



From the frontline:

Papua New Guinea's fight against infectious disease

A report by ChildFund Australia

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About ChildFund Australia

ChildFund Australia is an independent international development organisation that works to reduce poverty for children in developing communities. We work in partnership with children and their communities to create lasting change by supporting long-term community development, responding to humanitarian emergencies and promoting children’s rights. We want every child to be able to say: “I am safe. I am educated. I am heard. I have a future.”

ChildFund Australia directly manages and implements programs with a range of local partners in Cambodia, Laos, Myanmar, Papua New Guinea, Timor-Leste, Vietnam, and other Pacific nations, and manages projects delivered by partner organisations throughout Asia, Africa and the Americas. Our work is funded through child and community sponsorship, government grants as well as donations from individuals, trusts and foundations, and corporate organisations.

ChildFund Australia is a member of the ChildFund Alliance – a global network of 11 organisations which assists almost 16 million children and their families in over 60 countries. ChildFund Australia is a registered charity, a member of the Australian Council for International Development, and fully accredited by the Department of Foreign Affairs and Trade which manages the Australian Government’s overseas aid program.

About ChildFund Papua New Guinea

ChildFund Papua New Guinea is registered as a local NGO under the Papua New Guinea Association Incorporation Act, working to reduce poverty for children in developing communities.

ChildFund began work in Papua New Guinea in 1994, and works in partnership with children, their communities and local institutions to create lasting change, respond to humanitarian emergencies and promote children’s rights.

Most projects are implemented in the Central Province and National Capital District with a focus on maternal and child health, nutrition, water and sanitation, education, and child protection and resilience against family and sexual violence. ChildFund PNG also priorities climate change and disaster preparedness. In 2015, ChildFund PNG established the country’s first ever Family and Sexual Violence Counselling Hotline, which operates in Port Moresby and provides national coverage for survivors.

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Foreword



Margaret Sheehan

Margaret Sheehan
CEO, ChildFund Australia

When a team from ChildFund Australia travelled to Papua New Guinea (PNG) in January this year to report on the country's burden of infectious disease, COVID-19 did not even have a name.

The country had just responded to a polio outbreak and there were major concerns about the threat of measles following the disease's deadly outbreak in the South Pacific last year.

Infectious disease is never far from the minds of people in PNG, whether you are speaking to a national health expert or the mother of an unwell child in a remote village.

Tuberculosis, polio, measles – these diseases and many more put daily stress on a healthcare system that is overburdened and struggles to provide even the most basic services.

COVID-19 has the potential to devastate PNG. You only have to examine how the country has struggled to control its tuberculosis epidemic to understand the terrible threat a new infectious disease poses to the population.

Low rates of vaccination, poor and crowded housing, high levels of poverty and an under-resourced health system combine to make disease outbreaks both inevitable and life-threatening.

This was true before COVID-19 existed and it is even more true now.

In PNG, ChildFund is now working with government ministries, schools and health authorities and is part of the National Emergency Response to help prevent the spread of the disease.

ChildFund has also been implementing health and education programs in the country since 1994. We intend to continue our long-term support, including post COVID-19 recovery initiatives, once the immediate danger of the virus has passed.

We hope that during this time of uncertainty, Australians can come together and draw on our values of generosity, humanity and compassion. Our role as global citizens has never been more important.



COVID-19 has the potential to devastate Papua New Guinea.

Executive summary

Low vaccination rates and poor health systems and infrastructure means children living in poverty in Papua New Guinea are extremely vulnerable to an infectious disease outbreak.

Papua New Guinea (PNG) is no stranger to outbreaks of infectious disease. In 2019 alone the country had to deal with the return of polio, while also responding to sporadic outbreaks of measles,¹ a frighteningly regular occurrence in Pacific Island nations.

These threats are in addition to ongoing tuberculosis and HIV epidemics² as well as the constant threat of malaria, diarrhoeal disease and many other communicable diseases.

Familiarity with infectious disease, however, does not mean PNG's health system is in a better position to respond to the next outbreak on the horizon.

While leading health officials were impressed³ by the country's ability to respond to the 2019 polio outbreak quickly and effectively, frontline health workers feared the outbreak of another disease was likely and its consequences could be devastating for already vulnerable communities.

Vaccination rates across PNG are dangerously low.⁴ Doctors are scarce⁵, with fewer than 1,000 in the entire country.⁶ The health workforce lacks the resources and manpower it needs to maintain even basic programs.⁷

Children are particularly vulnerable. Almost half of all children under-five have stunted growth⁸ with analysis by Save the Children in 2017 finding that malnutrition was likely the underlying cause of three-quarters of deaths of children under the age of five throughout the country.

Central Province, where ChildFund has worked since 1994, has no government-appointed doctors to cover the same population as Tasmania. Across Central Province, 80% of mothers do not give birth in a health facility.⁹

Many village health centres, known as aid posts, are so sub-standard that families in Central Province are often forced to seek treatment in the national capital, Port Moresby, if they can afford the cost of travel. If not, which is often the case, they remain undiagnosed, at risk of infecting other members of their community, and potentially dying of a treatable disease.

With a population that is growing at just over 2% annually¹⁰ – the majority living in scattered villages often not accessible by road – people are increasingly migrating to the cities looking for services or employment.¹¹ Many people end up in densely packed settlements without water, sanitation or power.¹² Infectious disease is an ever-present, compounding threat.

COVID-19 is a major risk to the health of PNG's population, but the virus also threatens to disrupt an already struggling healthcare system.

From the National Department of Health offices in Port Moresby, to remote health clinics in small villages, there is acknowledgement that more must be done to strengthen healthcare long-term to better protect people in PNG from the scourge of infectious disease.

Infectious disease threats facing children

Outbreaks occur in Papua New Guinea at an alarming frequency. While COVID-19 has become the most pressing threat facing the health system, it is far from the only infectious disease the country faces.

In January 2020, before the issue of COVID-19 had landed on his desk, Central Province's Acting Director of Public Health Marcel Buro was already talking about the inevitability of an infectious disease outbreak.

"Out of the nine antigens that we have for the immunisation program for the country, in Central Province the routine coverage is below 40%," Mr Buro said. "That is a really big concern for me, as there is a high risk that you could have an outbreak very soon."

Outbreaks occur in PNG with alarming frequency. Wendy Dunstan witnessed firsthand a measles outbreak when she worked at Gerehu General Hospital in Port Moresby.

"It was so disastrous," Ms Dunstan said. "There was no space and when children came in with all these symptoms – like flu and fever and cough and conjunctivitis and lethargy – we couldn't help them.

"We had no beds to put them on and had to put them all over the place; on the corridors or wherever there was a little space. We even put them in the office space."

She is now the officer in charge at Kwikila Acting Provincial Hospital in Rigo District, Central Province. Most people in the district live in small villages, which are not within walking distance of a health centre.

With an enormous population to service, close to 80,000, coupled with low vaccination rates and poor access to nearby healthcare services, Ms Dunstan has had many concerns about a potential outbreak in the district.

"I'm the only health extension officer," she said. "There are no medical officers with me here and I have six community health workers. Most of the health workers at the health centre are community health workers, which is the equivalent of a nurse's assistant.

"I am worried about an outbreak of disease. If children come in, if we have less numbers than 50 or 40, then we can manage. But if the outbreak is huge and we have hundreds coming in, that would be so difficult.

"We couldn't refer all of them at the same time because of logistics. We would lose a lot of lives."

Across the country, there is a critical shortage of health workers. According to the World Health Organisation, PNG has health worker density of 0.58 per 1,000 people.¹³ This is well below the 4.45 doctors, nurses and midwives per 1,000¹⁴ the country would need to reach its Sustainable Development Goal targets.



Officer-in-charge Wendy Dunstan at Kwikila hospital in Central Province said the measles outbreak in Papua New Guinea was "disastrous".

The health workforce is also ageing. According to a World Bank report released in 2012¹⁵, more than half the health workforce was due to retire within a decade.

The bulk of the health personnel in Central Province is made up of frontline community health workers, who are trained to deliver basic primary healthcare. As Mr Buro explained, everything complicated is referred to Port Moresby.

In rural PNG, all outbreaks have the potential to devastate communities. That devastation often goes beyond the toll



Everybody is running at full capacity ... so outbreaks are very devastating.

Dr Deborah Bettels, Expanded Programme on Immunisation coordinator in PNG, World Health Organisation.

of the disease. Many children and families already struggle to get the healthcare they need to fight diseases such as tuberculosis, malaria and HIV. Many mothers do not give birth supported by a skilled birth attendant.

"All of a sudden, you have to take all the healthcare workers and put them into the job of stopping this outbreak. So they may not have enough time to do other preventative primary healthcare services," explained Dr Deborah Bettels, the World Health Organisation's Expanded Programme on Immunisation coordinator in PNG.

Dr Bettels explained that the impact of an infectious disease outbreak in PNG presents far greater challenges than those experienced in developed countries.

"Those countries with better infrastructure, better human resource levels and better financial situations can rapidly respond," she said.

"They suffer perhaps a bit less than countries that don't have the infrastructure; that don't have a pool of extra healthcare workers.

"But in PNG, everybody is running at full capacity routinely so if an outbreak happens, there are no extra healthcare workers we can pull in. So outbreaks are very devastating."

Polio: an eradicated disease returns

Papua New Guinea (PNG) needs no reminder about what can happen if immunisation levels drop.

In 2018, polio made a return to the country 18 years after it was eradicated because too few children were getting immunised against the disease.

The country's response, however, did provide some reasons to be optimistic that it can prevent future vaccine-preventable disease outbreaks.

Throughout the catch-up campaign, Papua New Guinea exceeded its target of immunising more than 95% of children against polio and measles, mumps and rubella.¹⁶

Dr Daoni Eserom, the executive manager of public health at the National Department of Health, said the response was successful but costly. According to the World Health Organisation, the cost of the outbreak response in 2018 was US\$18 million.¹⁷

"If they can vaccinate children routinely it prevents us from expending a lot of money and a lot of resources on responding to an emergency," Dr Eserom said. "So we learned a lot from the polio outbreak."

Dr Bettels said the country now must take the lessons learned during the polio vaccine campaign and ensure all children are protected against vaccine-preventable diseases.

"It becomes a bit of a vicious cycle," she said. "You put all your resources in outbreak response and then people say 'OK, good, everything is solved'. Everybody relaxes, and then maybe they relax too much over a long period of time and we get another outbreak."

"You see this being repeated I think in many places. It's human nature that this happens."

A short walk to end TUBERCULOSIS & POLIO



Angela & family

Angela is 44 years old and lives in a village in Central Province that is a four-hour drive from Port Moresby, Papua New Guinea's capital.

"I have five children. My youngest child is four months old; he is the only one who has had all his routine vaccinations," Angela said. "The other four children have only had some of their routine vaccinations."

"Before ChildFund came to my village, it was hard to get my children vaccinated. Our closest health facility is a one-hour walk from my home. If we were lucky, they had vaccines in stock and my children receive their immunisations."

"But when vaccines were out of stock, the nurse referred us to the regional health centre, which is another three hours by foot. But I was not able to do the eight-hour return journey to the health centre and back to my village with my children."

ChildFund Papua New Guinea has been implementing its Integrated Maternal and Child Health project with the support of the Australian Government through its ANCP program.

This includes an outreach service for remote communities in Central Province, and means Angela and her children no longer have to walk hours to get medical treatment and health advice.

"Since ChildFund began the outreach program in my village, I have been depending on that for my baby to receive his routine immunisations," Angela said.

"ChildFund brings the health workers from the clinics to sites in my village. I take my five children there."

The ChildFund project also trains community health volunteers, who provide basic health information and referral advice to community members, while also providing on-the-ground support to district government health services.

At the beginning of 2019, these community health volunteers ran several awareness sessions on polio, alerting parents to the fact that it can cause paralysis and death among children who are not immunised.

Building the understanding of parents as to why vaccines are effective is a vital way to support the activities of healthcare workers, who want to ensure all children under the age of 15 receive all four doses of the polio vaccine.

Angela said: "I was delighted to hear that the polio medicine would be given at outreach sites in my community because it's just a short walk from my home. My baby has received all his polio doses and is also being immunised against measles and rubella."

In recent weeks, volunteers have turned their attention to COVID-19 and, with the support of ChildFund health staff, are providing vital information to help remote communities prepare and better protect themselves for the threat of a new disease. Having built trust among their local networks, they are now an important source of advice for families.

Angela said: "The community health volunteers play an amazing role in my village. And I'm so grateful to ChildFund for bringing health workers into my isolated village so my baby can be immunised from these diseases."

“

The community health volunteers play an amazing role in my village.

Mothers and children wait for TB treatment and vaccinations in Bereina health centre, Central Province, PNG.

Overcrowded homes, a lack of education and poor diets in Papua New Guinea contribute to the spread of tuberculosis, a disease that has been all-but eradicated in most developed countries.



An ongoing epidemic: tuberculosis

Like polio, tuberculosis is a disease that has been all-but eradicated in most developed countries¹⁹ but it is still the world's leading cause of death from a single infectious agent.¹⁹

In 2018 an estimated 37,000 people in Papua New Guinea (PNG) had tuberculosis and more than 4,500 died.²⁰ It is one of only 14 countries classified as having the triple high burden of tuberculosis, multi-drug resistant tuberculosis and tuberculosis/HIV.

Eradicating tuberculosis (TB) from PNG requires improvements in many sectors of society. Overcrowded housing settlements, a lack of education and poor diets all contribute to the spread of the disease.

Dr Daoni notes that poverty creates the conditions in which the disease can flourish. He said: "We have a lot of settlements, a lot of unplanned housing and all of these are big contributors to TB.

"Malnutrition, especially in kids, is a very big contributor to TB. So is the ability of households to have the resources to actually seek access to healthcare when they're sick."

To get tested for TB, people often have to travel to major urban centres. Once diagnosed, patients must follow a six-month course of four antibiotics.

Most people feel well soon after treatment begins, which can result in them not finishing the full course. This has led to the rise of drug-resistant forms of tuberculosis that are deadlier and require more expensive treatment that can last up to 20 months.

Dr Daoni describes PNG's ongoing battle with TB as a "war". ChildFund PNG Health Programs Manager Olive Oa concurs, saying: "We are trying our best to control it. We are advocating at the highest levels and trying to mobilise as many resources as we can, but it's still there."

A hotbed of CONTAGION



Helen & Stancelyn

Crowded housing settlements like the ones in Port Moresby provide a rich breeding ground for infectious diseases like COVID-19, tuberculosis and measles.

Helen and her four children moved from southern highlands region of Papua New Guinea (PNG) and landed in one of the many makeshift communities set up in the capital.

"I rent a house with 19 other families," Helen said. "There's four common toilets and four common bathrooms. It's overcrowded."

As a result, Helen's children are frequently ill. When her one-year-old daughter Stancelyn caught measles in December 2019, it gave Helen a big enough scare that she vowed to return to her home village.

"All the families around us are getting sick so now I'm going to go back to where I come from," she said.

"It's not safe because everyone around them is sick all the time. I look after my children, but they still get sick."

This is a fear many parents in PNG live with. Mary, who also lives in Port Moresby, has seen both her children battle tuberculosis. Her husband also battled the disease.

"In PNG everybody dies with all kinds of diseases," Mary said. "Every day someone dies. If you have money people might see you but if you don't have money, then you have to go to the back of the line."

Mary's family lives in the remains of their burnt down house in a residential street in Port Moresby. They lost their house to an arson attack on the street and the family now

lives in a shelter that they made from the bones of their scorched home.

She worries about her children getting sick playing in the neighbourhood with their friends. Her eldest daughter, Princess, got tuberculosis when she was six months old. She lost a lot of weight and had to spend a month in the hospital, and six months on medication.

During that time Mary didn't get a lot of sleep. She was awake at night worried about her daughter. "I was scared," she said. "I feared she might die."

When eight-year-old Jenny got sick in 2019 it was different. She was still active and playing, but she had a swollen abdomen and a cough that she couldn't shake.

Fortunately, ChildFund Papua New Guinea was working in Mary's community at the time, supporting a clinic at a nearby health centre. Jenny was diagnosed with TB.

Now, ChildFund's TB Treatment Supporters, who are trained to spot symptoms of tuberculosis and help people get the treatment they need, regularly follow up with Mary and Jenny.

This follow-up support is vital, as failing to complete a TB treatment program can lead to the development of drug-resistant forms of the disease, which are on the rise.

Jenny's condition has now improved but she regularly goes to the clinic to get check-ups and ensure she completes her full course of antibiotics.



Mary & Jenny

The arrival of a global pandemic

Just days after the first confirmed case of COVID-19 in Papua New Guinea (PNG), the country became the first in the Pacific to declare a state of emergency.²¹

The government put restrictions on international flights, closed all schools and universities and shut all non-essential services temporarily.

PNG had good reason to be on high alert. In early April Health and HIV/AIDS Minister Jelta Wong warned parliament that the country could have shortfalls of between 1,000 and 30,000 hospital beds if there was an outbreak.²²

"Our health system has limited capacity, experience and resources to manage a potential large-scale response, making the risk of spreading high in the event that an outbreak of COVID-19 occurs in PNG," he said.

The INFORM Epidemic Risk Index²³ assesses the risk of countries to epidemic outbreak, which would exceed their national capacity to respond to the COVID-19 crisis. PNG was given an overall risk rating of 5.8, compared to 2.5 for Australia.

Further analysis by CARE Australia²⁴ finds that PNG is four times more at risk of epidemic outbreak than Australia, based on seven indicators: exposure to epidemics generally, access to healthcare, underlying health conditions, vulnerable groups, food insecurity, social-economic vulnerability and communications capacity

In April the World Bank approved US\$20 million²⁵ in emergency funding to help PNG tackle the COVID-19 crisis. The money was secured to deliver personal protective equipment (PPE) for health workers; supplies for infection prevention such as isolation units and incinerators for waste disposal; and critical intensive care equipment including ventilators and oxygen flow regulators, among other items.

In an interview with The Guardian²⁶ in late April, Mr Wong said the country had about 15 ventilators and that another "hundred or so" were on the way.

In the same interview, Mr Wong estimated that the country had around 600 to 700 doctors and 3,000 hospital beds.

The shortages of equipment and doctors increases the need to suppress the disease, but this may be difficult in PNG.

Papua New Guinea was given an overall risk rating of 5.8, compared to 2.5 for Australia.



An outbreak of an infectious disease like COVID-19 will overwhelm health facilities in Papua New Guinea, including Port Moresby General, the main hospital in the country.

As PNG Prime Minister James Marape acknowledged, social distancing is difficult to enforce because many members of an extended family will often live together. In urban centres, the high costs of accommodation can also force multiple families to live in densely populated settlements.

"The World Health Organisation's ratio for the spread is 1:3 but for PNG, because we enjoy living together in one house, our health system modelling states that if one person is infected that person can infect five others," Mr Marape told parliament.

"When the team did the modelling, they realised that our system is totally inefficient or does not have the capacity to handle the spread of the virus.

"Thousands can die. Lockdown was a deliberate strategy to stop movement from one town to another town or province to another province to map out the virus."

Restricting movement may help stop the spread of the virus, but many people in PNG need to move between towns to get medical treatment, because villages lack health facilities.

In Central Province, people are often forced to travel several hours to reach their nearest hospital, and clinics where mothers can safely give birth and receive other essential healthcare are often long distances from homes.

"It is important to continue the upscaling of critical essential health programs to avoid further stress on current health systems," Mr Wong said.

"For example, during Ebola in West Africa there were more maternal deaths than Ebola deaths as the health system was unable to look after anything else."

The collateral damage of COVID-19

The impact of COVID-19 has the potential to overwhelm Papua New Guinea's health system in the short-term, but it could also have a detrimental impact on child health outcomes in the future.

ChildFund Australia CEO Margaret Sheehan said: "With an increased emphasis on COVID-19, we are worried that Papua New Guinea's limited resources may be shifted to contain and fight the pandemic at the expense of existing programs which ensure children both survive and thrive.

"We don't want countries like PNG to have to decide between a COVID-19 outbreak response, or essential child health programs. That's why the support of the Australian Government and organisations like ChildFund, working at grassroots, is so vital: now, and once the immediate danger of the virus has passed.

"ChildFund is focused on protecting communities from COVID-19, but we also want to ensure that children, particularly those living in remote and rural areas, do not lose their lives to preventable disease, such as measles, in the years to come."

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We don't want countries like PNG to have to decide between a COVID-19 outbreak and essential health programs...

Margaret Sheehan, CEO, ChildFund Australia

- **The pandemic has already resulted in delays to the rollout of preventative immunisation campaigns. Health experts and NGOs have expressed serious concerns that PNG may see an explosion in infectious diseases like tuberculosis, measles and polio as a result.**
- **An interruption to global pharmaceutical supply chains is resulting in a shortage of medicines in many rural healthcare clinics, putting patients' lives at risks.**
- **Travel restrictions are preventing patients in rural areas from seeking treatment for diseases such as tuberculosis. Where TB treatment programs are interrupted, there is the risk of a significant increase in multi-drug resistance tuberculosis, which is extremely costly to treat.**
- **Many people fear contracting the virus from health centres and hospitals, and there is already some evidence to suggest that fewer women are seeking to give birth in clinics, putting the lives of themselves and their newborns at risk.**
- **COVID-19 may result in increased malnutrition among children. If parents are unable to work or lose their jobs because of the pandemic or containment measures, this may result in less money to buy nutritious food for children. Malnutrition also makes children more vulnerable to infectious disease.**
- **With limited funding available, bed net distribution to rural communities, which helps prevent malaria infections, has reduced in favour of COVID-19 response activities. Health experts have warned that cases of malaria in PNG are already rising.**
- **Individuals who contract the disease can face significant stigma and discrimination. The PNG Government has already developed a national plan in partnership with NGOs, UN Departments and church groups to help manage public fear and prevent mistreatment of those who have contracted the virus, including their family members and others they have come into contact with.**

Australia's role in regional health security

As Australia's closest neighbour – just over 150km from the mainland – it is critical for the Australian people and Government to invest in improving Papua New Guinea's health system to prevent the spread of communicable diseases in the region.

In a speech to launch the Indo-Pacific Health Security Initiative in October 2017, then-Foreign Minister Julie Bishop outlined why Australia's outlook as a country was tied to other nations in its neighbourhood.²⁷

"In many respects, we live in a borderless world and disease has no regard to any borders," she said. "Should there be a serious disease outbreak, the economic and health implications can be devastating, disrupting trade, investment, travel, slowing growth and development.

"Our region, the Indian Ocean-Asia Pacific, is particularly prone to communicable diseases, those transmitted by animals, and increasingly drug-resistant diseases."

Papua New Guinea (PNG) is Australia's closest neighbour, just over 150km from the mainland and less than 10km from Queensland's northernmost island.

The Australian Government has long invested in improving Papua New Guinea's health system and has supported the goals established in the Papua New Guinea National Health Plan 2011-2020, which sets out a vision and framework for improving health outcomes in Papua New Guinea.²⁸

Two key areas of the plan, which Australia supports, are reducing the burden of communicable disease, and improving service delivery.²⁹ Although progress on the goals established in the National Health Plan has been uneven, there has been sustained improvement in some important areas.

The rate of child and infant deaths has steadily decreased³⁰ and life expectancy, which was 56.5 in 1990, had increased to 64.3 in 2018.³¹

ChildFund Papua New Guinea has been implementing health programs in Central Province since 1994, with a focus on reaching isolated communities, who often lack nearby access to health facilities.

"In recent years, ChildFund has taken an Integrated Community Health Outreach Services (ICHOS) approach, which brings vaccination, antenatal care, tuberculosis/HIV/malaria screening, family planning, growth monitoring, health promotion, and other priority health services to remote villages," ChildFund Australia Health Advisor Tracy Yuen said.

"Under this model, ChildFund helps to coordinate outreach clinics and provides transport for trained staff from district health offices in rural areas."

A study of outreach services around the world in 2012 found that in rural areas these services have been shown to: improve health outputs, increase access to health specialists, increase confidence in the system and save time and money for patients.³²

A mother's DETERMINATION



Esther & Max

A tropical downpour pounds Esther's umbrella as she embarks upon the familiar walk to the health clinic 8km from her home in remote Central Province, Papua New Guinea (PNG).

In her arms she carries her one-year-old son Max, who has had a persistent cough for so long that Esther cannot remember when it first appeared. By her side is her 11-year-old daughter Ruth, who is nursing a pair of swollen glands that will not go down.

It is a long journey. It is one Esther has taken frequently since Max was born.

Like many mothers in PNG, Esther knows the signs of tuberculosis. She hears her one-year-old son's wheezy cough and she thinks it is tuberculosis. She notices her 11-year-old daughter Ruth's swollen lymph nodes and she knows she should be tested.

She knows she won't be able to get a diagnosis today. Agevairu Health Clinic, which Esther attends, does not have the technology to diagnose tuberculosis.

The closest place Esther can get her children diagnosed is Port Moresby, which is a three-hour drive away. She has travelled to Port Moresby 10 times in the last year to get treatment for Max. Each time she must pay for the travel and find a place to stay for up to a week.

This creates a huge financial burden for the family, who sleep under a thatched roof on a bamboo platform that does not have any walls. No one in the family has secure work.

They make money by selling the coconuts that grow near their home. The money they make is enough for the essentials, but little more.

"It's exhausting," Esther said. "All I want is for my child to get better so I can get some rest.

"They're my children that's why I keep going. They're my children. I want them to be better. That's why I take them to the hospital. I feel like if I don't get them to the hospital when they're sick, they might die."

In regional areas, patients can unknowingly spread the disease throughout their community because they are unable to get a diagnosis and treatment.

"I call TB a family disease," Dr Daoni said. "If you have a mother in a house who has got TB you can be assured the father or the kids or the relatives in there, one of them will have TB."

Once diagnosed, treatment is also a problem. To successfully treat the disease, patients must follow a six-month course of four antibiotics.³³

Most people feel well soon after treatment begins, which can result in them not finishing the full course. This has led to the rise of drug-resistant forms of tuberculosis that are deadlier and require more expensive treatment that can last up to 20 months.³⁴

ChildFund works with health centres throughout Central Province to help people in remote communities get treatment and support closer to home, but the government and non-government organisations like ChildFund are not able to reach everyone.

Without diagnosis, infectious diseases like tuberculosis and malaria can lead to death, especially in children.

"Before it's diagnosed, a child can really suffer," she said. "They will gradually lose weight, they won't be able to play with their friends. If they're too sick they may not eat well.

"The immune system of children is not usually as strong as adults, so it will usually make them weaker. If you don't find treatment quickly, they may get worse and they may die."

World Bank analysis of the factors driving the performance of rural health in Papua New Guinea found a very strong relationship between the performance of outreach clinics and the overall performance of each province's health system.³⁵

Although the PNG Government does not publish individual village data, ChildFund's experience has shown regular outreach services improve the rates of immunisation and the number of mothers giving birth in health facilities.

Anecdotal evidence from local health workers also points to reduced incidence of tuberculosis in those areas where ChildFund is implementing programs to identify and treat the disease, and educate communities on reducing the spread of infection.

ChildFund PNG manages teams of dedicated local volunteers to help run and organise outreach programs while also providing essential health promotion and health education.

These village health volunteers (VHVs) help to fill a gap in communities where there are no healthcare workers. A policy report produced in 2011, which looked at family

and community health care programs, found that in PNG these volunteers can play a major role in the survival of women and children.³⁶

The report, which studied the effectiveness of VHV programs, argued that village health volunteers needed to be integrated into the health system.

Volunteers not only help with the management of diseases such as tuberculosis by providing important health education, patient referrals and treatment monitoring, they can also be deployed to respond to crises.

In its analysis of the 2019 polio response the World Health Organisation highlighted the importance of a community health volunteer network in Bougainville.³⁷

"The volunteers live in the community – embedded in community structures and highly respected," the report noted.

"This community-based health workforce is the key driver for high vaccination coverage in the Bougainville and is considered one of the success factors for the province."



The ChildFund outreach clinic in Abiara Oreke, Central Province, is providing essential health services to hard-to-reach families.



These frontline health volunteers have been instrumental in early preparations for the COVID-19 pandemic, particularly around raising community awareness about the new virus.³⁸

ChildFund PNG Health Programs Manager Olive Oa manages teams of health volunteers in two districts in Central Province, and has held telephone training sessions with volunteers to teach them about the new virus. This has been particularly valuable during a period when travel restrictions make it impossible for ChildFund staff to visit individual communities.

"As information and guidance becomes available, we are able to provide training and information to our network of volunteers so they can educate their communities," Olive said. "This is the benefit of building a strong connection with communities over a long period of time."

Outreach clinics had to be put on hold temporarily during the national emergency but ChildFund is preparing to restart them as soon as it is safe to do so.

"We need to find the balance because it's impossible to practise social distancing while administering vaccines and some of the other activities that take place at outreach clinics," ChildFund Australia Health Advisor Tracy Yuen said.

"But it is critical that we get these services running as soon as possible because we have seen how effective they are in providing primary healthcare and helping stop disease outbreaks."

With the economic fallout of the COVID-19 pandemic affecting governments around the world,³⁹ there are fears that international aid will fall behind and the development gains made in recent decades will be lost.

This is a particular concern for PNG, which has made slow but steady progress in health outcomes.

Recently, Australian Prime Minister Scott Morrison reaffirmed his government's commitment to helping PNG battle the COVID-19 pandemic.

Health support over the phone

During an infectious disease outbreak, getting information out and providing guidance on how to reduce the spread of the disease is vitally important.

This is particularly true in countries like PNG where mass media campaigns via television and radio are difficult to implement.

PNG does have high mobile phone usage so ChildFund has partnered with UNICEF to rapidly expand its free, national helpline 1-Tok Kaunselin Helpim Lain (715-08000).

This is a confidential phone counselling service established in 2015 by ChildFund PNG in response to PNG's endemic levels of family violence. In 2019, helpline staff responded to more than 23,000 calls.

Located in Port Moresby, helpline counsellors trained by ChildFund provide immediate counselling and referral services for anyone in Papua New Guinea experiencing

gender-based violence, via a free phone number available nationally.

Additional counsellors have been recruited and trained to manage the increase in calls related to family violence, psychosocial distress and COVID-19 enquiries. Information officers will also provide TB treatment guidance, to prevent a rise in multi-drug resistant strains.

ChildFund Australia CEO Margaret Sheehan said: "The expanded services will give the helpline a broader role and wider reach; not only will it be providing counselling for those experiencing domestic violence, but also vital health advice around COVID-19 and referring callers to national health services where necessary.

"For ChildFund, preventing the spread of COVID-19 is the best course of action in countries like PNG where testing is weak and expensive, and healthcare systems are already stretched."

Children living in poverty in Papua New Guinea are particularly vulnerable to COVID-19 because of factors such as malnutrition and other infectious diseases, such as tuberculosis, within communities.





Health security is about protecting everyone. Each person. Each individual. Each community. Each region.

Dr Meru Sheel, Australian National University Research School of Population Health.

The Australian government is participating in discussions by the Pacific Islands Forum on establishing a “Pacific Humanitarian Pathway on COVID-19”.⁴⁰

Additional humanitarian aid funding is also being provided to Pacific nations, including \$20m in economic support to PNG.⁴¹

Dr Meru Sheel from the Australian National University Research School of Population Health said the health and economic crises caused by the COVID-19 pandemic could hamper PNG for years and that it was in Australia’s interest to help protect its neighbours from the worst.

“Health security is about protecting everyone,” Dr Sheel said. “Each person. Each individual. Each community. Each region.

“We all have a responsibility. It’s really a principle of equity. If you have more, you have to do more for others.”



The community-based health workforce is the key driver for high vaccination coverage...

World Health Organisation on the 2019 polio response in PNG.



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Ruth, age 11, from Central Province,
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