In matters of health
Towards equitable health system, work of WHO in Bhutan, 2019
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Cover: The Trashichhodzong and the Gyalyong Tshokhang are the sources of the country's national laws and policies.

Photo: Kinley Wangmo

Printed in Bhutan
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Bhutan’s achievement in public health has been exceptional.

The achievements are a combined effort and merit of far-sighted leadership of our successive monarchs, focused not only on primary health care but also on balanced development, which has, in turn influenced the sustainable socio-economic growth. The achievements are also attributable to WHO, a long-term partner in facilitating the course of Bhutan’s health care system.

WHO’s partnership has stimulated generation, translation and dissemination of valuable public health knowledge. Norms and standards have not only been established, but monitoring and implementation assistance have been provided too. Its effort in shaping research agenda has resulted in positive changes as Bhutan strives for sustainable institutional capacity growth.

The Organization assisted in making decisions, putting policies in place and implementing it on the ground.

However, in the face of rising health expenditure, changing lifestyle and disease pattern, inadequate human resources, changing political environment, evolving health care needs, international health obligations, new health technologies, decisions and policies continue to play a vital role.

In 2019, Bhutan committed to eliminate cervical cancer by 2030. The same year, the kingdom became one of the first nations in the southeast Asia region to gain Hepatitis B control status, before the regional target of 2020.

These are only a few examples of how decisions are crucial part of the health care system.

Unique to Bhutan is the right to health services, both modern and traditional medicines, which the Constitution guarantees and nurtured wisely by our monarchs. The government will continue the legacy of according high priority to equitable and universal access to free health care services. WHO’s partnership, as always, remains crucial.

Dechen Wangmo
Health Minister
Much of Bhutan’s policies are guided by its philosophy of Gross National Happiness, the four pillars that prop up the nine domains that forms the base. Health is one of the domains with bearings on rest of the eight.

Little wonder that it is a service provided free to people, at least at the point of care, by the state that claims responsibility of creating the sort of environment conducive for its citizens to pursue happiness. The belief is, happiness of an individual is so contagious as to spread to the families, the community they live in and to the society ultimately.

A global community that it has come to represent, World Health Organization has always aspired to fulfill the diversity it brings in terms of knowledge and experience for Bhutan to draw from, so it can make informed policy decisions on health.

As this report indicates, through the many trainings, seminars and studies it supports for health and its allied agencies, technically and in pecuniary terms, WHO has been a major partner in strengthening Bhutanese health system. It provides technical assistance and helps meet international health standards for the country.

Through such activities, decisions have been arrived at and national policies have been crafted, a key function of the Organisation that informs Member States of health policy options drawing on global expertise and experience.

As part of its service, the Organization continues to promote and assist the country in improving access, quality and use of medical products and technologies, which eventually go on to supporting management and governance of the health system.

As Bhutan copes with new challenges, grapples with the existing and introduces new programmes and initiatives to improve health services, we will continue being the partner we are seen as, in the country’s aspirations for better health care services and system.

Dr Rui Paulo de Jesus
WHO Representative
The publication presents some of the significant works of WHO in 2019 to aid Bhutan’s progress in achieving Sustainable Development Goals and Universal Access to Health Services.

The book, in a gist, captures WHO’s work in 2019, documented under five sections – Universal coverage, Happiness and wellbeing, Emergency preparedness, Effective services and In partnership.

Under Universal coverage, major milestones were attained with Bhutan achieving Hepatitis B control status, its commitment to eliminate cervical cancer by 2030 and the first World Patient Safety Day observed.

Happiness and wellbeing, the core principles of Bhutanese development agenda, present initiatives taken to care for the elderly and the young. A patient centered PEN HEART package was also initiated across health centres in the country. The emerging issue of suicide also received more focus from health sector and recognised the role of suicide gatekeepers.

The emergency contingency plan and the setting up of an emergency medical team, which is underway, are some initiatives exhibiting Bhutan’s commitment to Emergency preparedness, the next section.

While universal access to health services is at the forefront, effectiveness of the services cannot come second. Pharmaceutical management and standardisation of medical equipment are some of the key initiatives highlighted under Effective services section.

The last section, In partnership, is about the Organization’s numerous collaborations with various government and international agencies to help realise the country’s national health goals and objectives.
HEALTHY NATION: Sound policy decisions bring about improved health systems that ensure a healthy future.
In matters of health

PHOTO: Kinley Wangmo
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Universal health coverage
When 37-year-old Dechen received a call from a hospital nurse in Thimphu informing her of the pap smear result reading negative for cervical cancer, she was relieved, before being impressed with the service. She had undergone the procedure two days ago.

The last time the mother of two children did a pap smear, she had to wait for about a month for the result. Back then, in 2014, the sample had to be sent to Kolkata, India for test. Today, it is done at the laboratory of the national referral hospital.

In recent years, cervical cancer screening has been ramped up and in February 2019, Bhutan committed to eliminate cervical cancer by 2030 at the 144th session of the WHO executive board.

Following the commitment, 10 health workers were trained in cervical cancer screening at PGIMER in India. Two gynecologists were trained in colposcopy and related procedures at Chulalongkorn University, Thailand.

WHO continues to support health ministry in strengthening capacity of health workers to help achieve cervical cancer elimination. Bhutan has been in the forefront of secondary prevention of cervical cancer since the late ‘90s. The health ministry took the lead in formulating the first guideline in cervical screening in 1999.

The National Health Policy assures comprehensive quality maternal and child health care services. Similarly, the National Reproductive Health Strategy (2018-2023) prioritises cervical cancer as one of the vital components towards achieving optimal sexual and reproductive health services.
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UP NORTH: Health Minister Dechen Wangmo with WHO Representative Dr Rui Paulo de Jesus in Laya at the launch of cervical cancer elimination campaign

PHOTO: Rinzi Om Dorji/WHO
A pilot Workload Indicators of Staffing Need (WISN) was conducted in various health centres across the country to assess staffing requirements. WISN is a method to determine staff shortages and surpluses, workload pressures and other health systems weaknesses. Based on the findings, key recommendations are provided. WHO first published the WISN user manual in 1998.

Hospitals in Thimphu, Mongar, Phuentsholing, Trashigang and Basic Health Units I and II in Kanglung, Paro and Punakha were assessed as part of the WISN. Of many, some of the positions included in the assessment were specialist technicians, medical officers, dental and clinical surgeons, clinical and staff nurse, health assistants and pharmacists.

WISN was recommended during the 4th biennial health conference, 2017. Some of its key findings were that primary care services required strengthening and staff roles had to be aligned with health centre needs.

The findings were presented to the ministry’s Human Resource Committee and during the 5th biennial health conference.

It was also presented during the high-level technical seminar on Strengthening Health Workforce Governance Towards Universal Health Coverage in Bhutan. The WISN report was endorsed during the seminar with a way forward.

One significant recommendation was the implementation of WISN in all health facilities across the country to improve human resource forecasting and planning.

In the past, levels of service delivery, population densities and health worker to bed ratio were used for determining staff requirement. Seeking scientific methodology, the ministry, with WHO assistance adopted WISN.
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Staffing needs: Senior nurses attend to patients during a routine child immunisation programme at Hongtsho outreach clinic.

STAFFING NEEDS: Senior nurses attend to patients during a routine child immunisation programme at Hongtsho outreach clinic.

PHOTO: Rinzi Om Dorji/WHO
Patient safety at the core

To strengthen and improve patient safety, the Hospital Management and Administration Transformation (HMAT) was rolled out in all hospitals and Basic Health Unit I.

This is expected to improve efficiency of the management and accountability in the clinical setting including medical ethics.

Health Care Standard for Quality Assurance (BHSQA) was initiated and implemented in most health facilities. Standard operating procedures (SOPs) and good clinical practice guidelines were also developed.

The country also observed World Patient Safety Day, bringing together health professionals, policy makers, academics, legal professionals and other relevant regulatory authorities to discuss and deliberate on patient safety.

The day was observed at eight health centres in strategic locations and with high workload. The day led to a rippling effect, rolling out various activities, which called for a re-look at patient safety and derived commitments to make patient safety a reality in the country.

A two-day national symposium was organised in Thimphu to discuss patient safety issues. Key recommendations like reinforcing existing policies and standard operating protocols were made.

For awareness, landmarks like the national memorial chorten and Buddha Dhordhenma, were lit up in orange on the evening of Patient Safety Day. Photo booths were stationed at various locations.

A national hotline, 1414, for patient complaints was also launched.

The 72nd session of the World Health Assembly endorsed 17 September as World Patient Safety Day and in the SEA-region, the Regional Strategy on Patient was adopted during the 68th session of the Regional Committee.
ON THE EVE: City landmark like the Buddha Dordenma statue is lit up to mark World Patient Safety Day. Inset: On the day, photo booths were placed at various locations in Thimphu.

PHOTOS: Rinzi Om Dorji/WHO
Health workers across 39 health facilities of Wangduephodrang and Zhemgang were trained on early detection, prevention, treatment, improved stroke registry and strengthening hypertension information system.

The two districts, according to Public Health Division’s Deputy Chief Programme Officer Pemba Yangchen, were identified for the training because of higher cases of hypertension there. Besides, they also took into consideration the scattered health facilities and logistical challenges of the two districts.

Although hypertension services continued, she said the 2016 Package of Essential Noncommunicable Diseases (PEN) clinical audit highlighted gaps in PEN and, therefore, the PEN HEART model was adopted to address the deficiencies.

“Health workers in each district were trained on the revised PEN HEART protocol, which entails modules on healthy lifestyle counselling,” she said, adding the system of monitoring and coaching, evidence-based practice and access to medicine and technology were in place.

Bhutan was one of the few countries in the South-East Asia Region, where non-physician primary health care workers, or Health Assistants (HAs) are authorised to screen and prescribe first-line anti-hypertensive medicines. HAs, therefore, underwent two to three-year basic health science training.

HAs were recognised as the core health workforce providing health care across the nation’s 211 Basic Health Units (BHU) in the 20 districts. BHUs are a five-bed primary health care centre staffed with two to three HAs.

Hypertension continues to be the leading risk factor of Cardiovascular Diseases (CVD). About 37.5 percent of the country’s population suffer hypertension. As per WHO estimates, Bhutan has been witnessing a growing trend of Noncommunicable Diseases (NCD), which accounts for 69 percent of the total deaths, a majority caused by CVD.

### Blood pressure

- 28% of adults have high BP
- 20% of high BP patients were not on medication
- 83% of population had their BP measured by a health worker

### Dietary Salt Intake

- 8.3 grams/day Mean population salt intake for an adult Bhutanese
- 45% of adults drink salted tea in their home

Source: STEPS Survey, 2019
In matters of health, the Lifestyle Related Disease Unit of the national referral hospital sees close to 40 patients coming to check blood pressure readings. 

PHOTO: Kinley Wangmo
HELPING HAND: As part of the hospital’s service, a staff of the national referral hospital attends to a patient.

PHOTO: Kinley Wangmo
Part of the whole

The country now has a National Action Plan for People Living with Disabilities.

Drawn up in consultation with relevant agencies, the action plan, through provision of assistive technologies and products, will ensure, in the long-term, meaningful participation of people with disabilities in the country’s socio-economic development.

As its member state and party to the 71st World Health Assembly resolution that adopted assistive technology, Bhutan was mandated to develop, implement and strengthen policies and programmes to improve access to assistive technology.

Likewise, as a member state also of the UN, it was party to SDGs endorsement of ensuring accessibility, affordability and availability to assistive products, which in broader scope defines the universal health coverage.

Despite lack of official record or study regarding the need and demand for assistive devices for people living with disabilities in the country, what limited data the health ministry gathered indicated a strong need for assistive products. Today, only a limited number of people with disabilities have access to them.

According to the 2019 Annual Health Bulletin, which gathered door-to-door information by households on impairment by types – hearing, visual, physical, speech and multiple impairments – showed hearing impairment as being the highest at 3 029 cases. Visual impairment followed at 2 129 reported cases, 1 535 reported having multiple impairments, 1 339 speech impairment and 1 126 physical impairment.

Artificial limbs, communication aids, hearing aids, memory aids, pill organisers, software, spectacle and wheelchair and mobility aids are among a few assistive products and technology lists.

Number of impairment by types

<table>
<thead>
<tr>
<th>Impairment</th>
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<tr>
<td>Hearing impairment</td>
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<tr>
<td>Visual impairment</td>
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<tr>
<td>Multiple impairments</td>
<td>1 535</td>
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<tr>
<td>Speech impairment</td>
<td>1 339</td>
</tr>
<tr>
<td>Physical impairment</td>
<td>1 126</td>
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</tbody>
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Source: 2019 Annual Health Bulletin
Raising awareness

One effective method of educating and creating awareness among Bhutanese is the use of election boards, located strategically in all 205 gewogs (blocks) as a medium for communicating key public health messages.

WHO in collaboration with health ministry came up with this simple and tested method of disseminating public health messages nationwide. A new poster, focusing on key public health issues, is up every two months.
In matters of health
A status of
Hepatitis B control

Bhutan was one of the first nations to gain the Hepatitis B control status in the WHO South-East Asia Region.

The other countries in the Region that received similar recognition for slimming Hepatitis B prevalence under one percent among five-year-olds, were Bangladesh, Nepal and Thailand.

WHO announced this in July 2019, days before the World Hepatitis Day themed “Invest in eliminating Hepatitis” and much before the regional target of 2020, as a part of the South-East Asia Regional Vaccine Action Plan.

The status was arrived at following review and verification of childhood immunisation data of the four countries, which revealed consistent Hepatitis B vaccine coverage – more than 90 percent – provided during infancy.

Studies conducted among five-year-olds in the four countries showed high immunisation rates, indicating Hepatitis B prevalence among children in these age groups being less than one per cent.

Children across the 11 countries in the region, under their national immunisation programmes, received three doses of the Hepatitis B vaccines in their first year of life. The vaccine, which prevents Hepatitis B infection in infancy goes on to reducing chronic infections and liver cirrhosis or cancer in adulthood.

Viral Hepatitis, although preventable, kills more than 400 000 people in the region a year. Today, close to 90 million people in the region suffer from chronic liver diseases that spikes cases of liver cancer and cirrhosis.
ANOTHER MILESTONE: Health Minister Dechen Wangmo receives the WHO citation for Hepatitis B control from WHO Regional Director Dr Poonam Khetrapal Singh and WHO HQ Chef de Cabinet Dr Bernhard Schwartländer.
Deworming to eliminate STH

Prevalence of Soil Transmitted Helminth (STH) among school children in Bhutan dropped from 16.5 percent in 2003 to 1.4 percent in 2017, according to the latest study.

When the first study was carried out in 1985, the prevalence rate was between 20 and 70 percent. The country began school deworming programme in 1989 with single-dose of Albendazola (medication used to treat a variety of parasitic worm infestations) administered every six months to school children. It picked pace to extend coverage to 98 percent as of 2003.

Although STH infections do not necessarily cause death among children, increasing evidence indicate impairment in mental and physical development, deficiencies of micronutrient, including iron, all of which lead to poor learning ability and absenteeism in schools.

The country intends to eliminate STH burden by strengthening control and prevention of its prevalence, for which capacity building of school health coordinators was deemed critical. The idea was to maintain the low rate by increasing efforts to eliminate the burden of STH through capacity building of key persons involved with children.

With WHO support, more than 80 health officials and coordinators from various districts across the country were engaged in developing manuals, strategies for greater awareness creation. It was done through media and monitoring and evaluating STH prevalence in a few select schools.

Regionally, STH prevalence among school children was lowest in the west at 0.6 percent, 1.4 percent in the country’s central region and 2.3 in the east.
In matters of health

PRE TEEN SCHOOLERS: Primary school students of Tang, a remote valley in Bumthang return home after school

PHOTO: Kinley Wangmo
BHMIS consists of various information sources with District Health Information Software 2 (DHIS2) serving as the main platform for collection of routine health information.

The Mother and Child Health (MCH) tracking system and Malaria tracking system was also integrated in DHIS2.

According to health officials the e-health strategy is to have a single source of data to avoid duplication and to support data validation and quality of information.

To aid this initiative, the WHO supported web-based BHMIS (DHIS2) application rollout and user training for Basic Health Unit II with Internet access and also training of trainers on ICD 11 coding of diseases. The training also included familiarisation of the DHIS2 mobile app.

DHIS2 is a free and open source health management data platform the Health Information Systems Programme (HISP) developed.

The BHMIS has improved since the inclusion of DHIS2 as the main platform for collection of routine information. DHIS2 was initiated in 2014, and after four years of implementation, the system was used by hospitals and BHU I with Internet connectivity.

These systems not only help in service delivery but also reduce mortality, morbidity and disease burden. However, due to lack of Internet facilities and equipment, many health centres still report routine health information using paper-based forms.

In keeping with the effort towards digitisation of health information, the government targets to connect all health facilities with Internet in the 12th FYP (current plan period).

A digitised health information system is expected to increase reliability and availability of data for planning and programmatic interventions.
ONLINE TRACKING: The Mother and Child Health tracking system was integrated with BHMS.
On track to malaria free status

With only two cases of indigenous malaria cases recorded in 2019, Bhutan is on track to eliminating malaria.

In 2016, WHO included Bhutan in a group of 21 countries with potential to eliminate malaria by 2020.

The numbers dropped from 39,852 cases and 62 deaths in 1994 to just six indigenous cases in 2018 and two in 2019. By 2020, it hopes to have no case.

If the zero status is sustained for three consecutive years, Bhutan will be eligible to apply for WHO certification for malaria elimination.

To support this endeavour, WHO conducted a review of the malaria surveillance system. It assessed the current status of the surveillance system and provided recommendations for the last mile.

The National Committee for Disease Elimination was briefed on the process of WHO certification for malaria elimination, the key principles involved. WHO also conducted training for the malaria programme and malaria technicians.

The Organization continues to provide support in various areas of the government’s response to malaria. In the past two years, WHO has recruited and deployed two malaria technicians in two remote places with history of malaria outbreak. The technicians assist the National Malaria Programme in conducting intervention and surveillance works.

Achieving malaria free status will be another significant milestone in the history of Bhutan’s modern health system.
In matters of health, measures were taken to control malaria. Mosquito nets were distributed to residents of Jomotshangkha, Samdrupjongkhar, one of the malaria hotspots in the country.
Health and wellbeing
In matters of health

Bhutan was one of the first countries in the South-East Asia Region to pilot the WHO Package of Essential Noncommunicable (PEN) disease interventions.

It was piloted in two districts in 2010, and in 2013 it was scaled up across the country to promote early detection and increase access to equitable NCD services. The focus was on early detection and screening of common NCDs like hypertension and diabetes.

However, in 2016, a PEN clinical audit was carried out, which found consultations focused on symptoms and disease pathology. Health workers were also found tuned out of treatment protocols and lacked skills to add or intensify treatment for NCDs like hypertension and diabetes.

The WHO PEN is an innovative and action-oriented set of cost-effective interventions that can be delivered to an acceptable quality of care, even in resource-poor settings. These tools enable early detection and management of cardiovascular diseases, diabetes, chronic respiratory diseases and cancer to prevent life threatening complications.

Acting on the PEN clinical audit 2016 findings, a PEN HEARTS package focusing on integrated approach to management of NCDs was introduced in Punakha and Tsirang.

A cohort monitoring of control rates for hypertension and diabetes at health facility and national levels will be set up. Peer coaching programme and learning network to provide evidence based management for NCDs will be introduced.

For a baseline for the PEN HEARTS project, a rapid assessment was conducted in February 2019 using rapid baseline assessment form to document available services, infrastructures and human capacity.

Technical working members and WHO staff from SEARO office conducted a five-day training of trainers at the national level for representatives from the districts in March 2019.

The representatives developed a prototype plan for conducting patient-centered PEN HEART for their districts. The patient-centered approach also involves family members, who are expected to be agents of change in tackling NCDs.

Treatment modality underwent reorientation and brief interventions on alcohol and tobacco use was integrated and CVD risk charts assessed.

An NCD triage room or corner was introduced with registers to track all patient within their jurisdiction. Health care workers are now committed to calling up patients and follow up on drug adherence.
FOLLOW UP: Patients outside the Lifestyle Related Diseases Unit of JDWR hospital wait for check up
Some 40 medical and health professionals were brought up to speed on the National Health Policy. The policy, the outline for which was drafted with support from WHO around July 2019, was taken up for dissemination for medical and health professionals.

It was in keeping with the Royal Civil Service Commission’s mandate to all legal officers of various government agencies to disseminate information on laws and create legal awareness among various government departments and divisions.

Considering it was mostly medical and health professionals in the border towns who dealt with legal issues and even faced court charges, the health ministry’s legal unit decided they be sensitised and made aware of various legal provisions concerning the profession.

Besides guiding medical and health professionals on legal matters, awareness on provisions in various laws pertaining to the profession helped prevent them from any possible legal perils emerging from the profession.
Understanding the importance of gatekeeping in suicide prevention, 20 participants representing various sectors like health, police, education, De-Suung and monastic community were trained as trainers.

WHO country office provided technical and financial support to establish the national capacity of trainers.

The training was aimed at developing knowledge, attitudes and skills to identify those at risk and make referrals.

In Bhutan, suicide and mental disorder was recognised as a growing public health concern. The government endorsed a three-year National Suicide Prevention Action Plan in 2015.

Suicide was among the top six leading causes of deaths in Bhutan. WHO data (2017) indicated that 2.11 percent of the total deaths in the country were from suicide. From 2009-2013, the Royal Bhutan Police recorded a total of 361 suicide deaths.

The proportion of suicide deaths among all deaths was 4.5 percent, higher than the corresponding proportion of 1.4 percent in the low middle-income countries and occurred among the most productive age groups. About 87 percent of deaths occurred within the age group of 15-40 years.

Since suicide attempts result in enormous cost to the health care, family and individuals, due to injury and disability, it is a public health concern in the country. The government committed to addressing suicide prevention as a top public health priority.

Following recommendations of the WHO and the National Suicide Prevention Action Plan, the training of trainers for suicide prevention was conducted in November to develop national capacity. The training will be rolled out across the country within the 2018-2023 Plan.
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BUILDING CAPACITY: Frontline health workers and emergency medical responders undergo a post trauma counseling training

PHOTO: Rinzi Om Dorji/WHO
Post trauma counseling

With assistance from WHO, 60 emergency frontline health workers like emergency medical responders (EMRs) and nurses in emergency departments from various health facilities across the country were trained in post trauma counseling during public health emergencies.

The first of its kind in the country, the training was conducted to build capacity of health workers to provide psychological care besides medical treatment to patients and others affected by traumatic events like disasters, accidents or deaths.

Prior to this, only indirect classes and sessions covered psychological aspects of post trauma treatment.

The training will further strengthen emergency medical services in the country.

Allied health professionals, volunteers, De-Suups and other social workers are also expected to be trained.

Globally, trauma is one of the leading causes of death between 1-44 years. In Bhutan, with increasing trauma cases, need for prompt and standard care is all the more critical.

In addition, medical emergencies due to Noncommunicable Diseases (NCDs) are becoming a burden for the health system. NCDs like stroke, acute coronary syndrome, diabetic complications and alcohol liver diseases are some of the conditions requiring immediate care.

Emergency Medical Services Division under Department of Medical Services is identified as the nodal agency to improve trauma care and emergency services in the country. The health ministry identified health facilities to be established as medical emergency and trauma centres during the current Five-Year Plan.
In what could be a first of kind, the public health division of the health ministry carried out a retrospective study of neonatal mortality in the country. Retrospective, because the study was based on 2018 data registered with Mother and Child Health (MCH) using the Maternal, Perinatal, and Neonatal Deaths Surveillance Response (MPNDSR) guideline.

Although neonatal deaths was a major contributor to the proportion of under-five mortality, the country was wanting of a study that considered the factors and characters associated with neonatal mortality.

The study conducted around August intended to determine that. The health facilities reported more than 100 neonatal mortality in 2018 and it was crucial to find out how and why they occurred, to identify gaps. The findings from the study would be critical in defining key interventions to enhance and ensure health of newborns in the country.

The sample, the study considered, constituted live newborns in health facilities – 27 hospitals including three referrals, 23 BHU I, 185 BHU II and 45 sub-posts – that reported neonatal mortality between 1 January and 31 December 2018.
In matters of health

PHOTO: Kinley Wangmo

AN INFANT’S PROGRESS: A health staff weighs an infant at the MCH in Gelephu Regional Referral Hospital

PHOTO: Kinley Wangmo
In matters of health

COMMON PLACE: Alcoholic brews are ubiquitous in almost all restaurants and hotels in the country

PHOTO: Kinley Wangmo
Tackling alcohol locally

In the absence of a national law, a bylaw to control illegal sale of alcohol and reduce its consumption among people in rural communities, was what some 5000 elected local leaders decided on.

It does not stop there, local leaders also decided to strictly implement the provisions of the bylaw that prescribes against exposure of under age to alcohol, sale of alcohol in grocery shops and healthy substitute for alcohol at any religious or social functions.

The decision was arrived at during an awareness campaign that health ministry officials conducted among gups, mangmis and tshogpas of the four districts of Dagana, Lhuentse, Mongar and Samdrupjongkhar.

It was based on a WHO supported study, which delved into the country’s alcohol pricing and taxation policies to conclude low adherence to it, both among alcohol sellers and consumers, to control its sales and reduce consumption.

The study pointed out two fundamental shortcomings – a method to contain rapid and uncontrolled growth of outlets and effective taxation – in the existing alcohol policy.

The country’s culture around drinking, its ubiquity in all shapes, types and sizes across shops extending into the far reaches of the country gave the country the notoriety of being one of the biggest, globally, in terms of the number of alcohol outlets compared with the size of its population. The study pointed out one liquor outlet per 98 Bhutanese above 15 years.

What that means? Alcohol spawned diseases, particularly pertaining to liver, continues to be one of the top five causes of deaths in the country that drains more than Nu 30 million of the public resources in treating alcohol-related ailments and resolving social issues of deeper consequences.

Studies in the past revealed that it was mostly people residing in rural areas, with low socio-economic and education background, who were most vulnerable to alcohol abuse.

Therefore, the involvement of local leaders, community representatives, including health workers, women associations and religious leaders was imperative in countering the deep-seated social malaise that is alcohol.

### STEPS survey

Respondents 6,000 plus

| Current drinkers | 43% |
| Former drinkers  | 16% |

### Choice of alcohol among drinkers

<p>| | |</p>
<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>Beer</td>
<td>45%</td>
</tr>
<tr>
<td>Ara</td>
<td>24%</td>
</tr>
<tr>
<td>Other home brewed alcohol</td>
<td>15%</td>
</tr>
<tr>
<td>Wine</td>
<td>9%</td>
</tr>
<tr>
<td>Spirit</td>
<td>8%</td>
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</table>

Source: STEPS 2019
Healthy ageing

To homogenise the WHO Integrated Care for Older People (ICOPE) guidelines with the existing community based elderly care programme in the country, healthcare workers were trained in ICOPE guidelines.

With both ICOPE guidelines and the elderly care programme focusing on healthy ageing, it required the ongoing programme to undergo a complete review so gaps could be identified and the ongoing programme modified accordingly.

For the review and to introduce the concept of ICOPE, a two-day training of trainers was organised, followed by a three-day training.

Participants from hospitals across the country and Royal Society for Senior Citizens (RSSC) attended the trainings.

With increased life expectancy the elderly population has been increasing over the years. Today, five percent of the Bhutanese population are over 60 years.

Catering to this section of the population, the health ministry in collaboration with Kyoto University, initiated the community based elderly care programme through a pilot project in Khaling, Trashigang in 2010.

The programme was rolled out nationwide through training of health personnel in Basic Health Units and other health facilities.

The National Health Assembly approved WHO’s global strategy and action plan on ageing and health in 2016. As a tool, among others, an ICOPE guideline was developed in 2017.

By providing evidence-based tools and guidance specific to every level of care, ICOPE helps health systems support healthy ageing and maximise older people’s intrinsic capacity and functional ability.

The community elderly programme in Bhutan assesses the health of elderly citizens through periodic or annual health checkup, under the overall supervision of the Elderly Care Programme, under the health ministry.

Of many, the checkup comprises screening for geriatric problems like drinking, depression, diabetes, dental, hypertension, visual, hearing and urinary incontinence. Once the assessment is done, follow up is carried out to manage relevant conditions and prevent or delay complications.

The WHO ICOPE package of tools offer an approach that helps key stakeholders in health and social care to understand, design and implement person-centred and coordinated model of care.

The ICOPE handbook assists healthcare workers to develop a personalised care plan that includes multiple interventions to manage cognitive decline, limited mobility, malnutrition, visual impairment, hearing loss and depressive symptoms.
In matters of health, the aging population of Bhutanese over 60 years of age is a concern. The health ministry has instituted a programme to screen for ailments associated with old age and provide appropriate interventions.

PHOTO: Kinley Wangmo

AGING GRACEFULLY: The health ministry instituted a programme to screen ailments associated with old age for appropriate interventions.
More than 90 percent of the 218 health facilities across the nation’s 20 districts have access to piped drinking water, of which, an impressive 88 percent reported having access to 24-hour water supply.

The findings from the national baseline survey of Water, Sanitation and Hygiene (WASH) in health centre facilities, however, pointed out issues of water disruption with 57 percent reporting about it and 11 percent that faced shortage during monsoons.

The survey that Public Health Engineering Division of the health ministry undertook, with joint financial support from WHO, UNICEF and SNV, according to health officials was long overdue for focused intervention to address water shortages and disruption in the health facilities.

Lack of baseline information, health officials said impeded the WASH sectors to set national targets that conformed with Sustainable Development Goals that stipulates achievement of safe drinking water and sanitation and hygiene by 2030.

“Aligning the baseline study with SDGs could help set realistic national targets under the 12th Plan,” a health official said.

Likewise, the study also revealed that 99 percent of the toilets in the health centre facilities surveyed were pour flush. It stated that 13 percent were connected to sewer network and 49 percent had septic tank with soak pit.
In matters of health

Hygiene: though abundant, management of water from the sources through distribution channels to the outlets remain a challenge.

PHOTO: Kinley Wangmo
Real-time food safety surveillance

The country’s disease control and food regulatory authorities can maintain an efficient food safety surveillance with the real-time online surveillance system FoodSIMS (Foodborne Disease Surveillance Information Management System) developed in July 2019.

The system allows for regular update of food samples collected from hotels, restaurants and bakeries from the major towns of Gelephu, Paro, Phuentsholing and Thimphu.

Along with the development of the online system, Bhutan Agriculture and Food Regulatory Authority (BAFRA) food inspectors from the identified towns were given their own user ID to load information into FoodSIMS. They were trained on its use to strengthen reporting mechanism as part of integrated surveillance system under NEWARS.

With the hands-on training on food sample collection and transportation, BAFRA inspectors will collect five instant food products fortnightly from identified urban centres and transport them to Royal Centre for Disease Control (RCDC) for microbiology analysis and generate a report. It will be used to build an efficient food safety surveillance data.

In 2014, food poisoning was identified as one of the notifiable diseases in the country and was integrated into the National Early Warning and Surveillance Response. Lack of such a robust system in the past limited relevant authorities to event-based and syndromic reporting of foodborne illnesses. Although that served its function of facilitating efficient sharing of resources for core surveillance and support functions, it fell short of capturing data on foodborne illnesses and systemic laboratory-based foodborne surveillance system.
In matters of health

TRADITIONAL BUFFET: Just about all favorite Bhutanese cuisine arrayed at a local restaurant

Photo: Kinley Wangmo
In the last six years, tobacco use among youth dropped by almost 10 percent from 30.3 percent in 2013 to 22.2 percent in 2019 according to the latest Global Youth Tobacco Survey.

This decrease was attributed mainly to the drop in use of smokeless tobacco, which reduced from 24.3 percent in 2013 to 12.5 percent in 2019.

However, data analysis indicated not much change in prevalence of cigarette smoking among youth, although it showed significant reduction in exposure to tobacco smoke, both indoors and outdoors.

Students who used tobacco increased from 16.5 percent in 2013 to 17.3 percent and those who smoked cigarettes increased from 14.0 percent to 14.7 percent.

The survey, developed by the tobacco-free initiative (TFI), WHO and the office of Smoking and Health of United States Centers for Disease Control and Prevention (CDC), in collaboration with countries representing the six WHO regions, aims to present a comprehensive tobacco prevention and control information on young people.

It is a global standard to systematically monitor tobacco use among youth and track key tobacco control indicators. It is a nationally representative school-based survey of students aged between 13 and 15 years. Many countries have started to widen the age range to 13-17 years and in GYTS 2019, Bhutan too widened the age range for the survey.

There is scientific evidence that tobacco consumption will cut short more lives than other Noncommunicable Diseases. Seen as tomorrow’s customers, the youth have long been the target of tobacco companies.

So far four GYTS have been conducted. The earliest survey was carried out in 2004 and thereafter in 2009 and 2013.

The survey will help determine prevalence of tobacco use among youth aged 13-15 years and 16-17 years. Other related indicators include smoking and smokeless, ever and current use, secondhand smoking, cessation, access and availability, marketing, and knowledge and attitude by sex.

The GYTS data would prove critical to base policy measures and guide suitable interventions and strategies for tobacco-free initiatives in Bhutan. It would also provide a baseline measure for monitoring and evaluating tobacco control programmes to assess progress in achieving a reduced prevalence of tobacco use.
Tobacco users among students (13-15 years)

2013
- 30.3% overall
- 23.2% female
- 39% male

2019
- 22.2% overall
- 13.5% female
- 31.2% male

Source: GYTS 2013 & 2019
Emergency preparedness
In matters of health
To better manage laboratories

The Royal Centre for Disease Control (RCDC) developed a manual to guide implementation of quality management system across health laboratories in the country.

A standard was necessitated to ensure uniformity in managing laboratories to ensure better and quality outcomes.

Deriving from the manual, several Standard Operating Procedures (SOPs) were developed with experts from various laboratories in RCDC.

The centre will implement the system and carry out activities aligning with the manual and guided by SOPs.

The overall benefit of a standard quality management system is in the coordination and direction it provides laboratories for sustained improvement and efficiency, besides helping meet customer and regulatory requirements.

Meeting international health regulations

Chief Laboratory Officer Binay Thapa was the first RCDC laboratory technician to undergo WHO conducted IATA training in Maldives and Geneva. Association certified, he trains postal and health officials on IATA protocol. With assistance from WHO, around 30 laboratory technicians from across the country were trained in mid-2019.

The Royal Centre for Disease Control (RCDC) deals with numerous disease samples, from something as contagious as a common flu to those as infectious as H1N1 types. Some disease samples that require further verification and characterisation for genetics and anti-genetics have to be sent to Bangkok and sometimes as far as the US.

The swiftest means to transport these samples and receive them is by air and this is where International Air Transport Association (IATA) certification comes in.

It is all about safe handling and transportation of infectious disease samples for tests in laboratories in other countries. Every country has its own regulations and standards to meet when air-transporting disease samples and every airline has its own policies.

With new diseases emerging and with ever greater risks of disease outbreaks, conforming to international standards is crucial.

Therefore, it is imperative that laboratory technicians know and
understand regulations and policies in different countries regarding transport of disease samples. It is for the safety of people handing them at source and those receiving at the other end. Packaging of the samples, by their volume and storage requirements, is crucial for different disease types categorised by how infectious they are.

For a centre that carries out studies of disease samples and keeps contact with reference laboratories outside the country, IATA certification is must. Just as we send disease samples for verification and characterisation to labs outside the country, we have samples sent to us to test our competency so we stay relevant and up to global trends.

IATA certification is upgraded every two years.
GEARING UP: As part of emergency response operations, medical camp kit are set up at Mongar for hands on training.
For health security

A Health National Action Plan for Health Security (NAPHS) was drafted to accelerate the implementation of International Health Regulations (IHR) 2005. It was based on the joint external evaluation (JEE), 2017, recommendations.

NAPHS is a five-year planning process to accelerate implementation and enhancement of IHR core capacities focusing on the One Health and all hazards approach.

The action plan also captured all ongoing preparedness initiatives in a country along with a country governance mechanism for emergency and disaster risk management.

A three-day workshop was conducted with technical assistance from WHO for national technical heads for JEE and other stakeholders, to familiarise them with NAPHS tools.

The JEE Tool consists of four thematic areas of prevent, detect, respond, and other IHR-related hazards and points of entry. It covers 19 technical areas with specific targets and performance indicators.

Some of the technical areas include national legislation and financing, antimicrobial resistance (AMR), food safety, biosafety, national laboratory system, real time surveillance, emergency response operations and risk communications.

In Bhutan, adequate national policies and legislation are in place that recognise and provide the necessary basis for implementing IHR 2005. The legal provisions concerning water, food, medical assistance, disaster management, trade-related procedures, immigration and customs have all facilitated effective implementation.
Risk communication

The health ministry with relevant stakeholders developed the Health Emergency and Disaster Contingency Plan (HEDCP) 2016 for the health sector. It was felt necessary in view of natural hazards like earthquakes, landslides, seasonal flash floods, forest fires and glacial lake outburst floods (GLOF) the country was vulnerable to. It was also in consideration of the country being prone to disease outbreaks and other public health emergencies of international concern given...
In matters of health

Assembling an emergency medical team

Initiatives to establish a Bhutan Emergency Medical Team (BEMT) by mid-2020 have begun.

The team, which will take several months to be trained and verified, will provide timely and effective response to medical emergencies and disasters in the country and beyond.

Anticipating medical emergencies and disasters in the country, and the probability of getting overwhelmed, especially with limited capacity, a training was provided to initial BEMT members with technical support from SEARO and BEMT mentors.

The three-day national emergency medical team training conducted in April in Paro focused on meeting the technical and documentary standards required for the verification emergency team.

The training provided opportunity for key members and partners to engage collectively to strengthen capacities in dealing with emergencies that require a national and international emergency medical team response. It also provided a forum to discuss and strengthen national EMT capacities in key areas.

Representatives from emergency and relevant professionals from health care facilities attended the training. Representatives from Royal Bhutan Army, disaster management department, WFP and WHO country office also participated.

The group outlined steps necessary to activate and access emergency mechanisms, list clinical, logistical and other equipment required for BEMT. It also developed clinical SOPs and other documents required for EMT deployment.
IN SESSION: A WHO emergency medical response expert trains cabin crew of a Bhutanese airline agency.

PHOTO: Kinga Namgyel/WHO
Preparing basic health emergencies

In efforts to institutionalise and improve emergency preparedness and response, including emergency medical services, the health ministry extended trainings to health personnel in basic health units.

The Emergency Medical Services Division (EMSD) was advised to sensitise health officials to develop emergency preparedness plans of their own, rather than division officials from the ministry going to individual health facilities to develop one. The logic was that the health officials would best understand situations within their jurisdictions and, therefore, were in the best position to device effective interventions.

Accordingly, in the 2018-19 fiscal year, a workshop was conducted for health officials of all Basic Health Unit (BHU) I, preparing them to develop emergency contingency plan for their own health facilities.

Besides Bhutan being known to sit on one of the most seismically active zones of the world, growing numbers of casualties from disease outbreaks, natural disasters and trauma are an everyday reality. As a part of emergency preparedness, the EMSD began developing standardised health facility emergency contingency plans (HFECP) for all health facilities, including BHU I and BHU II for the five-year period.
The flu shot

It’s been less than six months since Tshering and Kunzang received their first flu shot, after the country introduced the vaccine around November last year. The couple from Trashigang, both in their 80s, living in Thimphu with their daughter and grandchildren, have stayed safe of the seasonal viral infection.

Although they do catch the flu once every while, it is not so severe as to confine them to bed for days as in the past.

The couple were among the identified high-risk groups, falling in the category of elderly population above 65 years, to be administered the pneumococcal conjugate vaccines. Pregnant woman, those with chronic illnesses, children between six and 23 months and health workers were among the other high-risk groups.

The flu shot, though launched first in July 2018, was rolled out towards the end of 2019 coinciding with the newly elected government’s completion of one-year term in office.

With WHO’s support, it took familiarising more than 70 health workers from various health centres across the country on WHO immunisation manual and training them to practice what the manual prescribed to implement the flu vaccine.

According to Royal Centre for Disease Control’s (RCDC) influenza surveillance, seasonal flu occurs from December to March in winters before turn of spring and between July and September.

The flu shots, it was decided, based on National Immunization Technical Advisory Group’s recommendation, to be administered annually between November and December.

The campaign received more than Nu six million in support from Task Force for Global Health through Partnership Influenza Vaccine Introduction (PIVI) under US-CDC and Bhutan Health Trust Fund (BHTF) for 88 000 doses of the flu vaccine.

Annually, for the identified high-risk population of 77 000 people, a budget of over Nu eight million for more than 100 000 doses of the vaccine was estimated.
In matters of health

FLU SHOT: Administered towards end of 2019, the vaccine will be an annual feature of the routine immunisation

PHOTO: Kinley Wangmo
Updated SOP to rein on diarrheal disease

To standardise methods for isolation, identification of bacterial pathogens, antibiotic susceptibility testing and reporting of diarrheal diseases, the standard operating protocol (SOP) for diarrheal disease was updated.

An initial workshop organised in Gelephu with 14 participants developed the SOP and was finalised during the secondary workshop of nine participants in Paro.

The SOP and guidelines in use were outdated and required review and revisions, especially in the face of increasing burden of diarrheal diseases on the health system.

Diarrheal disease is one of the leading causes of childhood morbidity and mortality in developing countries besides being a major cause of malnutrition.

In Bhutan, it has been among the top 10 diseases causing morbidity, especially among children under five years old, according to annual health bulletins from 2015-2018.

In 2017, second only to acute respiratory infections, diarrhea was one of the most notifiable diseases causing morbidity of 41,396 Bhutanese across the country.

The SOP is expected to enable programmatic interventions for prevention and control of diarrheal diseases through strengthened and uniform quality control measures involved in testing.

The SOP was also part of strengthening emergency preparedness and response during disease outbreak.

### Diarrheal incidences

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<th>Year</th>
<th>Count</th>
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<tr>
<td>2015</td>
<td>20,803</td>
</tr>
<tr>
<td>2016</td>
<td>20,703</td>
</tr>
<tr>
<td>2017</td>
<td>17,328</td>
</tr>
<tr>
<td>2018</td>
<td>16,435</td>
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</table>

### Under five years incidences

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<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
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</tr>
<tr>
<td>2016</td>
<td>1,755</td>
</tr>
<tr>
<td>2017</td>
<td>1,448</td>
</tr>
<tr>
<td>2018</td>
<td>1,392</td>
</tr>
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</table>

Source: Annual Health Bulletin, 2018
Heavy metal exposure

Information, education and communications (IEC) materials on risks associated with exposure to metal was developed for metalsmiths and their family members.

The IEC materials also included ways to reduce the ill effects.

Apart from that, metal artisans from identified districts and institutes were informed of risks associated with their profession and brought up to speed on adequate precautions.

The need for such advocacy and IEC materials was deemed necessary following findings of a study on lead and mercury amounts in the blood of, not just metal artisans, but people they employed and their family members, which revealed high percentage levels.

The study conducted in 2019 under Occupational Health and Chemical Safety programme, in collaboration with health promotion division of the health ministry, showed that among high-risk household contacts, 9.68 percent of adults and 41.67 percent of children had high lead levels. Likewise, 32.26 percent of adults and 41.67 percent of children had elevated mercury levels.

The concern was more about greater percentage of children exposed to elevated lead and mercury levels and the significant knowledge gap among artisans, their employees and family members on the health risks associated with metal works.

The initial education and awareness campaign will continue, especially considering the need for greater advocacy on chemical safety and hazards associated with lead and mercury and use of protective gears and equipment to minimise metal exposure.
Effective services
In matters of health
Mother and child go online

Dago Dem, a senior health assistant working with the outreach services at the Gyaltsuen Jetsun Pema mother and child hospital in the capital, visits various communities around the city’s periphery. She takes vaccination and family planning services to the people residing there.

Along with health services, she takes a register, where she notes down details of mothers and their children and the vaccines they are given. Back at the hospital, she enters the details in mother and child tracking register before punching the same details online on the Mother and Child Health (MCH) tracking portal.

While the workload has increased for Dago and others working in the mother and child units across the country, this is a step taken to assure that migration of MCH information, from registers to an online system, doesn’t experience hiccups.

The online MCH tracking system has unique numbers of mothers and children under five years. It tracks the health and development of children and their immunisation records.

The information can be accessed by mother and child units across the country. If a family moves to another district, the new health facility can track the mother and child online.

Dago Dem said the new system would present a true picture of the country’s immunisation status.

Real time data punching, however, she said was challenging, given the unreliable Internet facility. The number of cases healthcare workers had to attend to, particularly in the mother and child hospital, was sometimes overwhelming and it was easier to note information in the register.

In 2019, as part of scaling up the MCH services in the country, the reproductive health programme carried out training on web-based MCH tracking system. It included the training on information system and revised handbook for primary health care in two districts of Trashigang and Dagana.
In matters of health

EASE OF TRACE: Senior health assistant, Dago Dem, enters details of a mother and child into the online MCH tracking system

PHOTO: Kinley Wangmo
UNDER THE SCANNER: A radiology technician monitors a cross sectional images of a patient inside the CT scan

PHOTO: Kinley Wangmo
Assessing health technology

Some 30 health clinicians and technicians were trained on Health Technology Assessment (HTA), an evaluation of investment on health technology and how it justifies the cost based on its services.

The rationale was that such assessments help policy makers arrive at evidence-based decisions on optimising the use of health technology and resources.

It began with Essential Medicines and Technology Division (EMTD) conducting economic evaluation of Rotavirus vaccine triggered by the proposition of Vaccine Preventable Disease Programme (VPDP) for the introduction of new technologies. VPDP intended to include Rotavirus vaccine into the routine immunisation schedule and make it available for children under one year.

EMTD partnered with a team comprising officials from Health Intervention Technology Assessment Programme (HITAP), Thailand and PATH, USA to develop HTA capacity for representatives from relevant agencies under the health ministry.

A weeklong sensitisation on HTA processes and stakeholder consultation meeting on the current study with regard to the economic evaluation of Rotavirus Vaccine was carried out for decision makers between 5 May and 11 May 2019.

In the process of training health officials on HTA, the ministry, besides obtaining data on the economic evaluation of Rotavirus vaccine, was also able to update cost of health infrastructure, human resource and their associated pay and allowances. The previous health economic evaluation of pneumococcal vaccine was also updated.
Adverse impacts of development

To include adverse health impacts from national projects, such as hydropower and mining, in the district environment screening tool, was one of the outcomes of the three-day workshop on Health Impact Assessment (HIA) held in Bumthang in October last year.

More than 50 participants comprising district health and environment officers were sensitised on the importance of HIA to prevent, mitigate and manage negative health impacts from development projects, especially the major ones like mining and hydropower.

District health and environment officers agreed to take up health concerns emanating from development projects with relevant authorities during development and environment meetings.

However, participants expressed the need for capacity building of district health officers to implement HIA in the districts.

HIA, in a broad sense, seeks to discern the negative health impacts from national policies, programmes and projects and work towards balancing both interests.
In matters of health

DEVELOPMENT IMPACTS: Rishore coal mine in Dewathang, Samdrupjongkhar

PHOTO: Phuntsho Wangdi
In matters of health

Slightly over half, 44, of the 83 diagnostic radiology equipment tested for quality made it through. In terms of healthcare centres, eight out of 35 identified for the radiation test survey passed. A certified Radiation Safety Office conducted the tests.

A periodic Quality Assurance (QA) test of diagnostic radiology equipment and radiation survey for health facilities was felt critical in the face of growing number of people availing of diagnostic radiology services like X-ray, Computed Tomography (CT) Scan, C-arm, Dental IOPA and OPG.

Quality assurance tests were conducted to ensure effective services and safety to both the public and service providers. Apart from that, it was also meant to build capacity of bio-medical engineers and users with regard to QA and survey of radiation equipment.

The WHO supported the 45-day activity the Bio-Medical Engineering Division of the Department of Medicinal Supplies and Health Infrastructure carried out. It determined the number of functional radiology equipment and the resource the survey generated.

Scanning radiology equipment
ON THE RAY: A patient in Thimphu hospital undergoes an x-ray investigation

PHOTO: Kinley Wangmo
One noticeable feature about the revised guideline on drug-resistant TB was the shorter medical treatment course for multi-drug-resistant tuberculosis (MDR-TB).

Launched on World TB Day in March 2019, the new guideline, which included a comprehensive set of WHO recommendations for medication and care of drug resistant TB, shortened its treatment from existing 20 months to 11.

The consolidated guidelines also include policy recommendations on culture monitoring of patients, the timing of anti-retroviral therapy in multi-drug and rifampicin-resistant tuberculosis (MDR/RR-TB) HIV patients, use of surgery for patients receiving MDR-TB treatment and optimal models of patient support and care.

However, the shorter prescribed medication was only for MDR-TB patients, previously untreated under the second-line drugs treatment. The second-line drugs for TB treatment was reserved for MDR-TB, extensively drug-resistant tuberculosis, or resistance to first-line therapy.

The shorter medical regimen, comprising seven different drugs during intensive treatment and four in the course of the treatment, was recommended for children, adults and HIV patients diagnosed with MDR-TB through laboratory test confirmation.

Besides reducing the length of treatment, the shorter regimen is said to be tolerable, effective and less expensive in terms of treatment per patient.
More than 130 pharmacy technicians and pharmacists from around the country received training on accurate quantification, appropriate storage, maintaining inventory, rational dispensary and safe disposal of expired medicines in May.

PHOTO: Kinley Wangmo
In matters of health

EYE EXAM: An ophthalmic technician in Paro sees to a case

PHOTO: Kinley Wangmo
Supporting eye care service

With improved standard of living and increased life expectancy, one emerging public health concern for Bhutan is low vision and avoidable blindness.

Vision impairment and age-related eye diseases not only affect economic and social opportunities but also reduce quality of life and increases risk of death secondary to injury, trauma and accident.

With limited health care workers and capacity, the eye care services have backlog of cases of avoidable blindness, emerging challenges of non-avoidable eye diseases and an increasing trend of childhood visual impairment due to refractive errors.

The challenges become more pronounced as Bhutan gears towards achieving the goals of Vision 2020: Right to sight and global action plan 2014-2019 for prevention of avoidable blindness and visual impairment.

To build capacity of health workers in the eye department, WHO provided assistance and experts from LV Prasad Eye Institute, India, trained about 40 ophthalmic staff on cataract, glaucoma and refractive error screening, low vision assessment and management and basic life skills training.

Participants recommended that low vision assessment be incorporated and practiced at all levels of eye care services and to provide a separate station for low vision services at national referral hospital in Thimphu.
Roping in youth in their matters

Acting on the findings of global school health survey (GSHS) 2016, teacher and counselors were sensitised on the issues of tobacco, betel quid, alcohol, carbonated drinks and junk food.

To create awareness and advocate safe and healthy habits WHO supported training of trainers over the years.

This culminated into a roll out training of 20 school counselors and youth group leaders in Wangduephodrang by three master trainers on brief intervention model.

The intervention was based on WHO FCTC article 14 guideline, developed for a clinical setting and used interchangeably as brief advice. The primary purpose of a brief tobacco intervention is to help patients understand risks of tobacco use and the benefits of quitting and motivating them to quit.

The intervention is considered feasible given the minimal counseling time, about three to four minutes, and is proven effective. It has two models, 5As (Ask, Advise, Assess, Assist and Arrange) for tobacco users willing to quit and 5Rs (Relevance, Risks, Rewards, Roadblocks and Repetition) for the unwilling.

The training of trainers (ToT) was conducted for three days. It started with presentation of key findings from the GSHS 2016, which establishes key baselines on students’ health risk and protective factors. The findings set the tone for the ToT, informing participants on the high prevalence of the risk factors and the roles they need to play to prevent and control them.

Most people vulnerable to the risk factors tend to develop the habit in early adolescence. Therefore, empowering young people with the correct health education and skills to make healthy decisions early in life is of utmost importance.
Survey findings

29.4% Tobacco users
24.7% Current smokers
49.7% Exposure to second-hand smoke

55.2% Tried smoking tobacco before 14 years
83% Tried quitting
66.2% Betel quid users

Current alcohol drinkers
33% Male
16% Female

Source: GSHS, 2016
Learning to code

It was agreed among member states during the World Health Assembly to adopt the revised International Classification of Diseases, 11th revision (ICD 11) from ICD 10 from 1 January 2022.

To understand morbidity and mortality trends and their causes is at the heart of mapping programmes and health services, allocate resource and disease prevention. ICD 11 is useful in clinical recording, primary care, patient safety, antimicrobial resistance and resource allocation.

In Bhutan, lack of capacity to implement it thwarted the use of ICD codes. However, HMIS used a customised version of the ICD coding, an adaptation from ICD 10.

ICD 11 coding will be the foundation for disease classification in the electronic patient information system, meaning it will also determine the success of ePIS besides a doctor’s ability to code the morbidity and mortality cases correctly.

The need for training health workers, doctors, medical record officers and HMIS staff was necessary for the implementation of ICD 11 coding in the country.

With technical assistance from WHO, a training was conducted to generate a pool of health experts on coding diseases using ICD 11.
A clear framework now defines the purpose of “One Health” committees at the national, district and municipal levels to effectively prevent and control transmission of diseases from animals to humans.

The One Health concept was operational since the government’s endorsement of Bhutan One Health Strategy Plan in 2017. Taking queue from WHO’s One Health concept, led by the two ministries of health and agriculture, relevant agencies like the National Environment Commission, disaster risk management of home and cultural affairs ministry, royal university of Bhutan and Bhutan Food Regulatory Authority united to take up relevant roles in prevention and control of zoonotic diseases.

What this meant was, besides primarily effecting implementation of One Health and strengthening interventions through concerted efforts to prevent and control zoonotic diseases, it also saved resources by curbing duplication of programmes.

The framework was a culmination of WHO-funded fourth National One Health Conference held in Paro around December 2019. Participants from relevant agencies worked on strengthening collaboration in responding to infectious zoonotic outbreaks, information sharing, surveillance and risk mitigation for emerging and re-emerging zoonotic threats.

In so doing, a clear strategy to implement one health activities among relevant stakeholders in the 12th Plan was developed.

Cooperation among agencies of public health, animal health and environment was critical in controlling transmission of infectious diseases from animals to humans and One Health concept paved the way.

Human and animal health are interlinked, which also means endemic human diseases have their origins at the human-animal-ecosystem interface. Studies indicate that more than 60 percent known human pathogens originate from animals and about 75 percent emerging infectious diseases are zoonotic in nature.

The other decision during the conference was the need to establish a secretariat for One Health.
In partnership
Committed to ending HIV

To create awareness on HIV and STIs, educate people on its transmission and prevention, sensitise them on associated stigma and discrimination, and to show solidarity, various stakeholders came together on World AIDS Day.

The national programme focuses on advocacy and awareness, behavior change communication, condom promotion and distribution and enhancing information base on the epidemic. It also advocated blood screening to ensure safety, integrating management of STIs into primary health care, improving its treatment and setting up voluntary counseling and testing facilities.

Today, the country has 522 people living with HIV/AIDS. The first case was detected in 1993 and over the years the numbers increased to 687 cases.

While the number of reported cases is small compared with those of other countries in the region, it is still of public health concern given the country’s small population.

The perception of HIV is expected to change through voluntary counseling, tests being made available in all district hospitals and HISC and soon in BHUs. Treatment is available and with better compliance, HIV would be treated like hypertension or diabetes.

The political will and commitment towards ending the AIDS epidemic by 2030 remains strong. Five years before the first case was detected, the government established a national STI and HIV/AIDS control programme.

The Royal Decree on HIV/AIDS His Majesty The Fourth King issued in 2004, calling for Bhutanese to help prevent the pandemic and provide care and compassion to those infected, serves as the guiding principle.

Her Majesty The Queen Mother, Sangay Choden Wangchuck, the UNFPA Goodwill Ambassador continues to advocate on prevention of HIV, visiting communities and meeting people.

To create awareness and to break the stigma against people living with the disease, a network of HIV positive people, called Lhak-Sam, now a CSO, came forward in September 2009.
In matters of health

Voluntary tests: A district medical official draws blood from a De-Suup in Samtse where the World AIDS Day was observed.

PHOTO: Rinzi Om Dorji/WHO
About HIV/AIDS

- **642** Sexual route
- **38** Mother to child
- **3** Intravenous drug use (probable)
- **3** Blood transfusion
- **1** Other

Data: Lhak-Sam

Female

328

*Antiretroviral therapy*

Total people living with HIV/AIDS:
- Total PLHAs put on ART* = 555
- Total died on ART* = 57
- Total living on ART* = 498
- Bhutanese national living outside with HIV/AIDS = 1
- Non Bhutanese who returned to their country = 31
- Total death (including four non Bhutanese) = 133
- Total people living with HIV/AIDS in the country = 522

Modes of diagnosis:
- Medical screening = 165
- Antenatal check up = 62
- Blood donor screening = 36
- Survey = 44
- Construction site screening = 25
- Contact tracing = 201
- Voluntary testing = 154
**In matters of health**

**Blood transfusion**

**Other Intravenous drug use (probable)**

**Mother to child**

**Sexual route**

**Male**

**Distribution by sex**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>359</td>
</tr>
<tr>
<td>Female</td>
<td>328</td>
</tr>
</tbody>
</table>

85.2% of the cases are within the age range of 15-49 years

**Modes of diagnosis**

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- Ante natal check up: 62
- Blood donor screening: 36
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Data: Lhak-Sam
Global health diplomacy

The health ministry, with support from WHO, conducted a three-day workshop on Global Health Diplomacy in Thimphu from 31 July to 2 August. Pitching a country’s position on a particular health issue, sourcing potential funding and effectively proposing a health cause, all in utmost diplomacy, was one of the core trainings, Bhutanese health officials and those from its allied agencies received during the workshop.

Resource persons from International Health Policy Programme and Thai Health Promotion Foundation also updated participants on a broad range of global health issues and technical aspects related to the functions of WHO’s governing bodies. The objective of the workshop was to enable health officials and others from relevant agencies to understand and learn about the key aspects of global health diplomacy.
In matters of health
As is the case with most policies in the country, even in health, it was decided during the Fifth Biennial Health Conference, that its services should be centred around people. Besides meeting the aspirations of the people, especially those in the remote parts of the country, who walked for days to the nearest health facilities, it fell in line with the government’s commitment to take healthcare services closest to the people as possible.

Broadly, the two chimed with the World Health Organization’s (WHO) Framework on Integrated People-centred Health Services adopted during the 69th session of the World Health Assembly.

During the conference held around September, Health Minister Dechen Wangmo had said healthcare needed to be demand-driven, in that, services should be taken to the people as a way to prevent diseases than wait to treat patients as they visited healthcare facilities.

For instance, for patients suffering chronic illnesses, health workers would visit them, carry out regular checks and provide medicines, instead of patients visiting health centres. That way, health workers across the country’s numerous health units would know the communities they served and understand their patients and disease patterns.

Likewise, a team of doctors would visit communities to provide specialised services for quality healthcare at minimal cost.

“For a nation that fully funds healthcare services, we cannot take the same model or same way of doing business,” the health minister had said.
In matters of health, a demand-driven health service is the way to go. 

PHOTO: Rinzi Om Dorji/WHO
In the nation’s sustained efforts to improving its health services and facilities across 20 districts, the World Health Organization (WHO) country office in Thimphu plays a crucial facilitator. It does so by supporting the health ministry and its allied agencies through numerous health advocacies, trainings, programmes, workshops and global best practices.

But how does the Organization determine the areas of support for the country? How does it prioritise health activities? How does it ensure its contribution to the health sector aligns with the national goals and its overall vision?

The drawing board is a good start.

Sustainable Development Goals (SDG) 2030 as the basis, health ministers of 194 WHO Member States develop the General Programme for Work (GPW). Budget is allocated for the programmes decided on, following which work plans are prepared.

Health ministers of the southeast Asia regional committee, comprising 11 nations, including Bhutan, endorse the programme budget.

Meanwhile, within the country, WHO Country office and health ministry’s planning division, in consultation with its programme officials, would have sketched out the biennial health activities and against it the estimated costing. Thereon, the Gross National Happiness Commission would review the programmes to weigh them against the country’s Five-Year Plan and the government’s identified priorities for the sector. Past these tests, a two-year plan is drawn up.

The health ministry implements the country’s planned health programmes with WHO providing both technical assistance and financial support.

WHO ensures that each of its supported activities meet the expected outcomes and objectives the various departments of the health ministry proposes to the Organization.

For implementation of activities, different programmes in the ministry send the proposal to Policy and Planning Division (PPD). The division aligns the sector plan, sectoral priorities and relevances of activities to avoid duplication within sectors, relevant agencies and other development partners. It then reaches WCO, which ensures the proposals carry the value for money, in accordance with regional resolutions that have to do with recent updates or developments.
In matters of health

Biennial Meet: Representatives from the health ministry and relevant agencies share a light moment amid discussions on 2020-2021 health plans and programmes
Bhutan Team

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In matters of health