

Sustaining communities during the pandemic



**The
Britain-Nepal**

medical trust

Annual Report 2020/21



Gillian Holdsworth

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Chair's Foreword

When the first wave of Covid hit Nepal in 2020, the number of cases and deaths remained relatively low. But in March 2021, cases began to surge. This time the health services were rapidly overwhelmed and as elsewhere, authorities faced impossible choices between the catastrophic economic effects of lockdowns and protecting the health service and saving lives.

It is clear globally that high vaccination coverage is the only way to defeat Covid-19 and recover economically. Unfortunately, Nepal has struggled to secure sufficient vaccines, despite early success in rapidly administering 2 million Covishield vaccine doses donated by India. By the end of June 2021, only 3.88 per cent of Nepal's population had been fully vaccinated.

Procuring additional vaccines, whether by purchase or donation, is the urgent priority now and BNMT has worked tirelessly with other concerned organisations, including Britain Nepal Academic Council and Britain Nepal Society, amongst others, to try and secure UK government support for vaccine provision for the government of Nepal in its time of need.

Meanwhile Nepal's progress towards eradicating tuberculosis risks being completely derailed by Covid-19. The pandemic is likely to increase people's vulnerability to TB, make it harder to obtain diagnosis and treatment, and reduce activities to prevent and control TB. BNMT's work continues to contribute to national and global efforts to eradicate the disease. Our focus is on supporting the National TB Programme with effective ways to find, diagnose and treat TB cases at community level.

This report shows what we have been able to achieve in the past year, thanks to your kind donations. But much more remains to be done – and we cannot do it all without your continued generous support!

Gillian Holdsworth
Chair of BNMT UK

Cover photo:

Less than 4% of Nepal's population has been fully vaccinated



Raghu Dhital

A message from the Acting Executive Director of BNMT Nepal

It is my pleasure to share the BNMT Nepal annual report for 2021. This year has been challenging for all, as Nepal continues to fight the global Covid-19 pandemic.

Amidst the challenges caused by the pandemic, we continued to succeed through this year, executing both ongoing and new projects across our districts and achieving all of our project targets successfully. We continue to work closely with the National TB Control Centre, retaining our long-established focus of supporting TB-affected communities and individuals, and bringing in innovations to strengthen TB control efforts. In addition, we have responded rapidly to the Covid-19 pandemic and addressed chronic health and development issues affecting our communities: sexual and reproductive health rights for adolescents, HPV screening and cervical cancer prevention. Moreover, we have been fortunate to receive support for new innovative work. This will develop our research capacity in infectious diseases and response preparedness in Nepal, through the Covid-19 gene sequencing project, Epidemic Intelligence, and our TB gene sequencing project, Target TB.

We initiated new partnerships with partners such as Nepal Health Research Council, GENETUP laboratory, TB Nepal and Centre for Molecular Dynamics-Nepal. We look forward to working in partnership to serve the people of Nepal and solve our challenges together.

I hope you will enjoy reading about these exciting new projects in the report.

Our major achievements this year include:

- IMPACT TB phase 2 project, in its active case finding for tuberculosis, tested 6,599 presumptive TB cases, diagnosed and enabled treatment of 380 TB cases in four project districts with the supply of five additional GeneXpert machines and 10,000 cartridges for TB diagnosis.
- The Target TB project has started recruitment for TB gene sequencing, with 80 patients enrolled to date.
- The TB recovery project has supported 100 families affected by TB with a nutritional support package designed in consultation with a nutritionist and TB survivors.
- The BNMT SUSTAIN project is providing staff support of 14 frontline health workers in seven districts, to support overburdened government health services during the COVID-19 crisis. The project also provided emergency personal protective equipment (PPE) for frontline health workers and hygiene kits for Covid-19/TB patients in seven districts.
- The Epidemic Intelligence project has recruited 400 Covid-19 patients from Koshi hospital, Bheri hospital and Sukraraj Tropical hospital across Nepal and viral sequencing is under way.

All this was possible because of each and every staff member's hard work, effort and contribution. I would like to thank them from the bottom of my heart.

I sincerely thank all our national and international partners – MOHP, NTCC, NHRC, HO, PHD, and local government authorities, for their tireless support and partnership towards BNMT. None of our achievements would be possible without their continued and earnest support.

I would also like to deeply thank all our kind donors for their continued support and trust for BNMT, especially during such a tough year for the world. We look forward to continuing our work together in brighter days to come.

Raghu Dhital
Executive Director

BNMT and BNMT Nepal

The Britain-Nepal Medical Trust exists to support the Birat Nepal Medical Trust (BNMT Nepal), a Nepalese non-governmental organisation. The work described in this report is carried out by BNMT Nepal with support from BNMT and other organisations.

Battling a pandemic: Covid-19 in Nepal

The coronavirus pandemic has devastated health systems, society, politics and economies around the world. Nepal, a developing country, is highly vulnerable, with the pandemic hitting almost every sector of the economy.



Hearing the remark speech of health office Bardiya chief in Gulariya municipality, Bardiya

The first wave of Covid-19 in Nepal, March-November 2020, reversed a decade of development progress. Migrant labourers and daily wage earners were particularly hard hit, with lockdowns wiping out livelihoods overnight. Those working in India, the Middle East and South East Asia faced a desperate struggle to return to their homeland. However, the number of cases and deaths remained relatively low in the first wave. Hopes were raised that Nepal would escape the health system collapse seen elsewhere, leading to complacency and inadequate preparation for the second wave.

In March 2021, cases began to surge. This time the health services were rapidly overwhelmed, oxygen supplies ran out and exhausted doctors were forced to make heart-breaking decisions about who to prioritise for scarce ventilators and oxygen. As elsewhere, authorities faced impossible choices between the catastrophic economic effects of lockdowns and protecting the health service and saving lives.

Lockdowns and reassignments of health staff and equipment also played havoc with essential TB services. Meanwhile, the pandemic and the measures adopted to address it exacerbated poverty, violence and inequality. Girls were pushed into child marriages. Access to sexual and reproductive health services – such as family planning, menstrual hygiene products, antenatal care and hospital births – was severely affected. Unwanted pregnancies, unsafe abortions, maternal deaths, abuse, violence, stress, depression and suicide escalated dramatically.

It is clear globally that high vaccination coverage is the only way to defeat Covid-19 and recover economically. Unfortunately, Nepal has struggled to secure sufficient vaccines, despite early success in rapidly administering 2 million Covidshield vaccine doses donated by India, and promises of future donations from the global Covax facility.

By the end of June 2021, only 3.88 per cent of Nepal's population had been fully vaccinated. Procuring additional vaccines, whether by purchase or donation, is the urgent priority now.

From the onset of the pandemic, BNMT has supported frontline health staff, worked with communities to protect vulnerable people, and contributed to national efforts to tackle Covid-19. As Nepal prepares for the inevitable third wave of Covid-19 and an uncertain economic future, BNMT will continue to innovate, adapt and support Nepalese communities to protect, recover and rebuild together.





Food and sanitation relief bring and walking COVID-19 affected peoples in Naubahini reral municipality, Pyuthan

Battling a pandemic: BNMT's response to Covid-19

Throughout the Covid crisis in Nepal, BNMT Nepal has worked to support vulnerable people, equip frontline health workers and provide accurate information about the disease to the general public.



PPE and medical supplies handover to local government in Mahottari district

Project SUSTAIN

Project districts phases 1 and 2

- Morang
- Chitwan
- Pyuthan
- Bardiya
- Mahottari

Phase 2 only

- Makwanpur
- Banke

Wave 1

- 1,300 families affected by TB received a nutritional package
- 304 health facilities received PPE packages
- 4 public information radio jingles broadcast on local radio

Wave 2

- 1,373 health workers benefited from PPE provided
- 13 health workers funded for five months

Emergency support: Project SUSTAIN

In 2020, BNMT UK funded BNMT Nepal to provide relief to vulnerable families and frontline health workers in five districts of Nepal. Project SUSTAIN supplied personal protective equipment (PPE), soap, hand sanitiser and thermometers to health workers. It also provided food, sanitation materials and essential medicines to families who had lost their livelihood because of the pandemic.

In 2021, Wave 2 of Project SUSTAIN stepped in to support local health services with PPE and relief staffing in seven districts.

Understanding Covid-19

Early in the pandemic, BNMT identified a critical gap in the ability of authorities to collect and rapidly disseminate accurate information on the spread of Covid-19. BNMT Nepal worked with technical and government partners to develop a web portal and mobile app called Hamro Swasthya. The app became a key tool for monitoring and managing the government's epidemic response and received the Jury Mention ICT Award in December 2020. The ICT Award aims to celebrate excellence in information technology in Nepal.

With support from the Wellcome Trust, BNMT Nepal also initiated the Epidemic Intelligence consortium, which will conduct whole genome sequencing for the SARS CoV2 virus which causes Covid-19, and monitor the spread of new variants of the virus.

Whole genome sequencing is a key step towards developing vaccines to protect people from infection and slow down transmission of the virus. Variants of SARS CoV-2 – new strains which can change the structure and behaviour of the virus – began to emerge last year. The vaccines developed so far may be less protective against some new strains. It is of urgent importance, therefore, to understand how and where new variants of SARS CoV-2 are emerging and spreading in Nepal.



Emergency support to communities in the COVID crisis

The Epidemic Intelligence project will be a collaboration between BNMT, the Centre for Molecular Dynamics Nepal, Nepal Health Research Council, Oxford University Clinical Research Unit, Nepal and Liverpool School of Tropical Medicine, UK. Together, we will collect and sequence 1,500 SARS CoV-2 samples from patients with their consent. We will follow up the participants at three and six months to understand the frequency and symptoms of long-term complications of Covid-19 illness in the Nepalese population.

This work will build Nepal's capacity to rapidly sequence new pathogens, and thus to protect itself against future epidemics.

Vaccines for Nepal

When the second wave of Covid hit Nepal in April 2021 there was a desperate shortage of medical supplies and hospital equipment, including a critical shortage of oxygen. At the time less than 2% of Nepal's population was fully vaccinated. The UK, meanwhile, had secured orders from seven different vaccine manufacturers—a total of 400 million doses or enough to vaccinate the entire UK population three times over.

BNMT participated in a webinar in May with other concerned organisations, including Britain Nepal Academic Council, Britain Nepal Society, Brigade of Gurkhas, Wellcome Trust, to consider a range of tactics to secure UK government support for the government of Nepal in its time of need. We wrote to the Prime Minister with a request for the UK's vaccine stockpile to be shared with Nepal. We also set up an online petition which secured nearly 500 signatures.

We secured support from the All Party Parliamentary Group on Nepal and Lord Lancaster of Kimbolton, Earl of Sandwich and Lord Sheikh wrote to the Prime Minister in support of our request.

Our government sadly has still made no provision for a share of our vaccine stockpile other than through the Covax facility – despite requests from Nepal's Prime Minister K P Sharma Oli and ourselves.

Join our petition

<https://www.change.org/p/boris-johnson-prime-minister-uk-should-share-covid-vaccine-with-nepal-562234d7-bf14-4f72-9f5b-a9e001f31a3a>



Case Report Form Taken to COVID patients



*Handover of medical materials to health office
Pyuthan chief Bishal Subedi*



*Distribution of hygiene kit to MDR TB patients
at NATA -Morang*

BNMT's TB projects

IMPACT TB Developing new and better ways to find, treat and cure TB in communities

TB READY Evaluating the impact of the Covid-19 pandemic on TB service delivery

TB Recovery Ensuring a good supply of healthy food to TB-affected households

ASCOT Testing socio-economic support schemes for TB-affected households

DroTS Fast, safe transport of TB samples and medicines in mountainous rural areas

Target TB TB genome sequencing to build understanding of how TB is transmitted in Nepal

Ending tuberculosis



Information about TB conveyed through traditional Mithila art at the Gaushala Primary Health Centre in Mahottari

Every day in Nepal 15 people die of TB – a preventable, curable disease. BNMT is working to end these needless tragedies.

Tuberculosis is endemic in Nepal, and many people carry TB bacteria in their lungs, a condition called latent TB. If people become ill or weaker, owing to old age or malnutrition for example, the bacteria can make them fall sick with active TB which they can spread to other people when they cough.

About 60,000 people a year are diagnosed with TB in Nepal and about 5,000 die of it, the majority of them poor, informal workers in rural areas. But many cases go undiagnosed. In 2018 the national TB survey revealed that almost 40,000 cases of TB every year are missing from national notification data – meaning that 40,000 people are not receiving the care and treatment they need, and may also infect others. It is estimated that nearly half of TB cases are still being missed every year.

The disease places a huge socio-economic burden on the country, but it is the individuals and families directly affected who bear the brunt. Poverty and malnutrition make people more vulnerable to TB infection. And falling ill with the disease can drive people deeper into poverty: they lose income because they cannot work, just when they need extra funds to access medical care and buy healthy food. Although TB diagnosis and treatment are free of charge in Nepal, patients have to pay for transport to reach a health facility. Few families have the resources to cover the additional costs.

When one person falls ill, the whole family can spiral into poverty, and suffer stigma, ostracism and long-term damage to health. If the costs of TB reach catastrophic levels, patients may abandon treatment, develop severe forms of TB (including drug resistance) or die.

Economic hardship forces many Nepalese to travel abroad to seek work in places like India, Malaysia and the Middle East. Working in the construction, security and hospitality industries, they often lack access to health care, live in overcrowded housing and are vulnerable to malnutrition and the diseases associated with poverty, such as TB. When their employment ends, as happened unexpectedly to thousands when the Covid pandemic struck, migrants may come home with untreated or partially treated health conditions, thus introducing new strains of TB to their communities.

The government of Nepal recognises that eradicating TB is a top priority for the nation's health, but faces many competing demands for limited resources. The lack of transport links across the country's mountainous terrain presents another challenge for making services accessible in rural communities.

BNMT's work contributes to national and global efforts to end TB. Its flagship project, Impact TB, pioneers effective ways to find, diagnose and treat TB cases at community level and supports a range of smaller projects addressing different aspects of TB treatment and cure. Together, these projects build health professionals' understanding of TB in Nepal and enable faster, more effective approaches to ending TB.

The Covid pandemic and TB



Interviewing people with TB to understand the impact of COVID19 on TB services access

BNMT-Nepal is investigating how the pandemic affected TB patients and health workers. This knowledge can help make health services more resilient in a future crisis, and ensure that they remain accessible to those who need them.

The Covid pandemic made it harder than ever for people, especially poor people, to get a TB diagnosis and complete the long course of treatment. People who lost income because of the pandemic found it harder to access TB services. Lockdowns and travel restrictions, affecting both patients and care providers, compounded the difficulties.

BNMT Nepal set out to document the impact of the pandemic on TB service delivery to communities in nine districts: Ilam, Jhapa, Morang, Sunsari, Udayapur, Chitwan, Mahottari, Pyuthan and Bardiya. This work builds on the foundations of the Trust's previous work to understand the barriers and facilitators to TB treatment.

The three-year study aims to understand the long-term impact of the pandemic on TB services, examining the number of TB tests performed, the case notification rate and treatment outcomes. The numbers will be backed up by in-depth interviews with people affected by TB, health staff and community health volunteers. This will help BNMT understand the difficulties that people faced in accessing services and completing treatment, and the challenges TB care providers faced in diagnosing and treating people with TB. These findings will be used to develop recommendations for strengthening TB service resilience and emergency preparedness in Nepal.

Work began in January 2021, and in-depth interviews have been completed with 60 participants, out of 90 planned.

The project is funded by the Royal Society of Tropical Medicine and Hygiene, the National Institute for Health Research and the Farrar Foundation as early career grants to BNMT's research manager, Kritika Dixit.



Interviewing a Female Community Health Volunteer to understand the impact of COVID19 on TB service delivery

Coping with TB in a pandemic

Sabina, a young woman with TB, spoke to a BNMT researcher:

'My father lost his job due to the Covid-19 pandemic. My mother was fired from her daily waged work after people learned that I had tuberculosis. Their loss of work brought a huge financial burden to our family, especially to buy our daily meals. Amidst this hardship and my experience of painful side-effects and emotional breakdown for five months, my health care provider informed me that I was not responding well with my treatment. This news devastated me.

'They asked me to immediately test my sputum sample in a big machine at the health centre, a five-hour bus ride from my home. Because there was a lockdown and public vehicles were not available, my parents had to sell our only buffalo just to hire a private van to go to the health centre and give my sputum sample. The result showed I had developed an advanced form of TB.'

Impact TB achievements March-July 2021

- 5 GeneXpert machines supplied to municipal authorities
- 2,136 people tested for TB
- 128 TB cases identified

Finding the cases: Impact TB



World TB day commemoration in Banke

Through the Impact TB project, BNMT Nepal works in partnership with the National TB Programme, government and communities to develop more effective ways of tackling TB on the ground. The evidence gathered from our pilot schemes informs national and international TB eradication strategy.

To eradicate TB in Nepal, an urgent priority is to find the missing cases so that everyone who falls ill from the disease has access to timely diagnosis, treatment and cure. In earlier years, BNMT pioneered active case finding: rather than waiting for people who feel unwell to turn up asking for help, the Trust trained community volunteers to recognise TB symptoms and encourage people who have them to go for diagnosis and treatment. Improving active case finding strategies remains at the core of the Impact TB project.

Another aspect of the project is introducing better diagnostic techniques. In 2017-18, during the first phase of Impact TB, BNMT Nepal showed that an advanced molecular test for TB, called GeneXpert, could diagnose many more cases of TB than the traditional approach of smear microscopy.

Phase 2

In the second phase of Impact TB, BNMT-Nepal is intensifying community-based active case finding, with three GeneXpert machines in each project district. The chaos caused by the Covid pandemic led to a 12-month delay, and field activities started only in March 2021. Female Community Health Volunteers (FCHVs) ensure that every person diagnosed with TB is enrolled for treatment and supported to complete the six-month course. Despite the severe second wave of Covid-19 in Nepal from March to June, we achieved our case detection targets: more than 150 people were diagnosed with TB and started treatment.

Preventing TB

To really eliminate TB in Nepal, the disease needs to be stopped before people with latent TB become sick. Until recently, TB preventive treatment required six to nine months of daily medicine and was not feasible on a large scale in Nepal, especially in remote districts. A new effective treatment, called 3HP, is now available. It requires just 12 doses – one a week for three months – and is recommended by the World Health Organisation. The Impact TB project is piloting 3HP in partnership with the National TB Control Centre. Work will start in Chitwan and Bardiya districts later this year. The information will be used to scale up TB preventive therapy across the country.

Phase 2 of Impact TB is generously supported by the Nick Simons Foundation.

GeneXpert machines



GeneXpert machines can diagnose TB more quickly and accurately than traditional microscopy. BNMT introduced GeneXpert machines to Impact TB districts in the project's first phase, and in its second phase handed over five more GeneXpert machines to municipal authorities in Bardiya, Pyuthan and Mahottari. Installation of the machines led to immediate detection of new TB cases.

Getting there: The Drone Optimised Therapy System (DrOTS)



World TB day, Pyuthan

Medical cargo drones have huge potential to solve many of the transport challenges of rural Nepal. BNMT, with technical partner Nepal Flying Labs, has established a drone transport network in Pyuthan district, linking eight rural health posts with institutions housing three GeneXpert machines.

The system uses QR codes for precision landing, and health workers operate the drones with support from a qualified drone pilot at the central hub.

Community health volunteers take sputum samples that they have collected to the health post to be transported to the lab by drone. This saves many hours of community health workers' time. The drones have safely transported more than 1,900 sputum samples, enabling 62 TB cases to be identified and the patients enrolled for treatment. The project has shown that drones can dramatically improve access to health care in remote regions of Nepal.

Understanding TB transmission: Target TB

BNMT-Nepal is using advanced techniques to establish how and where TB is transmitted in Nepalese communities, so that the health system can improve the strategies used to tackle the disease.

A good way to understand patterns of disease transmission is to look at the DNA sequence of the bacteria that cause the disease, observing how they differ between different people and how they change over time. This technique is called whole genome sequencing.

In January 2021 BNMT embarked on the first large-scale whole genome sequencing project for TB in Nepal, in collaboration with the National TB Control Centre and other project partners. The Target TB project will collect and sequence TB bacteria, from patients who have given permission for this, in three very different areas of Nepal. This will show how patterns of transmission vary in different places. It will help us understand how much TB in Nepal is introduced from other countries, how much is caused by strains of bacteria that have been circulating in the country for a long time, and how those strains change over time. The project will also look at patterns of resistance to the drugs used to treat TB.

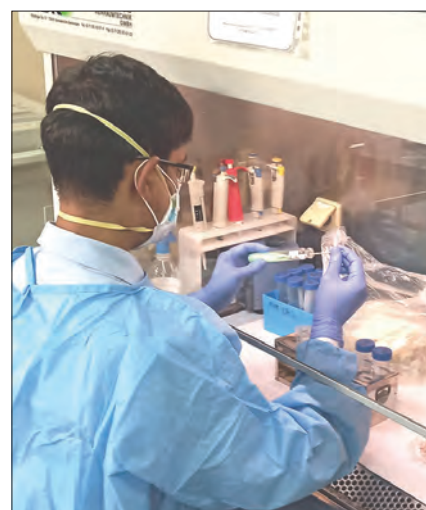
Ethical approval for research involving human participants was granted by the Nepal Health Research Council and the University of Melbourne Research Ethics Committee.

Strengthening laboratories



Over the past five years BNMT has worked with the National TB Programme to strengthen laboratory diagnosis of TB in Nepal, and this work has been a key component of several BNMT projects, including Impact TB. As well as providing diagnostic equipment, BNMT helps train laboratory staff and ensures the equipment is kept in good working order – with help from Andrew Ramsay of St Andrews University Medical School in Scotland.

'Heat, humidity, dust and electrical surges all take their toll on delicate laboratory instruments, and regular servicing and maintenance is essential,' says Andrew Ramsay. 'Many health facilities have broken microscopes in their store cupboards and together with BNMT I have been able to restore many of these to operation and show staff how to preserve optimal condition of the microscopes.'



A lab professional from GENETUP Nepal, project partner of Target TB project doing sample inoculation for TB culture test in the Bio safety cabinet



Consultation with TB patients on the development of a nutritional support package for them as part of the TB recovery project. Banke



World TB Day commemoration in Bardiya



Consultation with female community health volunteers in Pyuthan to develop the nutritional support package for TB patients under the TB Recovery project

TB Recovery Progress so far

This 18-month project started in March 2021. So far:

- 44 TB patients received nutritional support
- 230 family members of TB patients received nutritional support
- 12 FCHVs have been trained in nutritional aspects of TB care

Supporting TB-affected families

Having TB can have devastating social and economic consequences for TB patients and their families. BNMT is finding new ways to help.



Nutritional support package distribution to TB patients in Banke under TB Recovery project

Food for health: TB Recovery

The TB Recovery project aims to help families affected by TB to eat better during treatment, to improve their overall health and wellbeing, and reduce their vulnerability to the long-term health, social and economic consequences of TB. The project began by designing a nutritional support package for distribution to patients and their families. To ensure the package was locally appropriate, a nutrition consultant held discussions with TB patients and Female Community Health Volunteers (FCHVs), asking them about the composition and timing of food support.

BNMT-Nepal is now providing food support to 150 TB-affected families, 50 in each of the three project districts (Makwanpur, Pyuthan and Banke). Families can choose a vegetarian or a non-vegetarian package. The project will also train FCHVs in the nutritional needs of TB patients and to recognise families at risk of food insecurity due to TB.

The TB Recovery project is funded by the John Burge Trust Fund, Australia.

Socio-economic support

Nepal has almost no social security provision to protect people from the severe socio-economic consequences of TB. Dr Tom Wingfield, of the Liverpool School of Tropical Medicine, partnered with BNMT to design an appropriate socio-economic support package. The ultimate aim of this work is to alleviate the impact of TB, and make diagnosis and treatment more accessible.

The first step was to generate evidence from TB-affected communities and the BNMT Nepal team led the study

The researchers interviewed more than 300 people (221 diagnosed with TB and 120 who did not have the disease) in Chitwan, Dhanusha, Mahottari and Makwanpur districts, collecting data on socio-economic position, nutritional status, quality of life, and coping strategies. They also held group discussions among people working to end TB, including patients as well as the leaders of community and TB programmes.

The information gathered revealed the challenges facing TB-affected families

and the health system responsible for their care. In addition to the economic costs, patients and their families are often stigmatised and isolated in their communities. All this results in anxiety, depression and mistrust. Moreover, education and literacy levels are low, and people have limited knowledge of health and TB, while the health system has limited staffing and quality, and in some areas people have to travel long distances to access health services.

Solving these challenges will require political will and commitment, backed up by advocacy to secure adequate funding.

We shared our findings and recommendations in a workshop with 80 national stakeholders, including people with TB, and the resulting discussion contributed to the more detailed design of support packages for TB-affected households in Nepal. These are now being field-tested in the districts of Pyuthan, Chitwan, Morang and Mahottari, under BNMT's Ascot project. All four districts have high rates of both poverty and TB. The field testing will inform the design of a definitive, large-scale trial.

The 18-month Ascot project partners with the Liverpool School of Tropical Medicine, the University of York and the Karolinska Institute, and is funded by the Medical Research Council, UK.

The initial study was supported by the Wellcome Trust Seed Award.

Partnership with the National Tuberculosis Programme



Female community health volunteers in a workshop to develop the support package for TB affected households in Nepal

Working alongside partner organisations, BNMT-Nepal has been helping to deliver TB services in five districts of eastern Nepal as part of the National Tuberculosis Programme.

BNMT's role in the partnership was to find and treat undiagnosed TB cases in the districts of Ilam, Jhapa, Morang, Sunsari and Udayapur. This included tracing contacts of TB patients, active case finding in TB hotspots, and supporting malnourished children and people living in poverty. The project diagnosed and treated a total of 2,010 cases. Outreach workers like Saraswati Bagdas (see box) are the backbone of the NTP project's success.



Mrs Saraswati Bagdas is a dedicated Female Community Health Volunteer, working in Jhapa district. She has supported her community for more than 30 years. She lives with 10 family members and the family depends on seasonal labour in the tea gardens and managing on their low income is a daily struggle.

She identifies people with TB symptoms, counsels them and collects their sputum samples, and ensures that they received timely diagnosis and care where necessary. She tested 200 people for TB in her catchment area, and identified five new TB cases, including two multidrug resistant TB cases. Her work ensured that these urgent cases received effective treatment and care.

She will continue to support patients through their diagnosis and the six long months of treatment.

Recommendations for socio-economic support

- Give TB patients adequate allowances for food and transport
- Community-based DOTS (directly observed treatment)
- Mutual support to patients from peers, family and community
- Advocacy, respect and psychological counselling from the National TB Programme
- Basic health and TB education for TB-affected households
- Increased advocacy to the government for TB services
- Patient-friendly, community-based, regulated services.
- Better access to quality diagnostic services

Promoting the sexual and reproductive health and rights of adolescents

Since March 2019, BNMT Nepal has been working to improve access to sexual and reproductive health services and education for adolescents in Indrawati, a municipality in Sindhupalchowk district.



Circus Kathmandu, (an organization established by survivors of trafficking) performing in Sindhupalchowk district

Sexual and reproductive health is a fundamental component of wellbeing for everyone. In Nepal, the onset of adolescence can bring not only physical changes, but also new vulnerabilities to human rights violations, particularly in the areas of sexuality, marriage, and childbearing. There are substantial stigmas and taboos around adolescent sexuality which make it difficult for young people to obtain essential information and services.

BNMT Nepal's sexual and reproductive health and rights project in Indrawati has directly reached more than 2,500 individuals, from school students and their parents to teachers, Female Community Health Volunteers, health service providers and community organisations.

The project engaged students, teachers and parents in discussion about sexual and reproductive health and rights, encouraged them to communicate with each other on these issues and promoted comprehensive sexuality education in schools. BNMT Nepal delivered education sessions about menstruation, sexuality and child marriage, with a view to empowering school students to make free and informed decisions about their lives.

The main aim of the project is to empower local civil society organisations by building their capacity and willingness to advocate for sexual and reproductive health rights as a basic human right. This year their advocacy led the Indrawati municipal authorities to organise a week-long awareness campaign in March 2021, on gender-based violence and child marriage. The campaign programme included song and dance competitions and theatrical performances on the campaign themes.



Mothers group training

The Butterfly project

In Nepal, adolescents generally receive scant information about puberty, including menstruation. Many people believe that discussing sexual health issues and providing young people with information can lead to premarital sex or encourage promiscuous behaviour. Also, there is a deeply rooted stigma and many taboos around menstruation, which can lead women and girls to believe they are in some way 'impure' or 'unclean' when menstruating.

The national school curriculum includes sexual reproductive health. However, embarrassment, lack of confidence and weak teaching materials often lead teachers to skip or skim this sensitive topic.

At the onset of menstruation, many girls miss significant time at school, or drop out altogether, because they lack access to clean, private toilets and sanitary hygiene products. The disruption to their education can have lifelong consequences.

BNMT is addressing the problem by improving education about sexual health, providing sanitary hygiene products and upgrading school toilet facilities in Sindhupalchowk. The Butterfly project aims to support teachers in providing high quality, accessible lessons on menstruation and menstrual health to both girls and boys. We will use the Menstrupedia comic book guide to periods to enhance school-based education about menstruation and how to manage it. We partner with experts in period education, Putali Nepal, to provide the comic and expert-led classes to grades 5-7 in schools in Indrawati. We will assess the impact of the comic on knowledge, attitude and practice among the students.

We hope this project will help us to understand how to improve education about menstruation in Nepalese schools, and remove the fear, stigma and misconceptions surrounding this natural process.



Menstrual health orientation to adolescents

Support for mothers during Covid-19

In 2021, during the Covid-19 pandemic, the project initiated a relief programme for pregnant and breastfeeding mothers in Indrawati. BNMT Nepal supplied food and sanitary materials to 151 mothers, along with information and counselling about reproductive and maternal health issues and rights.

BNMT Nepal's sexual and reproductive rights work and the Butterfly Project are funded by Amplify Change, and a personal donation from our former Trust director, Mr Frank Guthrie



A student studying the Menstrual hygiene booklet developed by BNMT, Sindhupalchowk district

Achievements in 2020/21

As a result of BNMT's work:

- 1,200 people in communities were introduced to sexual and reproductive rights through forum theatre
- 231 representatives of civil society organisations (CSOs) received education on sexual and reproductive health and rights, and mental health
- 40 health workers received basic training in mental health
- 64 FCHVs and mothers received basic training on sexual and reproductive health and rights
- 151 pregnant and breastfeeding mothers supported with food and sanitation packages during Covid-19
- 52 municipal and ward representatives advocated for improved sexual and reproductive health and rights for adolescents
- 423 school students received education about mental wellbeing
- 332 parents of adolescents received basic information about sexual and reproductive health and rights and comprehensive sexuality education
- 140 teachers received basic training in school mental health and sexual and reproductive health and rights
- 31 teachers, school principals, CSO representatives and school nurses advocated for comprehensive sexuality education and adolescents' sexual and reproductive health and rights.

Blankets programme



The Chepangs are an indigenous group who traditionally reside in the hills of Nepal. Many of them work as daily wage earners and lost their livelihoods in the pandemic, so this year's winter brought extreme hardship. After consulting community leaders on the most urgent needs, BNMT bought warm blankets and distributed them to Chepang households in Makwanpur on 1 January 2021. The funds for this were raised by a BNMT founding member, Rosemary Boere, and a former intern, Sarah Gregory.

Strengthening oncology services

The Institute of Cancer Research in London and the Royal Marsden NHS Foundation Trust provided prostate cancer oncogenetics laboratory equipment to Bir Hospital in Nepal. This support was in continuation of the sponsorship programme which brought six Nepalese oncologists on visits to the Royal Marsden Hospital to understand the latest advances in oncology care and exchange expertise with UK health care teams and is supporting the development of an oncogenetics facility at Bir hospital in Kathmandu. Logistics and administrative support for the sponsorship programme were provided by BNMT UK.

Breaking the stigma: an alternative approach to cervical cancer screening



BNMT is using digital technology to make cervical cancer screening accessible to urban women in Nepal.

Cervical cancer is preventable, but it remains the most common cause of cancer deaths in women worldwide, with 85% of these deaths occurring in young women in low and middle income countries. Every year in Nepal, more than 1,300 young women die of cervical cancer.

Early detection and treatment of human papilloma virus (HPV) infection can prevent these deaths, but Nepalese women lack access to testing. BNMT's Breaking the Stigma project aims to address this by partnering with SH:24, a London-based organisation expert in rapid and confidential online sexual health testing services. With digital connectivity rapidly increasing in Nepal, a process accelerated by the Covid-19 pandemic, we are exploring the potential for adapting SH:24's online services to fit the local context and culture.

SH:24 worked with the BNMT team and three groups of women – young, digitally connected women in the Kathmandu valley; women who had experienced cervical cancer; and women who might use the service – as well as a cross-section of health professionals. Discussions and in-depth interviews with these groups gave us a rich understanding of the barriers, practice, challenges and perceptions around cervical cancer and self-testing. From this, we designed a testing service and consulted the groups for further feedback.

Through the research we were able to demonstrate that there is a clear, unmet need for access to quality information and confidential testing services for HPV and cervical cancer screening among women in Nepal. An online self-testing service is feasible in urban Nepal, and the research showed that such a service could be designed to meet the needs of local users.

The READ-IT project

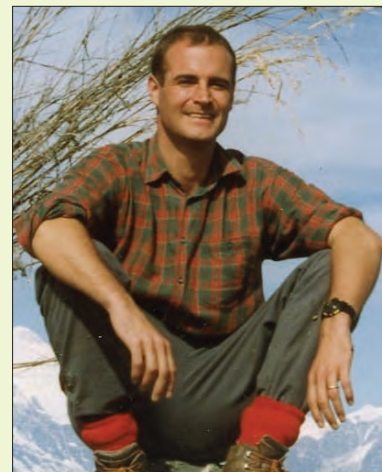
BNMT is working with a team of experts in the UK to review all the evidence from research around the world on health issues important for Nepal. Our partner is the Centre for Evidence Synthesis for Global Health in the Liverpool School of Tropical Medicine.

The READ-IT consortium is an international project, funded by the UK Foreign, Commonwealth and Development Office, with partners in the UK, South Africa, Norway, Sri Lanka, India and Nepal. It aims to generate high-quality evidence through systematic reviews to inform policy decisions by governments on important public health problems for each country.

After extensive discussion and consultation with stakeholders, the BNMT READ-IT team has identified three priority topics for Nepal:

- Does Nepal still need a nationwide programme of Vitamin A supplements to reduce child mortality? The Vitamin A programme was introduced in 1993, but Nepal has developed significantly since then and many of the underlying causes of childhood deaths have dramatically decreased. The READ-IT review will analyse the latest data to provide evidence for government decisions on whether to continue or modify the programme.
- Should calcium supplements be prescribed to pregnant women to prevent pre-eclampsia? Despite huge reductions in maternal mortality in the last two decades in Nepal, the risks of childbirth remain high, especially in rural areas where there is no access to emergency care. Eclampsia is the second leading cause of maternal deaths in Nepal and its occurrence may be reduced by calcium supplements if women get insufficient calcium in their diet. An appraisal of the global research could determine if there is evidence to support a national policy on calcium supplements for pregnant women. This work has started and we expect to share the findings with stakeholders in Nepal in autumn 2021.
- How to prevent suicides? Mental health has long been neglected in Nepal, with little access to care and support for people with mental disorders. A nationwide survey in 2019 showed that one in 10 Nepalese adults suffered mental health disorders. The suicide rate is one of the highest in the world and 10% of Nepalese adolescents have attempted suicide. There is little evidence on what can be done to prevent or reduce suicide, particularly in the South Asian cultural context. A review of research on suicide prevention measures will provide evidence to inform a suicide prevention strategy for Nepal.

In memoriam Dr Chris Vickery



Dr Chris Vickery, field doctor with BNMT from 1998 to 2000 in the Sankhuwasabha district of east Nepal, passed away on 22 July 2021. Chris will be remembered by his friends and colleagues as a consummate professional, dedicated to improving the lives of people battling poverty and hardship. He had a great intellect, a warm and caring nature, a brilliant sense of humour and his dedication to his patients was legendary. After BNMT, he ran a Mother and Child Health Project in Nepal for Save the Children. He then went on to guide, design and evaluate public health programmes around the world, including, in 1994, working in the emergency response during the genocide in Rwanda. He also worked as a GP in Unst on the Shetland Islands. He had three children, Arthur, Stan and Francis.

He later chose Cambodia as his home and from there, worked mainly in South and South East Asia. A friend noted that Chris went out to change the world and did just that: 'He improved and saved the lives of thousands, hundreds of thousands and quite possibly millions of people.'

BNMT publications in 2021

BNMT Nepal has published the findings of its research studies in a range of medical journals

How to reduce household costs for people with tuberculosis: a longitudinal costing survey in Nepal. Gurung et al, *Health Policy Plan*

Comparative Yield of Tuberculosis during Active Case Finding Using GeneXpert or Smear Microscopy for Diagnostic Testing in Nepal: A Cross-Sectional Study. Gurung et al, *Tropical Medicine and Infectious Disease*

'A double-edged sword': Perceived benefits and harms of active case-finding for people with presumptive tuberculosis and communities-A qualitative study based on expert interviews. Biermann et al, *PLoS One*

Building on facilitators and overcoming barriers to implement active tuberculosis case-finding in Nepal, experiences of community health workers and people with tuberculosis. Biermann et al, *BMC Health Services Research*

Financial Report

The financial information presented in this report does not constitute the statutory accounts of the Britain-Nepal Medical Trust. The full accounts for the year ended 31st December 2020 have been submitted to the Registrar of Companies and the Charity Commissioners. The Independent Examiner's Report on the Trust's accounts to 31st December 2020 is not qualified in any way. A copy of the Reports and Financial Statements may be obtained from the Trust's office c/o Foot Davson Ltd, 12 Church Road, Tunbridge Wells TN1 1LG.

BRITAIN-NEPAL MEDICAL TRUST BALANCE SHEET AS AT 31 DECEMBER 2020

	Notes	2020 £	£	2019 £	£
Fixed assets					
Tangible assets	11		259		467
Current assets					
Debtors	13	9,948		6,531	
Investments		88,730		81,992	
Cash at bank and in hand		184,257		282,439	
		<u>282,935</u>		<u>370,962</u>	
Creditors: amounts falling due within one year	14	4,710		5,166	
Net current assets			278,225		365,796
Net assets			<u>278,484</u>		<u>366,263</u>
The funds of the charity:					
Restricted income funds	16		7,495		7,495
Unrestricted income funds			270,989		358,768
			<u>278,484</u>		<u>366,263</u>

The company is entitled to the exemption from the audit requirement contained in section 477 of the Companies Act 2006, for the year ended 31 December 2020.

Members have not required the company to obtain an audit of these accounts.

The trustees acknowledge their responsibilities for ensuring that the charity keeps accounting records which comply with section 386 of the Act and for preparing financial statements which give a true and fair view of the state of affairs of the company as at the end of the financial year and of its incoming resources and application of resources, including its income and expenditure, for the financial year in accordance with the requirements of sections 394 and 395 and which otherwise comply with the requirements of the Companies Act 2006 relating to financial statements, so far as applicable to the company.

These financial statements have been prepared in accordance with the provisions applicable to companies subject to the small companies regime.

The financial statements were approved by the board of directors and authorised for issue on 26/8/21 and are signed on its behalf by:

Dr G M C Holdsworth

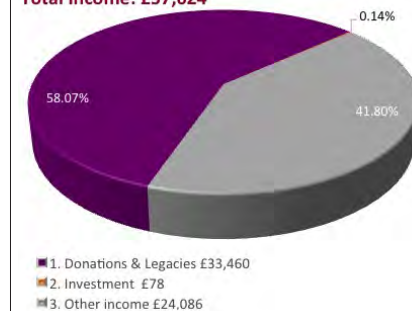
Dr G M C Holdsworth
Trustee

Dr J M V Payne
Trustee

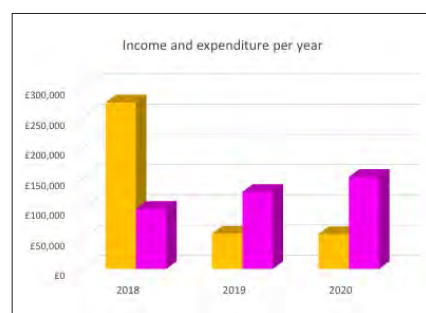
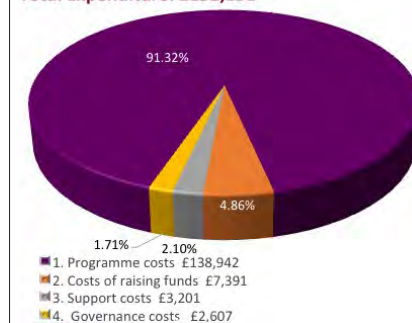
Company Registration No. 921566



Total Income: £57,624



Total Expenditure: £152,151



How your donation/s can help us ...

... reduce the gaps in health service provision, especially for poor and disadvantaged people

£10	will buy a ring pessary to ease the suffering of a woman with uterine prolapse
£40	buys packets of oral rehydration solution to treat 100 children with acute diarrhoea
£150	buys 40 packets of clean home delivery kits that will protect 100 babies and mothers from infection
£200	can buy a set of life-saving basic equipment for a health post in a remote village
£200	buys 100 packets of sanitary kits for school children
£500	contributes significantly to our organisational running costs
£2,000	contributes to the purchase and running costs of a Genexpert machine for early diagnosis of TB

☐ I enclose a cheque/postal order made payable to the Britain Nepal Medical Trust for £

Committed giving and donating online

Alternatively, you can imagine how a regular monthly amount between £10 and £15 would make an even greater impact on the lives of the Nepalese. You can arrange this by completing and returning this form. Or you can donate, or set up a direct debit, online through the Charities Aid Foundation's secure fundraising service by going to www.britainnepalmedicaltrust.org.uk or www.givenow.org

To the Manager(Bank)

Address

..... Post Code

Name

Address

..... Post Code

Account No. Sort Code

Please pay the Britain Nepal Medical Trust the sum of(figures)

.....(words)

Starting on..... / / ☐ Monthly ☐ Quarterly ☐ Half-yearly ☐ Annually

Signed: Date:

Tax-effective giving

Since April 2004 a scheme from the Inland Revenue enables you to give to charity through your tax return. All you have to do is quote the reference **UAK68HG** and nominate The Britain-Nepal Medical Trust as the recipient of your tax repayments.

Gift Aid

The other way you can help BNMT raise funds is by returning the Gift Aid declaration below. This means that you authorise BNMT to reclaim from the HMRC tax you have already paid. All gifts from UK taxpayers now qualify for Gift Aid.

Gift Aid declaration

☐ Please treat as Gift Aid donations all qualifying gifts of money made: today/in the past 4 years/in the future until further notice.

☐ I confirm I have paid or will pay an amount of Income Tax and/or Capital Gains Tax for each tax year that is at least equal to the amount of tax that all the charities that I donate to will reclaim on my gifts for that tax year. I understand that other taxes such as VAT and Council Tax do not qualify. I understand that the charity will reclaim 25p of tax for each £1 that I give.

Date / / Full name

Signature

Full home address

..... Post Code

☐ Please tick here if you would like to receive details on making the BNMT a beneficiary of a legacy.

Please let us know your email address, either by mail or by email, if you would like to receive information by email, (see below for the address)

(No individual personal information will be sold, routed or otherwise transferred to a third party without your explicit consent)

Please return completed form to



BNMT, c/o Ms Maidrag, 8 Hazeldean Rd, London NW10 8QU

Tel: 07846 910807

Email: info@britainnepalmedicaltrust.org.uk

www.britainnepalmedicaltrust.org.uk

Charity Registration No 255249

BNMT Nepal Strategic Pillars 2020-2025

**Accelerating the elimination
of infectious diseases**

**Building resilient, prosperous
and healthy communities**

**Improving mental health and adolescent
sexual and reproductive health**

**Strengthening health systems and
increasing equity of access**

**Generating evidence to inform policy
and facilitate optimal strategy implementation by policy makers**



Registered Comp any Address

c/o Foot Davson Ltd • Chartered Accountants
17 Church Road • Tunbridge Wells • Kent TN1 1LG

Tel: +44 (0)7486 910807 **Email:** info@britainnepalmedicaltrust.org.uk

Web: www.britainnepalmedicaltrust.org.uk

Registered Charity No 255249

