VIDEO TRANSCRIPT: Using big data modelling and forecasting to improve access to outpatient clinics

Below is a transcript of the following video: [youtube.com/watch?v=-mFqtIj70Wo](https://www.youtube.com/watch?v=-mFqtIj70Wo)

**Associate Professor Tom Connel – Director General Medicine**

So one of the big problems we have here at the hospital is that we’ve got significant waiting times for appointments at the hospital. And one particular aspect of that was that we had a lot of patients who are failing to attend for their appointments. We have certain expectations around how many patients our physicians should be able to see within their clinic, and if patients fail to attend, of course they are not seeing the optimal number of patients. And we had this idea we could probably look at failure to attends, and try to model whether or not we can actually ask more patients to attend for clinics based on the predicted number of patients who have failed to attend, allowing us to essentially overbook clinics. Much like an airline does, to overbook passengers. We would insert a number of patients who would then be able to find a slot in a more timely fashion. With this particular project, patients who have been on the waiting list will get access to a clinic visit sooner than they would have before. And that’s good for families, and that’s some of the feedback with been having from families is that their very satisfied that they have been able to see a physician sooner than they thought they would.

**Pauline Contatore – Contact Centre Coordinator, Specialist Clinics**

The contact centre is booking patients into the access clinic. These patients are from the wait list, the routine waitlist. Were patients have been waiting a little while, would normally not get an appointment as quickly as this. The project started about ten weeks ago, and we have already decreased the wait list by about one hundred twenty patients. Some of them have been booked into the access clinic and others that we’ve rung said that they no longer needed their appointment. So it’s a twofold sort of success there.

**Jock Lawrie – Director, Healthcare Resource Optimization**

The tool works by conducting statistical analysis on each patient who booked in on outpatient clinic. It estimates the risk of attendance, non-attendance, early cancellation and late cancellation. The tool then takes that information to produce a recommended number of extra patients to add to the clinic such that the risk of over attendance is constrained. Essentially the tool learns as more data comes to light or more information becomes available, and therefore our models can be more accurate, and typically that can result in a higher number of recommended patients that we can add. Going forward were looking to, hopefully, scale to other clinics within RCH and were finding it looks to be quite transferrable to other hospitals too, so we do hope to scale it across Victoria.

**Tim Marshall – Improvement Manager and Project Lead**

We think that this project is really innovative. It’s utilising some of the available big data that we now have to be able to model and forecast what’s going to happen with people turning up to clinics and not turning up to clinics, so that we can actually fill those vacancies ahead of time. What were actually seeing in practice is that something like about sixty six percent of the people that attend this clinic are being seen within thirty minutes. So, that’s a really good outcome for patients, they’re not having to wait for months. They’re actually being seen in a very short space of time.

**Associate Professor Tom Connel – Director General Medicine**

Without the funding from Better Care Victoria we simply wouldn’t be able to do this project. The funding has been absolutely critical to allow us both the time and the resource to really strike and new innovative way of doing things differently at the hospital. And we are always looking for ways to develop more innovation, and therefor welcome collaborating with Better Care Victoria to try and improve the healthcare for patients and their families.