

COVID-19 and the Peruvian Amazon: A running update

25 June 2020 – Peru continues to be one of the Latin American countries most impacted by Covid-19, despite taking early action to contain the virus. Currently there are over 265K confirmed cases, and 8,586 deaths (officially). After being under strict lockdown from 16 March through the end of May, and a more relaxed lockdown through the month of June, the country is weary of the stress and anxious to move on. It appears that there will be no political or social will to continue with measures other than wearing masks and practicing social distancing. In Iquitos, friends report that traffic has returned to near normal levels, and that hospital caseloads are dropping. The price of medications is also coming down, another sign that the worst seems to be over. In the outlying rural areas, however, the virus is widespread, and most residents have had symptoms of Covid-19, though most will also never be tested. People who have “recovered” report long-lingering weakness and lethargy. The father of our nurse-technician at the Orosa Clinic passed away from Covid-19 in the ICU in Iquitos just a week ago, so the virus continues to take its toll.

We continue to direct any donations to Covid-19 relief, with the focus now on getting essential medications out to the more rural areas. There is much that still needs to be done before this pandemic is over.

11 June 2020 - The situation with Covid-19 in Peru, and particularly in Iquitos and the state of Loreto, continues to be very grave. It is hard to imagine a steadily worsening scenario, but every day the rate of new infections keeps rising. While the *increase* in new cases in Iquitos is starting to slow down and hospitals are starting to feel less pressure, new cases are now skyrocketing in the smaller towns throughout the region, and Covid-19 has been confirmed in several individuals in communities on the Orosa River, where our Madre Selva Biological Station is located. Our manager, Fernando Rios, was able to deliver a critical supply of medications to our clinic there early this week, and he reports that the majority of residents of the river are sick with severe flu-like symptoms, quite likely the coronavirus. I have been checking news reports on-line from Peru and elsewhere and have also been receiving first-hand accounts from Iquitos and Lima from friends and colleagues there, including e-mails and calls from Fernando Rios, Guillermo Guerra, Cesar Peña, Diana Bowie of DB Peru, Patty Webster of Amazon Promise, and many others over recent days.

The official number of confirmed cases in Peru is growing rapidly, and as of earlier today was 215K+ persons infected (third highest in Latin America after Brazil and Mexico which have much larger populations), and 6,109 deaths. In Loreto state, where Iquitos is located, the official numbers today are 7000 cases, with no official death count. On 14 May, a government of Loreto report stated 2,315 cases, and 1,084 deaths. We will never know the true numbers, but these figures are certainly a gross undercount for reasons enumerated below. The actual numbers are probably 10-20 times higher, if not more.

1. Testing is extremely limited – to get a discretionary test in Iquitos you have to go to the Regional Hospital and the test costs s/200 (~3 days salary for a mid-level worker). With non-essential workers confined to home quarantine except for specific activities from 16 March-1 June, only the wealthy will be getting tests. The out-of-work average citizen will never be tested, and many who die in hospitals will not be tested either.
2. The official count only includes individuals recorded by the official health system. Many victims are dying at home, so they are never recorded. An early May e-mail from a partner organization – Amazon Promise - doing food distribution in the very poor areas of the Belen district of Iquitos noted that one of their volunteers had observed 8 bodies in homes (in one day!), and that people were taking them across the river to be interred. In a tropical climate with no AC, bodies are buried as fast as possible, so the 8 bodies were definitely not the accumulation of deaths over several days, but most likely a reflection of who had died in the past 24 hours (in a small part of Belen).



3. Hospitals are overwhelmed, and quite apart from the issue of testing, it is certain that many victims are simply not tested and/or not recorded.

Patients on cots in a hallway of the Regional Hospital, Iquitos

4. There is little or no reporting from rural areas – until 1 June, all movement was highly restricted, and infrastructure is breaking down rapidly. Numerous victims will die and be interred in both rural and urban areas without ever being entered into medical databases.

5. Those data from 14 May? If those numbers are correct, that would indicate a staggering 44% mortality rate unprecedented anywhere else in the world to date. So it is certain that the true numbers of infections are much much higher than the official data would indicate. The 14 May mortality data also included a nearly 10-fold jump in deaths over what had been previously reported.

It gets worse. During the peak of infections in Iquitos in May, multiple reports noted that the two main hospitals in Iquitos had “collapsed”. Patients were lying on blankets in

hallways, and bodies wrapped in plastic were stored in side-rooms (video still capture at right) until family members could recover them, or they were being put in mass graves located near the municipal landfill. While the hospital situation has eased a bit recently, hospitals and clinics are still stretched beyond capacity.



It's not just the general populace that is being affected. One mid-May report stated that 189 of 350 medical doctors in the public health system in Iquitos had been infected with coronavirus. Another report stated that 80% of health workers (MD's, nurses, techs, other hospital staff, etc.) have been infected. As of 14 May, at least 14 doctors as well as other health workers have died. More recent reports (20 May) state that from 22-24 doctors have died, half of those in Iquitos. The best-equipped private clinic in Iquitos – the Clínica Ana Stahl – has shut down completely since the majority of their staff were infected and several have died. The Clínica Ana Stahl is the only place in Iquitos where I would ask to be taken if I was in a critical situation – it has a modern ICU, Cat-Scan and everything that a modest-sized hospital in the US might have. That it is completely closed down speaks volumes about the severity of the crisis. [28 May – *the clinic will be reopening for imaging and certain other medical tasks – most of the infected staff have now recovered*]. It will not be open for regular patient care however. There are reports of doctors abandoning clinics in various towns out of fear for their own lives.

Many people critical to the functioning of the country are also dying. As of 5 June, 146 police had died, 61 doctors and paramedics, 20 journalists (6 of them in Iquitos) and 8 firefighters had died from Covid-19.

The health care system in Peru has never received the infrastructure and funding that it needed to meet the needs of the populace. A new hospital being built to replace the city's first hospital (built by the Americans during WWII and in use without substantial modification for the past 65 years) was supposed to be finished in November 2019 – it is still far from being ready for use. Despite the best efforts of valiant health workers, the system was never going to be able to handle a pandemic like this one.

Left: the reality of the aged Hospital de Apoyo / Right: sometime in the future...





A hallway crowded with patients at the Regional Hospital – the city's largest hospital

In April and May pharmacies were completely out of stock of necessary medications. Whereas in February I was able to purchase a box of 100 paracetamol (= Tylenol) for s/6 (less than \$2), a blister of 10 tablets of paracetamol was selling for s/5 – (~\$1.50), if it was available at all. This is almost 10 times the previous price. Corruption, greed and profiteering has set in despite the state of emergency. Although the national government has been sending medications and PPE from Lima, there is little indication that it is getting to where it needs to be. Another NGO was recently quoted a price of s/45 (~\$15) per basic face mask (not even a N-95 mask) on the local black-market (in the past we have purchased these for about s/30 [~\$9] per box of 100 masks). And black-market vendors have popped up at the gates of the Regional Hospital selling essential medications at vastly inflated prices. When the government announced that gloves would be required to enter stores, vendors were immediately selling gloves outside the stores, even while hospital staff were struggling to find enough for their own use. It seems clear that many of the medications and supplies being sent to Iquitos hospitals are being either stolen somewhere along the way or being sold to middlemen or street vendors by persons or officials in the supply chain, and then being resold to the public at vastly inflated prices.

On 21 May, police found donated medications and oxygen tanks stored in two homes in Iquitos and arrested the husband of a government financial officer. He was selling the items on-line, and there have been calls for him to be tried for treason and murder.

Once this is all over, I wouldn't be surprised to see a massive public "revolution" over how things have been handled.

With mobility restrictions relaxed as of June, our general manager was able to procure a quantity of medications on 1 June. Paracetamol and mebendazole (an antiparasitic) were 4 x their previous price, generic face masks 7 x, and alcohol 3 times the previous price. At least we have a supply though! Ibuprofen and ivermectin were simply not available.



Attending to a patient at the Regional Hospital with social distancing virtually impossible to maintain

Given that no or very few ventilators are available, doctors in the health system are saying that most patients require oxygen to recover. But there is little oxygen to be had in the lungs of the world. The only commercial oxygen production plant in Iquitos can produce perhaps 60 bottles per day at maximum production – running 24 hours a day. The Regional Hospital's own oxygen plant hasn't been operational for years due to underfunding and neglect. The current need is 600-800 bottles per day. By early May, prices for oxygen had soared to over US \$1000 per bottle. This is an impossible price for the average family. The non-profit Amazon Promise was able to purchase an oxygen tank in Lima and have it flown to Iquitos – they took it straight to the bottling plant and a staff member stayed with it outside all night in the hopes that it could be filled first thing in the morning, but they had to leave it there and return another 24 hours later to get their oxygen, and then another 24 hours, and another. It was six days before the bottle was filled. As you can see in the following photo, they weren't the only ones waiting.



Waiting for oxygen bottles to be filled at the oxygen plant (no idea what the water jugs are there for!)

On one bright note, the Catholic Diocese of Iquitos initiated a fund-raising campaign to purchase oxygen bottling equipment to fill the void. They raised much more than they anticipated, and new equipment was purchased and has arrived in Iquitos with a 25 bottle a day capacity. An identical second unit is on its way, and the oil company Plus Petrol converted a warehouse to a bottling plant and is sending 50 bottles daily to Iquitos by boat from the Río Corrientes oil fields – about a 12-hour trip, one-way. This added capacity is giving a great deal of hope to many patients and their families.

There is desperation in Iquitos. There is a void in civic leadership (apart from the Catholic church) and only the military and police are managing to hold things together. The question is how much longer they can manage that. Currently it is the threat of hefty fines that are keeping people at home. Those fines range from s/250 (~\$75) for being out without your pass that designates you as an essential worker, to s/430 (~\$128) for violating curfew. The official minimal **monthly** salary in Peru is s/930 (~US \$275), so the fines are substantial. Many people are part of the informal economy, however and have no guaranteed income of any kind. Seniors without a pension (which would be the majority of seniors in Iquitos) receive s/125 monthly from the government – a bare pittance.

Only one family member at a time is allowed out to purchase essentials, and curfew in Iquitos is from 4 PM to 4 AM. But when there is nothing to eat and no money to purchase food, people may start to riot, and the few stores that are open will be ransacked. As of 22 May though, the quarantine had been extended to 30 June, but with some lifting of restrictions in at the start of June. Will people say “better to die of coronavirus than starve to death”?



A re-purposed dining hall in the Regional Hospital

Our own personnel have been affected. Our general manager, Fernando Rios and his family snuck out of Iquitos on his boat at 3 AM on 16 March and were at his farm at Santa Cruz (outside of Mazan – about 25 km from Iquitos) until early June. On 14 May Fernando reported that two people in Mazan had died from Covid-19, and that the town was under absolute lockdown from Monday 11 May to Monday 18 May – nobody allowed out for any reason, not even to take the dog to a patch of grass. The virus arrived on the heels of a dengue epidemic (another virus, but one that is spread by mosquitos) in the region, and for a month starting in mid-April, Fernando and his family had been suffering with dengue symptoms – severe headaches, aching bodies and high fevers. They were fortunate to have a supply of paracetamol (Tylenol) on hand, and I never imagined that I would ever say “Thank God it’s only dengue”. When I talked with Fernando on 16 May the family was thankfully feeling much better.

I spoke with Fernando on 22 May. He reported that in Mazan there were now 20 quarantined cases and 5 deaths. He is certain that the number of cases there are

actually much higher, however. On Sunday 10 May, people had a single day to purchase essentials before the town went into total lockdown – as a result there was crowding and long lines at stores as town residents and people from outlying communities tried to purchase food. Even with the required masks, it is certain that the virus was being spread widely on that day. That seems to have been proved right – when I spoke with Fernando again on 31 May, there were over 40 quarantined cases in Mazan, and several additional deaths.

In mid-May, our logistics person, Guillermo Guerra, told me that his oldest brother (in his 70's) had the virus. His odds of survival were great, but the family managed to get oxygen and he is now recovering. Various other contacts in Iquitos have contacted me asking if we have medications for sick relatives, and the nurse-practitioner at our Orosa Clinic had stopped attending patients in May as he had completely run out of medications, and we had no way of getting any more to him until very recently.



One of our founding members and long-time friend to Project Amazonas, Dr. Ernesto Salazar Sanchez, who has served in virtually every medical capacity in Iquitos contracted Covid-19 on a dream vacation that he and his wife were taking to Italy at the start of the outbreak. He spent weeks in hospital and quarantine in Brazil as they tried to get home to Peru.

A couple of fellow non-profits in Peru are valiantly doing what they can. I have known Amazon Promise founder Patty Webster for many years. She is currently in the US but is coordinating with her staff and volunteers in Iquitos to distribute what food and face masks and medications they can acquire to some of the most vulnerable families in the shantytowns of the Belen district of Iquitos. The residents there are among the poorest of the poor and many are ineligible for government stimulus funds due to lack of documentation. Amazon Promise is working to provide families with a 10 to 14-day supply of food, along with soap and bleach. This will allow those families to better shelter in place and to avoid exposure to carriers of the virus. It is also hugely meaningful to families who have been largely ignored and marginalized by local, regional and national governments.

Likewise, Diana Bowie of DB Peru (based in Lima) and her organization have worked for many years with communities in the Iquitos region to address various serious health issues. They are collecting donations of PPE and medications to send on flights to Iquitos, and Grupo Romero, the owner of a prominent Peruvian bank is generously providing free shipping. PPE is being prioritized, as it is absolutely essential to first protect the health workers, and their first shipment of PPE arrived in Iquitos on 22 May,

with more following since then. Once the critical PPE needs are met, medications, oxygen tanks and ICU supplies will be sent. DB Peru is working closely with Dr. Valerie Paz Soldán, an infectious disease specialist in Lima who does research in Iquitos, and with Dr. Graciela Meza of the National University of the Peruvian Amazon and Dr. Martin Casapia at the Regional Hospital of Iquitos. These are dedicated professionals and caring public servants. Shipments are being met at the airport by trusted personnel and delivered directly to the Regional Hospital for inventory and use to eliminate the potential of theft and diversion of critical materials.

Critically needed PPE for front-line medical staff costs between US \$25-\$30 per person per day (as of 28 May) depending on how it is used (i.e., whether N95 masks are used for 2-3 days). The masks are by far the most expensive item, and DB Peru is looking for alternative sources, so hopefully that cost per person per day can be lowered in the near future.

It is hard to emphasize how difficult procurement is when authorizations and letters of permission are needed at every step in the process due to the strict lockdown, but DB's personnel in Lima have been persistent.

Both of these organizations do good work and, along with the Catholic diocese, are trustworthy channels for funneling desperately needed assistance to Iquitos.

If you would like to help, you can make donations to these two worthy organizations via their websites:

DB Peru: www.dbperu.org
Amazon Promise: www.amazonpromise.org

You can also donate directly to Project Amazonas if you prefer and we will direct part of those funds to the above organizations, and work at acquiring PPE and essential medications here in the USA to take to Peru as soon as it is possible to do so.

Donations can be made via PayPal to donate@projectamazonas.org If you have a PayPal account, just put in the email address above. If you don't have PayPal, you can set it up in a few minutes at www.paypal.com – it is easy to do.

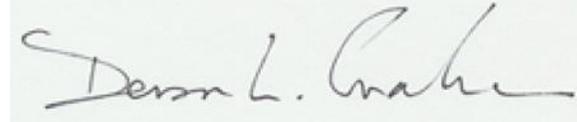
Checks made out to “Project Amazonas” can be sent to Project Amazonas; 701 East Commercial Blvd, #200; Ft. Lauderdale, FL 33334; USA.

Venmo users can donate via the GiveButter platform by texting “PA” (just the letters, not the quotation marks) to 202-858-1233, a transaction screen will pop up immediately.

The GiveButter platform can also accept donations from all major credit cards and debit cards.

How did it get so bad so quickly? Scroll down to the end of the timeline for my perspective on that topic.

While we have heard over and over again that “we are all in this together”, the people of Iquitos and surrounding districts are more “in” than we can imagine. If there was ever a time to make a difference, that time is now. Thank you for reading this, and please stay safe and healthy. There will be no going back to “normal” for a long time still.



Sincerely,
Devon Graham
Project Amazonas

Timeline:

24 June 2020 – Covid-19 cases in Peru: more than 265K confirmed; 8,681 deaths (officially); in Loreto state, 8,681 confirmed cases with no info on total deaths available.

12 June 2020 – 206 new fatalities on this date, the highest daily total in Peru so far.

11 June 2020 - Covid-19 cases in Peru: more than 215K confirmed; 6,109 deaths (officially); in Loreto state 7,000 confirmed cases, no info on total deaths available

2 June 2020 - Covid-19 cases in Peru: more than 170K confirmed; 4,634 deaths (officially); in Loreto state 5,133 confirmed cases, no info on total deaths available

29 May 2020 - Covid-19 cases in Peru: more than 142K confirmed; 4,099 deaths (officially); in Loreto state 3,959 confirmed cases, no info on total deaths available. Fernando Rios returned to Iquitos from Mazan where he reports 40 confirmed cases and 6 deaths; he also reports that many restrictions are being lifted in Iquitos, though stores are still closed, and mask-wearing is obligatory.

24 May 2020 – It is day 70 of quarantine in Peru, yes, day *seventy*. Covid-19 cases in Peru: more than 116K confirmed; 3,373 deaths (officially); in Loreto state, 3,293 confirmed cases, no info on total deaths available.

22 May 2020 – Covid-19 cases in Peru: more than 109K confirmed; 3,148 deaths (officially); in Loreto state, 3,166 confirmed cases, no info on total deaths available. The country-wide quarantine is extended until 30 June.

20 May 2020 – Covid-19 cases in Peru: 99,483 confirmed; 2,914 deaths (officially); in Loreto state 2,960 confirmed cases, no info on total deaths available. Half of MD deaths (22 to 24 total) have occurred in Loreto.

18 May 2020 – Covid-19 cases in Peru: 92,272 confirmed; 2648 deaths (officially); in Loreto state 2,696 confirmed cases.

17 May 2020 – Covid-19 cases in Peru: 88,541 confirmed; 2,523 deaths (officially); in Loreto state 2,444 confirmed cases and 1,084 official deaths. One municipality in Loreto (Amazon region) is injecting residents with the veterinary anti-parasite drug ivermectin to try and stop the spread. Ivermectin has been shown to reduce replication of the virus some 5000-fold.

15 May 2020 – Covid-19 cases in Peru: 80,604 confirmed; 2,267 deaths (officially). Several days later, it was reported that as of 15 May, 840 doctors in Peru had been infected and 20 had died, including a 33-yr old doctor with no underlying health conditions. It was also reported that 4,098 police had been infected and 82 police had died.

14 May 2020 – Covid-19 cases in Peru: 76,306 confirmed; 2,169 deaths (officially)

8 May 2020 – Peru announces that quarantine will be extended from 10 May to 24 May (4th extension)

23 April 2020 – Peru announces that quarantine will be extended from 28 April to 10 May (3rd extension)

11 April 2020 – Peru announces that quarantine will be extended from 14 April to 28 April (2nd extension)

28 March 2020 – Peru announces that quarantine measures will be extended from 1 April to 14 April (1st extension)

24 March 2020 - 50,000 cases in the USA, 600+ deaths, proposals being made to lift restrictions to “not hurt the economy”.

23 March 2020 – 396 confirmed cases and 5 deaths in Peru, country still on lockdown.

20 March 2020 – first confirmed death from Covid-19 in Peru

16 March 2020 – 11:59 PM – All land, sea and air borders in Peru sealed off. Country enters quarantine.

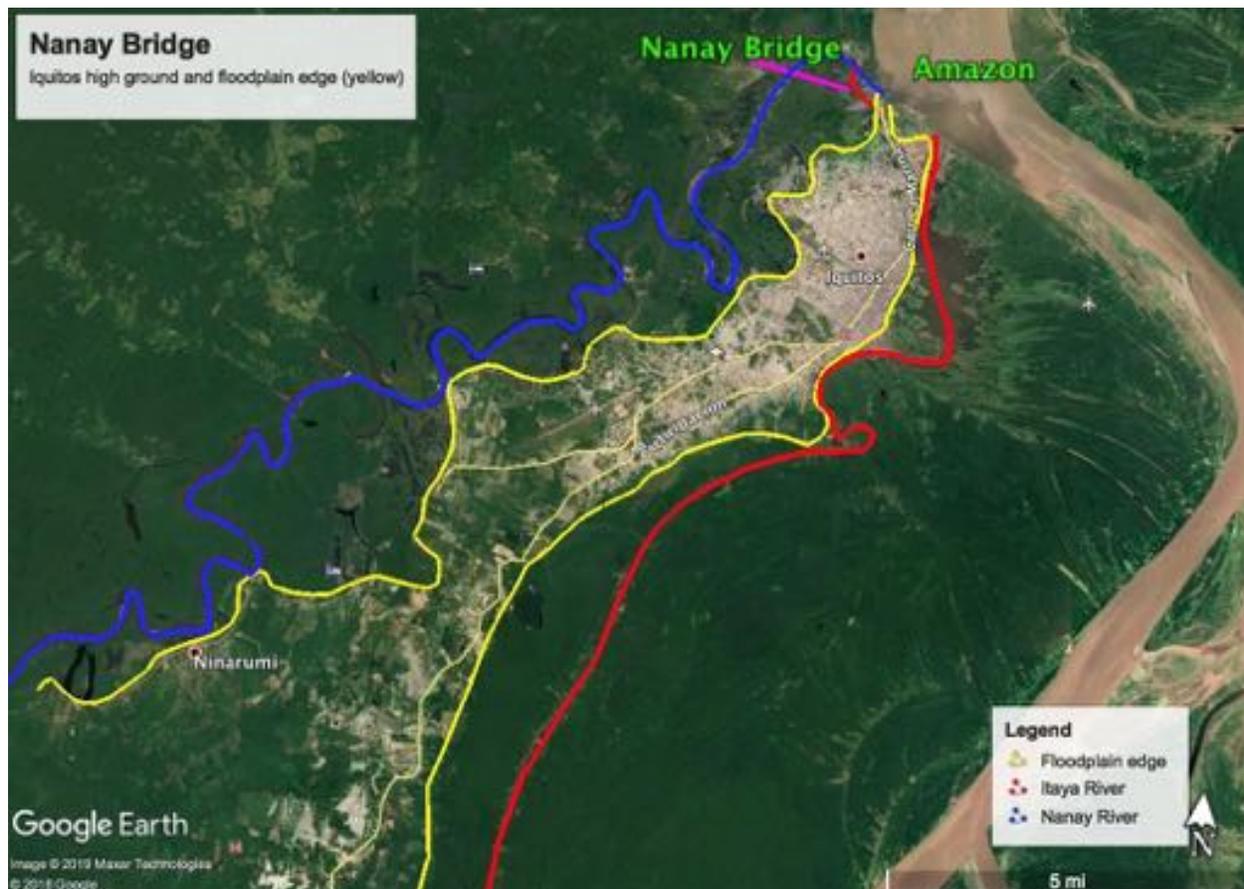
15 March 2020 – Peru announces that the country will go into quarantine at midnight on the 16th of March.

6 March 2020 – First confirmed case of coronavirus in a 25-yr old male in Lima, Peru.

How did it get so bad so fast?

If you read the background section that follows this, you will note that Peru took early and far-ranging action to try and stop the spread of coronavirus. I fully expected that the country would be able to control the spread beyond the metropolitan area of Lima with its population of 10+ million people. So how did Iquitos, an isolated city with a metro population of ~600,000 become the epicenter of coronavirus in Peru? The first two confirmed infections in Iquitos were both tour guides for local lodges – they had been in contact with asymptomatic tourists.

After that, the rapid spread of the virus can pretty much be explained in two words: crowding & poverty.



Iquitos is on a narrow peninsula of high ground sandwiched between three rivers. With an annual rise and fall of water levels of up to 45 feet (not a typo!), the city cannot spread out very far. For the most part, houses are small and crammed together, usually sharing common walls, and usually with multiple generations living in the same house and sharing a single bathroom. Social isolation within a household is impossible, and if one family member is exposed and infected, then every person in the household is going to be exposed. Population density is high.

In the poorest areas of town, houses are very small, and in areas of the Belen district (and other districts), shantytowns have been built on the only remaining open areas –

the floodplain. Some houses are on large logs and float up and down with the rise and fall of the rivers, while others are built on stilts. Water levels are highest in April and May, and makeshift catwalks – often only 2 or 3 boards wide – provide the only pedestrian access. Again, social distancing is impossible. You can't stay 6-feet away when passing someone on a "sidewalk" that is only 3-feet wide.

A majority of residents in the poorer areas of town also lack any kind of refrigeration. They don't have the option of storing perishables in the refrigerator or freezer, so most people shop for their food on a daily basis, buying only what perishables they need for that day. People can't shop once every 10-14 days and then stay home. They also do their shopping in crowded, unsanitary, informal markets where the prices are cheapest. That means a lot of person to person contact, ideal for the spread of the virus. Likewise, most residents of poorer areas are part of the informal economy – they make a day-to-day living selling produce, or an assortment of household and personal items. No sales means no food, so there is regular (though generally covert) flouting of the quarantine rules.

One small town mayor in central Peru took the flouting of rules to unusual lengths. When police arrived to arrest him for violating the travel ban, he had been drinking heavily with his buddies. In an attempt to avoid arrest, he laid down in a coffin (mask on) and pretended to be dead (news report from 23 May). He may have use of that coffin again, and sooner than he would like.

Background from 20 March

Peru has taken a very aggressive approach to containing the spread of the virus. On 15 March, a state of emergency was declared nationwide, and at midnight on 16 March, all land, air and sea borders were closed until 31 March. I and the academic group I was with were fortunate to be on one of the last flights permitted to depart for the US, but 1000's of foreigners (including hundreds of Americans) are currently trapped in Peru [*most have since been able to leave on various repatriation flights*]. There are severe restrictions on travel within Peru, with no domestic or international passenger flights, no bus, no train, no boat and no taxi services, a total ban on public events and gatherings, parks and beaches closed, all restaurants and bars closed, and police and military patrolling the streets to ensure that people stay in place at home and observe mandatory curfew. Only a few people at a time are being allowed out to purchase essentials. The nurse-technician at our Orosa River clinic texted me the day I departed asking for additional medicines and supplies. The local population that the clinic serves were all convinced that they had coronavirus (even if it was only the common cold), but getting anything to the clinic with the travel restrictions is extremely difficult. Our general manager, Fernando Rios, was going to see if he could take some of the medications and supplies we have stocked on our medical boat and send them to the Orosa Clinic by one means or another. [*we have not been able to do so*]

Although the emergency decree lasts until 31 March, it is quite likely that it may be extended beyond that if the strict controls on movement are not sufficient to control the

spread of the virus. The first documented case in Peru was detected on 6 March, and by 16 March, there were 86 confirmed cases, mostly in Lima and Cusco. Yesterday I heard that there were two presumed cases in Iquitos, but I haven't been able to get an updated official count on the current number of cases. If the virus isn't contained, then the Peruvian medical system is certainly going to be overwhelmed, and significant mortality can be expected. I'm hopeful that the aggressive approach will work though.

Even if the state of emergency is lifted on 1 April, it is unlikely that normal flights will resume anytime soon after. Given the explosion of cases that we are seeing in the US (and yes, it is going to get much worse), I don't believe that Peru will be allowing flights to/from the US through the end of April at the least, and possibly into May. The earliest that normal travel will resume is likely going to be June or July at the earliest. I hope (but don't expect) that I will be proved wrong.

Our medical service trips are being severely impacted by the pandemic. This might be the time when our boat-based services are most needed in remote river communities, but trip participants won't be able to travel to Peru or Iquitos, and we also have to consider the risk of accidentally introducing the virus to isolated communities (for once, isolation is a very good thing) where there won't be any access to care once the medical boat leaves. Many medical students, who form the greatest block of participants on our trips, are also being prohibited by their universities from participating in any international placements. As such, our 22 April-2 May trip has been cancelled. Three participants from the US were forced to cancel due to university policy, and another 7 from Hong Kong would be forced to endure two weeks of quarantine on arrival in Peru (if they are even allowed to fly to Peru). Another 15 medical students scheduled for trips in July have also been told by their universities that they cannot participate. I am in the process of returning deposits and payments to students who have had to cancel, and expect that there will be additional cancellations in the immediate future. I hope to be able to salvage a couple of the July medical trips, but it is likely that all the trips prior to July will need to be cancelled. [*all trips through the end of August have now been cancelled – 14 May*]

The pandemic is also seriously impacting our finances. A large academic group that was going to spend most of the month of May with us was forced to cancel, and other users of our boats and field stations will be doing the same. This represents a significant loss of revenue for the organization. Likewise, payments from medical trip participants not only cover the actual operating costs of those trips, but also contribute to overhead - monthly payroll and maintenance of boats and facilities. I realize that the pandemic is going to hurt all of us financially, but if you have access to some additional reserves, making a contribution or increasing your normal contributions at this time will make a huge difference in our ability to bounce back and to continue serving the people and the natural environment of the Amazon as soon as we are physically capable of doing so.

I am confident that we can weather this global crisis, but it will require the efforts of each and every one of us to contain the pandemic - the virus doesn't recognize any borders. So please, closely follow the advice of the health experts, and take care of yourselves,

your loved ones, friends and colleagues. I don't want to have to edit my contact list because of COVID-19!

And please feel free to share this with anyone else.