw balanced duty rosters. The system can significantly improve the efficiency of the hospital. This system needs to be closely monitored. The weaknesses in this system can have negative repercussions on other HMIS. Without the HRMIS, it is hard to plan human resources for health effectively.

### 4. Operating Room Management Information System (ORMIS):

If this system operates well, the logistics, management, and efficiency of the operating room can be enhanced. In addition to balancing the load of the patients undergoing surgery, the operating room staff's workload can also be divided wisely. There would be minimal waste of supplies and equipment if the necessary supplies and equipment for the operating room were appropriately identified.

### **5. Supplies and Equipment Maintenance and Management Information System (SEMMIS):**

This system can ensure non-interruption of treatment services for the patients. Sometimes, the weaknesses in the system can cost the lives of patients. It can help in the proper planning of hospital supplies and equipment requirements. Networks of electronic, electrical, and mechanical engineers should be present within the health ministry in addition to the system.

### **6. Health Supply Chain Management Information System (HSCMIS):**

To ensure continuous delivery of the items the individual hospital needs, the in-house health supply chain management information system needs to be connected to the national health supply chain management system. If local purchases of supplies and equipment are not possible through the national system, advance planning should be made. For this to happen smoothly, the in-house system should be continuously updated.

### **7. Budget and Financial Management Information System (BFMIS):**

This is the lifeline for the smooth functioning of the hospital. The data in the system is an excellent input for the next budget cycle. This could be a wake-up call for policymakers to give more attention to the hospital domain. The data in the system is a good input for doing a *“financial resource flow analysis”* of the hospital.

### **8. Diagnostic and Radio-Imaging Management Information System (DRMIS):**

This system can be very helpful for the smooth flow of patients undergoing radiodiagnosis and radiotherapy. This system can improve patient satisfaction in the hospital. It can aid in the procurement of additional equipment for radiodiagnosis and radiotherapy.

### **9. Rehabilitation and Physiotherapy Management Information System (RPMIS):**

This system can be very helpful in ensuring the smooth flow of patients undergoing rehabilitation and physiotherapy. This system can improve patient satisfaction in the hospital. It can aid in the procurement of additional equipment for rehabilitation and physiotherapy.

### **10. Cancer Registry Management Information System (CRMIS):**

Special attention should be given to CRMIS. This system is essential for overall planning for the prevention and control of all types of cancer in the country. Epidemiological information (demographic characteristics, geographic distribution, age and gender distribution, occupational variation, etc.) for various types of cancer can be known if the system works well. This will tremendously help support health literacy promotion activities in the community. The procurement of drugs for the treatment of cancer and equipment for radiotherapy can be done systematically. All in all, overall planning for prevention and treatment of all types of cancer at the national level can be worked out. Special attention should, therefore, be given to CRMIS.

## 12. Effective Utilization of Hospital Data

### 11. Hospital Building Maintenance Management Information System (HBMMIS):

This system can provide crucial information for the extension of the hospital infrastructure if there is a need. Waste (biological, laboratory, general sewerage, and radiological) disposal in the hospital can be improved. Nosocomial infection rates can also be decreased. The hospital's toilets and bathrooms may be renovated, which would increase staff and patient satisfaction.

### 12. Staff Social Welfare Management Information System (SSWMIS):

This system is not available in many hospitals. This system is really helpful in increasing the morale of the staff and their commitment to the services they are providing to the patients. It can help achieve the *"Patient-Friendly Hospital Initiative."*

### 13. Emergency Room Management Information System (ERMIS):

This system may help raise the standard of care provided to patients in hospital emergency rooms. The need for further capacity-building for emergency room staff can be easily identified. Patient satisfaction can be increased.

### 14. Patient Registry Information System (PRMIS):

This system can be very supportive of the follow-up and management of patients, as their past treatment histories can be easily made available. It can contribute tremendously to overall national health planning.

### 15. Hospital Research Information Management System (HRMIS):

The existence of this system can not only support the hospital's clinicians and medical staff in their abilities to undertake research but can also encourage the conduct of studies to advance clinical, nursing, and paramedical knowledge. Hospital *"Clinical Research Units"* may benefit from it as well. It can greatly help with evidence-based decision-making in the clinical field.

### 16. Mortuary Information Management Information System (MIMS):

The hospital's morgue can operate more efficiently with the help of this system. Typically, it is a neglected part of the hospital information management system. The reputation of the hospital will improve if the surviving family members are pleased with the service they received.

In order to run the hospital efficiently, we need the quality and ethical performance of the hospital staff, as well as necessary logistics support, apart from the above-mentioned sixteen entities. ***Without proper and timely logistical support, various hospital work procedures will come to a standstill.***

We need to closely monitor the performance of logistical issues in terms of the availability of medicines, supplies, and equipment; the proper functioning of various types of equipment used in hospitals; the timely and sufficient availability of laboratory reagents; the availability of various categories of hospital staff in relation to patient load; the types of diseases treated at the hospitals; and the availability of relevant specialty staff. All this information will be available if the hospital management information system (HMIS) is running properly.

## 12. Effective Utilization of Hospital Data

In order to support this aspect, there should be a group of professionals who will monitor the situation by doing regular reviews and analyses of the data and information coming out of the HMIS. ***The utility of these data could be enhanced if we first transformed them into information.*** Computer support and services are necessary to smoothly run the above-mentioned sixteen computerized systems.

### Conclusion

The single most crucial element in the effective operation of the healthcare delivery system is the presence of a trustworthy, current, complete, responsive, and compact data system administered by effective and qualified people. ***Hospital data systems are essential for making clinical policy decisions as well as ensuring patient safety and satisfaction.*** It is our duty to make use of the tons of data that we have to make rational decisions in the health domain. A specific group of professionals, involving public health specialists, epidemiologists, representatives of clinical disciplines, biostatisticians, social scientists, laboratory technicians, and medical technologists, should take care of the data available in the hospital data system because hospital personnel are so overburdened with work.

### FURTHER READING

- ***“Transforming Data Into Information,”*** article 20 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Expanding the Use of Computerized System,”*** part 3, article 22 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Stopgap Measures to Ease the Challenges of the Hospital System,”*** article 24 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Challenges in Managing a Hospital,”*** article 13 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Consolidating the Use of Health information Systems,”*** article 8 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 13.

## MAKING PUBLIC HEALTH ASSOCIATIONS FUNCTIONAL

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**T**he Public Health Association is one of the most significant entities in the nation for advancing public health. The association is often run by experienced public health professionals, skilled epidemiologists, senior public health administrators, public health-minded senior clinicians, and other professionals from related fields with extensive expertise in public health. ***The public health association is also one of the most prestigious associations in the country.***

The association's various activities could benefit the country in a number of ways. The association should collaborate with the health ministry and other relevant organizations to:

1. Promote public health;
2. Improve the general health of the populace;
3. Reduce the frequency of disease outbreaks;
4. Protect environmental hazards;
5. Prevent occupational hazards;
6. Prevent man-made disasters;

***Public health associations are the arms and legs of the health ministry for promoting the health status of the population in the country.***



### 13. Making Public Health Associations Functional

7. Promote healthy lifestyles;
8. Enhance the health literacy level of the population;
9. Detect an impending outbreak of communicable and zoonotic diseases;
10. Reduce the incidence and prevalence of noncommunicable and chronic diseases;
11. Reduce the incidence and prevalence of communicable diseases;
12. Strengthen public health surveillance systems;
13. Reduce the incidence of vaccine-preventable diseases;
14. Support postgraduate teaching courses in schools of public health;
15. Involve themselves in capacity-building programs of the health ministry;
16. Improve quality-adjusted life years;
17. Extend life expectancy at birth; etc.

***"The population's health status can be improved only through public health actions based on the principles of public health, the foundations of epidemiology, and allied sciences."*** Therefore, we need to systematically make the association strong, active, and responsive. The association needs to work harder to implement the health ministry's policy guidelines if it wants to serve the population more effectively.

In collaboration with the health ministry and related associations and organizations, the association shall take part in the following activities: All of the below-listed activities might not be possible to do. Yet, some of the necessary actions to meet the demands of the circumstances may be taken into consideration.

1. Preventing, controlling, and containing ***disease outbreaks***;
2. Enhancing the ***communication skills*** of health professionals;
3. Promoting and reinvigorating ***community health***;
4. Increasing the ***health literacy level*** of the population;
5. Conducting ***capacity-building training programs*** on general public health;
6. Promoting the use of ***health data and information*** available in the country;
7. Enhancing the ***public health acumen*** and ***epidemiological thinking skills*** of its members as well as relevant staff of the health ministry;
8. Conducting ***public health talks*** on contemporary and evolving health situations in the country;
9. Developing ***infographic materials*** for health promotion;
10. Developing ***standard operating procedures and guidelines*** for the management of important public health topics;
11. Developing ***standard operating procedures and guidelines*** for the control of disease outbreaks;
12. Making the ***community-based organizations*** strong and responsive to the public health needs of the community;
13. Collaborating with and assisting the ***neighborhood self-help health groups*** in their endeavors;
14. Conducting ***implementation research*** on issues of public health importance;

### 13. Making Public Health Associations Functional

15. Regular in-house discussions on **emerging public health issues** among the members of the association;
16. Conducting **public talks** on regional and local public health issues;
17. Holding **lunchtime talks** on important and evolving public health topics at health institutions and large hospitals in the country;
18. Developing **checklist questions** for performance assessment for health institutions, hospitals, and health centers;
19. Developing processes for conferring **“Board Certified Public Health Professional”**;
20. Conducting **health surveys** as required;

The association will engage in two different sorts of activities: (i) long-term continuous activities; and (ii) one-time activities. Each entity should be carefully organized, and the relevant members of the association should be assigned defined duties. Its operations should be reviewed and monitored using a checklist-style approach. It is important to have adequate office space and finance employees on hand because different sponsoring organizations may provide financial support. The health ministry may also provide financial support. **To justify the funds obtained, the association must demonstrate its value to public health.**

To achieve the overarching goals of the aforementioned specific actions, the following generic initiatives should be considered: It will make the foundation of public health in the country strong and sturdy.

1. To collaborate closely with **groups and associations** that have comparable goals and objectives;
2. To collaborate proactively with the **directors of public health programs** within the health ministry;
3. To enlist the support of **UN organizations** like WHO, UNICEF, UNFPA, UNODC, UNAIDS, UNHCR, and entities such as USAID, JICA, CIDA, World Bank, Global Fund, GAVI, AusAID, SIDA, CIDA, DFID, GIZ, other international and regional alliances, NGOs, INGOs, etc.
4. To emphasize the importance of having clear **mission statements and goals** for the association;
5. To work closely with **nursing and medical associations**;
6. To actively participate in the health ministry's **public health initiatives**;
7. To be knowledgeable about the **resolutions** adopted at the yearly World Health Assembly meetings; [some of the relevant ideas could be taken for implementation.]
8. To conduct the biennial **“National Conference on Public Health;”**
9. To conduct **six-monthly meetings** of the association in order to share new ideas, fresh concepts, and evidence-based best practices among the members; [an appropriate note for the record must be made available.]
10. To uphold and promote a **code of ethics in public health**;

### 13. Making Public Health Associations Functional

11. To advocate for and update **public health laws and regulations**;
12. To issue a **quarterly or six-monthly newsletter on public health**;
13. To bring **all disciplines of public health** together through various platforms and symposiums;
14. To build **partnerships** among like-minded public health organizations;
15. To promote **health in all policies** or **healthy public policies**;
16. To establish good **networks with schools** of public health, medicine, nursing, community health, dental medicine, traditional medicine, pharmacy, medical technology, nursing, and midwifery, etc.
17. To form strong networks with **research institutions** in the country;
18. To maintain an effective relationship with the **public health program directors** of the health ministry;
19. To develop strong linkages with the **Ministry of Education**;

Every country, developed or underdeveloped, requires a robust public health association. **"A visionary epidemiologist with extensive experience in public health should be in charge of the executive committee."** An understanding of social science and biostatistics would be an advantage. Public health is a fairly broad field that includes a variety of academic specialties. The leadership style, character, and attitude of the executive committee members and regular members will determine how strong the association is.

As far as feasible, the association's website news should be updated on a real time basis. Since the website serves as the association's public face, every effort should be made to make it appealing, understandable, and packed with useful information. **The best way to get people interested in community-based public health initiatives is through the association's website.** The association's website should provide information about all of its operations, implementation research findings, and partner collaborations. It could draw more funds and assistance from outside groups, agencies, and organizations.

### Conclusion

Public health is an extremely vast domain, and it has several categories of professionals working for it, such as policy makers, health administrators, public health specialists, epidemiologists, behavioral and social scientists, environmentalists, biostatisticians, management experts, anthropologists, public health ethicists, ecologists, research scientists, health promotion and communication specialists, health information specialists, etc. **The experts working in various sectors should connect with one another through the networking opportunities offered by the association.** The association will get stronger and more attentive to the concerns of the public. It could then advance public health with increasing momentum.

### 13. Making Public Health Associations Functional

The **"Public Health Association"** is also known as the **"Preventive and Social Medicine Society"** in some countries. The nature of the work, however, is generally the same. Time and again, the association should review its work and make appropriate adjustments in line with changing situations. The image and strength of the association are directly correlated with the degree of cohesiveness among its members. The association should also spearhead efforts to make public health professionals achieve the desirable characteristics mentioned in **"Being a Versatile Public Health Professional"**, article 1 of the book titled **"Health System Challenges: A Developing Country Perspective."**

#### FURTHER READING

- **"Being a Versatile Public Health Professional,"** article 1 of the book titled **"Health System Challenges: A Developing Country Perspective,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **"Harnessing the Contribution of NGOs,"** article 15 of the book titled **"Health System Challenges: A Developing Country Perspective,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **"Thought Process of a Seasoned Public Health Professional,"** page xiv of the book titled **"Health System Challenges: A Developing Country Perspective,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **"Stopgap Measures to Ease the Challenges of the Public Health Programs,"** article 25 of the book titled **"Tackling the Challenges of the Healthcare Delivery System in Developing Countries,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **"Ringling the Bell for the Ministry of Health,"** article 20 of the book titled **"Health System Challenges: A Developing Country Perspective,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **"Improving the Health Status of the Population,"** article 22 of the book titled **"Health System Challenges: A Developing Country Perspective,"** is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

### 13. Making Public Health Associations Functional

- ***“Health Literacy Promotion: A Far-sighted Strategy,”*** article 7 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Decision Making in Public Health,”*** article 30 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Thinking “outside-the-box” in the Context of Developing Countries’ Health Scenarios,”*** article 28 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Can we Improve the Effectiveness and Efficiency of the Healthcare Delivery System,”*** article 8 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

# 14.

## KEY PREDICTORS FOR THE GOOD PERFORMANCE OF HEALTHCARE DELIVERY SYSTEMS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

There are at least twenty-two key predictors or elements that can support the good performance of the healthcare delivery system. The availability of these key predictors will guarantee that the population receives quality healthcare services. These are:

1. Realistic and contemporary **strategies for priority entities** in the health domain;
2. Population-friendly **health literacy promotion strategy**;
3. Dedicated, competent, and ethically minded **human resources** for health;
4. Updated **standard operating procedures and guidelines** on priority subject matters;
5. Well-established **continuing professional development programs** for various categories of health staff;
6. Dynamic and robust **health management information systems** for various entities;
7. Updated teaching curriculums, teaching aids, and teaching methods in **teaching institutions**;

More progress can be made toward attaining our objective of a healthy population if we can streamline and reinforce the key predictors for the good performance of healthcare delivery systems.

#### 14. Key Predictors for the Good Performance of Healthcare Delivery Systems

8. Regular capacity-building programs for *faculty members* of teaching institutions;
9. Dynamic, responsive, and quality *research institutions*;
10. A realistic, well-integrated, and doable *national health plan, national health policy, and national health research policy*;
11. Down-to-earth *monitoring and evaluation systems* for various entities;
12. Patient-centered and patient-friendly *hospital systems*;
13. Efficient and resilient national *health supply chain management systems*;
14. *Policy and strategy analysis group or think tank* for the health domain;
15. Responsive *public health surveillance systems*;
16. A balanced and equitable *career ladder system* for all categories of staff;
17. A good *social welfare system* for the staff;
18. Rational *resource allocation and budgetary monitoring systems*;
19. Programs for enhancing the *analytical capabilities of staff*;
20. *Platforms* for sharing information and action;
21. Opportunities for practicing *beyond-the-box thinking for the staff*;
22. Staff *performance assessment systems*;

***The twenty-two key predictors mentioned above are interconnected and have an effect on one another.*** A quick and dirty analysis of the availability and performance of these key predictors would be helpful. The key predictors' current state will then be known, allowing us to take any further necessary action. In-depth discussions of the aforementioned key predictors that determine whether a healthcare delivery system is effective and efficient can be found in my earlier books. The articles in this book expand on some of the ramifications of these key predictors. ***The main drivers for successful health programs are, in reality, the key predictors.*** It is strongly suggested that a critical review and analysis of each key predictor be made on a continuous basis. It will provide us with a wealth of additional actionable items that we must address.

The presence of each key predictor and the extent to which the associated activities are being carried out should be closely monitored. We need to create a ***"Policy Analysis Group"*** or ***"Think Tank for the Health Domain"*** to oversee the availability and augment the performance of the associated activities of the key predictors. In many countries, the key predictors are generally available but in semi-dormant mode. We need to ensure that key predictors are always under scrutiny. It is to be emphasized again that key predictors are linked to one another. The enhancement of the associated activities of a key predictor can directly or indirectly affect other key predictors positively.

### Conclusion

In summary, all directors of health programs should be aware of the beneficial effects of these important key predictors on the operations of their programs. The nation's healthcare delivery systems are constantly engaged in dynamic interactions with external variables. ***The performance of key predictors' linked activities affects how responsive a health program is.*** When developing strategies for various health programs, pertinent information under the concerned predictors should be taken into account. The strategies will then be in line with the background scenarios.

Taking into consideration all these issues, we should not downplay the role of key predictors. It is suggested that we hold a ***“National Seminar on Key Predictors of the Country's Healthcare Delivery System.”*** All parties involved in the delivery of healthcare should attend the session. To be successful, careful preparatory work is required. It is crucial that the recommendations coming out from the national seminar should be given undivided attention.

### FURTHER READING

- ***“Enhancing the Effectiveness and Efficiency of the Healthcare Delivery System,”*** article 6 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>



# 15.

## STRENGTHENING PUBLIC HEALTH SURVEILLANCE SYSTEMS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

There are several definitions of “**public health surveillance**”. The WHO defined public health surveillance as follows: “**Public health surveillance is the continuous, systematic collection, analysis, and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice**” (2012). This amply demonstrated the value of public health surveillance in the field of health in every country. The generic meaning of the word “**surveillance**” is applied in this article. Public health surveillance systems are a very broad domain and include at least:

1. Surveillance systems for communicable and noncommunicable diseases;
2. Surveillance systems for uncommon and emerging public health problems;
3. Surveillance systems for zoonotic diseases;
4. Surveillance systems for man-made and natural disasters;
5. Surveillance systems for occupational hazards and diseases;
6. Surveillance systems for accidents;

**The public health surveillance system can be regarded as the central nervous system of the healthcare delivery system**

## 15. Strengthening Public Health Surveillance Systems

7. Surveillance systems for health staff performance;
8. Surveillance systems for hospital performance;
9. Surveillance systems for population viewpoints on health and healthcare delivery systems;
10. Surveillance systems for human resources in health;
11. Surveillance systems for teaching institutions;
12. Surveillance systems for interactions between the health ministry and external partners, including INGOs and UN agencies, etc.

The degree of development and efficiency of the activities of these surveillance systems vary from country to country. These major surveillance systems are supported by a number of sentinel surveillance systems. We should review and improve the overall framework, infrastructure, method of operation, networking, and monitoring of the findings of the surveillance systems. Actions taken in response to information obtained from these surveillance systems require special consideration. A **“Senior Task Team”** with broad authority should be established to provide overall policy and strategic direction for the whole public health surveillance systems.

***If these public health surveillance systems are effective and trustworthy, the nation's healthcare delivery system will be responsive to the needs of the populace.*** Therefore, we should at least maintain the current pace of work of the public health surveillance systems and, whenever possible, strengthen and expand them.

Each surveillance system should have a sentinel surveillance system. In order to receive early warning information, a **“Multidisciplinary Technical Support Group for Surveillance Systems”** made up of public health experts, epidemiologists, social scientists, physicians, veterinarians, nurses, human resource specialists or educationists, environmental health specialists, laboratorians, ecologists, information communication specialists, biostatisticians, microbiologists, virologists, occupational medicine physicians, occupational health psychologists, industrial hygienists, research scientists, etc., should be formed. The group should create a fundamental, generic framework for a surveillance system in order to make it more effective and efficient. The personnel in the respective specific technical area of work should make additional fine-tuning and modifications.

The following justifications unequivocally demand that public health surveillance systems in the country pick up speed.

1. Due to **rapid transportation**, the availability of vectors, and similar climatic conditions to the country where the disease originated, diseases from nearby and distant countries can spread to any country in the world. Congestion in the population and rapid population expansion are further factors facilitating this. Responsive communicable disease surveillance systems can alleviate many of

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the untoward conditions or occurrences of novel diseases. In every country, the morbidity and mortality of noncommunicable diseases are increasing steadily. Noncommunicable diseases are not as easily detectable as communicable diseases. In noncommunicable diseases, the iceberg phenomenon is typically observed. Thus, we also need to have sensitive noncommunicable disease surveillance systems in the country.

2. **Early detection**, especially of the respiratory spread of viral diseases, is crucial. A robust and responsive disease surveillance system is essential. Early identification of viral infections, particularly respiratory transmission, is essential. It is crucial to have reliable and effective communicable disease surveillance systems.
3. A number of **rare or uncommon diseases** are appearing in various countries as a result of shifting epidemiological conditions, genetic mutations of disease-causing organisms, altered lifestyles, and uncontrolled population movement. This shift in disease prevalence and new public health concerns need to be properly monitored. Therefore, it is important to implement effective surveillance systems for uncommon and emerging public health problems.
4. **Zoonotic diseases** are generally the primary cause of epidemics and pandemics. Systematic monitoring or surveillance of the early emergence of zoonotic infections across the country can help prevent full-blown pandemics and epidemics. Therefore, developing reliable zoonotic disease surveillance systems is essential.
5. Impending **man-made and some natural disasters** can be prevented if well-organized disaster surveillance systems are in place. It could save millions of dollars, let alone ease the suffering of the population.
6. The nation is home to a number of **factories and enterprises**. There are significant industry-specific hazards. Monitoring the occurrence and prevalence of occupational hazards and occupational diseases across a range of sectors and workplaces is crucial. If we have operational surveillance systems for occupational hazards and occupational diseases, necessary preventive measures can be put in place in advance.
7. Numerous **accidents** are occurring in various countries as a result of the population boom, the ever-increasing number of cars and trucks, the mushrooming of industries and factories, and changes in lifestyle. These incidents are considerably depleting the resources that the hospitals use. With the use of data and information from comprehensive surveillance systems for accidents, numerous preventive measures can be initiated.
8. The health ministry has employed thousands of health workers from different categories and disciplines. The **performance** of these health workers needs to be monitored regularly. The performance of the healthcare delivery system depends on health workers' commitment, caliber, and ethical mindfulness. Proper surveillance systems for staff performance are vital.

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9. There are hundreds of **hospitals** throughout the country, each with its own size and range of specialties. The staff at hospitals ranges in caliber, attitude, devotion, and loyalty. Monitoring the effectiveness of various efforts to care for patients in hospitals is essential. Therefore, appropriate surveillance systems for hospital performance are indispensable.
10. **Health professionals** should always think from the **perspective of the population and patients**. We should be on the lookout for the viewpoints of the population and patients. Surveillance systems for population viewpoints on health and healthcare delivery systems should be established.

The healthcare delivery system is made up of several health initiatives that are managed by various teams. From program to program, different human resources for health requirements apply. Some programs have an excess of employees, while others lack staff. While many employees lack the capacity-building training necessary for the specific job they are performing, some employees are completely and well trained. We also need to determine if the appropriate staff is employed for a certain program. In that context, "**suitable surveillance systems for human resources in health**" should be put in place. The surveillance systems in human resources for health also include the performance of teaching institutions.

### Conclusion

To make the most suitable policy and strategic decisions for the country, the health ministry's policy and decision-makers, operational officers, and directors of health programs should receive timely, trustworthy, and accurate information. **The cost of bad judgments by policymakers to the nation is high.** Healthcare delivery systems can provide people with high-quality services if the public health surveillance systems listed above are working properly and in tandem. These systems will primarily produce raw data, which we must then turn into information while taking into account a number of factors. Decision-makers should receive timely and relevant information.

As long as the data and information they generate are properly evaluated, analyzed, and used, strong public health surveillance systems can lead to strong healthcare delivery systems. It is impossible to design flawless surveillance systems all at once. **The system's components need to be adjusted and changed to reflect shifting epidemiological conditions and other relevant factors.** The systems are continuously in a dynamic state. Be that as it may, we should make an effort to have surveillance systems that are at least functionally adequate for the country. The work of the public health surveillance systems should be computerized in order to become responsive and integrated systems. The systems should also be interoperable.

**NB.** The words *surveillance* and *monitoring* are used interchangeably.

### FURTHER READING

- **“Viewpoint: Disease Surveillance System,”** article 18 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- **“Enhancing the Effectiveness of Disease Surveillance Systems,”** article 26 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **“Transforming Data into Information,”** article 20 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- **“Expanding the Use of Computerized System,”** article 22 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- **“Consolidating the Use of Health information Systems,”** article 8 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

# 16.

## FORMULATING OR REFORMULATING NATIONAL HEALTH POLICY

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The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**N**ational health policies are available in every country. Some of the health policies have been in place for many years, if not decades. There are a number of reasons why they have not been updated. ***The health policy may have been quite logical and valid at the time it was formulated.*** However, given present political and epidemiological conditions as well as a number of other reasons, it might not be the most appropriate one at this time. It, therefore, calls for an initial policy review and analysis. Updated data that may be available at the time of review and analysis should serve as the foundation for the review and analysis. It is mandatory that a multisectoral and multidisciplinary team be involved.

***The existing national health plans and national health policies should be compatible with one another, which is another crucial aspect.*** National health plans are typically current since they are time-bound. We need to make sure that both are up to date. National health plans should be developed based on national health policy.

***The national health policy must be developed based on current, valid, and trustworthy data and information in order to be in compliance with the needs of the nation.***

The following set of initiatives needs to be completed before we can do genuine policy analysis.

1. The umbrella approach should be used in **"national health policy review and analysis"**. As a preliminary step, all directors of health programs, other pertinent officials, concerned UN agencies, medical associations, nursing associations, other relevant associations, INGOs, and large NGOs should be informed on the current national health policy and national health plans. One benefit is that staff can submit their considered views to their superiors or decision-makers for prospective formulation and reformulation of the current national health policy if it is not compatible with the country's current health scenarios.
2. If the existing national health policy appears to be acceptable, all health program directors should cross-reference the strategies and activities of the existing national health plan with the existing national health policy. It is strongly suggested to refer to the article titled **"Reviewing and Revising the National Health Plan: A Practical Perspective,"** as mentioned below. The article contains:
  - (i) Basic tenets for the review of the national health plan;
  - (ii) Changing scenarios calling for policy review and analysis;
  - (iii) A preliminary quick review of existing scenarios in the context of the national health plan;
  - (iv) Generic review of the national health plan;
  - (v) A critical and in-depth review of the national health plan using eight parameters;
  - (vi) A critical and in-depth review of the national health policy *versus* the national health plan;
  - (vii) A critical and in-depth review of the national health policy *versus* important policy-related issues;
3. It is also suggested to refer to the article titled **"Research and Health Policy Formulation,"** as mentioned below. The article contains:
  - (i) Role of research in policymaking and how to promote it;
  - (ii) Minimal questions to be asked by policymakers before policymaking;
  - (iii) Need for interaction between policymakers and senior researchers;
  - (iv) Questions to ask whether the health policy in place is relevant and rational;
  - (v) Conditions to be fulfilled to augment the role of health research in policymaking;
  - (vi) Some epidemiologic tools and methods that can be applied in policy research;
  - (vii) Indicators to depict the situation *vis-à-vis* health policy;
  - (viii) Caveats in using epidemiologic tools and methods in policy analysis;
  - (ix) Steps in health policy research (analysis) and policy making;
  - (x) Preparatory activities for consideration in formulating health policy;
  - (xi) Constraints generally observed in developing countries in policy making;

4. As the steps for formulating national health research policy and strategies and formulating national health policy and strategies are somewhat similar, it is strongly advised to refer to the article titled ***“Formulation/Reformulation of Myanmar National Health Research Policy and Strategies”*** as mentioned below. The article contains:

- (i) Advantages of having a sound national health research policy;
- (ii) Generic cycle of policy making and policy process;
- (iii) Mechanisms to formulate or reformulate national health research policy; and
- (iv) Contents of the national health research policy statement;

The aforementioned initiatives will serve as a starting point for the review, analysis, and formulation or reformulation of national health policy. The current national health plan must be thoroughly reviewed before beginning these initiatives. Any nation that wants to effectively serve its population needs a coherent national health policy as well as a logical and workable national health plan. The execution of these initiatives will be a lengthy process, and several technical committees with clear terms of reference must be constituted. ***A broad “Steering Committee for Conducting National Health Policy, Review, Analysis, and Formulation/Reformulation” should be established.***

It is crucial to note that there are a lot of new innovations taking place globally in the public health and clinical realms. We should stay informed of these developments and adjust the national health policy, strategies, and plans as necessary. ***To effectively improve the nation's healthcare delivery system, a “Policy Analysis Group” or “Think Tank for the Health Domain” should be established.*** It is necessary to create precise terms of reference. This group or think tank should submit the reports directly to the health minister. Depending on the efficiency and performance of the group, we may assign special tasks to the group or think tank.

### Conclusion

Depending on the government's position, the country's health policy may change course. ***The national health policy, however, should be the overriding principle that we need to adhere to.*** It will significantly affect the following:

- 1. Proportionate budgetary allocation for different health programs;
- 2. Development of additional strategies for addressing the policy's major challenges;
- 3. Creation of supplementary health programs;
- 4. Elements of the national health plan;
- 5. Production of different categories of human resources for health;
- 6. Construction of more hospitals and training institutions;
- 7. Conducting continuing professional development programs for doctors working



## 16. Formulating or Reformulating National Health Policy

in different specialties, public health professionals, nurses, paramedical professionals, basic healthcare service workers, etc.;

8. Research areas that need to be further explored and conducted;
9. Effectiveness of the health ministry to serve the population.

Therefore, ***formulating a comprehensive and integrated national health policy must be given high importance.*** It should also be done methodically, with the participation of all stakeholders.

### FURTHER READING

- ***“Reviewing and Revising National Health Plan: A Practical Perspective,”*** part A, article 14 of the book titled “Reflections of a Public Health Professional,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Research and Health Policy Formulation,”*** part B, article 5 of the book titled “Reflections of a Public Health Professional,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Formulation/Reformulation of Myanmar National Health Research Policy and Strategies,”*** part B, article 6 of the book titled “Reflections of a Public Health Professional,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Epidemiological Methods for Policy Analysis,”*** part A, article 18 of the book titled “Reflections of a Public Health Professional,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Promoting Health Policy Research,”*** part B, article 9 of the book titled “Reflections of a Public Health Professional,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>
- ***“Ring the Bell for the Ministry of Health,”*** article 20 of the book titled “Health System Challenges: A Developing Country Perspective,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Improving the Health Status of the Population,”*** article 13 of the book titled “Health System Challenges: A Developing Country Perspective,” is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>

- ***“Enhancing the effectiveness and Efficiency of the Healthcare Delivery System,”*** article 6 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Strengthening the Public Health Domain,”*** article 5 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Inaugural Speech Delivered by Dr. Myint Htwe,”*** annex 2 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Key Predictors for the Good Performance of Healthcare Delivery System,”*** article 14 of this book
- ***“Wide-Ranging Initiatives to Shape the Health Domain,”*** article 18 of this book
- ***“Evolving Health Issues Requiring Priority Attention,”*** article 19 of this book

# 17.

## REDUCING THE OCCUPATIONAL HAZARDS OF HEALTH WORKERS

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The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

**G**enerally, occupational hazards encountered by health workers were not given serious attention. Unknowingly or knowingly, many health workers got sick or debilitated due to incidents happening in the work environment. As a result of the nature of their employment, every occupation entails risks. Due to the enormous number of patients that health staff see each day, occupational dangers for these personnel are becoming increasingly widespread, and the frequency of hazard incidents is also rising. ***The health ministry's policymakers and top officials have a responsibility to monitor and improve the situation with regard to occupational hazards.***

To reduce the number of hazards, we need to engage in a whole array of activities. The initial steps are to do a quick review of the occupational hazard situation by holding key informant interviews, conducting focus group discussions, and getting more information on occupational hazards by assessing the situation using checklist-type questions.



***The health ministry's policymakers and top officials have a responsibility to oversee and improve the situation with regard to occupational hazards.***



The topic of occupational hazards for healthcare professionals should be covered in the curriculum of pertinent MBBS courses, particularly in the areas of preventive and social medicine, as well as MPH courses. ***It is important to encourage more implementation research studies and thesis papers on workplace hazards for healthcare professionals.***

***Healthcare workers face a variety of occupational risks, some of which are ill-defined.*** It typically includes ionizing radiation exposure, occupational stress, injuries, social conflicts, ethical dilemmas, prejudice, infectious diseases, and laboratory chemicals. Health care professionals also face significant dangers from illnesses like AIDS, tuberculosis, and novel infectious diseases.

The staff at various hospital departments should be made aware of the potential occupational dangers they may encounter and how to avoid them. The development of ***"Occupational Hazards Monitoring Systems in Hospitals, Factories, and Workplaces"*** is necessary. The data collected by the system will be a highly valuable resource for policymakers and hospital directors or medical superintendents.

One of the documents called ***"Workers Safety in Hospitals: Caring for the Caregivers,"*** produced by OSHA, USA (Occupational Safety and Health Administration), is a useful document, and the ***"Hospital Management Committee"*** should refer to it for necessary action. OSHA, USA, also produced a number of essential documents and guidelines on workplace dangers. Even though we might not be able to adhere to all of these guidelines, many of them can be used in developing countries.

***We must take part in a wide range of activities if we want to decrease the number of hazards.*** The early phases entail performing key informant interviews, focus group discussions, and a short analysis of the occupational hazard scenario in order to get additional information about occupational risks. Generally, the following actions are proposed, but are not exhaustive, in order to reduce occupational hazards among the health staff:

1. Improving and implementing ***radiation*** safety regulations in X-ray, advanced, and other radiation-emitting machines where radiation leaks could jeopardize staff members' health;
2. Disposal of ***biological wastes, laboratory wastes, general hospital wastes, sewage wastes,*** etc. should be done in a proper and organized manner;
3. Ensure that ***personal protective equipment (PPE)*** is available and that users are trained to use it in the event of an infectious disease outbreak or pandemic.
4. Make sure that there are stringent ***standard operating procedures and guidelines*** accessible for collecting biological samples from patients and that every new employee joining the laboratory section has received training.

## 17. Reducing the Occupational Hazards of Health Workers

5. Regular **sterilization** or **fumigation** processes should be carried out in operating rooms, as well as proper sanitation measures in hospital wards and their environments.
6. Regularly perform proper **sanitation** both inside and outside the hospital.
7. Brochures on **proper patient handling approaches** to prevent the spread of infectious diseases
8. Hospitals should enforce the recommended guidelines for lowering nosocomial infections. Patients have a crucial role in lowering **nosocomial infections**.
9. In the event of an **epidemic** or **pandemic** of an infectious disease, especially one that spreads by the respiratory route, extra precautions should be taken and stringent SOPs and guidelines should be followed. A hospital director or medical superintendent should be in charge of it.
10. Isolation wards in hospitals should strictly follow the principles of management of isolation wards for infectious diseases as well as the physical requirements of an **isolation ward**.
11. Security personnel should be hired, and the **hospital's general security** should be made available. Without fail, this needs to be implemented.
12. Automatic **sprinkler systems and smoke alarms** for fire hazards should be installed.
13. **Building resilience** should be examined annually for a number of factors. This issue is crucial for the mental well-being of healthcare professionals. There should be drills for emergency patient and hospital personnel evacuations.
14. To periodically examine the overall situation of occupational hazards for health workers working in hospitals, a checklist should be made available. The **"Hospital Management Committee"** should receive the findings and take any required action without fail.
15. All **tools and chemicals** required for sterilization, fumigation, etc. should be made available. Check the expiration dates of these chemical substances as well.

Additionally, all staff members should get education and training on how to resolve interpersonal conflicts with patients, reduce work-related stress, navigate moral conundrums, and refrain from bias. This category of tasks necessitates the assistance of experts from specific fields, and the health ministry should handle them. All hospital directors around the country need to have access to self-learning tools for lowering occupational hazards for health employees.

Everyone who works in the hospital has a part to play in reducing occupational hazards for health workers. Therefore, all hospital staff members should be informed of the knowledge and facts surrounding occupational hazards. **Health workers working in hospitals around the country face hundreds of occupational hazards that are not fully documented.**

Each hospital should keep a record of the significant occupational hazards that health professionals face in the ***“hospital occupational hazards record system”***. For the purpose of developing a policy and strategy on reducing occupational hazards for health workers, a composite analysis of the data from systems in all hospitals across the nation will be a crucial input.

### Conclusion

As per the WHO data for November 2022,

1. about 54% of health workers in low- and middle-income countries have latent tuberculosis, which is 25 times higher than the general population;
2. between 44% and 83% of nurses in clinical settings in Africa have chronic low back pain, compared to 18% among office workers; and
3. globally, 63% of health workers report experiencing any form of violence at the workplace.

The most important point is that, so far, only 26 out of the 195 member states of the WHO have in place policy instruments and national programs for managing the occupational health and security of health workers. In view of this, it is high time that health policymakers in developing countries strive to have doable strategies to lessen the occupational hazards of health workers. Ensuring worker safety is our top priority. ***We must work to create a nearly risk-free atmosphere in hospitals.*** There are many occupational hazards for healthcare professionals, so we must focus on the most important ones given the hospital's allowed budget. However, some tasks may be completed with a small budget and should be done as quickly as feasible.

It is time to pay attention to the occupational hazards faced by health professionals so that they are prioritized on the agenda of the health ministry. ***We need to establish the hospital occupational hazards record system as soon as possible.*** Additionally, we must teach our health professionals how to lower occupational dangers at their places of employment. Let us make it possible for our healthcare professionals to provide patients and the general public with quality healthcare services in a hassle-free setting.

# 18.

## WIDE-RANGING INITIATIVES TO SHAPE THE HEALTH DOMAIN

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The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. This article is what the health ministry should embark on to move our healthcare delivery systems forward with increasing momentum.

[The actions that can be considered for each initiative are mentioned in the article number shown in brackets. B denotes book number, and A denotes article or chapter number.]

**T**here are several initiatives that can enhance the momentum of the work in the health domain in the country. *In this article, the term health domain encompasses the **public health domain, the clinical domain, the management and administrative domain, the budget and finance domain, and the research domain.*** The following initiatives are necessary to advance and reshape the health domain:

A certain group of capable individuals in the nation must lead and then oversee these initiatives. There are many subdomains under these five major domains. There are several pathways or *modus operandi* that we can use to achieve the intention of each initiative mentioned below. *All ideas and concepts are in alignment with a developing country scenario. These initiatives are related to one another as well.*

**“The components of a health domain are interconnected and intertwined. To properly manage it, we need to apply a systems approach and systems thinking.”**

## 18. Wide-Ranging Initiatives to Shape the Health Domain

1. All **FDA activities** ought to be reinforced in all aspects and carried out rigorously, systematically, and under the scrutiny of independent groups. The FDA's activities are connected to population health either directly or indirectly. (B5-A8) (B5-A3)
2. All **curricula, instructional strategies, teaching resources, and faculty availability** in all teaching institutions should be reviewed, and any necessary adjustments and improvements will be made in a phased and methodical manner. Given the size of the undertaking, numerous professional groups ought to participate. (B2-A3) (B2-A11) (B3-A4)
3. Programs for **continuing professional development** (CPD) should be implemented across all of the disciplines in the health domain. All CPD programs should be properly registered. There should be a computerized mechanism in place for recording CPD activities. (B2-A3)
4. Specific initiatives should be put in place to improve **doctors' clinical judgment and acumen**. The clinical domain's lifeline is this program. We need to pay special attention. (B3-A12) (B3-A17) (B3-A24) (B5-A6)
5. Specific initiatives should be put in place to improve **nursing acumen**. We should support nurses in every way possible, as they play a crucial role in facilitating patients' speedy recovery and ensuring their contentment. (B2-A14) (B3-A19)
6. Specific initiatives should be put in place to improve **paramedical staff acumen**. The importance of paramedical personnel in the field of medical treatment should not be understated. They are very crucial. (B3-A20)
7. Specific initiatives to enhance the administrative, budget and financial management skills, supply chain logistics, and overall management skills of **hospital directors and medical superintendents** should be taken into consideration and implemented. (B2-A13) (B3-A13) (B3-A16) (B3-A17) (B3-A24) (B5-A2)
8. Capacity-building initiatives for **faculty members** working in educational institutions should be implemented. The gatekeepers for producing high-caliber graduates from educational institutions are the faculty members. (B1-A21) (B3-A4) (B3-A8)
9. In cooperation with medical societies, medical associations, and medical councils, formal programs to confer the titles of **"Board Certified Physicians"** and **"Board Certified Public Health Professionals"** should be developed. If it is successful, other disciplines ought to adopt it. Doctors' clinical judgment will improve, as will public health practitioners' public health acumen. (B3-A3) (B3-A4) (B5-A6)
10. The performance of the **national health supply chain system** should be reviewed and improved in all aspects. If the health supply chain system fails, the entire healthcare system may come to a grinding halt. (B2-A7) (B3-A10)
11. The **health literacy promotion strategy** of the country should be carefully reviewed, fine-tuned, and implemented seriously. This is the most cost-effective strategy to improve the overall health status of the populace. (B2-A2) (B2-A6) (B2-A10) (B2-A21)



## 18. Wide-Ranging Initiatives to Shape the Health Domain

12. All **standard operating procedures and guidelines** for various subject matters should be updated and distributed to all pertinent entities. This initiative is very beneficial to all aspects of the healthcare delivery system, especially for health staff working in remote and hard-to-reach areas. (B3-A7)
13. Develop national strategies to improve the capacity of **health research institutions** and promote research projects that will help the health domain of the country. Research is part and parcel of the healthcare delivery system. (B1-Part B-A1) (B1-Part B-A2) (B1-Part B-A3) (B1-Part B-A5) (B1-Part B-A6) (B1-Part B-A7) (B1-Part B-A8) (B1-Part B-A9) (B3-A15)
14. Immediate review of the **national health policy, national health plan, and national health research policy** and act accordingly. These three entities are the driving forces behind the healthcare delivery system. (B1-Part A-A14) (B2-A8) (B2-A10) (B2-A12) (B2-A21) (B5-A16)
15. Develop a **national strategy to promote community participation** in health ministry projects that promote health. Many public health projects would not be successful without community support. (B1-A4) (B2-A10) (B2-A21) (B5-A1)
16. Create a nationwide plan to raise **patient satisfaction in hospitals**. Patient safety issues are often linked to patient satisfaction issues. As a result, we must work to ensure patient satisfaction. (B3-A11) (B3-A17) (B3-A24) (B5-A2)
17. Create a nationwide plan to reduce **workplace risks** for health personnel. (B5-A17)
18. Establish a national plan to improve **public health surveillance**. The effectiveness of this system is directly tied to a decline in disease-associated morbidity and mortality. (B2-A18) (B3-A26) (B5-A15)
19. Create an action plan to improve **cooperation among health stakeholders**. Working collaboratively is one of the fundamental tenets of public health. We must thus fully promote it. (B1-A3) (B1-Part A-A7) (B2-A15) (B3-A3) (B3-A11) (B3-A12) (B3-A22)
20. Create a group to oversee **health budget allocation and utilization** in the health ministry. If we take care of the resource allocation and utilization issues, we will reap several benefits. (B3-A16)
21. Establish a national-level **“Technical Advisory Group for Epidemic and Pandemic Diseases.”** This is crucial nowadays, when outbreaks of novel diseases are frequent. (B2-A4) (B2-A5) (B3-A14)
22. Create a national plan to bolster and enhance the nation's **health information systems**. The central nervous system for the healthcare delivery system can be thought of as the health information system. (B1-Part A-A12) (B1-Part A-A20) (B1-Part A-A 14) (B3-A8) (B3-A21) (B5-A11)
23. To the extent possible, all tasks carried out by the health ministry should be **computerized and automated**. The efficiency of the healthcare delivery system can be increased to extraordinary heights. Staff members should be well trained in the use of computers and the relevant software. (B3-A21)

## 18. Wide-Ranging Initiatives to Shape the Health Domain

24. Create a system to help health professionals become more **analytical and creative thinkers**. The staff's ability to think critically and creatively determines how well the healthcare delivery system functions in the nation. (B1-Part A-A10) (B2-A16) (B2-A17) (B2-A20) (B3-A28) (B3-A29) (B5-A5) (B5-A11)

25. Establish a **"Policy Analysis Group"** or **"Think Tank for the Health Domain"** to effectively improve the nation's healthcare delivery system. They can work like the ship's rudder system, making sure that the healthcare delivery system is going in the right direction and providing correct and effective care for the population. (B1-Part A-A11) (B2-A19) (B2-A20) (B3-A23) (B3-A30) (B5-A14) (B5-A19)

If we can implement the above twenty-five initiatives in a phased and stepwise manner, the population will definitely receive quality healthcare, slowly but surely. All parties involved should work cooperatively with a positive outlook and a sense of teamwork. **Each initiative requires a tremendous amount of work from all parties involved if we are to achieve the desired results.** Prioritizing these twenty-five initiatives is the first step; then we can begin working on them one at a time. Each program should have a team in charge of tracking its development, and the health ministry should provide any assistance that is required. The nature of each initiative is such that professionals from a variety of health disciplines should be involved.

### Conclusion

The five aforementioned domains are connected to one another and are all of equal importance. The other four domains are particularly connected to the research domain. **The healthcare delivery system should be integrated with the research system.** Every effort must be made to ensure that the professionals in charge of the other domains are research-minded and aware of how research can improve the functionality of their individual domains or programs. In general, we pay less attention to the budget and financial domains. It is important to do a **"resource flow analysis"** to see whether the budget is being used effectively and efficiently.

According to the proverb **"If there is a will, there is a way,"** if we have the will to accomplish something, we will undoubtedly find the best means to do it. The impact may not be noticeable right away due to the inherent nature of public health initiatives, but it will last over time. Our ultimate goal is to raise the overall health condition of the population to the highest possible level while simultaneously raising the number of years with the highest possible quality of life. Here, the role played by the **"Policy Analysis Group"** or **"Think Tank for the Health Domain"** is crucial. The recommendations coming out of this group, I think, should be seriously considered by the health ministry for implementation.

## EVOLVING HEALTH ISSUES REQUIRING PRIORITY ATTENTION

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world.

In light of changing epidemiological situations and potential untoward consequences for the health sector, there are certain important current health issues that we need to attend to. ***If we do not address these health issues in time, the nation will face disproportionate health problems down the road and will not be able to handle them.*** A complete state of chaos will develop. The people will suffer, and the medical staff will be unduly overworked. Senior officials of the health ministry should anticipate these health issues and make plans to address them effectively.

The following health and health-related issues are now thought to be significant in developing nations: The magnitude and scope of the health issues listed below will differ from nation to nation. The below-mentioned issues need to be prioritized by each country based on a set of objective and subjective criteria.

1. The emergence of ***antimicrobial resistance***;
2. The reemergence of ***zoonotic diseases***;
3. Lack of readiness to deal with ***pandemic diseases***;
4. Rising problems of ***diabetes and cardiovascular diseases***;



***We must be alert to evolving health issues and address them as soon as we can before they become deeply rooted.***



## 19. Evolving Health Issues Requiring Priority Attention

5. Disregarding **nursing and medical ethics** at work;
6. **Quality care services** are not widely available in many hospitals;
7. Disruptive **essential health services** to the rural population;
8. A rise in **unhealthy lifestyle** behavior;
9. Less attention on **food safety issues**;
10. Indiscriminate use of **insecticides, pesticides, and fertilizers**;
11. The rising incidence of **cancer**;
12. A rise in the number of **TB cases**;
13. Growing **traffic accidents** are straining the health system;
14. Increase **substance abuse** in the population;
15. Increasing **environmental pollution** and **climate change**;
16. Healthcare for the **aging population**;
17. Limiting **access to healthcare**;
18. Growing **health disparities** in the populace;
19. Weak **primary health care** services;
20. Keeping the **infodemic** under control;
21. Issues with access to **safe drinking water, good sanitation, and basic health care**;

An independent **"Task Force for Overseeing Evolving Health and Health-Related Issues in the Country,"** directly answering to the health minister, needs to exist. The departments under the control of the health ministry should be able to provide any information to the task force's members. In this instance, the task force should consist of knowledgeable and qualified professionals.

The following measures are suggested in order to shed additional light on the aforementioned issues or problems:

1. Conducting symposiums, seminars, and national-level platforms for in-depth discussion;
2. Incorporating these issues into the curriculum of relevant subjects at teaching institutions;
3. Conducting research where the findings can be utilized as appropriate;
4. Developing special programs or projects to tackle specific evolving issues;
5. Conducting capacity-building initiatives;
6. Choosing the issues as the subjects for master's and doctoral theses;
7. Constituting Task Forces (TF) or Scientific Working Groups (SWG) or Technical Advisory Groups (TAG) or Expert Advisory Panels (EAP) with specific terms of reference to tackle the issues. (Here, the selection of the right members is crucial.)
8. To address these issues, community-based groups, local NGOs, external organizations, agencies, and bilateral and multilateral institutions may be involved as necessary.
9. The findings of recently completed implementation research projects on these issues could be taken into account.

## 19. Evolving Health Issues Requiring Priority Attention

Prioritizing and managing the issues in accordance with their priority is advised because developing countries might not have the resources to address the aforementioned issues all at once. The following criteria could be taken into account while prioritizing the issues to be addressed:

1. Long-term positive impact on the population;
2. The negative impact or effect may be irreversible;
3. High cost-benefit and cost-effective ratios;
4. The availability of effective strategies to handle the issue;
5. High social and political impact;
6. Know the root cause of the issue;
7. The cost of not handling the issue may have a detrimental effect on the health system and the population in the long run;
8. The issue is affecting a large group of the population or large geographical areas in the country;
9. The issue is urgent and time bound in terms of handling; etc.

Evolving and contemporary health and health-related issues need to be closely monitored and actions taken as appropriate. The role of the ***“Task Force for Overseeing Evolving Health and Health-Related Issues in the Country”*** is crucial. The health ministry should offer the task force all the assistance it needs. This group should also work closely with relevant organizations, agencies, directors of various health programs of the health ministry, and representatives of community-based associations. ***The voice of the populace should be taken seriously when tackling these evolving and contemporary health and health-related issues.***

### Conclusion

These changing health concerns vary from nation to nation. Additionally, the level of significance and the regions that are impacted can change over time. ***The health ministry must constantly be alert to new health concerns that may have an impact on disease morbidity and mortality, as well as political repercussions, social consequences, social injustice, ethical dilemmas, etc.*** It is easier to deal with these issues early on, before they become deeply ingrained in the community or population. All parties involved should actively participate in a coordinated effort to weed out the issues or concerns.

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world.

**B**efore embarking on action on a situation, problem, or issue, public health professionals always want to know the preliminary, baseline, or initial situation. They generally have a long list of insightful questions in the back of their minds, starting with what, why, when, where, why not, root cause, and what will happen if we do not take action? What political repercussions, social consequences, social injustices, and ethical dilemmas can arise if we do not intervene? These are the minimal thoughts that always come to the minds of public health professionals whenever a problem or issue pops up.

Specifically, we need to probe as follows:

1. What is the overall scenario for the problem or issue at hand?
2. What is really happening on the ground?
3. Is there any likelihood that the situation may be improved?
4. Is the situation under control, improving, or deteriorating?
5. What are the problems (root causes) leading to this situation?
6. What are the challenges noted?
7. Why does this problem keep happening?



*The database of ready-made checklist questions is like a bank from which we can draw a particular set of checklist questions for evaluation of a situation when necessary."*



## 20. Establishing a checklist question repository

8. How serious is the problem or issue?
9. What steps is the health ministry currently taking to resolve the problem or issue? etc.

Depending on the nature of the situation or problem under investigation, the questions will be framed slightly differently. In fact, ***the questions are phrased in the context of time, place, person, agent, host, environment, vector, or carrier.*** In order to know the details quickly, we need to review the situation using checklist questions (CQ). If we have a pre-made checklist with probing questions for a scenario, the work of public health professionals can be significantly accelerated. With a series of pre-made CQs, significant issues or points are almost never overlooked. This can save us a ton of time, and the cost incurred is minimal. If we want to know in depth for the purpose of developing a strategy or special program for action, we can do additional probing by conducting a full-fledged survey, key informant interviews, focus group discussions, brainstorming sessions, implementation research, etc.

The generic sections of the CQ set typically include the following headings: (i) technical; (ii) administrative and management; (iii) logistics; (iv) supplies and equipment; (v) human resources; (vi) external support in terms of technical, financial, and material resources; (vii) availability and use of standard operating procedures and guidelines; (viii) funding situation and utilization pattern; (ix) probing questions to know the root causes; etc. The section headers may alter depending on the topic or issue being evaluated. ***It is important to note that CQ stored in the CQ bank should always be fine-tuned and updated.*** CQ can cover a wide range of issues, such as:

1. CQ for reviewing the work of ***various categories of staff vis-à-vis job descriptions;***
2. CQ for reviewing the ***performance of a health institution*** such as a rural health center, sub-rural health center, station hospital, township hospital, regional or provincial hospital, central level hospital, specialist hospital, etc.;
3. CQ for reviewing the ***performance of a training center or institution;***
4. CQ for reviewing the ***performance and existing services of the hospital;*** it will include various service units and other entities in the hospital such as (i) laboratory unit; (ii) radiology or radio-imaging, including interventional radiology unit; (iii) blood bank; (iv) dialysis unit; (v) physiotherapy unit; (vi) chemotherapy unit; (vii) radiotherapy unit; (viii) emergency or casualty unit; (ix) admission unit; (x) discharge unit; (xi) operating room; (xii) hospital sanitation; (xiii) biological waste disposal system; (xiv) referral system for patients; (xv) hospital canteen; (xvi) hospital health supply chain system; (xvii) supplies and equipment storage rooms; (xviii) patient safety; (xix) patient satisfaction; (xx) job satisfaction of various categories of health staff working in the hospital; (xxi) welfare system for the staff; (xxii) security of the hospital;

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(xxiii) resilience of the hospital building; (xxiv) patient wards; (xxv) hospital car parking for staff and for the patients; (xxvi) medicine shop in the hospital; (xxvii) water supply and sewerage system in the hospital, including bath rooms and toilets; (xxviii) all instruments and machines used in the hospital; (xxix) sterilization of operation room equipment and other things; (xxx) duty roster system for hospital staff; (xxxi) cleanliness of hospital wards; etc.

5. CQ on the **general performance of a health program**, e.g., communicable diseases, noncommunicable diseases, immunization, school health, accident prevention, maternal and child health, mental health, occupational health, adolescent health, nutrition promotion, health information system, etc.
6. CQ on **budget allocation and utilization of various health programs**;
7. CQ on the **general performance of public health staff** such as midwives, lady health visitors, public health supervisors, health assistants, station medical officers, township medical officers, provisional health officers, state/regional health directors, etc.
8. CQ on **preparatory activities, supplies, and equipment** to be taken before going to control a disease outbreak;
9. CQ to elicit **public opinion on health care provided by the health ministry**;
10. CQ to **assess a training facility's effectiveness**;

Only a few examples of CQ headers are shown above. These CQ repositories can be expanded, and CQ should be fine-tuned along the way. CQ needs to be categorized as well. For many technical fields, the appropriate professional groups should design the CQ. Depending on the nature of a particular situation, generic CQ must be modified and used.

The **benefits of using pre-prepared CQ are numerous**. We will know the situation in question within a week or so. Based on the preliminary information, we can initiate a series of actions to improve the situation or at least stop it from deteriorating. As a second step, if necessary, we can do an in-depth review by conducting a full-fledged survey, key informant interviews, focus group discussions, brainstorming sessions, implementation research, etc. The information received from CQ is also useful for crafting the terms of reference or objectives of the evaluation mission for a specific issue or scenario.

### Conclusion

**The development and use of CQ is one of the quickest approaches to knowing the initial situation of the problem or issue.** Thus, immediate and preliminary action can be taken to improve it. The CQ in the repository is generic in nature. Therefore, depending on the particular situation, the CQ needs to be modified as appropriate. The findings arising out of the CQ are very useful input for the development of a framework for conducting implementation research.



## 20. Establishing a checklist question repository

We need to promote the culture of using CQ among the staff. It is crucial to remember that the generic CQ should always be followed by some additional probing questions and succinct descriptions of the problem, issue, or scenario in order to gain a deeper understanding of it. The person who uses the CQ as well as the respondents to the CQ should be sincere and unbiased. We need to do it systematically and in such a manner that it will create the least amount of bias in the whole process. ***Using CQ to divulge the situation is an art, and we need to improve the process as we go along.***

While we are considering creating a repository for CQ, we may also consider creating (i) ***a repository for research studies*** that have been conducted in the nation over the last five to ten years. Research fields should be categorized. By doing so, we may eliminate the repetition or redundancy of research studies. We can also identify new research study areas and specific titles and put them in the research bank. (ii) ***a repository of master's and doctoral theses*** in the field of health can be considered. Discipline-wise categorization should be made. There will be less repetition or duplication of thesis topics. It will be highly beneficial from a number of angles. The main benefit of adopting a CQ-style review of a scenario is that the information needed for additional necessary actions may be acquired quickly.

**NB.** CQ denotes either checklist question or checklist questions.

# 21.

## USING ELECTRONIC COMMUNICATION TOOLS IN TRAINING PROGRAMS

The discussion points and suggestions that follow are based on resource-limited scenarios of the developing world. Please refer to the reference articles given at the end of this article for more important points.

Every developing country is conducting capacity-building training workshops on various subjects in the public health as well as clinical domains. The use of electronic communication tools for capacity-building activities of the health ministry is very cost- and time-effective. In the long run, we can have multiple benefits for the health sector as well as the population we are serving. In order to have a sustainable program for this, we need to have a clear-cut national strategy on **"Enhancing Capacity-Building Activities Using Electronic Communication Tools."** Following the formulation of the strategy, we need to chalk out a practical road map for fielding the points mentioned in the strategy.

As a first step, the budget should be properly allocated for the following in order to implement the strategy effectively and efficiently:

1. The **infrastructure** (hardware and software) necessary to set up electronic communication tools and systems;
2. **Training programs** for instructors or experts who will lead training sessions;

**Using electronic communication tools in training programs is one of the most effective approaches for raising the clinical and public health acumen of health workers in a short period of time.**

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3. The development and revision of pertinent **standard operating procedures and guidelines** necessary for conducting capacity-building activities using electronic communication tools;
4. The cost of employing **consultants** to handle the system's development and communication tools;
5. The establishment of a **registry system** for capacity-building activities;
6. The cost of conducting **capacity-building** training workshops;
7. The cost of the **yearly evaluation** of the entire work system;
8. The creation and operation of an **oversight committee** to further enhance the entire work system;

Following this budget allocation, we must come up with ideas for identifying and prioritizing training topics in the fields of clinical and public health. If we use electronic communication tools and systems for capacity-building activities, we can see the following important positive benefits:

1. Training can be given on a real-time basis to all health staff working all over the country.
2. Training materials can be made available on the ministry's website for future reference by trainees who are unable to attend the training sessions. The trainees who attended the sessions can also do several revision exercises by themselves, depending on their needs.
3. Health staff working in remote and underserved areas can take full advantage of the training sessions for the benefit of the serving population. We can ensure equity in knowledge sharing through the health ministry.
4. A training registry can be easily made for the planning of subsequent training sessions. This will ensure there is no redundancy or duplication of training sessions.
5. On-line evaluation of all training sessions can be conducted easily. This can ensure the establishment of quality capacity-building programs.
6. Additional subjects for which we need to give training sessions can also be elicited.
7. A general assessment of the trainers as well as trainees can easily be made by reviewing the training sessions' videos in terms of their knowledge level and responsiveness. The weak points of the existing training programs can be effectively rectified and improved.
8. Contemporary developments in public health and clinical domains can be effectively communicated to the health staff. This is especially important in the clinical domain, where progress is happening at a very fast pace.

In addition to training sessions, zoom meeting sessions can be used to clarify several administrative, logistical, and management elements of health issues. When the situation demands it, a meeting can be called right away. It is both time- and cost-efficient. When a crisis requires quick attention, such as during

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pandemics, disease outbreaks, or other emergencies like natural or man-made disasters, the conduct of this kind of zoom session is particularly helpful.

***Additionally, strong bonding between the central-level professionals and health staff working at the action level can easily be established.*** The personnel operating on the periphery will sense that they are not being ignored and that they are a valuable member of the team. This could result in several advantages in terms of improving the effectiveness and efficiency of the healthcare delivery system in the long run. This has proved extremely successful in controlling the SARS-CoV-2 pandemic in Myanmar recently.

The health staff may begin considering using electronic communication tools in their own health programs if they are familiar with the tools. This is the best side benefit that we may have. The effectiveness and efficiency of health programs can be dramatically increased. ***The whole system of work should be further improved and streamlined as we go along.***

We can also develop the collaborative learning skills of health staff by using these electronic communication tools. Several electronic communication tools and guidelines on their use are available on various websites. As this field of use of electronic communication tools is rapidly developing, we need to keep abreast of it. ***The most important part is deciding which topic is to be chosen as a priority topic for training sessions and what the contents of the topic in question are.*** It is suggested that working groups such as those for clinical, public health, administrative, budget, and logistics management domains be formed for the identification of topics and content coverage. We, therefore, need to identify the most appropriate online training platforms for the country. This so-called digital learning is expanding all over the world following the SARS-CoV-2 pandemic.

It is crucial that the nation's educational institutions take part in creating a framework for maximizing the use of electronic communication tools. The terms ***"digital learning"*** and ***"digital learning platform"*** are sometimes used. Whatever the situation, our goal is to have the most efficient and useful system possible to serve the general public while enhancing the technical, operational, administrative, and managerial quality of health professionals.

***We need to change our way of working or improve our work activities using electronic communication tools.*** It will enhance our abilities for interactive learning, producing work of the highest caliber in either clinical or public health. Additionally, the work efficiency of health staff will also be greatly improved. However, the habit of using electronic communication tools may take some time to internalize. The health ministry's accountable staff members should support the

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enabling elements in full in order to keep up training programs that use electronic communication tools.

### Conclusion

In the context of achieving long-term benefits for the healthcare delivery system in the country, we need to strategize how to effectively use the available electronic communication tools to enhance the quality of services rendered by our health staff to the population. Responsible officials of the health ministry should work together as a team to achieve the overall goal of the healthcare delivery system. ***The system that we are going to develop should be practical, dynamic, and responsive.*** As with all new national-level initiatives, there may be some hesitancy from some of the staff. We need to convince them of the beauty of the use of electronic communication tools as we progress. Once it is in place, everyone involved will be able to clearly see the numerous advantages gained, and the system will become sustainable.

Using electronic communication tools, we need to advance, broaden, and strengthen telemedicine or telehealth (tele-radiology, tele-neurology, tele-cardiology, tele-oncology, etc.), tele-biomedical laboratories, and tele-health literacy, particularly in developing nations where there are few professionals. ***This is one of the most effective methods for raising the clinical and public health acumen and knowledge of healthcare workers in peripheral areas of the healthcare delivery system in developing nations.***

### FURTHER READING

- ***“Reinforcing Human Resource for Health,”*** article 4 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Conducting Capacity-Building Activities,”*** article 8 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Reinforcing Nursing professionals,”*** article 19 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Reinforcing Paramedical Professionals,”*** article 20 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>

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- ***“Launching Staff Briefing programs for New Employees,”*** article 18 of the book titled *“Tackling the Challenges of the Healthcare Delivery System in Developing Countries,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/12/Tackling-the-Challenges.pdf>
- ***“Strengthening the Nursing Domain; An Issue of Critical Importance,”*** article 14 of the book titled *“Health System Challenges: A Developing Country Perspective,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
- ***“Increasing the Effectiveness of Capacity-Building Activities,”*** part A, article 21 of the book titled *“Reflections of a Public Health Professional,”* is accessible at <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>

# PART: **B**

## **MAPPING OF ARTICLES**

### INTRODUCTION

The purpose of mapping the 102 articles and an inauguration speech (on assuming the position of the Union Minister for Health and Sports in Myanmar) is to give an overview of the twelve technical areas addressed in my earlier books. The readers can locate the topics of their interest easily. Since the contents of the articles are generic in nature, they may be considered contemporary. ***These articles are prepared from a practical standpoint and from the perspective of actual situations in resource-limited developing countries.*** Suggestions are made that are unprejudiced and straight forward. The ideas expressed in the articles are my personal and unbiased views and not necessarily those of the Ministry of Health and Sports, the World Health Organization, or various organizations, associations, and committees with which I have been associated for many years.

### OBJECTIVES

While writing these articles, the following objectives were kept in mind:

1. To develop a robust, responsive, and sustainable public health system in developing countries;
2. To inspire innovative ideas and encourage futuristic thinking to address unforeseen events in public health and disease control activities, including pandemic management;
3. To stimulate and enhance the epidemiological thinking abilities of upcoming public health practitioners and young epidemiologists;
4. To promote beyond-the-box thinking and unconventional approaches in dealing with fresh, complex, evolving, and challenging problems in public health;
5. To foster the production of technically savvy, ethically minded, team-spirited, and forward-looking professionals in the field of public health;
6. To motivate the supposedly inactive health professionals to take an active role in the public health community;
7. To share my truthful experience with my fellow public health professionals.

### BOOKS THAT HOUSED THE 102 ARTICLES

The books that house the articles are as follows:

1. *Reflections of a Public Health Professional*. <https://mbdsnet.org/wp-content/uploads/2022/08/reflection-of-a-public-health-professional.pdf>



2. *Health System Challenges: A Developing Country Perspective.* <https://mbdsnet.org/wp-content/uploads/2022/08/health-system-challenges-a-developing-countrys-perspective.pdf>
3. *Tackling the Challenges of the Healthcare Delivery System in Developing Countries.* <https://mbdsnet.org/wp-content/uploads/2022/12/BOOK-3-MBDS.pdf>
4. *Three Books on Healthcare Delivery System in a Nutshell.* <https://mbdsnet.org/publication/three-books-on-healthcare-delivery-system-in-a-nutshell-2>
5. *Cross-cutting Health Issues in Countries with Limited Resources.*

## ARTICLE GROUPING

Various perspectives concerning the healthcare delivery system were discussed, and several ideas were proposed in the articles to further improve the effectiveness and efficiency of the system. To make reading easier for readers, the articles are grouped as follows: (i) Public Health; (ii) Population Health; (iii) Hospital Systems; (iv) Health Systems; (v) Health Programs; (vi) Communicable and Noncommunicable Diseases; (vii) Collaboration; (viii) Health Information; (ix) Human Resources for Health; (x) Methodology; (xi) Beyond-the-Box Thinking; and (xii) Research.

**NB.** *B denotes book number and A denotes article or chapter number.*

### (i) Public Health

1. Genuine power of public health (B1-A1)
2. Improving the domain of public health (B1-A2)
3. Tripartite collaboration for promoting public health (B1-A3)
4. Approaches to universal health coverage (B1-A5)
5. Rational decision-making in public health (B1-A11)
6. Being a versatile public health professional (B2-A1)
7. Basic health service staff *vis-à-vis* Achieving UHC (B2-A12)
8. Strengthening the public health domain (B3-A5)
9. Inauguration speech delivered by Dr. Myint Htwe (B3-Annex 2)
10. Making public health associations functional (B5-A13)
11. Evolving health issues requiring priority attention (B5-A19)

### (ii) Population Health

12. Achieving a long-term dividend in population health (B1-A4)
13. Domino effect on population health (B2-A6)
14. Role of the population *vis-à-vis* the health status of the country (B2-A10)
15. Improving the health status of the population (B2-A21)
16. Promoting community participation (B5-A1)

**(iii) Hospital Systems**

17. Challenges in managing a hospital (B2-A13)
18. Reducing the number of patients in the hospital (B3-A13)
19. Minimizing the challenges observed in the hospital domain (B3-A17)
20. Stopgap measures to ease the challenges of the hospital system (B3-A17)
21. Improving patient satisfaction in hospitals (B5-A2)
22. Enhancing the clinical acumen of doctors (B5-A6)
23. Reducing the occupational hazards of health workers (B5-A17)

**(iv) Health Systems**

24. Are we ready for healthcare reform? (B1-Part A-A6)
25. Supply chain management: the backbone of the health system (B2-A7)
26. Can we improve the effectiveness and efficiency of the healthcare delivery system? (B2-A8)
27. Establishing a resilient national health supply chain management system (B3-A10)
28. Enhancing the effectiveness and efficiency of the healthcare delivery system (B3-A6)
29. Removing the demarcation line between the clinical domain and the public health domain (B3-A12)
30. Initiating rational budget allocation (B3-A16)
31. Key predictors for the good performance of healthcare delivery systems (B4-A14)
32. Strengthening public health surveillance systems (B5-A15)
33. Formulating or reformulating national health policy (B5-A16)
34. Wide-ranging initiatives to shape the health domain (B5-A18)

**(v) Health Programs**

35. Basic characteristics of good health program development (B1-Part A-A16)
36. Eight basic probes before initiating a health program: “Drinking Water and Health” (B1-Part A-A17)
37. Health literacy promotion: a far-sighted strategy (B2-A2)
38. Expanded program on immunization: a priority focus of attention (B2-A9)
39. Updating the standard operating procedures and guidelines (B3-A7)
40. Stopgap measures to increase the effectiveness of the public health programs (B3-A25)
41. Managing a health program with a suboptimal number of health staff (B3-A29)
42. Selecting a health program director (B5-A4)
43. Improving prison healthcare (B5-A7)
44. Streamlining the FDA’s operations (B5-A8)
45. Running the IDP camp efficiently (B5-A9)

**(vi) Communicable and Noncommunicable Diseases**

46. Enhancing the work efficiency of the director of communicable disease control (B3-A27)
47. Principles and steps for managing an epidemic/pandemic (B2-A4)
48. Preparedness for future waves of COVID-19 (B2-A5)
49. Viewpoint: Disease Surveillance System (B2-A18)
50. Be prepared to tackle future pandemics (B3-A14)
51. Enhancing the effectiveness of disease surveillance systems (B3-A26)
52. Enhancing the performance of the NCD director (B5-A3)
53. Addressing diabetes and cardiovascular diseases (B5-A10)

**(vii) Collaboration**

54. Strengthening international health coordination (B1-Part A-A7)
55. Getting the most out of WHO support (B1-Part A-A8)
56. Networking of health institutions (B1-Part A-A19)
57. Harnessing the contribution of NGOs (B2-A15)
58. Promoting tripartite collaboration (B3-A3)
59. Collaborating with the WHO and external entities (B3-A11)
60. Intensifying the collaboration among ministries: road traffic accidents *vis-à-vis* the cost to the Ministry of Health (B3-A22)

**(viii) Health Information**

61. Quick assessment of the health information system (B1-Part A-A12)
62. Transforming data into information (B1-Part A-A20)
63. Strengthening the health research information system (B1-Part B-A4)
64. Consolidating the health information systems (B3-A8)
65. Expanding the use of computerized systems (B3-A21)
66. Effective utilization of hospital data (B5-A12)

**(ix) Human Resources for Health**

67. General practitioners: A strong workforce for promoting public health (B1-Part A-A9)
68. Message to MPH students and junior public health professionals (B1-Part A-A13)
69. Role of the Myanmar Medical Association in “Human Resources for Health Development” (B1-Part A-A16)
70. Increasing the effectiveness of capacity-building activities (B1-A21)
71. Producing ethically minded and future-oriented health professionals (B2-A3)
72. Producing well-qualified MPH graduates (B2-A11)
73. Strengthening the nursing domain: an issue of critical importance (B2-A14)
74. Reinforcing human resources for health (B3-A4)
75. Conducting capacity-building activities (B3-A8)
76. Launching staff briefing programs for new employees (B3-A18)
77. Reinforcing nursing professionals (B3-A19)
78. Reinforcing paramedical professionals (B3-A20)
79. Using electronic communication tools in training programs (B5-A21)

### **(x) Methodology**

- 80. Public health approaches and epidemiologic thinking (B1-Part A-A10)
- 81. Reviewing and revising the national health plan: a practical perspective (B1- Part A-A14)
- 82. Epidemiological methods for policy analysis (B1-Part A-A18)
- 83. Principles and generic approaches to tackle the strategic challenges (B3-A1)
- 84. Initial steps for consideration (B3-A2)
- 85. Decision-making in public health (B3-A30)
- 86. Establishing a checklist question repository (B5-A20)

### **(xi) Beyond-the-Box Thinking**

- 87. Restructuring the Ministry of Health (B2-A19)
- 88. Ringing the bell for the Ministry of Health (B2-A20)
- 89. What if scenario “A” (B2-A16)
- 90. What if scenario “B” (B2-A17)
- 91. Senior officials of the Ministry of Health *vis-à-vis* strategic challenges (B3-A23)
- 92. Thinking “outside-the-box” in the context of developing countries’ health scenarios (B3-A28)
- 93. Encouraging beyond-the-box thinking (B5-A5)
- 94. Enhancing the analytical skills of health professionals (B5-A11)

### **(xii) Research**

- 95. Characteristics of a good health research institution (B1-Part B-A1)
- 96. Strengthening health research institutions in support of public health (B1-Part B-A2)
- 97. Research institutions and national health development (B1-Part B-A3)
- 98. Research and health policy formulation (B1-Part B-A5)
- 99. Formulation and reformulation of national health research policy and strategies (B1-Part B-A6)
- 100. Promoting utilization of research findings (B1-Part B-A7)
- 101. Research prioritization (B1-Part B-A8)
- 102. Promoting health policy research (B1-Part B-A9)
- 103. Conducting implementation research (B3-A15)

The readers may also wish to read the following articles to get some important messages from the writer.

- (i) ***“Getting full advantage out of reading the twenty-one selected topics”*** in page xiii of book 2;
- (ii) ***“Thought process of a seasoned public health professional”*** in page xiv of book 2;
- (iii) ***“Viewpoints on the two books”*** in page 174 of book 2; and
- (iv) ***“Message to my fellow health professionals”*** in page 11 of book 3.

The aforementioned categorization is intended to narrow the reader's focus. In the book titled **"Three Books on Healthcare Delivery System in a Nutshell,"** <https://mbdsnet.org/publication/three-books-on-healthcare-delivery-system-in-a-nutshell-2/>, the author also provided a summary of the information for the articles in the first three books. **The grouping of the articles can provide a bird's-eye view of the topics addressed in vivid detail.** The articles are also interlinked and complementary to one another. It is hoped that the readers, including undergraduate and postgraduate public health students, will find this part II of this book useful.

## CONCLUSION

It is hoped that the mapping of articles will facilitate selecting the articles relevant to the topics for group discussion among the BSPH, MSPH, MPH, MSc in public health, PhD in public health, and DrPH students. Health program directors must also be involved in the group discussions.

The group discussions can:

1. generate a variety of additional innovative ideas and initiatives;
2. identify several operational and implementation research topics in healthcare delivery systems;
3. pinpoint specific capacity-building training programs for various categories of health staff;
4. highlight program areas that require close scrutiny and attention;
5. reveal additional standard operating procedures and guidelines that need to be developed; and
6. instill a cooperative mindset among the discussants.

The value will be greater, if the subject matter of the article in question is discussed in more detail among the groups. As alluded to in my earlier books, there is no one-man show in public health. We have to work together to achieve our shared goal. ***It is hoped that these articles will provide public health professionals with the boost they need to succeed in their fields.***





### Author's Profile

Dr. Myint Htwe, MBBS, DP & TM, MPH, and DrPH, took on the responsibilities of Union Minister for Health and Sports in the Union of Myanmar from April 1, 2016 to January 31, 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, 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. Prior to taking on the role of Union Minister, he held a number of important positions, including those of 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 also assumed responsibility for the development of health policy within the government of the Republic of the Union of Myanmar. He has served on the Myanmar Academy of Medical Sciences' Executive Committee. He also served as the Myanmar Liver Foundation's vice chair. Additionally, he received the renowned "Distinguished Hopkins Alumnus for 2020" honor from his alma mater.

Dr. Myint Htwe is a public health expert with years of experience working in the medical field. He has worked for the WHO for more than 16 years and has held a variety of roles,

including those of 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, where he oversees and gives guidance on all the technical programs of the WHO Regional Office for Southeast Asia.

Dr. Myint Htwe joined the WHO Regional Office for Southeast Asia in August 1994 and worked there until 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 and malariologist for the Vector-borne Disease Control Division, the Health Systems Research unit in charge, and the Chief of the International Health Division.

He gained extensive experience in international health while working as the Director of Programme Management for the WHO Regional Office for Southeast Asia. This included coordinating and offering general technical guidance to health professionals of the WHO Regional Office for Southeast Asia who worked in a variety of technical areas like 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, research policy, coordination and promotion, health information, health situation and trend assessment, human resources for health, and other areas such as health system strengthening and regional collaboration.

