

The Public Health Unit: Driving our response to the pandemic

Here is a snap-shot of a day in the life of the team at Community and Public Health. Sixteen weeks ago they stood up their EOC in just two hours and will likely be the last to wind down. They've been involved in the local COVID-19 response in many 'behind the scenes' ways...

It can be easy to forget that there's a real person behind the COVID-19 statistics. Well, behind every one of those people is at least one of ours.

Community and Public Health (CPH) is the quiet, solid engine that supports our community to stay well, making sure our drinking water is drinkable, championing health initiatives like smoking cessation programmes, working with Environment Canterbury on air quality and home heating or looking after the mental wellbeing of our community through the *All Right?* campaign. However, during a crisis, the public health team and their skillsets come to the fore like no other.

With the training, understanding of diseases and their transmission through populations, and enviable knowledge of our communities and support systems, this team was ready to take the lead on stamping out and managing a pandemic like COVID-19. Measles, hepatitis, whooping cough and a raft of other communicable disease outbreaks have helped hone the skills of the team.

Community and Public Health is responsible for tracking, tracing, comforting and advising those who have tested positive for COVID-19 in Canterbury, the West Coast and South Canterbury.

Within a matter of hours of being alerted, 'business as usual' for our Public Health Unit ceased to exist, and every effort, hour and individual has been focused on the response since. They were the first of our health system's Emergency Operations Centres to 'stand up' and dedicate resource to manage the public health response to COVID-19.

Every day begins with the Emergency Operations Centre (EOC) teleconference. Many government agencies work with the Coordinated Incident Management System (CIMS) structure. It is the backbone of everything the public health staff do during a pandemic. It dictates roles, responsibilities and tasks for the response. Because this EOC has been run during many local and regional emergencies, team members step easily and quickly into their new positions.

At around 10am, the first positive cases come through from the lab and the phone calls begin. Each new case is allocated to a case investigator who informs people their test was positive and they need to isolate immediately.

By the numbers



100%
Cases isolated within 24 hours of diagnosis



More than 8,000
Direct interactions with Cantabrians since the outset



100 (now) 300 (at the outset)
Calls made every day to new and existing cases



80% Of cases and contacts that have since come out of isolation



5 - 45 Minutes on the phone for each isolation check



5 Questions asked during daily isolation check calls



2 Hours to switch from business as usual to establish a Community & Public Health pandemic response Emergency Operations Centre



The daily Emergency Operations Centre meeting is an essential part of the Community and Public Health response. Many of the team is working remotely, and the daily catch up includes teams in South Canterbury and West Coast.

They help people trawl back through their movements to uncover close and casual contacts, and then connect with each close contact to let them know they too need to go into isolation. These calls generally take at least an hour and call on the unique skills of the team to ask questions, prompt recollection and identify casual and close contacts who may be at risk of infection.

This team also works to uncover where the initial infection came from, and this can take some days. It is imperative this work is done so cases can be linked and the virus tracked.

The ideal is to have all contacts contacted and isolated the same or following the day of notification. Our CPH team has an impressive rate of 87 percent of all cases and their contacts isolated in the first 48 hours of notification.

A separate team makes check-in calls throughout the day to those already in isolation. These calls ensure those in isolation haven't left their property or had any visitors; check on physical and mental wellbeing; and analyse any developing symptoms. Calls are made every day and can take just a few minutes or half an hour or more, depending on the circumstances of the person in isolation. If needed, referrals are made to welfare and support agencies or Civil Defence Emergency Management.

While most people are in isolation for 14 days, this can increase depending on living circumstances. For example if Dad is the initial case and it's 10 days after his symptoms began, so long as he's been symptom free for at least 48 hours he can be released from isolation. As close contacts, the rest of the family need to start their full two weeks of isolation, and if any member of the family gets COVID-19 during that time, the clock is reset. It can be a very complex situation, depending on how many people are in the household and how complete the isolation is for the positive case. The contact managers keep track of all this, talk to every person in every household in isolation, and make calls to 'release' people from isolation.

Working at the airport and ports

Not everyone is on the phone. Part of the unit is out at the airport, greeting passengers arriving by plane, providing health advice and information on symptoms and what to do if you get sick. Unwell travellers have their temperature checked, and now everyone is required to be quarantined for 14 days after their arrival. Public Health's border team helps with arrangements such as accommodation if it hasn't already been sorted. They also have a presence at ports to ensure the current restrictions apply to any crew or passengers who disembark in New Zealand.

This team is also involved in pre-flight screening for repatriation flights departing from Christchurch. The number of flights departing and arriving is significantly reduced, and the team are also called on to meet private jets which arrive at all hours of the night or early morning.



Around 300 calls are made by case and contact managers every day to those who have recently tested positive and those in isolation.



CPH staff at the airport - along with Public Health Nurses - ready to carry out health screening on passengers departing for overseas.

Medical Officers of Health are making the complex decisions

The unit has six Medical Officers of Health – three of whom started just a few weeks ago in this statutory role but have all been working as public health physicians for many years. This group of clinicians are trained in public health and are the final decision makers on any complex cases. They are led by Clinical Directors Dr Ramon Pink and Dr Cheryl Brunton whose names are frequently in the media as spokespeople for the team. They're also the quality controllers overseeing the whole process and spend a great part of the day answering a lot of questions from colleagues, individuals, stakeholders, other health providers, the Ministry of Health and media. They make the final decisions about releasing cases and contacts or managing cluster outbreaks and they have some very impressive powers to quarantine people or close premises.



An orderly line is often formed by those needing answers from a Medical Officer of Health.

They are often the public face of public health so can be some of the busiest people in the team – which says a lot for a team as busy as this one!

Taking care of mental health during COVID-19

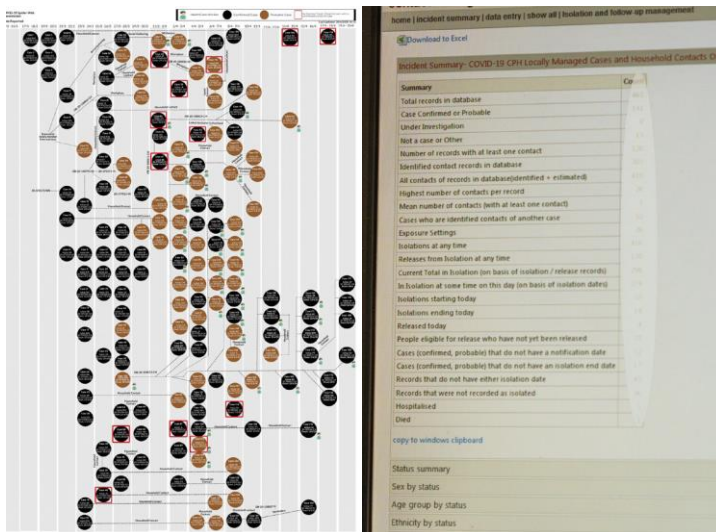
Another branch of the Public Health Unit, with a focus on mental wellbeing and the psychosocial response to the pandemic, has been equally as busy. The *All Right?* campaign came to the fore after the Canterbury earthquakes, and has been scaled up to a national level alongside the Mental Health Foundation with Getting through together – Whaia e tātou te pae tawhiti. The response to this new campaign has been overwhelming with many thousands of people reaching out through Facebook.

All the while the unit continues to work alongside community groups, maintaining vital contacts and creating important links to ensure we are ready to help with the recovery at the end of the pandemic.

Gathering data to inform the response

Behind all of this sits the incredible work of the Intel Team which collects, collates and ensures that the mountains of data being gathered goes into the system and comes out as useful information.

Community and Public Health feeds its data into the national system and also has a unique and robust case and contact management system called CCAT (Cases, Contacts And Tracing). This was developed in-house for other outbreaks and has been revamped to use for COVID-19. Intel Team staff have also been contributing to the development and trialling of the new National Contact Tracing System.



The locally developed information system is key to keeping track of the mountains of data obtained to track and stop the spread of COVID-19. Tracking and tracing contacts takes time and a lot of phone calls.

While many of the Public Health team do much of this on a daily basis, others rise to the challenge when called on to drop their 'day job' and step into their new roles within the emergency response. The unit is designed to do this, but its ability to scale up and manage a complex and changing situation – like the one presented by this exceptional virus – has put the team's work in a long overdue and very much deserved spotlight.