

# Outcomes of rapid digital transformation of large-scale communications during the COVID-19 pandemic

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## Abstract.

**Objective.** This study examined the content and impact of a new digital communication medium, called a VIDCAST, implemented at a large hospital and health service when the COVID-19 pandemic was announced, and the key concerns held by staff at the time when the health service was preparing for the COVID-19 pandemic to arrive in this health service.

**Methods.** A mixed-methods approach was used. Thematic analysis of 20 transcripts of daily VIDCASTS broadcast between 30 March and 24 April 2020 was undertaken, in addition to descriptive analysis of feedback from an anonymous online survey.

**Results.** Survey feedback from 322 staff indicated almost universal satisfaction with this new communication method. The VIDCASTS provided a new COVID-safe method for the Executive to connect to staff at a time of uncertainty. Thematic analysis of the content of the VIDCASTS revealed three themes: 'Accurate Information', 'Reassurance and Support' and 'Innovation'. The Executive was able to reassure staff about what the organisation was doing to safeguard the health and wellbeing of all, and enabled an effective response to the pandemic.

**Conclusions.** The digital communication channel of VIDCASTS, rapidly operationalised at a major Australian hospital and health service in March 2020, provided important information and support for staff as it prepared for the anticipated COVID-19 surge.

**What is known about the topic?** When the COVID-19 pandemic began, traditional face-to-face staff meetings were disrupted and many hospitals and their staff were left scrambling for information, and for reassurance about their safety, as they prepared to receive increasing numbers of COVID-19 patients.

**What does this paper add?** The implementation of a digital communication tool was able to address many of the concerns raised by hospital staff in other geographic locations dealing with surging COVID-19 cases and underpinned a globally leading COVID-19 response.

**What are the implications for practitioners?** New digitised communication methods provided an effective vehicle to inform and support staff in the early stages of pandemic preparation.

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## Introduction

In January 2020, news of the COVID-19 virus emerged in reports from Wuhan, China. A major Australian metropolitan hospital and health service (HHS) set a clear strategic and operational objective to prevent the spread of COVID-19 while planning for potential increased hospital admissions. Many aspects of the hospital operating systems and clinical care models were digitally transformed to facilitate social distancing and reduce the chance of nosocomial acquisition of COVID-19 for patients and staff, including the virtualisation of work, clinical consultations and staff forums.

Work during the 2009 H1N1 influenza pandemic indicated that front-facing healthcare workers in Birmingham, UK were worried about the wellbeing of their families and themselves.<sup>1</sup> Such fears were not without reason: the intrahousehold secondary transmission of H1N1 influenza in Melbourne, Australia was 14.8%.<sup>2</sup> Up to 53% of hospital staff at a major hospital in Gold Coast, Australia reported that they would not attend work if there were multiple admissions of affected patients.<sup>3</sup> At the beginning of the COVID-19 pandemic, two international publications emphasised the need to understand and proactively support the physical and emotional wellbeing of healthcare staff.<sup>4,5</sup>

The HHS in this study made it a priority to support its workforce and be working at full capacity while preparing for the anticipated growth in COVID-19 admissions. It enacted a proactive and coordinated initiative to support the HHS's most valued asset, its workforce. Previously, staff communication was via traditional staff forums, with hundreds of staff filling auditoriums, obviously not possible with new social distancing edicts. Instead, the HHS rapidly implemented a virtual model to allow direct, real-time, bidirectional communication between the Chief Executive (CE) Team, the CE and staff.

Commencing on 30 March 2020, the CE and leadership team commenced daily weekday, 1-h VIDCAST sessions that could be streamed live by all staff or viewed later as recordings. The name 'VIDCAST' was coined to combine 'video' and 'live cast', representing the session format, but also as a play on words as a shortened version of 'COVID video cast'. The last VIDCAST session in this analysis was on 24 April 2020, when the HHS had a total of 29 COVID-19 cases, 459 recovered cases and three reported deaths, whereas the national death toll was 79.<sup>6</sup> In contrast, on the same day in the US, the death toll had passed 50 000.<sup>7</sup> This study was designed to understand the impact of the daily VIDCASTS and the key concerns held by staff during initial stages of the COVID-19 pandemic.

## Methods

### Design

A mixed-methods approach was used. Descriptive analysis of staff feedback from a brief anonymous online survey was conducted in parallel with thematic analysis of the VIDCAST

transcripts recorded between 30 March and 24 April 2020. The COREQ (COnsolidated criteria for REporting Qualitative research) checklist was used to guide write-up.<sup>8</sup>

### Setting

The HHS is a large Australian health service with an annual turnover of more than A\$3 billion and 19 500 staff. The patient catchment covers a geographical area of >4000 km<sup>2</sup> and delivers a full range of health services to over 1 million people.

### Intervention

Each day, staff were emailed the link for the live videoconference held via Microsoft Teams (Microsoft Corporation). Before and during the live VIDCASTS, staff could submit questions (anonymously by default) using the third-party platform Slido (<https://www.sli.do>). During each VIDCAST, a leadership team member, infectious diseases consultant or infection control nurse provided information updates, and paraphrased and answered staff questions. Table 1 contains a snippet of how one VIDCAST unfolded with the information and question-and-answer sequence.

### Materials

Responses to a 12-item SurveyMonkey (Momentive) questionnaire emailed to staff were captured in a spreadsheet. The VIDCAST recordings were transcribed into Microsoft Word files by a professional transcription service.

### Data analysis

Survey data were summarised using frequencies for categorical variables and the mean  $\pm$  s.d. for continuous data. Quotes were extracted from the open-ended survey question asking participants' thoughts about the VIDCASTS. Thematic analysis using an interpretative approach was used to understand and identify patterns in the transcript data; the interpretative role of the researcher is critical in qualitative analysis.<sup>9</sup> The thematic analysis process articulated by Braun and Clarke<sup>10</sup> was used, whereby the first investigator (JS) immersed herself in the transcript data and manually coded the first transcript. A second investigator (BL) independently coded the first transcript, and the two met to review and discuss the extracted codes. After discussion, as per O'Connor and Joffe's<sup>11</sup> recommendations regarding inter-coder reliability in qualitative analyses, the first and second coders coded a further four transcripts, yielding an acceptable 25% double coding.<sup>11</sup> To ensure maximum variability, because the first VIDCAST was by the CE and the Chief Operations Officer, the other four double-coded transcripts were of an infection control nurse consultant, an infectious diseases physician, a human resources (HR) officer and a digital agency officer (one each). Further discussion was then held between the

**Table 1. Example of verbatim content from the first VIDCAST**

VIDCAST section	Position of quote from VIDCAST (mm:ss)	CE quote
General information	1:00	So, welcome to the first VIDCAST. I'm just going to do a little bit of scene setting on where we are at as a health service
General information	1:51	So, I might just talk first around where we are in PPE. So, in January when this was first called, one of the things the HHS started doing was increasing its stock levels...
Restating staff question	49:34	I've just scrolled back up, and one of the questions that's got the most thumbs up, 'We're seeing a lot of healthcare workers dying from this overseas and a lot seems to be related to lack of PPE; can we refuse to work without proper PPE?'
Answering question	49:53	What I can tell you is that as we trigger those five levels of PPE, nobody will be asked to work if we cannot provide the PPE in line with the level that we have set as necessary for PPE...If we can't supply against that level that's been set [by the Clinical Advisory Group], we will not be ordering staff to work in an environment like that.
Restating staff question	53:19	If you are one of the vulnerable categories and cannot work from home or be redeployed, do you qualify for pandemic leave or do you have to use rec[reational]/sick leave?
Answering question	53:32	I'll have to put that to Human Resources around what we actually do with that. Honestly, I believe that if you're in a vulnerable category, there is going to be work within the health service to do.

two coders, and the coded items were grouped into themes. The first investigator individually coded the remaining 15 transcripts using the coding framework. The themes and data extraction process were then shared and discussed with the broader research team.

#### *Ethical considerations*

The project was granted ethics clearance by Royal Brisbane and Women's Hospital Human Research Ethics Committee (LNR/2020/QRBW/63933) and The University of Queensland Human Research Ethics Committee (2020002967).

#### **Results**

The online survey was completed by 322 staff members (mean age  $44 \pm 12$  years; 84% female). Survey respondents were from nursing/midwifery, medical, allied health, oral health, administration and corporate services across nine different geographic sites in the HHS.

The survey questions and descriptive data are contained in [Tables 2 and 3](#). Almost 94% of staff agreed or strongly agreed that the VIDCASTS were an effective communication method, whereas 85% agreed or strongly agreed there was value in having anonymous questions answered by the CE team. Most respondents (98.4%) recommended this type of communication be continued. Staff responding to the survey found the sessions informative and reported that the sessions helped allay some of their anxieties and enabled them to feel connected, supported and included in this time of crisis.

The 20 VIDCAST sessions generated 149 863 words of transcribed text, with 128 216 (86%) of the words generated from the question-and-answer portions of the VIDCASTS. The proportion of words from the question-and-answer portion varied between the daily VIDCASTS, ranging from 48% to 99%. Between 300 and 400 staff members watched each VIDCAST live.

Three themes were derived from the transcripts: 'Accurate Information', 'Reassurance and Support' and 'Innovation'. Illustrative quotations from VIDCAST transcripts are provided in [Table 4](#).

#### *Theme 1: accurate information*

Accurate information was the dominant theme. This was especially important given the rapid spread of the pandemic worldwide in March and April 2020.

##### *On COVID-19*

Information ranged from HHS capacity to manage the anticipated COVID-19 surge to current case numbers, COVID-19 care plans and the safety of staff caring for COVID-19 patients, as well as state and nation-wide information. Modelling on the COVID-19-curve, how the virus is spread, the time course of the virus and testing criteria were also covered. This information was delivered in a timely manner, so staff were aware of the latest advice.

##### *On personal protective equipment*

Personal protective equipment (PPE) information was shared in 16 of the 20 VIDCASTS, with questions focused on the HHS's supply of PPE and the adequacy of the PPE to keep staff safe. There was noticeable anxiety that staff would be asked to care for sick COVID-19 patients without proper PPE (reported in other countries<sup>12</sup>); they were reassured that this was not the case in this HHS and that PPE stocks were being built up.

The HHS's innovations to supplement existing PPE supplies were explained, such as three-dimensional printing of masks and shields, and sourcing of alternative fabric for gowns. Guidelines for what PPE to wear and when to wear it were shared, in addition to demonstrations of donning and doffing PPE.

##### *On infection control*

Staff expressed concerns they would become ill with COVID-19. The VIDCAST presenters calmly spoke about normal infection control procedures that are the bread and butter of routine hospital practice: good hand hygiene and cough etiquette. Extending these principles to non-work settings was recommended (e.g. public transport, shopping). Social distancing was a novel control strategy, so it was helpful to have the infectious diseases consultants explain the rationale based upon

**Table 2. Survey questions and results**

Question	Response	No. responses
Facility worked at	Nine different sites	321
Work stream	29 work streams, including pathology, clinical informatics, nursing and midwifery, mental health	315
Sex	84.4% women 13.7% male 1.9% preferred not to say	321
Age	Mean age = 44 years (s.d. 12.1)	306
Are VIDCASTS an effective communication method?	59.1% strongly agreed 34.7% agreed 4.7% neutral 1.6% disagreed	320
The weekly VIDCAST sessions were structured around five different themes. Please select all the sessions that you watched/listened to:	83.5% watched Chief Executive (CE) and Executive Director (ED) operations 56.1% watched infection control nurse 64.4% watched infectious disease doctor 52.8% watched human resources officer 70.6% watched chief executive and another ED guest	303
How did you mostly watch/listen to the VIDCASTS?	65.2% always watched live stream 26.7% mostly watched live stream, but sometimes watched recording 5.3% mostly watched recording but sometimes streamed live 2.8% always watched recording	319
I can see value in asking questions anonymously and having them answered by the CE/ED:	54.0% strongly agreed 35.1% agreed 8.7% neutral 1.9% disagreed 0.3% strongly disagreed	322
I asked questions in the VIDCAST series:	3.7% often asked questions 38.6% sometimes asked questions 57.6% never asked questions	321
How many VIDCASTS did you watch/listen to?	18.4% watched between 1–3 39.4% watched between 3–5 42.2% watched 5 or more	320
Do you think the sessions should be continued?	92.2% yes 7.8% no	322
If you answered YES to question above: I want VIDCASTS to continue because:	12.5% helped me feel connected 37.0% helped me stay informed 1.3% educated me 49.2% all of the above	303
Would you recommend the HHS Executive team continues to use this type of communication in the future?	98.4% yes 1.6% no	320
Are there any other thoughts you would like to add about the VIDCASTS?	See Table 3 for examples of open-ended responses	173

respiratory secretion droplets that a person infected with COVID-19 spreads when they cough or sneeze.

#### *On workforce issues*

During this time of uncertainty, staff had concerns about working conditions and job security. Some areas of hospital business were being scaled down, such as procedural work; at the same time, recruitment of clinical and cleaning staff was increasing. Questions about government job subsidies, continuation of employment contracts and reallocation to alternative duties were frequent. Staff were advised of new HR initiatives, including an expression of interest job portal, resources on the COVID-19 HR website and a 7-day HR hotline.

Other areas of concern were vulnerable staff and family members, and staff who needed to supervise home schooling.

Staff were advised that all HHS staff were essential workers, and so had access to schooling and childcare during the pandemic. Leave arrangements during the pandemic were explained (sick leave, pandemic leave, recreation leave, long service leave). Staff were advised to speak with their line manager and HR personnel for specific circumstances. There were many questions about the HHS's flexible working arrangements and working from home policies, which were changing throughout the pandemic.

#### *On hospital business*

The CE and team provided insights into behind-the-scenes activities of the organisation, including logistics and supply of equipment, patient workflows and models of patient care. Because the expected peak in case numbers did not eventuate,

**Table 3. Open-ended feedback on the VIDCASTS from survey respondents**

Work stream of respondent	Open-ended feedback
Social work	A positive development during COVID that I believe would be beneficial to continue to be updated about a range of issues e.g. new policies, clinics, patient pathways etc.
Not provided	Very much appreciated the VIDCASTS to give some certainty during the early pandemic phase
Allied health	The VIDCASTS and regular emails have helped to 'normalise' a very abnormal situation. It also helped to alleviate anxiety about situations by giving up to date and very relevant information
Finance	The sessions were very informative, and I believe it helped reassuring staff despite complex externalities challenging the organisation
Procurement	VIDCASTS allowed the CE to come into the office. Having this engagement provided some reassurance that people are being put first
Procurement	...[they] provided a sense of connection to the wider organisation
Administration	The VIDCASTS felt like you were connected and informed all the time. Even though various issues were repeated it still was the same message over and over which was great leadership. You absolutely know you have the latest advice
Allied health	Thank you for keeping us informed and for making the time for this and making communicating with all staff a priority – this is what leadership is about (not being in an ice-castle far from those whom one leads)
Nursing	I found the VIDCASTS very informative and was able to forward current information to my colleagues
Medical	Very good during a time of stress on the system and advice that was changing very frequently
Mental health	It made me feel connected to other Metro North staff through the issue of the pandemic
Pharmacy	Great initiative. Definitely helped with anxiety around COVID. Helped keep knowledge up-to-date with constant change

planning for recommencement of elective surgeries and other business was described.

### *Theme 2: reassurance and support*

The VIDCASTS contributed to a sense of reassurance and provided support for staff.

#### *Managing emotions of fear, anxiety and uncertainty*

Anticipatory anxiety is a well-documented phenomenon, whereby uncertainty about a real or imagined future threat can disrupt a person's adaptive functioning.<sup>13</sup> The VIDCASTS were an important part of reassuring and supporting a large workforce during a trying time. Staff were told about developing guidelines on patient care prioritisation in the event of a surge like the one occurring overseas. Knowing that planning was in train regarding deeply important ethical issues to allocate scant resources was reassuring for staff.

The VIDCAST team acknowledged their own emotions and were able to bracket these emotions with the knowledge that the plans of the HHS were keeping everyone safe.

#### *Promoting staff wellbeing*

The CE team highlighted its determination to support staff wellbeing by recruiting a chief wellness officer and rolling out a staff wellness program across the HHS. This wellness program identified four domains of emotional, physical, social and financial wellbeing and support. Considerable resources were provided for an 'R U OK?' program (<https://www.ruok.org.au/>).

#### *Building connectedness*

The VIDCASTS provided a COVID-safe and effective mechanism for the Executive to build human connections with its community through a virtual platform. The VIDCAST presenters did this by sharing their own situation when it mirrored staff concerns. For example, those who had children shared concerns about how they would manage if they got sick or referred to their own elderly grandparents and the decision to

stop face-to-face contact for their protection. The presenters also shared positive messages about the great work everyone in the HHS was doing.

### *Adapting to fast changing situation*

Over the period these VIDCASTS were run, rapid changes occurred in the organisation. In January 2020, the HHS established emergency operation control centres to coordinate the emergency response to the pandemic. As knowledge about the virus emerged from overseas, matters such as the testing criteria changed. COVID-19 was referred to as 'an evolving beast'. The balancing act between HHS preparedness for the anticipated COVID-19 patient admissions and the reintroduction of paused clinical services was shared with staff, underpinned by modelling of PPE availability.

### *Theme 3: innovation*

The final theme was innovation.

#### *HHS digital agency*

The HHS digital agency was established in 2018 to lead digital transformation; many of the innovations implemented for the anticipated COVID-19 surge were underpinned by the work of this agency. The HHS digital agency provided support for staff to work socially distanced or from home and developed a suite of apps to enable many aspects of the HHS's business, including public health tracing orders, an HR app to model absenteeism and a PPE dashboard.

Virtual models for patient care were increased, requiring more information technology (IT) bandwidth and hardware resources. Telehealth was increased, and new virtual models, such as the virtual COVID-19 ward, the virtual emergency department (ED) and virtual family meetings, were established.

#### *New ways of working*

The pandemic and preparation for the surge in COVID-19 patients resulted in many changes across the HHS. Virtual wards



**Table 4. Quotations from VIDCAST presentations for each theme and subtheme**  
ICU, intensive care unit

Theme	Subtheme	Illustrative quotes
Accurate information	COVID-19	There'll be more beds available for our population per capita than all of these other areas that you're actually seeing in crises
	PPE	Every couple of hours of preparedness right now is worth hundreds of hours of benefit to us in the future Both from a pragmatic and ethical point of view, you will not be expected to put yourself at risk to provide care On the PPE I think we've got a better handle on this than I believe any other health service in the country at the moment
	Infection control	Look, we very much believe that the very basic principles that we have for infection control will see us through this, and very much back to even just hand hygiene and cleaning of surfaces and the social distancing ... the risk of spread in that context is within six feet of that person
	Workforce issues	Which could be a growth of 300% capacity in our emergency departments, 200% in ICU, and we know, in addition to that, we have had to stand up our fever clinics [establishment of new COVID-19 testing services]. But the first thing we did with each of our respective workforce areas, we focused around allied health, medical services, nursing, digital, and admin workforce, is to say well, what would that look like, what would that growth take from us, and how would we best support that growth? We have launched a number of recruitment campaigns across nursing, allied health, our patients' support officers and our medical officers While a role might be able to be done from home, there's a whole lot of other facts to be considered and so each case would be being looked at by a line manager and then there will be business rules being applied in different facilities for how that will work for them
Reassurance and support	Hospital business	We have procured over 6600 items of equipment to date...busily working away at procuring that equipment so the hospitals have the equipment that they need to respond to COVID-19
	Managing emotions	...the Clinical Senate facilitated a workshop last Friday which was looking at ethical decision making Certainly I feel...obviously I'm anxious that my parents may get unwell and die...[The presenter later provided reassurance to all:] What I want to get across is that things are under control at the moment, and we're lucky to live in the place that we live and we've got a great team looking after us
	Staff wellbeing	We know that in order for you to do your best, and to really enjoy the environment that we're providing during this time, how important your wellbeing is for us to focus on at our HHS The other part of the resource that's important is staff and that's all of us. And really, we need to be in a good space, individually and as teams to deal with this. And if we do that then I think we'll do really well
	Building connectedness	... the first question is – if your child was admitted with COVID-19 would you be able to be with them, and I guess this is relevant for me, I've got two young kids I have every confidence that we're all going to be okay and if we pull together, we'll get through this
Innovation	Adapting to fast-changing situation	And out of critical disruption has come swift and significant change, and the opportunity for us to embed that into business as usual is absolutely unique
	Digital agency	I have to thank you all for adopting the new technologies such as virtual care, virtual wards, so quickly And you'll see the protocol [for virtual family meetings] on the Digital Metro North website, and this is really important when we've got isolated consumers who can't get to their families
	New ways of working	Certainly, I'm calling patients, and my long-suffering admin staff are calling my patients and converting all of my patients to phone or telehealth interviews where at least possible We're also creating a completely new domestic manufacturing capacity that we can use inside the health service
	Communication	Also we will be running these [Teams] groups between 5 [and] 6 pm every week night...small team discussions...so we can feed in, do a temperature check on how things are going out there, what are your pressure points

for COVID-19-positive patients were introduced, whereby these patients were cared for in their own homes while under close medical supervision. Another new way of working involved telephone or telehealth care of existing out-patients.

### *Communication*

The VIDCASTS enabled staff to get to know the team leading them through this uncertain time, and the decisions and planning that were occurring. This new communication method was a positive two-way communication channel. These

sessions represented an efficient method of connecting with many staff at one time, in a relatively personal and engaging format.

### **Discussion**

The first aim of this study was to understand the impacts of the VIDCASTS on staff. Staff indicated they valued the new communication platform and the ability to connect with the leadership team during the preparations for the pandemic. The leadership was accessible and visible, took the time to listen to

staff concerns, shared up-to-date information and implemented strategies to support staff wellbeing. Emerging opinion pieces published from June 2020 have attested to the critical role of health leadership during the pandemic.<sup>14,15</sup> Health leaders need to ‘stay calm’, ‘communicate’, ‘collaborate’, ‘coordinate’ and ‘support’.<sup>15</sup> The HHS Executive was a textbook example of this strategy in action, proactively implementing a digital methodology to take the Executive out to staff. Staff feedback described the CE as approachable, transparent and reliable. The VIDCASTS helped build connection, which is important in times of uncertainty for building strong internal relationships within the organisation.<sup>16</sup> A robust digital communications platform is important to enable virtual leadership during the pandemic.<sup>17,18</sup> In addition to providing consistent and accurate information, the VIDCASTS provided the means for the staff voice to be heard and for ‘more nuanced conversations’ to be had.<sup>19</sup>

Second, this study aimed to understand the key concerns of staff. This was important to ensure that the HHS was supporting its workforce, allaying concerns, building camaraderie and enabling the staff to focus upon the important tasks at hand. Not surprisingly, staff concerns at this HHS mirrored some of those of other recently published studies from around the world during the pandemic.<sup>20–24</sup>

The dominant theme of the VIDCAST sessions was the dissemination of accurate information throughout the COVID-19 pandemic to questions that were front of mind for staff, including changes to PPE and infection control practices. A desire of staff to be kept up to date with accurate information throughout the pandemic was also a pervasive theme in a survey of hospital staff in Melbourne, Australia.<sup>21</sup> Studies from Wuhan<sup>24</sup> and Spain<sup>22</sup> reported staff concerns about levels of PPE and lack of experience in the required infection control practices. Interviews with 55 hospital staff at a facility in the US found the prominent theme of wanting information around risk assessment and planning.<sup>20</sup>

The second theme from the VIDCAST transcripts was providing reassurance and support. Studies of hospital staff during the pandemic across Wuhan,<sup>24</sup> Spain,<sup>22</sup> the US<sup>20</sup> and Australia<sup>21</sup> all found a key concern of their staff was the health and safety of themselves and their families. Different organisational responses were reported; for example, the hospital in Wuhan established regular connection with family through social media channels and introduced wellbeing services, including a psychologist.<sup>24</sup> However, none of the studies reported having a direct two-way communication channel with their executive staff to allay fears, as was implemented in this HHS.

The final theme from the VIDCASTS was innovation and communication. Studies from hospitals in the US<sup>20</sup> and Spain<sup>22</sup> reported an increase in collaboration and communication between teams as they prepared for the surge. There was greater connectedness, a diminution of clinical hierarchies and recognition of the importance of interteam support and learning to cope with a more interdisciplinary way of working.

There was a key distinction between the methodology of the present study and the four previously mentioned studies.<sup>20–22,24</sup> This study was not at a single point in time, data were gathered over a 1-month period during pandemic preparations and the survey data immediately after that time. In addition, the VIDCASTS provided staff in the HHS with the opportunity to raise

their concerns directly with the leadership. Therefore, the analysis was of participant-generated concerns, rather than staff being constrained by predetermined questions generated by the research team. The strength was the two-way conversation, with a mix of information from the Executive and staff queries, and authentic communication.

This study has several limitations. Despite positive feedback about the VIDCASTS from survey respondents, it is possible that respondents did not accurately represent the entire HHS staff. Only a small proportion of VIDCAST attendants responded to the survey, yet the number is larger than that from the other four published studies of hospital staff concerns at a similar epoch. Staff were advised that questions in the VIDCASTS and survey responses were anonymous, but there may have been reticence to interact due to a concern that they may be able to be linked back to individuals. Data were not gathered on how many questions were submitted before and during live VIDCASTS or the themes identified specifically in these questions. The focus of this study is the VIDCAST communications with staff, but it is not possible to cleanly separate the actions of the organisation in the pandemic response and the staff concerns raised in the VIDCASTS. Furthermore, this project reports on findings from one Australian HHS where the expected surge on COVID-19 cases did not eventuate. However, at the time when the VIDCASTS began, the expectations of the pandemic surge were reality.

## Conclusion

The VIDCASTS were an effective vehicle to connect and support staff as the HHS prepared for an unprecedented demand for services. The combination of the digital innovations in the HHS with the leadership of the Executive enabled a large workforce to be supported and reassured to execute a successful response to the pandemic.

## Data availability

The data that support this study cannot be publicly shared due to ethical or privacy reasons and may be shared upon reasonable request to the corresponding author if appropriate.

## Competing interests

The authors declare that they have no competing interests.

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