Wellcome Genome Campus | 3-15\_course\_2\_-\_roundtable\_4\_\_alpha,\_winter\_and\_hospital\_spread\_-\_cog-train (1080p)

[MUSIC PLAYING]

And I'll actually never forget Christmas.

## Yeah.

COG-UK had suggested that we would have a Christmas holiday and that we would have an amnesty over Christmas. So I told everybody they could take their Christmas vacation. And then case numbers started going very, very-- rapidly increasing because of Alpha. And, unfortunately, you don't get the same holiday that the University can working at the NHS. And I'll never forget the highest number of samples we had ever run in a week was done by Sharon on her own.

## [LAUGHTER]

I was just setting the standard for the rest of the team.

And, unfortunately, that meant from that point onwards--

Yeah, exactly.

--oh, Sharon managed it on her own. Come on, we can do more samples than this.

Absolutely. Christmas period for Alpha was very taxing for the NHS. So yeah, definitely. We saw our microbiology department running thousands and thousands of tests. So it was quite a change from being-- only having maybe sort of one or two sample-positive samples on a run that they had to-- everything was going to be positive, and there was maybe only one or two negatives.

So, yeah, I think we needed to get those coming through. And there was just that sort of panic that, where were they coming from? Were those patients spreading them in the hospital? Was it coming from the community? Because, obviously, the amount of patients that were coming into the hospital at that time was quite a lot. We were worrying that we weren't going to be able to cope.

Yeah, we weren't going to get a Christmas holiday, unlike everyone else. So we needed to continue to go. And yeah, there was really a time to pause over that Christmas period. So yeah, we definitely needed to continue.

And yeah, running those samples over at that time-- I think I just don't know whether I left the lab for a good couple of days during that week but sort of jumping between doing extractions, and PCRing, and doing the library preps. Yeah, it was hard, but it was good fun because you were getting them through, and we're getting the results out to those departments that we're needing them. So it was definitely a challenge but rewarding in the long run.

And it was particularly important over that period with Alpha because we were able to work out which cases were being spread from other variants that existed in the hospital already. So we were able to identify which were happening due to nosocomial spread rather than introductions from the community, where cases were just absolutely skyrocketing. Yeah. And I think the work that we were doing definitely informed that new practise of how often they were being swabbed when patients were coming in because they-- we needed to know whether they were catching it and bringing it in or catching it while they were in hospital-- so that new level of swabbing the patient as they came in and then swabbing them on day three, and day five, and day seven to make sure that they were-- and whether they were community carriers or hospital carriers that kind of, I think, definitely, looking from our sequencing data, sort of drove those changes.

It really brought the news home. It was quite sobering because you're in your house. Everyone's in lockdown. So you're just at home and then at work, and you don't really-- apart from seeing the news and knowing the numbers are going up, you can't really see it for yourself. But when we were getting so many swabs that we couldn't literally fit them in the freezer, and we didn't have enough to process that really hit home just how many people were in the hospital and suffering.

So it really did kind of give us an idea about what it was like, the big picture. And, obviously, even though we were really glad to be working, and at the hospital, and contributing, you're also dealing with the stress of that job on top of the stress of being in the first-ever modern global pandemic and all the difficulties that come with that.

And the difficulties that were being seen-- the number of patients ending up on ICU wards over that period, as well, was very stark to see. And again, seeing that from my wife's point of view was, like you say, very sobering, to hear about the fact that those case numbers increasing was having a massive impact on the hospital's ability to look after these patients.

And, really, even at that stage, there wasn't that much that could be done in terms of treatments. Treatments were coming. And, obviously, now we have a lot more options for people with the rollout of the vaccine, which came around the same time. I believe that was in-- January was when the vaccine rollout started at the hospital?

Yeah, the main rollout would have been around that time. Yeah, it was definitely a drive-through, that first Christmas, wasn't it? All that was coming through, the results of those first trials to look at treatments were coming out so they were finally finding out what treatments were working and which weren't. And then, obviously, their vaccination programme definitely did make a difference during those first few months of January and February of bringing those numbers down, where we can finally got like a, sort of a-- just like catch our breaths again, ready for the next one.

Yeah. Exactly.

So how did you find working at the hospital, especially over the winter, where, obviously, COVID cases were increasing so rapidly?

It was really tough, actually, because the numbers were increasing, increasing and at a scale that we'd never seen before. We had already been working flat out doing the samples we had. And then knowing we were having even more coming in was very tough. And we really did have to give it everything because we'd already been really worn out through working all through the pandemic from March till Christmas.

We'd kind of set ourselves up for a break. And then the numbers were just absolutely taking off. And at that point, there was-- the vaccine wasn't rolled out, the treatments were low, and there was a real concern that you could catch COVID, as well. We were going to the hospital every day where there were huge numbers of patients.

I think the hospital was at like 80% capacity or something, and everyone-- all the patients had COVID. It was huge, wasn't it, at the time. And we were obviously coming into that setting every day and handling the COVID swabs and processing such a huge number of samples. It was tough. Yeah. So having no one going down with COVID was pretty good, handling thousands and thousands of positive specimens and then none of the team catching COVID while we were working.

Yeah, because, I mean, that can have big effects.

I think it would have had a big impact had the team gone down. We would have all had to isolate. And we would have had to close and stop. So I think there--

You're going to make redundancy in the staff, did we?

Yeah. No. So that would have been a really big concern for any of us to have been pinged, or been told that we'd come into contact with someone, or, actually, with someone having COVID. And would have meant the whole lab would have had to shut.

Yeah. Yeah. And, you know, I think there's probably a lot to be said there about things like PPE and working practises within the lab that you guys were doing to ensure that infections weren't a problem for everybody working within the lab environment.