

## Executive Summary

For nearly two years, the world has been preoccupied with the emergence of the SARS-CoV-2 virus and the resulting COVID-19 pandemic, including the rapid development of treatments and vaccines. The pandemic has challenged the social and political structures of all countries and has had an impact on the lives of people at a global level.

Meanwhile our scientists, healthcare providers, public health experts and academics across multiple disciplines have been called upon to help understand and make sense of what is going on around us – social distancing, face masks, predictive modelling, virus origin theories and conspiracies, variants and vaccines – our language and behaviours have had to change to meet a crisis on a scale that few have witnessed.

In the rush to respond to this evolving challenge, it is sometimes easy to lose sight of where we are with the most cutting and recent scientific developments. Aptly titled, the ['Devil's in the Details – Making sense of COVID-19'](#) one-day virtual conference from the [Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine](#) brought together [an array of experts](#) from the disciplines of basic science, clinical care, epidemiology, and social science to address recent developments.

Convened by two of Australia's leading scientists and clinicians, Professor Sharon Lewin and Associate Professor Edwina Wright, the day opened with Professor Paul Young and the story behind the development of the [University of Queensland's COVID-19 vaccine](#) that utilized molecular clamp technology. And although the vaccine did not make it to market because it caused cross-reactivity with some HIV testing assays, Professor Young explained how pandemic preparedness funded the Centre for Epidemic Preparedness Innovations allowed his team to develop the vaccine so rapidly. He exhorted the need for urgent action in the biomedical sector so that Australia is in a better position in the future.

The origins of the SARS-CoV-2 virus continue to be a political 'hot potato', and Professor Edward Holmes spoke directly to the evidence, arguing that the emergence of COVID-19 is strongly linked to the way that humans engage with wildlife, and warning that it will not be the last virus to emerge unless we challenge our current practices on a global level.

This conference day helped us better understand immunity, vaccine efficacy and 'variants of concern'. Dr. Jennifer Juno and Professor Stuart Turville emphasised the need to tackle Delta due to its speed of achieving peak viral loads and infectiousness and that booster shots are going to be very likely in the future and that mixed-dose schedules may also be beneficial.

With five speakers addressing the clinical aspects of COVID-19 including long COVID and the best treatment strategies for COVID-19, the overarching message of the session was that we are only beginning to understand what works and why.

The Q&A segment of this session was outstanding, and one could hear, in the voices of many questioners, a sense of urgency around the need to better understand how to treat COVID-19. Importantly, we were reminded that 'long COVID' is very real with over 50 different symptoms being ascribed to it, managing to

In 18 months...



7500 COVID patients with 14,500 randomisations:

- Hydroxychloroquine ✗ (harm)
- Lopinavir/ritonavir ✗ (harm)
- Corticosteroids ✓
- Anakinra ✗ (ineffective)
- Tocilizumab / sarilumab ✓
- Therapeutic-dose anticoagulation
  - Severe (ICU) ✗ (probable harm)
  - Moderate (Ward) ✓
- Convalescent plasma ✗ (ineffective)
- Anti-platelet therapy ✗ (ineffective)

Slide Courtesy of Professor Steve Webb

linger for months post-infection. In an important interview with a long COVID community member, we were reminded of the need to remember that we are only beginning to understand the long-term effects that COVID-19 is going to have on our future.

This COVID-19 day presented some good news stories as well. From Professor James Ward we heard about how Aboriginal communities called for biosecurity measures very early on in the pandemic response and the high vaccine uptake among Elders. From Professor Kathy Leung we learnt how near-to-real-time modelling has been able to predict Hong Kong's health system capacity; and Dr. Nick

Scott's study on how mandatory mask wearing in Melbourne during the 2020 lockdown was associated with a significant decline in the epidemic growth rate, suggesting that face masks should be promoted elsewhere, potentially even after the 70-80% vaccine targets are met.

Professor Deborah Lupton introduced longitudinal research concerning the rapidly developing mask use behaviours in Australia. According to the ABS Household Impacts of COVID-19 Survey, only 15% of Australians were wearing



Slide Courtesy of Professor Deborah Lupton

facemasks regularly, but this grew to a high of 64% by February 2021.

In Dr Dean Murphy's presentation, we were provided insights into how two different populations (those people living with HIV versus people who are taking HIV pre-exposure prophylaxis) responded to vaccine hesitancy and the 'biomedical enthusiasm' of PrEP users compared to the greater distrust of PLHIV.

The final presentation provided so much food for thought and Dr. Kari Lancaster brought us back to some of the 'big picture' concepts. She explained how models and projections are actualised in the

social sphere which help people grapple with anxieties of the unknown and becoming what she called the "evidence-based policy paradigm" where evidence is often conflictual and deeply political.

As Associate Professor Edwina Wright commented in the closing, "COVID is challenged by the power of partnerships, the importance of data sharing and by our steadfast commitments to equity and resilience in the face of complexity and the unknown."

**We want to thank all the presenters for your insights and observations and to our generous donors who made this day possible.**

**To register or sign in to view any of the presentations please follow the link [here](#).**

