Working around the pandemic

Activities of WHO in 2021
FOREWORD

The nation, like the rest of the world, woke up to the optimism the COVID-19 vaccines brought. For all the tests, travel restrictions and lockdowns the people endured, 2021 was about leaping back to life.

As suggested by the title of the book, Working around the pandemic, that chronicles events and moments of 2021 in healthcare, it is an account of our constant endeavors narrow the gap in the provision of the health services.

The pandemic may have well been in the focus for the ministry, but in dealing with it we realised the fulfilment of our aspiration to take healthcare to the people, where possible, to their doorstep.

We continued to lend our special attention to the vulnerable groups, catered to those in regular and timely need of treatment, earmarked advocacy and awareness campaigns and conducted numerous virtual meets among health professionals to sustain uninterrupted healthcare provision.

What also came out clear, was the gaps in our health services among certain sections of our population, including those in the far-flung corners, who serve the nation in their own capacities. We also learnt of certain diseases and conditions afflicting some of our people that require redressals.

We are committed to plugging all gaps in health service delivery through strengthened surveillance, improved reporting mechanisms on digital platforms and sustained provision of health services. This calls for capacity building for health workers on wonders of the advancing medical world and other policy interventions.

For all of that, we will need the continued good will and support of our partners. The strides we made so far in our health system and services, in the first place, was largely as a result of this robust bond, forged over many decades.

On behalf of the government and its people, I wish to thank all our development partners in health, including our long-time ally, WHO.

We are as deeply indebted to our health workers who were willing to lay down their lives to save those of its people. Your stories will resonate among Bhutanese for generations to come.

Dasho Dechen Wangmo
Health Minister
The year was about hope. Amid looming air of uncertainty as the nation continued fighting the COVID-19 pandemic, a glimmer of that light at the end of the tunnel peeked through. Much urgently awaited vaccines, navigating through misrepresented inhibitions, came along.

Like its response to the global pandemic, the country staged a remarkable reception to the national effort that culminated in more than 90 percent vaccination rate among its eligible population.

Marshalled under the steadfast foresight of His Majesty The King who led the fight against the pandemic much before its appearance in the country and the strong political will made such an achievement come so naturally.

Besides that, years of immunisation campaigns, and the good about them the health ministry was able to instill among the Bhutanese population, was another added benefit.

In partnership with the health ministry, WHO had only to build on these strengths, provide trainings to healthcare workers on the vaccine from its storage to administration to disposal. To ensure every Bhutanese in every nook of the country received the shot, the country office provided other logistical support, like conveying the vaccines across the country over land and air.

The first vaccination roll-out campaign was reviewed that greatly improved how the second one better played out.

As the title of the book suggests, we also worked around the pandemic to continue supporting delivery of other healthcare services and amenities, training health workers and screening other ailments and health conditions among Bhutanese while providing COVID-19 services.

It was a year fraught with uncertainty in the beginning, which, in time, beamed with silver of optimism. Science, eventually triumphed over an affliction that stalled the human society for over two years.

As talks of other variants seem to gain some buzz, we will continue applying science and research to prepare and secure Bhutanese and its people, like we always have, as it rises to build itself healthier and stronger.
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SECTION I

Enhancing skills
REPORTING STATS: Reporters from various news organisations undergo data journalism training in Bumthang.
Interning to practice

Come July and the new batch of doctors, fresh out of medical institutions in the region and other parts of the world will undergo a formal year-long internship before fully being inducted into the profession. Not that such an internship programme did not exist. In fact, in the absence of a formal higher medical institution in the country, the national referral hospital was providing such a programme guided and supervised by senior professionals.

Instituted in 2012, the government of the day thought it critical that Bhutanese medical students returning to practice at home should understand the profession in the broader Bhutanese context, its social needs and cultural sensitivities.

Bhutanese undergraduate medical students returning from Bangladesh, China, Cuba, India, Pakistan, Sri Lanka, Thailand and a few European countries, brought varying standards and practices with them.

Three years later in 2015, the responsibility of the internship programme was transferred to the Khesar Gyalpo University of Medical Sciences of Bhutan, which continued to provide the training at the national referral hospital.

As of June 2020, more than 190 doctors completed their 12-month internship at the university that takes in the medical rookies in two batches, in January and July.

The purpose of the internship programme remaining the same, the induction programme formalised the year-long internship through adequate monitoring by supervisors followed by assessments.

“An internship guideline was designed in consultation with 14 medical specialists at the national referral hospital and they validated it as well,” head of the programme, Dr Karma Tenzin said.

Under the guideline, the programme will enhance practical skills of new doctors to take on the medical world independently and with a greater sense of purpose through acquaintance with healthcare needs of Bhutan.
ON HIGH NOTE: Health staff of Lhuentse hospital celebrate International Nurses Day.

Photo: Lhuentse District Hospital
STOCK-TAKING: Nurses at the birthing centre of the Jigme Dorji Wangchuck National Referral Hospital make patient information entries.
A sense of direction

Globally, the critical role nurses played in the healthcare system and their dire shortage grew more conspicuous during the pandemic. But in Bhutan, a country that receives global adulation for its provision of free healthcare, nurses continue to be the vitals of the system.

Coinciding with the International Nurses Day, where the workforce of the noble profession across the nation celebrated the occasion amid looming COVID-19 threats, another historic step was taken to develop a strategic direction for the nurses.

More than 130 health professionals engaged in the drafting of the second strategic direction (2021-2023) which, in keeping with regional guidelines, was an effort to strengthen nursing and midwifery services. The first draft developed in 2015 could not take off for lack of formal endorsement.

Some of the salient features of the document were enhancing leadership capacity of nurses and midwives and ensuring appropriate number, distribution and skill mix of the workforce at various levels of the country’s healthcare facilities.

With the strategic document finalised through strong political support, the nursing profession is set to scale greater heights.

Nursing workforce

1,500

Approximate number of nurses in Bhutan as of December 2020

40% MALE

60% FEMALE

Source: MoH, 2021
A high-level ministerial conference was convened in 2014 with governments and development partners from Asia and the Pacific to create a comprehensive and viable civil registration and vital statistics within respective countries.

Bhutan made great strides in improving its CRVS system. The first comprehensive assessment of CRVS was conducted in 2016. The health ministry and the Department of Civil Registration and Census (DCRC) enhanced their coordination and improved procedures for notifications and registrations of births and deaths.

The National Statistical Bureau (NSB) published its first ever national vital statistics report based on the civil registration data in 2021.

However, lack of institutional engagement framework to govern and guide the CRVS system; limitations in registration of vital events; and noncompliance to International Classification of Diseases (ICD) practices were some critical challenges in the efficient functioning and operation of the CRVS system.

To develop an evidence-based national strategic action plan for a robust CRVS system, the health ministry, DCRC and NSB together conducted an assessment in Thimphu and Paro between March and May.

According to ministry officials, reliable and timely comprehensive vital statistics based on the registration records would enhance defining health priorities and social amenities through targeted policies.

Apart from that, the system was key to monitoring several of the Sustainable Development Goals and in realising UN target of achieving universal birth registration and 80 percent death registration by 2030.

Civil registration records a person’s major life events from birth to death, including marriages and divorces. Vital statistics, likewise, are quantitative data, registering the number of births, deaths and other such critical information governments need to make informed policy decisions. Together they are the Civil Registration and Vital Statistics (CRVS).

What the two achieves sits at the core of good governance. For the nation as a whole and the government particularly, the information this system promises can help efficient and effective public service delivery. Policy makers can plan exactly what services are required, where and for what population.

For individuals, system inputs such as birth registration helps establish its legal identity at birth, which in the long run enables citizens to avail of various public, social and private services.
Enhancing skills

Key goals for Bhutan by 2024

- **95%** Percentage of births to be registered
- **90%** Percentage of deaths to be registered
- **97%** Births of children under five years to be registered
- **100%** of all registered births to be issued official birth certificate detailing an individual’s name, sex, date and place of birth, and name of parent(s)
- **100%** of all registered deaths to be issued official death certificate with name, date of death, sex, and age of the deceased

Source: nsb.gov.bt
The country, according to the Ministry of Health, has more than 42,000 elderly people, of which 34 percent, or over 14,000 of them are living with various medical conditions.

So far, the health ministry provided both medical and psychological care to elderly Bhutanese guided by the 2010 Community-based Elderly Care programme piloted in Khaling, Trashigang. It was supported by the Kyoto University, Japan.

Elderly people in the community were screened for any disability, depression, diabetes, isolation, urinary incontinence, hypertension and problems associated with alcohol, dental, visual, hearing and nutrition.

The success of the programme meant that it be emulated to benefit elderly citizens in other parts of the country. By 2015, the aspiration was realised and health workers across the 20 districts were trained on community-based medical check-ups.

Two years later, in 2017, WHO came up with a guideline on Integrated Care of Older People (ICOPE) with numerous countries in the region implementing it.

The first batch of ToT, or training of trainers on ICOPE was conducted in Phuentsholing in December 2019. One of the recommendations from the training was to review the existing guidelines, six years since it was developed and implemented, to harmonise it with ICOPE handbook.

More than 40 healthcare workers from various primary health centres from western region attended the two-day training chiefly focused on aligning the manual with the WHO ICOPE guideline using local resource persons from the referral hospitals and the Royal Society for Senior Citizens.

Held in Paro and Thimphu, 30 healthcare participants from Gasa, Paro, Punakha, Thimphu and Tsirang were trained on the ready-to-use revised manual and reporting format.
Enhancing skills

MANY BENEFITS: For Bhutanese, especially the elderly, the Thimphu memorial chorten is a place for social bonding, including psychological and physical wellbeing.
On-board the new leprosy management guideline

The Leprosy Management Guideline, 2014 was revised and updated to apply to the changing needs and time for both patients and those treating them. The national guideline will provide evidence-based recommendations on diagnosis, treatment and prevention of leprosy, which can then be picked up by relevant authorities making policies, while also serving as a handbook for clinicians responsible for managing leprosy cases.

Following revision of the guideline, trainings were arranged for new medical doctors, leprosy in-charges and laboratory technicians. It is expected that health officials involved in the management of the condition would be able to diagnose leprosy early, work towards improved treatment regimens and beef up prevention and management of disabilities.

The workshop focused on core activities in the field of medical and epidemiological areas to enhance early case detection, timely management, prevention of deformity among cases and refer suspected cases to the nearest health centre.

The training on the new guideline was conducted at Paro from October 1-15 and at Wangduephodrang from October 19-21. Bhutan is poised to achieve its target of sustaining the leprosy elimination status.
REGULAR ROUND: Health staff at Gidakom hospital attend to an 80-year-old, lone leprosy patient.
Manage online information

Of the many public services riding on digital platforms, loading people’s health information is a government priority.

Although the existing system was developed in 2014 and subsequently updated in 2016, only a handful of health workers used the system.

Apart from that, the routine health information, such as activity report, morbidity report and the annual household survey forms required updating to ensure the information collected were timely, reliable and readily available in keeping with the national and global indicators.

A district level user training on the application of DHIS2 (District Health Information System, version 2) was conducted among health workers in Punakha in June and Thimphu in April.

DHIS2 is an open-source platform that hosts the Health Information Management System (HIMS) and enables each district health office to generate information using various data tools. It is the main platform for collection of routine health information.

According to health ministry officials, use of routine health information is an essential part of the structural capacity of health departments as the public health performance depended on the effectiveness of information used for routine and programmed decisions.

“With changing disease patterns and introduction of new health services, the systems also needed updating to capture all
Enhancing skills

Voluntary Counselling and Testing (VCT) focal persons and Health Information and Service Centre (HISC) counsellors from Bumthang and Gelephu were brought up to speed on the new DHIS2 system for gathering comprehensive information on viral Hepatitis and HIV/AIDS.

DHIS2 on hepatitis was developed for VCT focal persons and HISC counsellors who were oriented on the revised form of recording and reporting HIV/AIDS routine surveillance.

The revised form highlighted case and risk-based surveillance for comprehensive information enabling greater analysis such as determination of the source of diseases.

relevant information,” the health official said.

Heeding to calls of Bhutanese health workers, the HMIS and Research Unit prepared video guides, which they shared with health workers for self learning.

With the training and the aid of visual guides the health online information and data management would gain greater acceptance from health workers.

To facilitate uninterrupted healthcare services delivery during pandemic and movement restrictions, 100 desktops, 51 sets of virtual conferencing equipments, computer sets, smart TV and accessories were also provided.

Over 200 virtual meetings, trainings and workshops were held during lockdowns to sustain interactons, enhance coordinations and develop capacity. Information during lockdowns were updated virtually.
HAND-IN-HAND: Traditional medical service is integral in the Bhutanese health system.
Clinical traditional medicine services

Traditional medicine has always complemented the modern one for treating diseases, medical conditions and other ailments.

However, prescription of traditional medicine was more therapeutic in nature, often a combination of medicines and dosages determined by patient symptoms.

According to regulatory authorities, a standard practice and proper treatment guideline was necessary for its services.

The course of medications, if accompanied by evidence for treatment, would also save resources. A standard referral system within health centres and to the secondary and tertiary care centres were other essential requirements.

Therefore, a Traditional Medicine Standard Treatment (TMST) guideline was developed to help its practitioners provide care to patients based on clear, clinical decisions.

The guideline, developed in consultation with health professionals and traditional medicine practitioners, listed 147 common health problems with appropriate treatments under the traditional medicine services.

The guideline serves as a handbook to treatment choices and as reference to help its practitioners in the provision of diagnostic services, rationalised use of medicines and improving referrals to modern medicine.
Respiratory illnesses still rank among the top 10 diseases for both morbidity and mortality in the country. It has held that status for the last 15 years according to the health bulletin.

Due to heavier caseload and being centrally located, a spirometry service each was established at strategic health facilities in Mongar and Wagduephodrang.

Spirometry is a simple test done on patients using a machine attached by a cable to a mouthpiece to diagnose and monitor certain lung conditions. It basically measures how much air a patient can breathe out in one forced breath.

To run the service and understand the established spirometry facilities, health workers of the medical centres in the two districts were trained online over a four-day course on chronic respiratory diseases the Khesar Gyalpo University of Medical Science (KGUMSB) of Bhutan developed.

This was complemented by a practical session on the use of the machine and spirometry reports interpretation.

In the absence of such a service at the regional referral hospitals and even the national referral, the Centre for Research in Respiratory and Neuroscience at KGUMSB was the only facility providing spirometry service in the country.

Occupational health and chemical safety programme of the health ministry worked closely with the university in providing the service to industrial workers and communities around it for respiratory diseases screening.

The sparse data generated through these tests conducted annually by the country’s two chest physicians indicated evidences of chronic respiratory diseases in Bhutan.

The establishment of spirometry services in the two districts would enhance data generation on respiratory illnesses.

Spirometry servcies were established in hospitals of Gelephu, Gomtu, Nganglam, Pemagatshel, Phuentsholing, Samdrupjongkhar and Trashigang.
Assessing household air

The need for fresh air circulation in rooms to reduce chances of contracting corona virus could not be more emphasised than during the days of the pandemic. Health campaigns calling for people to keep rooms they were in well ventilated was taken to instantly.

Perhaps the same needs to be done about other non-communicable diseases caused by household air pollution like stroke, heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer.

To that effect, the health ministry carried out assessment of household air quality to generate a baseline data, while also raising awareness in a few select communities on health benefits of breathing in clean air and adverse effects of breathing in the polluted.

The data would inform decisions necessary in averting diseases from air pollution that, according to WHO assessment, claim about 1.2 million and 1.5 million lives in the south-east and the Pacific regions respectively.

Although the country boasts of crisp air, thanks to its immaculate environment, the concern is with exposure to indoor air pollutants that can be in the form of hazardous substances emitted from buildings, construction materials and other indoor equipment.

One of the major causes for concern and typical to nomadic lifestyle and those in remote communities is use of traditional wood-fed earthen stoves in poorly ventilated homes for cooking, generally, and heating in winters.
FOR RESEARCH: Health responses to the pandemic whipped up more than 30 research themes on COVID-19.

Photo: MoH, Bhutan
Two groups of researchers from the national referral hospital and the university of medical sciences proposed almost 30 research and data analysis topics in relation to the country’s COVID-19 response to Research Ethics Boards for Health (REBH).

According to health workers from the two institutions, the country has several unanalysed data on COVID-19, many with the potential for research. A peek into the topics included those related to public health measures, clinical and laboratory data analysis and other epidemiological studies.

Health workers said the researches and data analyses were stalled by frequent COVID-19 outbreaks and lockdowns.

A four-day workshop on sero-surveillance, research and data analysis on COVID-19 in Bhutan was conducted at Paro between April and September that saw the congregation of several health workers from national referral hospital, university of medical sciences and the ministry to discuss and finalise the research topics.

The first workshop in April on COVID-19 sero-prevalence study mainly concerned the review of laboratory test – blood tests among recovered COVID-19 patients, RT-PCR tests in all patients, serology among the vaccinated – from both Royal Centre for Disease Control (RCDC) and the national referral hospital.

The September workshop on research and data analysis on COVID-19 engaged more than 70 health professionals, divided into two groups, to discuss and finalise research topics and their timelines to accordingly draft research proposals for REBH approval. Those with ready data discussed methods and began drafting findings. Likewise, health researchers with data at hand began writing manuscripts.

Team leaders of the two groups will furnish regular updates on the different research processes and progress until submission. The findings will then be published and disseminated at different forums.
There is no telling when the next global pandemic would come and of what magnitude. The lesson to draw from COVID-19 pandemic was evident. Preparedness being key. With that in the backdrop, a two-day review meeting on strengths and challenges in the country’s response to the global pandemic so far was held at Paro in August among participants from RCDC and Paro hospital laboratory. Several recommendations stemmed from the meeting, some key ones being the need to develop a national laboratory for pandemic preparedness and response plan to inform response strategy.

Provision of refresher training on RT-PCR detection of SARC CoV-2 in all RCDC departments to address human resource constraints during mass screening was another suggestion. Likewise, the need was also felt for RCDC technicians to extend refreshers training to the peripheral RT-PCR testing centres. Enhanced communication between sample collection team with the surveillance team was also recommended for efficient end results.
OFF TO TEST: Changjiji residents during one of many RT-PCR tests in Thimphu.

Photo: MoH, Bhutan
Lending greater attention to mental healthcare, a growing health concern in the country, the health ministry with WHO’s mhGAP (Mental Health Gap Action Programme) intervention, trained health workers on mental health and suicide prevention.

The programme was implemented in prioritised districts of Punakha, Trongsa and Tsirang, where health workers were introduced to identify mental health conditions, adequate treatment services and follow up at the community level. That strengthened basic counselling services at the community level, including opportunity for patient referral to district health centres.

Chief medical officers and clinical counsellors were trained on mental healthcare and suicide prevention.

They facilitated training of other categories of health workers in their respective districts.

They also sensitised health workers on identification, basic management, referral and follow up care for anxiety, depression, bipolar affective disorders, alcohol and substance use disorders and mental health emergencies.

Clinical counsellors, on the other hand, oriented participants on basic counselling skills, screening for suicidal ideation, management, referral and follow up planning.

Similarly, health workers from various health facilities were consulted and involved in the review and drafting of SOPs for counselling services in district hospitals for uniformity.

The same group were also involved in reviewing and developing a standard information, education and communication materials for enhancing mental health literacy among Bhutanese.
On its path to rebuilding the pandemic-battered health system better, the health ministry and WHO Bhutan jointly developed three strategic documents – National Health Service Standard, National HRH (Human Resources for Health) Standard, HRH Strategy 2022-2026 – offering a holistic view of the country’s health services needs and the needs of its human resources for clearer governance.

The documents essentially draw attention of policy makers towards reforms that ensure health system efficiency and reduces health inequalities, both modern and traditional, across the country.

Services, starting from the most basic to advanced ones were reviewed in conjunction with current health needs and future service expansion plans, induced by epidemiological transition, demographic shift, urbanisation and development.

Policy makers and planner were involved in addressing issues related to efficient health service delivery and human resource gaps with particular attention to shortages, mal-distribution, skill-mix imbalances and health workforce education.

HRH strategic document 2022-2026 was developed as an accompanying instrument to operationalise implementation of the other two documents. Together they are expected to better shape the health system in its response to health emergencies and strengthen people-centred health services at all levels.
SECTION II

Inoculating a nation
FIRST DOSE: A nurse administers COVID-19 vaccine on a young Thimphu resident.
The year of the vaccines

The year was significant. It brought COVID-19 vaccines, and with it hope. Between March and April, almost 95 percent of the eligible population were administered the first dose of Astra Zeneca vaccine. The second COVID-19 vaccine followed suit, inoculating 90 percent of the eligible Bhutanese population, including children between 12 and 17 years from July 20 to 26. Home-based vaccination continued thereafter. By December, booster shots were rolled out.

From the frigid northern posts to the sweltering southern boarders and all the way to the eastern fringes, health workers took the vaccines to the people, in its uncompromising commitment to leave no Bhutanese unvaccinated.

During the first vaccination campaign, 21 regulatory officials were assigned to 17 dzongkhags covering 220 vaccination sites.

More than 1,200 vaccination posts were established for the second nationwide vaccination campaign, which were manned by at least three health workers and additional support staff. They made up the team to pre-screen people for vaccination, add them into the Bhutan Vaccine System (BVS), vaccinate them and monitor them under 30-minute observation.

In total, more than 4,800 health workers and over 2,100 De-Suung (volunteers) covered various vaccination sites across 18 districts.

In the course of the campaign, data was collected using structured questionnaires.

A seven-day meeting was convened in Thimphu in August to analyse the data and draft a report. In the following months, the report was finalised. A draft guidance to instruct work and monitor vaccines entering the country was developed.
More than 90 percent vaccination coverage nation-wide among adult Bhutanese population within a record time of two weeks and the country made global headlines yet again.

As its long-term partner in helping the country realise its healthcare goals, WHO Bhutan joined the ministry in meeting this lofty goal when the first vaccination programme took off in March.

By the end of the year, continuing with the trend it set, almost 80 percent of the country was inoculated with the second dose of the COVID-19 vaccine and more than 20 percent with the booster. Bhutan became one of few nations among the highest vaccinated in the world.

The instant the news on potential COVID-19 vaccine emerged in 2020, WHO Bhutan kept tabs on it to inform the country of the most effective COVID-19 vaccine roll out campaign.

A consultative workshop ensued in November 2020 to develop Bhutan’s COVID-19 Deployment and Vaccination Plan.

In accordance with the WHO guideline, a plan that considered several scenarios depending on availability of the vaccine, was developed. The vaccination roll out campaign saw only a few unforeseen challenges.
THE VACCINE: COVID-19 vaccines unboxed for immunisation at a health unit in Thimphu.
Putting the scheme to work

To ensure the plan played out as expected, health ministry and other relevant authorities were brought together to read the plan concurrently. Health workers were trained to implement the plan and given the requisite skills for the vaccination roll out campaign. Health workers were trained on the specific requirements of the COVID-19 vaccines storage and administration. More than 75 officials, comprising medical officers, district health officers, EPI store managers and other health workers were trained as trainers. Following the ToT, over 370 health workers across the country were trained to initiate COVID-19 vaccination roll out.

A shot at vaccination

Bhutan managed to secure an adequate number of both first and second doses of COVID-19 vaccines for the entire eligible population. Within two days of the arrival of the vaccines, it was transported to all of the nation’s 20 districts. Helicopter-transportation was arranged for vaccines to some of the most remote and inaccessible communities to ensure equal supply of vaccines and access to it was ensured for all eligible Bhutanese.

Vaccination was rolled out through more than 1,200 vaccination posts established across the country with adequate logistical and human resource support.

Safety, monitoring

Last on the vaccination campaign checklists was the information and guidance required to authorise the COVID-19 vaccines. Several orientation programmes and trainings were conducted, enabled by WHO regional office and the Head Quarter, to inform and facilitate the Drug Regulatory Authority (DRA) in authorising the use of COVID-19 vaccines.

Monitoring and ensuring safety of the vaccine was given due attention. WHO staff visited the fields to monitor and support the nationwide vaccination campaign. Following the first campaign, the review and casualty assessment process of all reported serious adverse events following immunisation were recorded.
NEXT JAB: The subsequent COVID-19 vaccine roll outs were just as successful.
Bhutan was one of the first nations in the region to carry out an inter-action review of the first COVID-19 vaccination campaign. Conducted mainly to take stock of the first vaccination programme, the review helped mainly build on the successes and work on the gaps for a smoother second vaccine rollout campaign.

The health ministry carried out the inter-action review at Paro in early May. Health ministry officials, members of COVID-19 technical advisory group, district health officers, data managers and representatives of international organisations thrashed out issues of planning, coordination and funding. Also discussed were issues of supply chain and waste management, risk communication, vaccine safety and requisite trainings and evaluation.

Some of the strengths to build on were mock drills foreseeing various scenarios. Kicking off the campaign as a national event with support from the highest government authorities and a strong culture built around immunisation programmes in Bhutan over the years were other strengths.

However, the review also indicated shortcomings arising from conflicting directives and issues of logistics, which all led to escalated spending and ill-advised human resource deployment. The need for proper terms of reference and standard operating procedures were felt.

Expanding on the best practices and plugging the apparent gaps the review exposed, the second vaccine roll out campaign and the boosters to follow were a smooth sail.

The first nation-wide vaccination campaign of May 4 vaccinated more than 480,000 eligible Bhutanese. Some 27 refrigerators and 28 deep freezers were delivered to various identified health facilities for safe-keep of the vaccines.
“We were anxious over the government’s announcement of COVID-19 vaccines roll out campaign for its people. Words of side effects from the vaccine, some even proving fatal instilled fears. I had to weigh between my fear of contracting the virus and the possible vaccine side effects for several nights.”

Chimi Wangmo
Housewife, Lhuentse

“I have weak immunity getting the worse kind of common flu at every turn of the weather. I am diabetic and vulnerable to succumbing to COVID-19 virus. I had no second thought on taking the COVID-19 vaccine. I took my first two shots and the boosters. I survived the omicron infection.”

Kinley Penjor
Farmer, Punakha

“I feel like Iron Man after taking my COVID-19 vaccine. The best part is I could return to school. I miss going to school and playing with friends. Lockowns were boring.”

Zeenen P Tobgyal
Student, Thimphu

“All that rumour, the misinformation, initial doubts and inhibitions about the vaccines eventually yielded to the sacrifices of the King and the reassuring words of the Prime Minister. I’m on to my second booster today feeling perfectly shielded.”

Sumitra Pradhan
Radio Jockey, Thimphu
Inoculating a nation

By 2021 end

COVID-19 vaccination coverage against eligible population.

- 79% First dose
- 76% Second dose
- 23% Third dose
SECTION III

Changing lifestyle
OUT AND ABOUT: Many Bhutanese families take some time of the weekends at the open air gym for its mental, physical and social benefits.
Medical screening for vulnerable groups

Despite striving to take health services to the people, certain sections of the population continue to slip away from the safety net.

Senior citizens for their age-related difficulties and multi-medical conditions are one such section of the population. Likewise, the numerous wage workers of the public works division along roadsides across the country and workers at various automobile workshops also fall in the category. They are either far from the nearest health centres or restricted by odd working hours.

In consideration of the inconveniences faced by these groups of people, the health ministry developed a guideline to take the medical services to them through special outreach programme tailored to the health needs of these groups.

As a start, between June and August, 620 elderly, 250 wage workers and 460 automobile workers residing in urban centres received the special services. They were tested for dental issues, HIV/STI, Ear Nose and Throat (ENT) and hearing, tuberculosis, diabetes and hypertension based on the guideline.

ENT and hearing problems were common among automobile workers from exposure to loud noises, toxic fumes and dusts. Similar pattern applied to wage workers on the road from exposure to dust, asphalt fumes, mechanical noise and heat.

Hypertension and diabetes were common health conditions in the elderly population, including chronic obstructive pulmonary disease, rheumatic arthritis, cataract, hypothyroidism and heart diseases.

Together with the general screening, health officials also raised awareness on general health issues, including occupational health and safety for these urban groups.

A similar health camp was carried out for the same groups in other districts of Dagana, Paro, Pemagatshel, Punakha, Samdrupjongkhar and Tsirang. The service was also extended to person with disability, pregnant women and other high-risk population of industry workers.

More than 5,000 people were screened through camps in different districts over three months.
AT WORK: A welder pieces together metals at a local workshop.
Thirty-six-year-old Pavi Maya Tamang, and her workmate, Vishnu Maya Rai, 43, works with the public works division of the municipal office. Their early shift begins at 7am clearing the roadsides, sidewalks and pockets of public spaces of the previous day’s litters.

By noon, they would have covered a few stretches of roads on foot, leaving sacks of trash and mounds of roadside debris for the garbage truck to scoop up. Following an hour-long lunch break, their work resumes.

This time it’s the core city streets and they take on the clogged drains with several other friends joining them until 4pm.

There are many like Pavi and Vishnu

EARLY SHIFT: Pavi Maya Tamang (back) and Vishnu Maya Rai (front) on one of Thimphu’s streets.
Changing lifestyle

in the capital city, its satellite towns, its fringes and across the country's numerous little towns and communities by the roadsides who don the mettle of keeping a shared surrounding ambiance clear of debris, litter and other harmful wastes.

Exposed to toxic fumes from passing vehicles and lingering pathogens from litter and debris, Bhutanese roadside workers have little time to avail of the medical services given their odd working hours.

“A visit to the hospital after our morning work, we find ourselves looking over a long, snailing queue at the hospital for medical checkups,” Pavi Maya, a pre-diabetic patient said. “By the end of the working hour hospital consultations close, and unless it is an emergency, that room is also closed.”

Pavi Maya was all praise for the health ministry's recent scheme to bring health services to them.

“Some of us have high blood pressure, respiratory illnesses and other ailments we can’t say for sure,” she said.

For the first time, special medical check-ups like dental, Ear Nose and Throat (ENT) and hearing were taken to 250 wage workers along roadsides in Thimphu. They were also tested for HIV/STI, tuberculosis, diabetes and hypertension.
For those standing guard against the pandemic along the fluid borders of the country’s foothills, the toll, overtime, was on their mental and emotional wellbeing, notwithstanding the physical strain.

To assuage the mental strain frontline workers experienced, mainly De-Suups (volunteers) and health workers, including a few civil volunteers, a week-long mindfulness and yoga training was conducted.

Arranged by the Department of Traditional Medicine Services, Sorig Zhiney and Luejong trainings were organised in five separate groups for close to 140 COVID-19 frontline responders at various locations of Chhukha, Paro and Thimphu.

Sorig Zhiney and Luejong subscribe to practice of mindfulness and tantric yoga based on Bhutanese Traditional Medicine System also known as Sowa Rigpa, or the science of healing.

In essence, the practice done regularly, is believed to help practitioners connect with their inner-selves to seek peace through training of mind to focus and reflect.

Believed to improve function of the organs, awakening of other vitals and helping balance the radiant inner energy, frontline responders who attended the sessions practiced something as basic as breathing exercise, physical exercises and self-massage.

“When the body and mind are stilled, the frequency of the brain waves can draw energy from sources beyond physical world,” one of the six trainers taking turns at different venues said. “A sensation of peace and relaxation follows.”

A few participants said although the training duration was condensed to fit the schedule, it helped them understand the basic concepts of the practice, which gave them a lead to continue on their own.

“Such rich and profound Buddhist knowledge and practices should be taken to greater Bhutanese audience,” one nurse said. “The sessions, both theory and practical, would be better absorbed over a slightly longer duration,” a De-Suup frontliner added.
IN STRECHES: Health workers in Lhuentse perform basic Luejong to begin the day.
A guide to healthy diet

1. Balance **energy**
   Balance the energy you consume with the energy you spend

2. Fat **intake**
   Consume a low fat diet

3. Salt **intake**
   Reducing salt intake helps to prevent hypertension & reduces the risk of heart disease & stroke

4. Free **sugars**
   Free sugars must account for less than 10% of your energy intake

Source: WHO, Bhutan

Photo: Kinley Wangmo
Little known among a majority of the Bhutanese, Trans Fatty Acids (TFA), also known as trans fats, received little attention for any political discourse to prompt major policy decisions against it.

The country neither has data on its people’s consumption or use of trans fats nor has it conducted studies on the source of the fat in Bhutanese diet. However, in view of the significant number of Bhutanese succumbing to heart diseases, deliberations and the subsequent need to act against trans fats became unavoidable.

Trans fats is mainly present in butter, cheese and meat, including bakery products and fried foods. It is typical of foods that use vegetable oils converted into solid fats for greater shelf life and enhanced functionality. Diets high in trans-fat, according to WHO, increases heart disease risk by 21 percent and deaths by 28 percent.

Resonating with WHO’s call for nations globally, to eliminate trans fats through its REPLACE action package of May 2018, Bhutan identified reduction and gradual elimination of industrial trans fats as key to cardiovascular diseases response. The idea was to replace trans-fats with unsaturated fatty acids, which significantly decreases risks of heart disease.

A study to gather information on dietary sources of trans fats, their consumption pattern among Bhutanese and a review of government policies, regulations and legislations concerning use of edible oils and fats was initiated.

Specifically, the study analysed total fats, trans fats, lipids and fatty acid contents of packaged food, including edible oil and butter. The study also reviewed the ingredients and contents of bakery products and a few select food served in various restaurants, hotels and by street vendors.

The outcome of the study, besides providing a baseline data on level of trans fats in foods, furnished information to policymakers for advocacy and gradual withdrawal of industrial trans fats consumption in Bhutan.

According to WHO, so far 58 nations introduced laws protecting their people from trans fats. Of the 15 countries with the highest number of deaths from coronary heart disease including Bhutan only Canada, Latvia, Slovenia, USA introduced regulations against trans fats since 2017.

WHO recommends that trans fats intake be limited to less than one percent of total energy intake, which translate to less than 2.2 grams a day with a 2,000-calorie diet.
MODEST MARK: The World Health Day themed “Honouring the past celebrating the present and inspiring the future” was observed at the health ministry lobby. Members of the Cabinet and representatives from international organisations attended the event in Thimphu.

Photo: WHO, Bhutan
The need to build a more robust and equitably distributed health services was the call on the World Health Day as pandemic-battered health systems across the world took to the recovery process.

Speaking to health officers representing the sector across the country’s 20 districts over video conference, WHO Representative to Bhutan Dr Rui Paulo de Jesus said the Day acknowledged the issues exposed by the global pandemic. Exacerbated inequalities in access to healthcare services, which threatens socio-economic outcomes between and among vulnerable groups, he said was what came out of the COVID-19 circumstances.

“This inequality impacts the rights of every individual to achieve the highest standards of physical and mental health,” he said, adding the poorer and more vulnerable communities, who lack access to adequate healthcare, further increased the burden of communicable and non-communicable diseases.

Urban and rural communities in Bhutan lacked access to health centres due to geographical and transportation issues. But the issues, he said also directed towards potentials, through policy tweaks, in building a fairer and healthier post COVID-19 world. Taking healthcare to people’s doorsteps, for one, which was in adoption of WHO’s PEN Hearts programmes, promised efficient access to healthcare services.

“It is a silver of optimism of the possibility for all Bhutanese to lead healthier lives,” he said.

Observed every year on April 7, the 2021 World Health Day theme was “Building a fairer, healthier world for everyone, everywhere”. The purpose was to engage policy makers in building capacity to address health equity issues through whole-of-society and whole-of-government approach, basically to “build back better”.

**Healthier comeback**

*(Article continues on the next page)*
Less than five percent of Bhutanese soil is arable, about the same percentage is urban settlements surrounded by the remaining more than 70 percent forest cover and alpine shrubs and meadows.

That poses considerable challenge to farmers guarding their fields from wild animals and particularly pests that many plant species the forests harbour. Relationship between pests, in a broad sense and their host plants, according to Food and Agriculture Organisation, are relatively well known in temperate regions like Bhutan.

It is only natural that Bhutanese farmers resort to pesticides to save their crops from pests. The concern then is the health hazards Bhutanese farmers are exposed to. The hands on the farms are not really known for using personal protective equipments (PPE) while concocting pesticides, storing and transporting them.

For lack of assessment in use of PPEs and bio monitoring programme for pesticide related illness in the country, awareness and intervention could not be carried out so far.

Exposure, acute or chronic, to pesticides causes various illnesses like cancer, asthma, hypertension, diabetes, allergies and endocrine disturbances. They also alter nearly all functions of the body, from metabolism to growth and development, emotions, sexual function and something as natural as sleep.

Considering these health risks, the Department of Public Health conducted an exposure assessment of pesticides among farmers in Haa, Paro, Thimphu and Trashigang between April and August. The assessments gauged the exposure levels of farmers to pesticides, while health officials also took the opportunity to educate the health hazards associated with exposure to pesticides.

The findings of the assessment will kick start a surveillance system for pesticide related poisoning cases and also to collect baseline data for instituting rapid test kit methods for acetylcholinesterase (AChE) inhibition activity at primary health cetres and hospitals.
ROUTINE CHECK: Farmers in Paro inspect their vast paddy field.
For a Buddhist nation, compassion sits at the centre of its practice and somewhere deep in the lofty scriptures is a belief that to care for the terminally ill is to derive karmic good.

Out of the Buddhist scriptures, WHO assigns high priority to palliative care. To ensure that terminally ill are given adequate medical care, physically and psychologically, its member states are assigned a target to meet under the Sustainable Development Goal that concerns universal health coverage. It imposes a moral obligation for nations to ensure painless and comfortable remaining parts of life of the terminally ill.

With growing number of cancer cases – cervical, stomach, head and neck, liver, lungs and oesophagus – the need for palliative care in health centres grow evermore.

Instituted in March 2018, the national referral hospital has a dedicated team of trained medics comprising ICU nurses, wound treatment experts and pain management specialists to lend palliative services to the terminal ill patients.

The health ministry began working on a palliative care training module, frameworks and strategies to establish palliative care centres and home-bound palliative services in the three regional referral hospitals, including national referral hospital in Thimphu, National Traditional Medicine Hospital (NTMH) and four hospitals of Bumthang, Gidakom, Haa and Paro.

In addition, the traditional medicine hospital also recorded a growing demand for its therapies, such as acupuncture, body massage and herbal compressions to manage pain as part of cancer treatment. The hospital, in collaboration with the palliative care unit of the national referral hospital, launched the traditional medicine based palliative care for post cancer treatment.

Traditional medicine services were provided to patients as an alternative choice of care for palliative services at the national referral hospital, especially in reducing pain and improving quality of lives of patients.

Today, the traditional medicine hospital has five focal persons attached with the identified therapy units for palliative care. They were also attached with the oncology ward of the national referral hospital to practice traditional medicine based palliative care – acupuncture, cupping, therapeutic massage, hot and herbal compressions – as part of its post cancer treatment.
HOME-BOUND CARE: A nurse with the palliative care team of the JDWNRH attends to a patient at his residence in Thimphu. Photo: WHO, Bhutan
A large number of eye diseases are preventable, which if unintended to, could cause severe conditions including blindness.

To overcome and reduce incidence of eye care related disease, including emerging lifestyle related ones, the country needed to intensify efforts towards elimination of avoidable blindness and effective and sustainable eye care services.

In view of the country’s need for long term strategic eye health plan, WHO conducted an Eye Care Situation Analysis Tool (ECSAT) training in November at Bumthang, Paro, Punakha and Thimphu. The purpose was to perform situational analysis of the eye health system in the country and support planning, monitoring of trends and evaluation of progress towards implementing Integrated People-centred Eye Care (IPEC). IPEC is a resolution adopted by 194 WHO Member States as a political commitment to advancing eye healthcare under universal healthcare.

ECSAT is expected to help the country identify problems to plan, both short and long-term, eye healthcare. The tool designed for national and district health eye care planners and policy makers will help identify issues in their respective jurisdictions to craft a long term strategy for Bhutan.

According to WHO, each eye condition requires different and timely response beginning with prevention to treatment and rehabilitation.

As of now, records with the ministry show that some of the major causes of blindness and visual impairment in the country are cataract, refractive error and posterior segment disease. More than 85 percent of blindness were curable.

Uncorrected refractive error requires wearing of spectacles or a surgery and cataract surgery restores vision.

Likewise, treatment is also available for numerous eye conditions such as dry eye, conjunctivitis and blepharitis, which causes discomfort and pain with threats of impairing vision if not cared for.

Vision rehabilitation for irreversible vision impairment caused by conditions like diabetic retinopathy, glaucoma, ocular trauma and muscular degeneration with age has been proven to be effective in restoring some residual vision. Assistive and adaptive devices and use of optical and non-optical aids were other options.
IN VIEW: Aum Pema from Dagana undergoes an eye examination before a scheduled bilateral cataracts operation during an eye camp.

Photo: WHO, Bhutan
WATER STATION: With support from Department of Foreign Affairs and Trade, Australia, more than 50 drinking and washing stations were installed across health facilities in the country’s 20 districts.
A new water testing technique, proven through trials of many available in the market, was adopted, along with as modern a water quality monitoring information system (WaQMIS).

The RCDC experts carried out a two-day training each in Mongar and Trashigang for several rural water surveillance staff on the use of the new test kit and the WaQMIS under new module between April and September.

The new testing technique, membrane filtration method, with its special filter to trap microorganisms proved more effective for isolation and enumeration of microorganisms in test water samples.

RCDC officials said the new technique, used on a large-scale in laboratories and industries to sterilise fluid materials in other countries, assessed both the water quality and its microorganism content. "With the new method, the water quality is determined through the quantity of microbial mass in the test sample," he said, adding the technique required less preparation than other traditional methods.

This replaces the existing rural water quality testing technique of 3m petri film used to culture various microorganisms which was lacking in capacity. It used only a millilitre of sample instead of 100 millilitre-sample as required by the Bhutan Drinking Water Quality Standard (BDWQS).

The rural water surveillance staff were also brought up to speed on RCDC’s upgraded WaQMIS, comprising sanitary inspection modules and review of water quality data from water service providers.

“This will not only ensure timely submission of water quality test reports from surveillance sites but also encourage prompt remedial actions on the part of water service providers,” an RCDC official said.

RCDC in collaboration with various health centres from urban and rural areas conducted drinking water quality surveillance in urban and rural areas since 2010 for urban health centres and 2015 for the rural ones.
WASH, through pandemic and after

In keeping with recommendations of the need to install drinking and handwashing stations in healthcare facilities across the country in 2020, WHO supported the distribution of more than 50 drinking and handwashing stations across the country in 2021.

They were installed at various hospitals, including institutions for the disabled and other public institutions. They were a measure to enhance infection prevention and control, especially in the face of unrelenting COVID-19 cases. Apart from that, a national strategy on WASH facilities in healthcare was also developed.

The health ministry deputed six officials from public health and education division, along with a health and gewog official each of respective districts to monitor installation of handwashing and safe drinking water stations at identified healthcare facilities.

Besides facilitating and revalidating strategic locations and feasible access to water supply, the team also provided technical back up during installation.

FIRST, FOREMOST: Like in most schools across the country washing hands is the first thing students do as a habit regularly.
NATION'S CAPITAL: The sprawling Thimphu city, where public amenities struggle to keep pace with its growth.
The country’s capital Thimphu is said to be one of the fastest urbanising cities in the region and the world telling from its swelling population and growing infrastructure.

Amid all the frenzy, however, one critical component urban planners have come to more consciously include are amenities that contribute to healthy living, which in the long run engenders a healthy city.

For instance, the thromde has ensued works to improve public transport and pedestrian safety, including developing sanitation, better water supply and waste disposal systems. It has also begun initiating development of parks, tree plantation, recreational facilities for the young, and community centres for elderly citizens.

To complement these activities, the health ministry in collaboration with WHO developed a customised healthy city approach called Health in All policies (HiAP) for Thimphu. It looks to addressing Thimphu’s needs by tackling multi-dimensional indicators of socio-economic and health determinants, infrastructure and environment that affect people’s health.

Thimphu Thromde was recommended for healthy city project considering its population density of almost 115,000 residents, which is about 42 percent of all national urban population of 274,000, according to the 2017 population and housing census.

It was chosen as one of the cities in South East Asia to initiate the global urban governance initiative under healthy city project.

A local consultant was recruited through WHO to prepare action plan proposal of five to seven-year for Thimphu Thromde. A core working group was formed comprising representatives from the health ministry, the thromde and works and human settlement ministry to begin charting out the healthy city action plan.

As part of the action plan drafting process, numerous consultations with officials from thromde, health ministry, works and human settlement ministry, road safety and police helped point out current gaps and challenges for the municipality authority.

Representatives from private companies and associations, local communities, CSOs and NGOs were also consulted for a broad-based and inclusive action plan for healthy Thimphu city.
SECTION IV

Preparedness for emergencies
ON STANDBY: The emergency medical service team in Thimphu.

Photo: MoH, Bhutan
How well the country fared in fending off COVID-19 and containing its spread within communities was largely due to the tenacity of health workers on the frontline in the fight.

A formidable team of more than 190 health force comprising doctors, nurses and health assistants backed by lab technicians and health students stood guard at various COVID-19 centres in the country.

Screening travellers in and out of the country, testing every Bhutanese for the virus and providing medical care and counselling to those affected by the virus, they also ensured uninterrupted medical services to the rest of the population.

In the face of growing number of COVID-19 cases in various parts of the country, more so in the trading hubs of Samtse, Gelephu, Samdrupjongkhar and Phuentsholing, the health ministry was able to field additional health workers to the COVID-19 centres and along southern borders following rigorous trainings under seasoned lab technicians at RCDC in Thimphu.

Each of the red village identified along the southern borders were assigned a general district medical officer, health assistant, swab collector and security personnel. The team was equipped with testing facilities to perform instant antigen test and RT-PCR sampling along with basic medicines.

“We trained them in the use of swabs for sample collections to test for COVID-19,” RCDC Chief Laboratory Officer at Serbithang, Binay Thapa said, adding it brought duel benefit of screening patients for other diseases not just limited to virus detection. “In the process of conducting flu surveillance at various flu clinics, we also strengthened the country’s COVID-19 response.”

The health ministry rolled out the COVID-19 integrated flu surveillance to primarily monitor community transmission initiative in keeping with WHO’s recommendation to implement surveillance for COVID-19.

The team was able to conduct outbreak investigation and scientifically rule out the presence of any residual community cases. Early detection of COVID-19 was critical while monitoring community transmission so appropriate response could be put in place.

Apart from carrying out regular webinars to discuss issues related to the conduct of tests at the COVID-19 centres, Binay Thapa said they now began training interested health staff on the study of COVID-19 virus variants.

“We have a gene sequencing machine installed at the centre and have begun training four health graduates to study virus variants,” he said. “It’s not just for COVID-19 variants, but flu as well.”
Case history of the border towns

- **April 16, 2021**
  - Two community cases were detected in Phuentsholing Thromde

- **May 5, 2021**
  - First phase mass screening of 8,151 tests completed. Four tested positive in Phuentsholing Thromde

- **May 18, 2021**
  - One COVID-19 positive case detected from quarantine facility in Jomotsangkha Dungkhag

- **May 20, 2021**
  - 20 primary contacts tested positive in Jomotsangkha Dungkhag

- **May 22, 2021**
  - Second phase screening of 14,319 test conducted. Four tested positive in Phuentsholing Thromde

- **May 23 - 28, 2021**
  - First round of clustered testing conducted in which 82 positive cases emerged in Jomotsangkha Dungkhag

- **July 5, 2021**
  - A woman tested positive from the flu clinic in Samtse

- **July 8-9, 2021**
  - Mass testing conducted in Samtse throm and nearby areas. Four of the 5,884 samples tested were positive.
Scaling 4,000-meter passes with community healthcare needs

The peaking mountains draw Bhutan’s northern boundary, the same mountains that naturally scatter populations and wear public services thin.

In the times of the COVID-19 pandemic, these rugged contours have challenged Bhutan’s comprehensive approach to primary healthcare services to achieve universal health coverage.

Bhutanese in rural areas, especially those living in the alpine regions lack access to healthcare awareness and are subject to delayed or deprived essential healthcare services.

About 4.6 percent of the population in the country walk more than three hours to reach the nearest health facility, and 2.14 percent still walk for more than three hours to reach the nearest road points.

This is real for people of Lingshi, a semi-nomadic community north of Thimphu, living at an altitude of more than 4,000 meters above sea level. A highly mobile population, their lifestyle revolves around makeshift huts, moving with seasonal greeneries favoured by different climes of the region.

Reaching essential healthcare services to these travelling population through mainstream approach poses immense challenge, calling for a strategic outreach approach by involving relevant stakeholders, including people of these communities.

The health ministry developed a guideline – on planning and implementation of outreach programmes – encapsulating strategic and efficient delivery of essential healthcare services to the nomadic population.

General wellbeing in good health

Amid fears of growing COVID-19 cases, especially the threat of highly transmissible omicron variant, highland residents of Lingshi found comfort in the words of Health Minister Dasho Dechen Wangmo, who graced the remote communities with her presence in October.

The high-level highland advocacy and awareness campaign received a booster with the accompanying presence of the country’s WHO representative, Dr Rui Paulo de Jesus.

While Dasho Dechen Wangmo discussed various public health issues like prevention and control of non-communicable diseases, sexual and reproductive health, including sanitation and hygiene among others, Dr Rui spoke on the detrimental impacts of COVID-19 on physical, mental, economic and social wellbeing of people across the globe.

Dasho Dechen highlighted the government’s priorities on delivery of people-centred, domiciliary-based care and ensuring specialised medical services at the grassroots. This left the nomadic community reassured of enjoying the best healthcare services for them.
Dr Rui, who distributed face masks to the people emphasised the good fortune of the Bhutanese people to receive care and guidance from a King that directed a whole-of-government effort in the fight against the pandemic, which was received well by the people in what became a whole-of-society response.

Healthcare at doorsteps

A medical camp was conducted following the advocacy and awareness programme.

The team comprising pediatrician, medicine specialist, gynecologist and obstetrician, anesthesiologist and nurses among others offered various medical services starting with basic general check ups to lending specialised medical screening like endoscopy, diagnosis and other treatments.

One of the residents, Rinchen Dema, in her late 20s, expressed her deep gratitude for the endoscopy service. “We’re indeed fortunate to receive such specialised medical services at our doorsteps,” she said, beaming with gratitude for His Majesty The King and the government. “I can’t imagine for us nomads to be leaving our homes, our daily chores and walking for days to Thimphu for these medical services.”

More than 550, or 92 percent of the nomadic population and of different age groups received screening, diagnostic and treatment services.
Dealing with biomedical wastes from pandemic

Reported health records show 1.9 million COVID-19 injections administered to more than 400,000 Bhutanese in 2021. That is about the number of syringes disposed. Likewise, more than 113,000 people were tested for COVID-19 (53,806 on RT-PCR and 59,543 on RDT) in the five COVID-19 laboratories located strategically at various points of the country. That is about the number of test kits disposed. The figures speak for themselves.

The country has 49 hospitals and 186 primary health centres and, in preparation for the pandemic, add the flu clinics, quarantine and isolation facilities. The biomedical wastes generated was enormous.

While managing biomedical wastes always was a challenge to address adequately even before the global pandemic, what the COVID-19 response efforts brought was a hair-raiser.

In numerous health centres in other districts, biomedical wastes were dumped along with municipal wastes without pre-treatment. The practice poses significant threat to human health and the environment.

The health ministry initiated a multi-sectoral collaboration on waste management and trained health officials and workers, including relevant stakeholders on safe disposal and management of biomedical wastes.

The Infection Control and Medical Waste Management officials of the health ministry conducted trainings for 130 health officials on biomedical waste management, Infection Prevention and Control and COVID-19 in September at Bumthang and Punakha.

They were also trained on the online reporting system on biomedical waste management; strengthening multi-sectoral collaboration on waste management; and reoriented on zero waste hour.

To ensure proper handling, storage, treatment and disposal of wastes categorised as biomedical and hazardous, the Waste Management and Stray Dog Population Control Flagship programme identified autoclaves, incinerators, microwave sterilisation and sanitary landfills as the preferred disposal options.
SAFE DISPOSAL: Ensuring proper handling, storage, treatment and disposal of biomedical and hazardous wastes continue to pose challenge.
The emergency department (ED) of the national referral hospital is also referred to as the heart of the health system. It is the first point of contact for people visiting the facility with hopes that care from learned physicians will lend quick relief to varying illnesses, conditions and injuries they bring.

Expected to extend the right attention to the right patient within limited capacity and resources, health worker in the emergency department are on their toes most times. However, in the face of growing patients visiting the national referral hospital emergency department every day, rendering prompt services to all patients at a time becomes challenging.

With each patient expecting treatment with some degree of immediacy, proper ED management takes centre stage to ensure that the right resources are in place to help patients on time.

About 65 health professionals from the emergency department of Jigme Dorji Wangchuck National Referral Hospital were trained in emergency triage using WHO interagency integrated triage tool in Paro.

Following the training, ED staff used the triage tool in assigning degrees of urgency to feed in data for patient acuity, morbidity and mortality, length of stay and staffing. The comprehensive triage tool also allowed them to gather more in-depth data, including speeding up the process of determining the most critical patient from among many requiring immediate attention.

The ED staff, including doctors, nurses and paramedics were also given advanced cardiac life support (ACLS) training at the simulation lab of the national referral hospital.

“The course complemented by simulation exercises helped build confidence needed among healthcare professionals to take the lead during emergencies,” a night shift physician of the emergency department said.

Advanced life support courses were used to train healthcare professionals in key areas of resuscitation using evidence-based guidelines.
Basic how-tos for EMR team

As attendants to patients much before admission to hospitals, ambulance drivers and Emergency Medical Responders (EMR) were provided basic life support and Cardiopulmonary Resuscitation (CPR) training in Trashigang.

According to emergency department health staff, EMR and ambulance drivers play crucial roles in transporting and providing pre-hospital care to the seriously ill and the injured to the nearest hospital. Teaming up under health help centre, they make for a critical lot in the emergency department, providing ambulance services on land and air evacuation of patients.

On average, in a month the centre provides around 150 land ambulance and EMR services twenty-four hours a day and about half-a-dozen air evacuations.

To enhance knowledge on efficient ambulance service, the ambulance service team comprising emergency medical responders, ambulance drivers and paramedics received trainings on first aid, CPR and basic life support.

“It is essential for them to have knowledge on first aid, and basic life support as they are the first on-scene responders,” a doctor at the emergency department of the national referral hospital said.
Fifty-year-old Wangdi Gyeltshen is an ambulance driver at Lhuentse hospital. In a career spanning more than two decades, he has rushed car crash victims, stroke patients, labour and delivery fails and the chronically ill by the thousand to many district hospitals in the east.

Apart from driving patients to hospitals, ensuring they survived the trip and helping move patients into emergency rooms, Wangdi said he dared not try offering any other medical help.

Like most Bhutanese ambulance drivers, he lacked formal medical instruction that certified him in lending professional hand.

But in mid-2021, Wangdi received a basic training in life support and cardiopulmonary resuscitation (CPR) along with two colleagues in the district and more than 40 other ambulance drivers across the country. Being among the first line of responders to a crisis, an emergency situation, they were given EMR training.

He fondly recollects moments of how he was able to save lives of people because of the training.

One such moment etched in his memory was of a patient suffering from alcohol liver cirrhosis, where on the way to Lhuentse hospital from a community in Zhangkhar, the patient went into a shock at Tangmachhu, half way to hospital.

“It was an opportunity to apply what I learnt and practiced at the trainings.” Wangdi, who had performed CPR on the patient said. “It worked. I was able to help the patient regain some consciousness to reach hospital.”

At another occasion Wangdi saved the life of the birthing mother on the road.

“Apart from the trainings, I was fortunate to have doctors and nurses at the hospital show us how to assist delivery during emergencies,” he said.

The trainings on first aid and CPR, Wangdi added were skills that not only came in handy during times of emergencies today, but...
those that could be applied long after his retirement when he returned to his village among his community folks.

In the absence of such a training, Wangdi remorsefully recollects faces of lives lost in the ambulance on the road, like the two women who got into a fatal road crash.

“They died en route to the hospital from internal bleeding,” he recalled. “I was helpless. I didn’t know what to do.”

Wangdi believes such trainings should be provided regularly just so they stayed hands-on and updated to lend efficient and effective real time services.

The first time Wangdi remembers receiving such a training before the latest one was some 12 years ago in 2009.
Working around the pandemic
Enhancing skills