

Video Remote Interpreting in Times of Crisis: Building Capacity of Interpreting Services in Australian Healthcare Settings

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Abstract:

The provision of interpreting services for communities whose first language is not English has been of paramount importance in Australia for the last fifty years, especially in healthcare settings.

Confronted with a crisis of unprecedented scale in the second quarter of 2020, Australian States and Territories have had to adopt crisis management strategies to ensure equitable access to services are guaranteed for all communities. In this context, and because face-to-face interpreting is no longer an option for each consultation, clinics, hospitals and GP practices have been urged to resort to remote interpreting, i.e. the use of technologies to gain access to an interpreter.

This study sought to explore the usability of Video Remote Interpreting (VRI) in Australian healthcare settings, and the way the demands for this new modality had been met. To do so, an inventory of Remote Interpreting (RI) services was compiled by means of a literature review, and data collected from different stakeholders via mixed-methods (surveys and interviews). The triangulation of the data collected aimed to identify how and if the use of VRI proved efficient, and if this modality was expected to replace onsite and telephone interpreting and to what extent. The outcomes showed a shift from Telephone Interpreting to Video Remote Interpreting as the preferred remote modality. Another conclusion evidenced by the findings is that wherever possible, onsite remains the interpreting modality favoured by both the patients and the professionals involved in the communication exchange. However, the findings also highlight the future of interpreted exchanges will include more remote modalities as part of a hybrid scenario.

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

(Signed) _____ Date: 02 December 2021

Ethics Committee approval and protocol number: **52021928324745**

Chapter 1. Introduction

In the face of the COVID-19 pandemic, new demands in Translation and Interpreting (hereafter T&I) services have forced interpreting service providers in Australia to adapt quickly to the new communication requirements while respecting the national lockdown measures, thereby directly impacting interpreters in their professional practice. The restrictions to international travel put in place by the Australian Health Protection Principal Committee (AHPPC) as early as March 2020, greatly impacted every sector of the economy and services in particular. These decisions were then followed by lockdown measures implemented differently in States and Territories, with a longer and stricter lockdown period from August 2020 onwards in Victoria as the State driving the tally of new cases. One year later, in July 2021, both the Greater Sydney region and the State of Victoria were forced into lockdown in the face of the Delta variant, impacting the everyday lives of 12 million people, i.e. approximately half of Australia's population.

As part of the *Guidance for Health Service Organisations* published by the Australian Commission on Safety and Quality in Health Care (NSQHS), a Risk Management Plan was adopted to mitigate the risk of COVID-19 transmission and is updated regularly. Screening protocols have been put in place to protect the workforce, visitors and patients, including: social distancing measures of 1,5 metres; the obligation to wear masks indoors and sometimes outdoors; QR codes for checking into public and private spaces, amongst the major measures. These safety protocols vary according to the State or Territory concerned and the latest developments in the field of COVID-19 transmission.

In the face of such a critical and complex situation, public health policies both at federal and state levels were to be redefined to adjust to the new landscape. The pressing need to offer adapted solutions triggered a rapid response from Language Service Providers (LSPs) and language departments within public health facilities

and community centres. There was an urge from both the public and private sectors to find alternatives to continue providing interpreting services generally delivered face-to-face (also called in-person or onsite interpreting) in healthcare settings while maintaining an equivalent level of quality. This also involved the mandatory compliance with updated working conditions, hence enabling clinics, hospitals and GP practices to run as smoothly as possible in such unforeseen circumstances.

Adding to the complexity of preparedness measures is the very nature of medical interactions, which demand the respect of personal privacy when communicating, thereby ensuring each individual's rights to access to reliable and timely information is protected. These rights to safe and qualitative health-related information are guaranteed under the *Australian Charter of Healthcare Rights* (2008).

The obligation to comply with both safety protocols and individual rights translated into the swift adaptation and ramping up of telemedicine services (also called e-health services), mostly via the *Telehealth* and *Healthdirect* platforms, to deliver interpreting services remotely via telephone and video and thereby integrate the surge in the demand for Remote Interpreting (RI). A similar situation was witnessed in the Conference Interpreting space where, after several months of conferences being cancelled and simultaneous interpreters being hit hard by the subsequent loss of activity, the market adjusted its needs and new assignments were completed in the Remote Simultaneous Interpreting (RSI) mode and via relevant online platforms (Recommendations on Health Precautions for Conference Interpreters during the COVID-19 Pandemic, June 2020).

In Australia, a significant proportion of the users of interpreting services in healthcare come from the various Culturally and Linguistically Diverse (CALD) communities. The latest census of 2016 showed that 300 separately identified languages are spoken in Australian homes and more than one fifth (21%) of the Australian population spoke a Language Other than English (LOTE) at home. This raises the question of how the healthcare system would cater for the needs of these

CALD communities in the Australian population, with the added difficulty of working under changing and constraining conditions?

The crisis sparked by COVID-19 triggered a domino effect on the whole healthcare system, stretching it to a point where stringent restrictions had to be put in place to alleviate the burden on hospitals and clinics and help mitigate any influx of people in intensive care. Interpreters could no longer be called to come and support in person. Onsite interpreting, the preferred modality in the pre-pandemic era, was to be replaced by either Telephone Interpreting (TI) or Video Remote Interpreting (VRI). New markets emerged for language services to be delivered remotely and interpreters also had to adapt quickly to maintain their activity while learning to work differently.

Statement of Aims and Research Questions

The highest demand in interpreting services in Australia lies in the healthcare sector (Hlavac et al., 2018a). The present study aims to examine how the relevant language services providers and in-house language services have adapted to meet interpreting needs during the COVID-19 pandemic. Additionally, this project will investigate how interpreters and healthcare professionals adapted to new modalities using VRI solutions. Figures from Northern Health, a public health facility in northern Melbourne, show that 63% of interpreting requests have been made via TI with a gradual switch to VRI once their inhouse interpreters have achieved specific VRI training. At the Royal Melbourne Hospital, VRI appointments have increased from 10-15 a month to 100-200 a month while a large Melbourne-based LSP recorded a record increase of such appointments in that period compared to pre-COVID data (August 2020)¹.

This urgent switch to VRI in the absence of official recommendations in the national and State guidelines calls for research to be carried out in regards to the efficiency

¹ Retrieved from <https://www.premier.vic.gov.au/state-emergency-extended-drive-down-virus>

(Jacobs et al., 2018; Kuo et al., 1999) and practicality of VRI in healthcare practice (Locatis et al., 2010; Pöchhacker, 2014), the adequate training of interpreters specialising in that area (Hlavac, 2013), and its cost-effectiveness compared to onsite and telephone interpreting (Masland et al., 2010; Kerremans et al., 2018).

In light of the urgent measures put in place to maintain the same level of quality and availability in T&I services, the proposed project will aim to answer the following research questions:

1/ What changes have been implemented in medical interpreted consultations since the COVID-19 pandemic hit?

The objective is to identify what changes were put in place and how they might have affected the interpreters' working conditions, the organisation of interpreting services within healthcare services and the way LSPs offer to provide interpreting services.

2/ How has the use of VRI impacted the delivery of healthcare services in Australia and what are the potential obstacles to its extended use?

The objective is to see if the use of VRI has been selected as an alternative solution, in which proportion, and 18 months after the start of the pandemic if the adopted approach has proved conclusive or not.

The study will particularly focus on Victoria and NSW, the two states hit with the highest level of restrictions as early as March 2020 (State of Emergency since March 2020 and State of Disaster since August 2nd, 2020) for the nation. Victoria holds the record for the world's longest COVID-19 lockdown with a total 262 cumulative days – i.e. nine months - spent under strict restrictions. The State of New South Wales with its capital Sydney, the largest city in Australia, entered a strict lockdown period of 15 weeks until Freedom Day was announced on 11 October 2021 (Reuters, 11 October 2021).

Chapter 2. Literature Review

2.1. Background

A brief review of immigration in Australia and the development of its population is necessary to help understand how the language policies came to be and shaped multilingual communications in modern Australia.

Multilingualism has always been part of the Australian landscape. Prior to European settlement, the Aboriginal communities were very diverse and comprised of different social groups in varied locations speaking different languages. Based on Norman Tindale's 1974 map, it is believed there were at least 300 indigenous languages spoken across 700 different groups and the Aboriginal population was estimated at half a million to 2 million people (Ozolins, 1998). Many of these languages were wiped out following the deadly toll of violence and disease which ensued. Despite a sharp decline in Indigenous population numbers, 160 Aboriginal languages are still spoken today in Australia and with nearly 650,000 people identifying as Indigenous (2016 Australia census).

The White settlement in the late 18th century brought dramatic changes to the linguistic dynamics with English becoming the predominant language as the first settlers were mostly of British and Irish descent. There was a need for someone to help interactions between English speakers and Aboriginal populations and one of the first Australian known interpreters, who was fluent in several Indigenous languages and could communicate with English speakers, was a man named Bennelong, from the Sydney region (Ozolins, 1998). The need for signed communication also emerged as early as 1790 with the arrival of Elizabeth 'Betty' Steel, the first female deaf convict on board the second fleet bound for Botany Bay. At the time, those who would help deaf and hearing-impaired individuals were either family members, missionaries or teachers, people in the community who could help and be trusted (Branson & Miller, 1995). The 19th century saw waves of other Europeans, not all English speakers, coming to Australia to settle in the New World, drawn by the Gold Rush and the promise of a new land. A mass Asian

immigration, mostly Chinese, also followed (Clyne and Jupp, 2011). At the beginning of the 20th century, the Immigration Restriction Act of 1901 and its White Policy set the scene for a nation predominantly white, Anglo-Saxon.

The diversity of languages was not the only obstacle to communication. The vastness of the Australian land posed a great challenge as well, one Geoffrey Blainey described as the “Tyranny of Distance” in his book of the same name (1966). The increasing number of settlements around the country were not without organisational difficulties: medical care was needed and reaching out to isolated populations was vital. Medical practitioners had to turn to innovative solutions and use whichever means of communication at their disposal. The invention of the telegraph by Samuel Morse in 1837 proved a useful tool in these first attempts to overcome distances. British astronomer Charles Todd was nominated to oversee its construction and development in Australia. The first telegraph line was set up between Melbourne and Williamstown in 1854 and by 1860, the four eastern states were connected while Tasmania was connected to the mainland a few years later in 1869. The telegraph proved very successful in fostering communications and the first use of telemedicine via telegraph in Australia was recorded in 1874 (Eikelboom, 2012).

In the century to follow, the major event which triggered a change in the language policies in Australia was WWII. The Department of Immigration was created in 1945 and tasked with the implementation of the post-war agenda, commonly referred to as ‘populate or perish’. The first Immigration Minister, Arthur Calwell (Labour), led an ambitious immigration program to help fight the decline of the Australian population at the time and address workforce shortages.

In his first ministerial speech to Parliament following the end of the Pacific War, he stated:

“If Australians have learned one lesson ..., it is surely that we cannot continue to hold our island continent for ourselves and our dependants, unless we greatly increase our numbers.” (Spinks, 2015).

Despite strong reluctance both from himself and from the population who feared these new migrants would threaten their livelihoods, non-British aliens from Europe were accepted, among whom 171,000 fell under the Displaced Persons (DP) program under 2-year contracts to come and work in Australia (Clyne and Jupp, 2011). The post-war mass migration program initiated in 1947 meant more ethnic variety and unfolded through different stages (Castle et al, 1992). Calwell was aware that the Australian government had to take responsibility to help newcomers settle and to provide them with the means to achieve that objective (Spinks, 2015). It was expected and hoped new migrants would become ‘assimilated’ – that they would mould into Australians – and these adult groups were therefore provided with English classes and support. But there were also a number of initiatives targeted at Australians to help these newcomers, often low-skilled from Non English Speaking Backgrounds (NESB), be better accepted into the community. An example of such initiatives towards inclusiveness was the Annual Citizenship Convention held in Canberra every year to celebrate immigration and assimilation success (Ozolins, 1998).

The immigration program indeed proved a great success for the Australian economy. In the mid-60s and following a change of political leaders, the Department of Immigration moved to seek migration agreements with several European countries, and by the end of the 1970s, the White Australia policy was dismantled (Clyne and Jupp, 2011) with a shift from ‘assimilation’ to an ‘integration’ approach, and Australia opened its borders to people from all over the world.

2.2. Multiculturalism and the emergence of public community interpreting

Awareness of the linguistic diversity and possible obstacles to fluid communication pervading many areas of society arose in the early 1970s with the much-contested

concept of multiculturalism (Koleth, 2010). It occurred at a time when the social-democrat government endeavoured to understand the needs of its ethno-culturally diverse communities (Hlavac et al, 2018b). This growing interest in language-supported services as part of a redefined social policy led to the creation of the Emergency Telephone Interpreting Services in 1973 – soon to be renamed Telephone Interpreting Service (TIS) and today known as TIS National – Translating and Interpreting Services, the first of its kind around the globe.

In line with this multicultural approach, the federal government made large grants available to develop hospital T&I services in 1975 and 1976 (Ozolins, 1993). This prolific decade also saw the creation of the first full-time courses in T&I in the mid-1970s. Courses offered ranged from different levels and were mostly oriented towards the professional practice. They were offered at first by the Royal Melbourne Institute of Technology (RMIT) and the Canberra College of Advanced Education (CCAЕ). It is important to note there were no curriculum nor teaching guidelines for T&I courses and trainers had to create the supporting material they needed. By the mid-1990s, vocational courses were offered at the University of Western Sydney and at Deakin University (Victoria).

The National Accreditation Authority for Translators and Interpreters Ltd. (NAATI), a not-for-profit company jointly owned by the Commonwealth and State and Territory governments, was established in September 1977 (Hale, 2007) with a clear remit as the responsible authority for “testing and accrediting candidates, approving testing courses in T&I, and maintaining a register of accredited practitioners” (Hlavac et al, 2018b, p.11). The following year in 1978, the Galbally Report on the Review of Post-Arrival Programs and Services to Migrants shed more light on a number of existing services: English language teaching programs, establishment of multicultural resource centres, support for the recognition of overseas qualifications via the Committee on Overseas Professional Qualifications (CPOQ) and T&I services, to name a few. It also recommended a focus on two specific areas of language services which are still the main components of community interpreting

and T&I training in Australia today: health and law. Particular attention was put on T&I as to its funding requirements, the need for the expansion of T&I services and the possible applications across public services, by acknowledging the linguistic competence of bi- or multilingual public servants through the Language Availability Performance Allowance (LAPA), for example (Hlavac et al., 2018b). As the report recommended a particular focus on the language needs of both the legal and health sectors, several Ethnic Affairs Commissions (EACs) were created at the end of the 1970s. In NSW, EACs provided both interpreting and translation services and the Health Care Interpreter Service (HCIS) expanded. In Victoria, the Central Health Interpreter Service (CHIS) was established as well as a Mental Health Interpreter Service.

Once endorsed, the Galbally Report also paved the way for the implementation of a *National Policy on Languages* (NPL) highlighting the importance of training of translators and interpreters. In 1987, Joseph Lo Bianco was commissioned to carry out this assignment (Lo Bianco, 1987) with a view to contribute to more inclusiveness and cohesion in the NESB groups in Australian society. One of its key recommendations was to consider all languages present in Australia: Australian Indigenous languages (100 are spoken in 2020 Australia), Immigrant languages and Australian Sign Language (AUSLAN). Another was to consider T&I services “as fully part of intra-group communication” (Hlavac et al., 2018a) to cater for the different and various needs of LOTE speakers. The Lo Bianco Report was pivotal in highlighting the importance of professionalising the T&I industry. Once adopted by the government, funds became available. Research in the T&I field was also financially supported and encouraged.

The year 1987 also saw the inception of the Australian Institute of Interpreters and Translators (AUSIT), the national association of the Australian T&I professionals. The National Languages Institute of Australia (NLIA) was created in 1990, later renamed the National Languages and Literacy Institute of Australia (NLLIA). In 1992 the Australian Disability Discrimination Act (Napier & Kidd, 2013) made it

unlawful to discriminate against a person because of their vulnerability, thereby showing an increasing awareness to protect the most vulnerable and ensuring equitable access for all in every area of their lives: employment, education and many areas of public life. As a result, the Australian Sign Language Interpreters Association (ASLIA) was constituted on 26 April 1992. In 1996, the first AUSIT Code of Ethics was launched, endorsed by NAATI, and adopted by public and private language service providers across Australia. It was reviewed and updated in 2012.

Establishing these agreed set of guidelines and professionalising the T&I industry largely contributed to creating the framework needed for practitioners to perform their duties as interpreting professionals while offering the best service possible to healthcare users, thereby aligning with the recommendations of the Lo Bianco Report. Additionally, a number of private sector agencies willing to take part in the provision of language services emerged, leading to the inevitable need to structure the industry. These developments also coincided with increasing communication challenges within the country, paving the way for a more structured practice of *Community Interpreting*, a term first coined in the early 1970s (Chesher, 1997).

2.3. Community interpreting in healthcare settings

There are today 300 different languages spoken in Australia (2016 census), including Indigenous languages and a number of dialects (Clyne et al, 2015), and this plurality of cultures poses a set of challenges for the provision of interpreting services to both the public and private sector.

Interpreting in healthcare settings may pertain to either medical consultations, hospital settings or private practice (Hale, 2007) and may be requested in a large spectrum of medical contexts and specialities, requiring both an understanding of the fields concerned (anatomy, physiology to name a few) as well as of the medical terminology involved (Crezee, 2013). Eser echoes this focus on an additional level of knowledge when describing community interpreting as “truly interdisciplinary in that it takes place within the context of other professional settings” (Eser, 2020, p. X).

For this reason, it appears a specific training on what interpreting in medical contexts involves is to be encouraged to ensure interpreters working in healthcare hold this extra-linguistic knowledge on top of their interpreting skills, a focus on in-context training labelled Situated Learning by González-Davies & Enríquez-Raído (2017). As part of this shift towards other areas of specialisations for interpreters, NAATI decided in 2018 to deliver the Certified Health Specialist Interpreter credential as part of its new scheme of certifications.

Also known as Public Service Interpreting (PSI) (Schuster et al., 2018), community interpreting in the health and welfare sectors is defined by Pöchhacker (2000, p.126-7) as “interpreting in institutional settings of a given society in which public service providers and individual clients do not speak the same language... community interpreting facilitates communication within a social entity (society) that includes culturally different sub-groups”. Another definition provided by Hale (2007, p. 30) describes it as “the type of interpreting that takes place within one country’s own community, between residents of that country”.

In this context, the role of an interpreter is to facilitate communication between individuals who speak different languages (Böcker & Anderson, 1993) and in order to do so, the interpreter also needs the proper conditions to be organised to perform successfully (Skaaden, 2018).

Prior to 1996, migrant groups were referred to as NESB and Main English Speakers (MES) communities. The terminology then evolved and changed to Culturally and Linguistically Diverse (CALD) under the Howard government to better encompass the learning of English as well as the need to maintain “the community language and access to translating and interpreting” (Clyne & Jupp, 2011).

Another important feature of community interpreting, especially for Auslan interpreters, is the recognition of the interpreter’s role as reflected in the *Australian Disability Discrimination Act* (1992) which lists the interpreter as “one of the following [professionals] who provides assistance or services to the person because of the

disability”, thereby highlighting the fact the interpreter is fully part of the exchange (Pöchacker, 2016; Mason, 2001)

The provision of healthcare services is pivotal in Australia to ensure equal and fair access to all and the rights of every individual to reliable health information and care are defined under the *Australian Charter of Healthcare rights in Australia* (2008) as follows:

The Australian Charter of Healthcare Rights describes the rights of patients and other people using the Australian health system. These rights are essential to make sure that, wherever and whenever care is provided, it is of high quality and is safe.

Worth mentioning too are the National Safety and Quality Health Service (NSQHS) Standards, which were set to protect “the public from harm and to improve the quality of health service provision” (NSQHS Standards, 2017). Its latest version was updated in May 2021 (NSQHS Standards, second edition).

As mentioned above, catering for different and diverse communities already poses a challenge. The COVID-19 pandemic and the guidelines and protocols developed subsequently have added to the complexity, trying to ensure the protection of the population from transmission while maintaining the provision of similar services to those provided in pre-pandemic days. Community interpreting services were mostly delivered onsite before the pandemic started and where it was not possible, the second option for spoken languages was to provide Telephone Interpreting (TI), one of the popular remote options which we will explore further.

2.4. Remote Interpreting (RI): Telephone Interpreting (TI) and Video Remote Interpreting (VRI)

There are many definitions of RI, also called Distance Interpreting (DI) (Braun, 2020), but they all agree on the fact the interpreter is not physically present during the exchange and performs from a remote location. Ko (2006) presents RI as a meeting in

which the interlocutors do not meet in person and where the interpreting is performed via media (telephone, internet). According to Braun (2015, p. 1), RI “refers to the use of communication technologies to gain access to an interpreter in another room, building, town, city or country. In this setting, a telephone line or videoconference link is used to connect the interpreter to the primary participants, who are together at one site”. Skaaden (2018, p. 837) defines RI as an interaction “where the interpreter communicates with the interlocutors via technological solutions across geographical distance”.

Mouzourakis (1996) set the difference between *audioconferencing* (sound only, e.g. Telephone Interpreting) and *videoconferencing* (teleconferencing via a video stream) which involves different media (sound and image) and encompasses different more specific modalities, among which *videophony*, a telephone call where access to facial image is added.

2.4.1. Telephone interpreting (TI) or Over-the-phone interpreting

Interpreting services are fully part of the provision of healthcare and, when onsite interpreting is no longer an option, resorting to Telephone Interpreting (TI) is often seen as the easiest and most convenient way of ensuring the continuity of service for populations with Limited English Proficiency (LEP).

TI, or over-the-phone interpreting (Braun, 2015), is one of various modalities comprised under the term of Remote Interpreting (RI). It is a modality using audio-only features and can be defined as follows: “Telephone interpreting refers to situations in which the interpreter works over the telephone, without seeing one or either of the two primary parties in the communicative event” (Lee, 2007, p.231).

TI has existed since the early 1970s in Australia and language service providers are familiar with its use. TI has been strongly linked to community interpreting since the 1970s (Braun, 2015), especially within hospitals and clinics where onsite interpreting staff could provide such services internally. Research findings show that when providing Remote Interpreting (RI) in health care in Australia, Telephone

Interpreting is the most predominant and most used modality (Ozolins, 2011, as cited in Braun, 2020; Locatis et al, 2011).

Yet, and despite its accessibility, it has been observed that TI is not always the preferred option when face-to-face exchanges is not possible. In his 2007 study, Rosenberg casts light on the many challenges TI poses in comparison with in-person interpreting especially in regard to situational factors. In a face-to-face exchange, the interpreter sees the speakers and deciphers part of the meaning from the non-verbal cues, and TI clearly proves an obstacle in that regard (Connell, 2010; Lee, 2007).

Another obstacle posed by, but not limited to TI, is the possibility of a technical glitch, hence slowing down or even impeding communication. Ozolins (2007) adds that, for a number of years, the high cost of telephone calls also proved an obstacle for a wider use. On this note however, and in addition to its ease of use, TI has benefitted from the rapid development of internet use and proves less costly nowadays than booking an interpreter for in-person meetings, especially when organised via call centres (Masland et al., 2010).

Consequently, and despite its obvious advantages, TI does have limitations. Wang (2018) stresses the dissatisfaction of Australian interpreters with this medium, as evidenced through a survey of 465 interpreters, and recommends that all parties involved in the interpreter-mediated communication work together towards setting new protocols with the view of improving the TI experience at all levels.

This growing discontent with TI led to the exploration of another modality associating image on top of sound, heralding the progressive use of VRI.

2.4.2. From Telephone Interpreting (TI) to Video Remote Interpreting (VRI)

The earliest documented multimedia experiment on Remote Interpreting (RI) using satellite transmission of *both* image and sound was undertaken in 1976 by UNESCO with the interpreters based in Paris and the conference centre in Nairobi (Mouzourakis, 1996). With the rapid rise of new technologies, remote interpreting modalities slowly evolved from TI, i.e. audio-only communications, to video-

communicated exchanges thanks to the development of the Integrated Services Digital Network (ISDN). However, these early explorations faced some obstacles in terms of bandwidth and audio quality and did not meet the quality standards required by the T&I profession (Böcker & Anderson, 1993).

When exploring options via videophony in conference interpreting, Böcker and Anderson (1993) offer another description of Video Remote Interpreting (VRI) whereby it enables the interpreter to work while being physically absent from the conference site, and put forward the advantage it presents by limiting travel requirements. It is also argued as being particularly suitable for last minute assignments, when organising the interpreter's trip is no longer possible. Given the many and - still ongoing - possibilities offered by the latest technological advancements, it became necessary to establish clear distinctions between the different forms of RI.

In her study of RI, Moser-Mercer (2003) postulates that the rapid rise in technological progress contributes to the constant development of videoconference (VC) solutions, and defines it as a form of interpreting where the interpreter works remotely via VC technology "in the same building or at a neighbouring location". Braun (2015, p.1) pushes the distinction further by insisting on RI as a method used to deliver interpreting, while Videoconference Interpreting (VCI) is described as RI via a video-link to connect the interpreter and the interlocutors. Braun (2015) posits that RI is an exchange carried out via communication technologies in which the interpreter performs remotely while the rest of the interlocutors are gathered in the same location. VCI occurs when the proceedings take place in two distinct locations, with the interpreter working from one of them. She favours the term *video-mediated interpreting* as an umbrella term comprising both *videoconference interpreting* (VCI) (involving two video-linked locations) and *remote interpreting* (RI). Hlavac (2013) also uses the expression *video-link interpreting* to refer to VCI, while defining RI as a hypernym for both TI and video-link interpreting.

In Australia, the use of the term VRI is commonly used to describe interpreter-mediated exchanges with both sound and image, setting it apart from North American settings where this term is primarily associated with sign language interpreting because of its visual nature (Carl, M.& Braun, 2018). VRI will therefore be the preferred terminology throughout this study when referring to instances where interpreting is performed from a remote location via video link.

2.5. Crisis management and healthcare interpreting services

The COVID-19 pandemic has proved a crisis of unprecedented scale in modern human history and one which challenges the structure and very definition of the provision of language services across the country, particularly in healthcare. In regards more specifically to disaster management, O'Brien (2018, p.1) examines the use of language in emergency situations through a comparative analysis and stresses the importance of clarity and accuracy, and "the need for language translation to be a key element of disaster management," hereby echoing the emphasis put on quality interpretation to ensure basic human rights are not denied as in the context of migrant crises (Schuster et al., 2018). The urgency to prepare for the unexpected has been the subject of many articles covering the crisis and the consequences of bad quality in T&I services. It also served as a wake-up call to remind different actors involved of the importance of ramping up language services to achieve the main objective: protecting each and every one within the community.

The World Health Organisation (WHO) defines the term *crisis* under the broader term of *emergencies*² as covering "both preparedness and response ("crisis management")." In Australia, disaster and emergency management fall under the aegis of States and Territories and different response plans and guidelines were set up at the outset of the COVID-19 pandemic in accordance with national policy guidelines: *Australian Health Sector Emergency Response Plan for Novel Coronavirus*

² World Health Organisation (WHO), Glossary of Humanitarian Terms. Retrieved from <https://www.who.int/hac/about/definitions/en/>

(March 2020); Australian Commission on Safety And Quality in Healthcare -NSQHS Standards, Guidance for health services organisations; Australian Health Sector Emergency Plan – Management Plan for Aboriginal and Torres Strait Islander Populations; Pandemic Plan for the Victorian Health Sector (March 2020), to name a few. Yet, despite the recommendations stressing the importance of equal and equitable access to vital information together with engaging the community to mitigate the impacts of the crisis for people with Limited English Proficiency (LEP) (Teo et al., 2017), there is no mention in these documents about how to concretely integrate interpreting needs in communicating information which *has to* be delivered orally (e.g.: a medical consultation) and remotely, i.e. using digital means, in compliance with state-level restrictions.

Under the Australian Commission on Safety and Quality in Health Care (NSQSH) standards, Action 2.8 states that the “Australian Government’s Translating and Interpreting Service (TIS National) can supply *phone* and *onsite* services [emphasis added]”, similarly to the *Australian Charter of Healthcare Rights* (2008): “Interpreter services ... provided in person or by phone” (Beagley et al., 2020, p.117), not mentioning other possible modalities. Although widespread in pre-pandemic times, onsite interpreting has evidently and rapidly given way to RI. Yet, although VRI is becoming the preferred mode over TI, as shown by current figures, the latter still represents the main mode chosen for distance interpreting (Braun, 2020, p. 280). And VRI is nowhere to be found in the frameworks and response plans aforementioned, although the updated version 2021 of the NSQHS Standards provides a description and a definition of both Cultural Competency and Cultural Safety, stressing their importance in the delivery of healthcare services.

Access to internet is pivotal to support digital communications. However, when providing an overview of the online situation in Australia (Véliz-Ojeda et al., 2020) and citing the results of the 2016-2017 census, the Australian Digital Inclusion Index (ADII) reveals significant gaps in equal access with 14% of Australians with no home internet connection. One might argue mobile data is still widely available via mobile

plans, however the pandemic has shown the limits of connection stability of online meetings (the majority of which are not interpreted) using wi-fi with technological requirements stressing the importance of using stable internet connections via ethernet cables. More recent studies collected in the midst of the pandemic show that because of social distancing rules, more and more interactions were performed online and led to an escalation of already existing divides (Australian Institute of Family Studies, 2021). Social studies focus more and more on the consequences of such inequalities, citing 'digital divide' and 'digital inclusion' in close relation to digital connection and social inclusion, and there is a call for more evidence-based research in those areas (Ratnam et al., 2020). The Analysis and Policy Observatory (APO) underlines to which extent "COVID-19 has highlighted how critical digital connectivity is to governments, businesses, and society, and has brought a newfound sense of urgency to the digital inclusion agenda." These conclusions tally with the fact that access to internet is becoming a key feature to interact with communities and deliver essential information as part of the emergency and disaster management response in Australia (Teo et al., 2017). More recently, a study led by Monash University emphasized yet again the importance of "collaboration with CALD communities ... [to] ensure health related messages are not lost in translation" (Wild et al, 2020, p. 4), thereby implicitly stressing the importance of access to key messages for the communities concerned. On the backdrop of refugee crises, Skaaden (2018) posits that in the face of unexpected language needs, RI proves a worthy solution and notes that although the combined use of sound and image is becoming quite common, performing via VRI is still quite a novel exercise for interpreters.

Furthermore, in an era where access to both sound and image has become mainstream, it is surprising to see it has not achieved a higher level of use in healthcare settings, although it is the sector driving demand in community interpreting services, particularly in tele-healthcare (Carl & Braun, 2018).

On that basis, this project proposes to examine the use of VRI and its development in the context of the COVID-19 pandemic in order to meet the objective of identifying what changes have been implemented in medical interpreted consultations and to see how the use of VRI has impacted the delivery of healthcare services in Australia.

The outcome of the study should benefit participants as it will gather data across the two most populated cities of Australia and provide an overview of interpreting services prior to and into the crisis. Subject to expected findings, there would be a series of recommendations on the future use of VRI both on the field and in training programs, possibly as part of a set of hybrid options.

Chapter 3. Methodology

Until the pandemic hit, the figures showed that TI was the remote modality mostly used in healthcare and that it came second after onsite interpreting in terms of the preferred modality (Braun, 2015). Similar results were observed by Rosenberg as early as 2007.

The chosen methodology was therefore to proceed via exploratory and descriptive research to try and identify any obstacles to a wider use of VRI in health facilities as well as the potential benefits and disadvantages of relying on this modality in the future.

In view of the first research question, it is hypothesised that the rise in RI modalities, i.e. TI and VRI, might prove significant. Should the observed shifts and the data collected from both the surveys and the interviews confirm these assumptions, it would be necessary to understand how healthcare professionals have prepared and adapted to this change in their working conditions and in the management of their workflow. The same would apply to interpreters specialising in these settings as they were more accustomed to TI and onsite interpreting before the crisis. As indicated above, these subjective data were collected by way of questionnaires to identify how practitioners in each area prepared and adapted, how in their view it has improved or not, and facilitated or not, their practice. It would prove interesting

to also explore how they felt about the swift change and what their sentiment reflects regarding their preferred modality.

In relation to these findings, links were established with any existing gaps and future needs for training and upskilling of interpreters in VRI, particularly those specialising in the health sector. This newly found information would add some useful insight as to how VRI should be used and what its limitations are, if any. This particular aspect is also related to the second research question as to the potential impact of VRI on the delivery of interpreting assignments in the provision of healthcare services.

It would also be useful to see if the use of VRI has benefitted CALD communities living in more remote areas of Victoria and NSW, as the offer of remote interpreting services might have coincided with a larger accessible pool of interpreters and languages available. It is important to recall that some languages were more accessible in metro areas because of the higher density of populations living in urban areas. Another possible focus would be to see if internet access and coverage presented any technical difficulties in rolling out VRI further from metropolitan areas of Sydney and Melbourne and which factors could explain any findings on that matter. This quantitative analysis will be conducted via an inventory of existing languages on offer through the interviews of various stakeholders in that field, and lead to a comparison between pre-pandemic and during pandemic data, based on the information and internal statistics shared by LSPs and hospital and clinic language departments. Checking if the transition to VRI has provided more job opportunities for interpreters compared to pre-pandemic requests would also be interesting as it might establish a link between technical and internet access and language availability depending on the location considered. This aspect might bring answers to both research questions, i.e. VRI's efficiency and added value as well as provision of more information on the adaptation to a new model. The collection of this qualitative data will be performed via the questionnaires sent to certified interpreters specialising in the health sector. Interviews of managers in LSPs and

hospital language departments will help understand the changes occurred affecting both in-house and external interpreters.

Based on the hypothesis that VRI could be used more and more in the future and proves efficient, this first series of data might lead to the identification of related investments required to improve the coverage in language needs and meet the market demands.

The aim will be to understand the potential and possible limitations of one mode over the other, if applicable. In this regard, several aspects will need to be considered depending on the modality.

The objective data will be collected via the survey of figures provided by LSPs and language departments in health facilities.

Recording the technical and logistical obstacles involved in the use of VRI could help determine if VRI proves practical and feasible in relation to existing internet networks and video-supported devices in healthcare facilities. Collecting this data will be carried out via surveys and questionnaires to assess VRI practicality and possible limitations. The data obtained might also help confirm and understand if and why TI has been the preferred remote modality up to this day and if it is still the case at the time of data collection.

PARTICIPANTS

The study surveyed participants involved in the management or provision of multilingual communication in the healthcare sector:

- ❖ Language services departments in hospitals in Victoria
- ❖ Language Service Providers (LSPs) in Victoria and New South Wales
- ❖ NAATI certified interpreters working in healthcare settings with a minimum of one year experience to allow for them to share any comparative feedback pertaining to their work performed prior to and in the midst of the pandemic.

Due to the short timeframe to proceed, the focus was put on the audience who was easier to contact. Large hospitals in Victoria and New South Wales have specific language departments which employ a fixed team of staff interpreters. When an interpreter is needed for a language which the language department cannot supply, casual interpreters who work either freelance or for LSPs are contacted. Interviewing the managers of those language departments who are in charge of the overall running of operations would prove useful to collect relevant information in this area.

LSPs are amongst the largest providers of casual interpreting services and holding a discussion with their managers and booking officers would help understand the landscape and how the adjustment to changing needs was carried out. Both LSPs and hospital language departments will be contacted by email presenting the study and its purpose and providing a Participant Information and Consent Form detailing the ethical requirements.

Healthcare professionals were contacted by email by contacting hospital language departments and asking if it were possible to disseminate this questionnaire to the targeted audience, mainly medical practitioners.

As for NAATI certified interpreters, they would be contacted via a newsletter disseminated by AUSIT and its Education Committee, as well as with the support of major LSPs.

An informed consent form was also drawn up and received the Macquarie University Ethics approval number 52021928324745 (Appendix 4) to ensure interviewees and questionnaire respondents were informed of the research carried out and of its objectives.

3.1. Questionnaire to interpreters

The first questionnaire targeted interpreters specialising in healthcare settings (Appendix 1). It was created using a web interface available to Macquarie students to develop and publish on-line surveys, collect responses, create statistics, and

export the resulting data to other applications. Amongst the three possibilities offered, LimeSurvey was selected as the best suited for the purpose of this research. The participant could access the questionnaire after reading the introduction and subject to acceptance of the consent form in signing.

The proposed study was introduced and circulated via the AUSIT newsletter early June 2021 and the link to the questionnaire was active from 15 June 2021 to 01 August 2021. The questionnaire to interpreters was also disseminated thanks to the support of LSPs and in-house language services departments in hospitals mostly located in Melbourne, Victoria.

The professional audience targeted was limited to interpreters of spoken languages only and with an experience of minimum one year. The reason for these choices were as follows:

- the short term of the study: the master thesis was to be carried out in 12 months, out of which several deadlines were to be met in order to submit in time. The scope could therefore not be too ambitious regarding the timeline allocated in order to achieve a realistic outcome.
- the necessity to compare the data relating to pre-pandemic practice in relation to data collected during the pandemic dictated the choice to impose a minimum one-year experience as a practitioner.
- the level of NAATI certification required to participate was certified provisional interpreter or certified interpreter to ensure the professionals participating in the survey were trained practitioners as some of the questions pertained to their experience on the field and would prove useful to shed light on any potential adjustments they might need to implement based on their professional knowledge and perception.

The questionnaire comprised a total of 28 questions organised under four categories: interpreter profile, impact of the pandemic, working conditions and interpreter

views. This set of questions was also reflected with some adjustments in the questionnaire to healthcare professionals as well as in the interview questions to obtain data on similar aspects pertaining to the delivery of interpreting services.

A total of 226 interpreters (n=226) took part in the study. Some questions focused on quantitative content (percentages and numbers) while other questions called for attitudinal responses in regards to respondents' views and perspectives and allowed for some subjective data to complement the objective information collected under the same section. Furthermore, in some cases, the possibility was offered to participants to add their own input as an alternative to pre-selected answers. This invitation to comment allowed the capture of information on other aspects of VRI in healthcare settings to reflect the reality of the field. Finally, respondents also had the possibility of skipping a question where relevant. The completion rate of the entire questionnaire is 78.3 % (n=177).

3.2. Questionnaire to healthcare professionals

The second questionnaire targeted professionals working in healthcare settings with interpreters (Appendix 2). Their roles or positions would pertain to the delivering healthcare services and could range from the following: nurses, clinicians, surgeons, among others. These healthcare professionals worked for hospitals and clinics in NSW and Victoria and would at times be involved in interpreted exchanges when dealing with a CALD patient. The same survey platform was selected, LimeSurvey and a total of 29 questions were compiled, and a similar approach was adopted with a consent form catering specifically to the potential participants' profile.

A certain number of contacts were established to share and circulate this study internally. The link was made accessible on 18 June 2021 and was closed on 24 August 2021. Unfortunately, a few obstacles led to a significantly low number of participants: 5 respondents in total.

Among the respondents, the in-house ethical requirements of hospitals proved difficult to manage within the timeline left towards the submission date of the study due in early December.

Also, some feedback indicated it was difficult to access the online questionnaire from the participants' workstations, a recurrent problem raised by staff working in the hospital language departments and who took part in the interview process.

After the initial two questions on the healthcare professional's profile, the main focus of this questionnaire was on the operational side of interpreting services, the equipment involved, the feedback received in-house and the respondents' professional opinion and perspective. The overall completion rate is 100 % for 5 participants. However, as opposed to the previous questionnaire, the completion rate per question shows a 100 % participation as well, showing all of the respondents went through each question once they started.

A comments section in Q10 pertaining to the different VRI platforms used will be used to triangulate the data obtained on similar questions via the questionnaire to interpreters and the interviews.

3.3. Interviews

The choice of a cross-sectional approach to capture a 'screenshot' of what happened when all the activities were put to an abrupt halt, i.e. the onset of the pandemic in March 2020, coupled with a longitudinal approach to observe the period from that triggering moment until mid-2021, was made to try and infer from observations stemming both from the public sector (hospitals) and the private sector (LSPs) during the period starting before the start of the pandemic and spanning the 22 months since it hit Australia in March 2020. The findings focus mostly on pre-booked VRI appointments. Interviewees who accepted to take part all have a long experience spanning from 12 years to more than 30 years in healthcare interpreting.

In order to differentiate the methods used in the collection of data, a series of structured interviews were organised with different stakeholders. The objective was

to focus on professionals sharing their experiences on the field and would provide subjective and qualitative information. The selected respondents fell into two categories: a. Interpreting managers or coordinators working in hospitals and clinics, b. Language Service Providers (LSPs) interpreters' managers.

A total of six interviews were conducted in September 2021 and took approximately 45 minutes each to finalise. Two Melbourne-based LSPs, three hospital language service departments and one governmental agency accepted to take part in this process. A series of 38 questions were prepared with the two research questions in mind. The use of the same set of questions aimed to reduce the margin for bias responses as much as possible while collecting data that was subjective.

A Participant's Information and Consent Form was communicated to the interviewees a few days prior to allow them to understand the objective and the scope of the study at hand. The interviews were conducted on the Zoom platform via the student investigator's Macquarie University account. The series of questions were organised into four main categories: General questions, VRI training, interpreting in healthcare settings and potential obstacles to the use of VRI. A copy of these questions can be found in the attachments section, under Appendix 3.

Chapter 4. Results, Analyses and discussion

Before tackling the analysis of the data collected, it is important to recall that the use of VRI and TI varied on the level of lockdown restrictions in place. At level 4, the highest level of restrictions enforced in Victoria as soon as August 2020 (3rd lockdown) and throughout the three lockdowns to follow in that State alone, as well as in NSW mid-2021 for 15 consecutive weeks, no onsite interpreting could be provided except in Emergency Departments where only in-house interpreters fully equipped with Personal Protective Equipment (PPE) were authorised. This scenario therefore only applied to hospitals and clinics who did have in-house interpreting staff to meet their internal needs. Figures 17 and 20 provide useful information on

the change in the proportion of remote interpreting and onsite assignments and a clear increase in both TI and VRI can be seen.

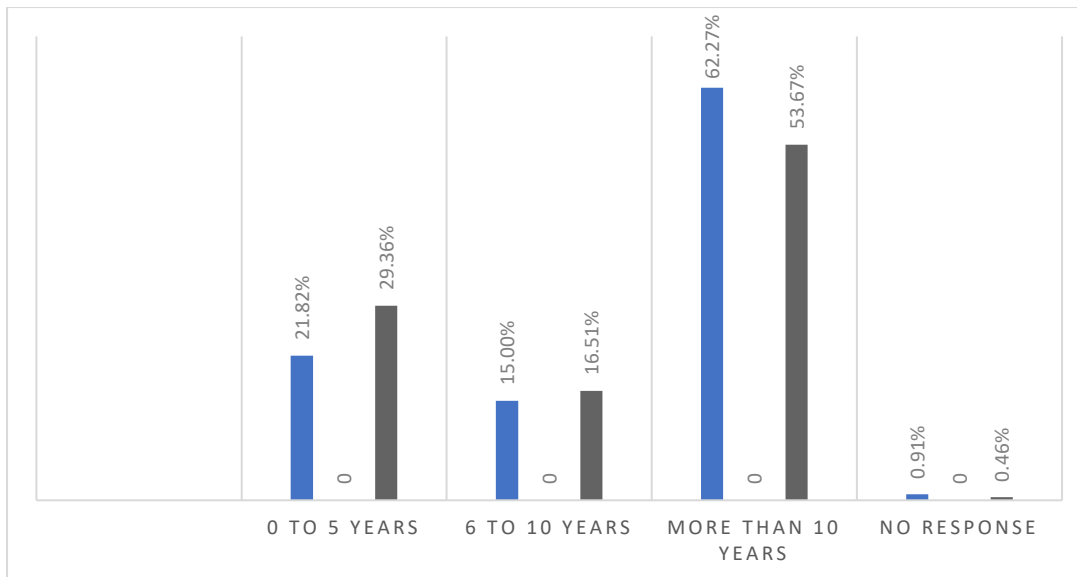
What changes have been implemented in medical interpreted consultations since the COVID-19 pandemic hit?

VRI was already suggested as an alternative solution before the health crisis of 2020-2021 as shown by the data collected via the interviews (n=6). Several trials were carried out both by LSPs and by language interpreting departments in hospitals. However, when the pandemic hit, healthcare services could not be brought to a halt and a solution had to be found to maintain the same level of care. The projects which were already in the pipeline to offer VRI then proved very useful and under the urgent pressure, increased in volume.

4.1. Interpreter profile

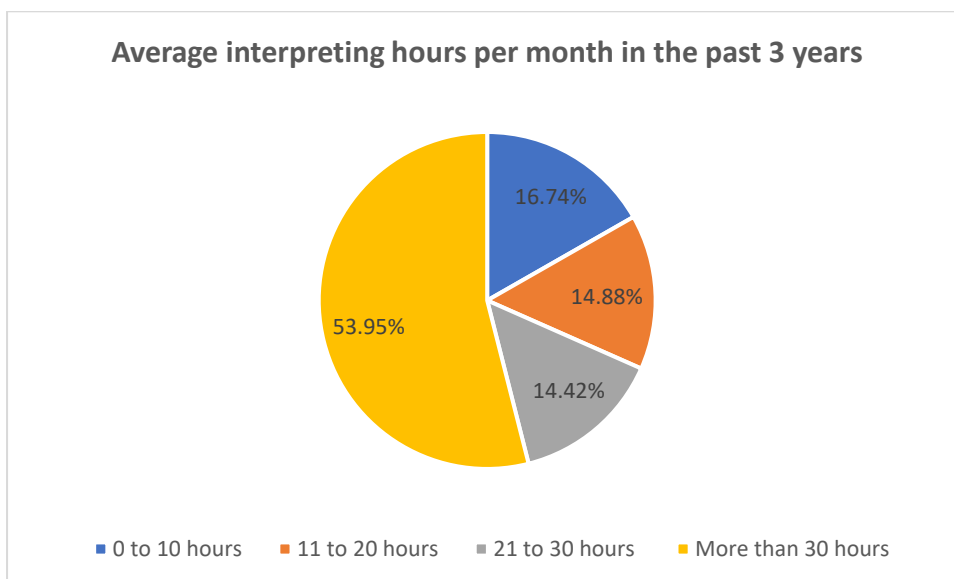
This section contained three questions aimed at outlining the general profile of participating interpreters based on objective data. The focus was directed to their overall working experience in contrast with their experience specifically in healthcare and was followed by data collection on the average volume of hours of interpreting services they would deliver on a monthly basis over the past three years if applicable. It was necessary to start from this basis before the more specific questions to follow. The profile of the respondents aimed to define how many years they had been working in healthcare (in dark grey) in comparison with how many years of interpreting experience overall (in blue):

Figure 1. Comparison between overall interpreting experience and interpreting experience in healthcare.



Question 3 focused on the average number of interpreting hours delivered by the respondents per month. This was meant to have a starting point which would serve as a reference when comparing further responses regarding any potential changes in volume:

Figure 2. Average interpreting hours per month in the past 3 years.



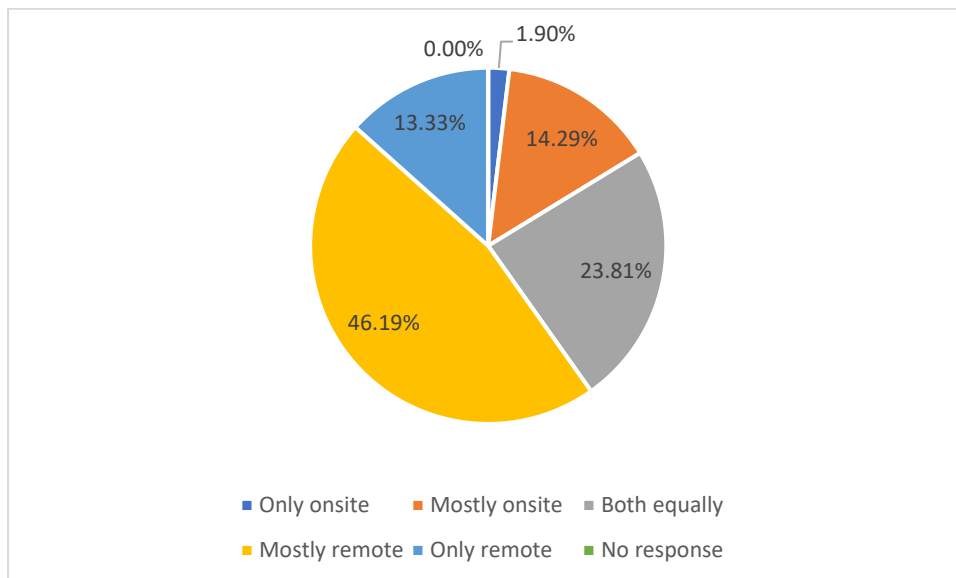
4.2. Impact of the pandemic

Seven questions were drawn up to focus on the number of interpreting hours performed before and during the pandemic. Participants had the possibility to

choose from several options in order to facilitate the process and avoid taking too much of their time.

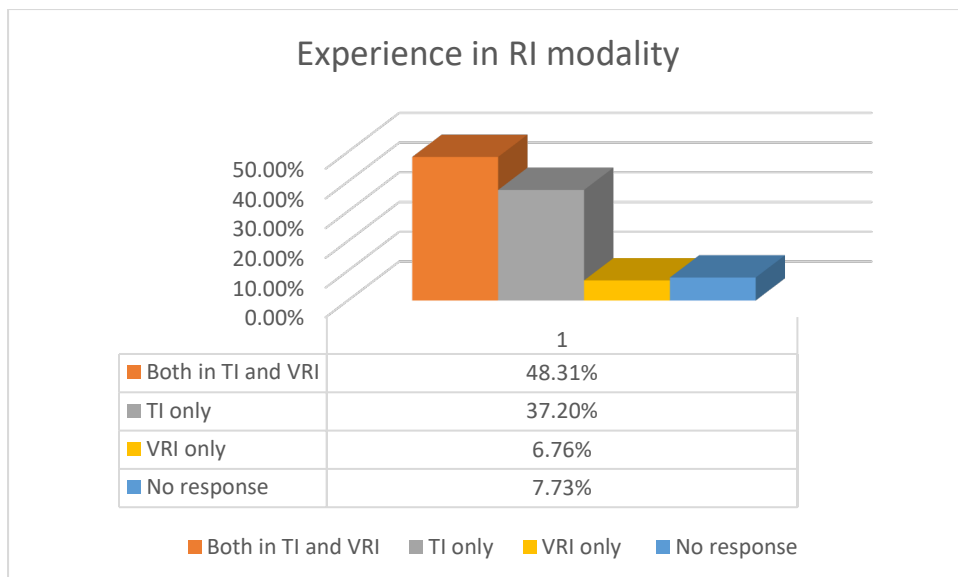
In order to understand the type of assignments performed before the pandemic hit, the following data was collected, as shown below:

Figure 3.Type of assignments pre-pandemic.



The interpreters were also asked if they had prior experience in both RI modalities with no distinction made at this stage between TI and VRI. 89.47% selected yes and only 10.05% selected no. The distinction between TI and VRI was then included, addressing the interpreters who had selected yes previously, and the following results were obtained:

Figure 4. Experience in TI and VRI.



The next step was to collect comparative information between pre-pandemic and during the pandemic times as shown in the two tables below:

Figure 5. Pre-pandemic assignments in 3 modalities (onsite, TI, VRI).

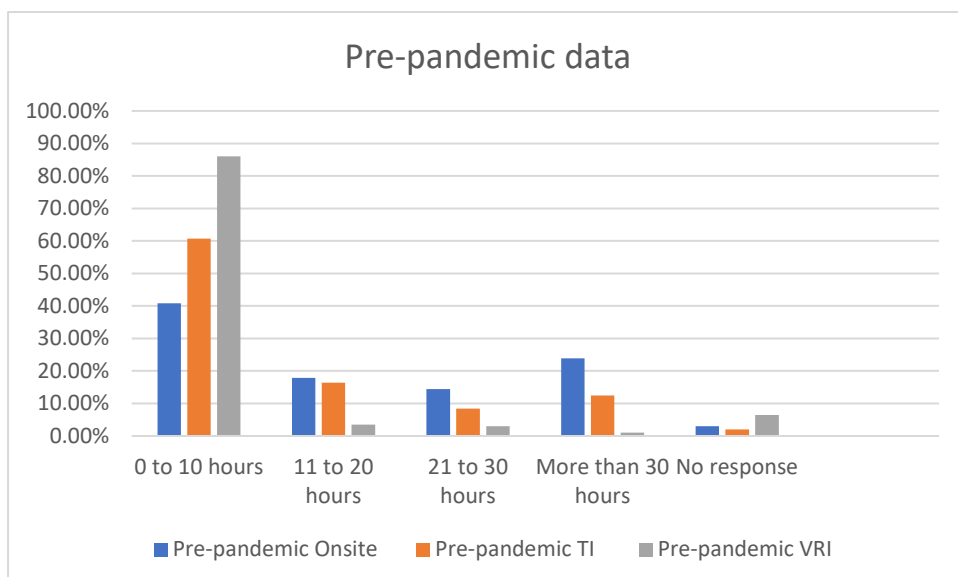
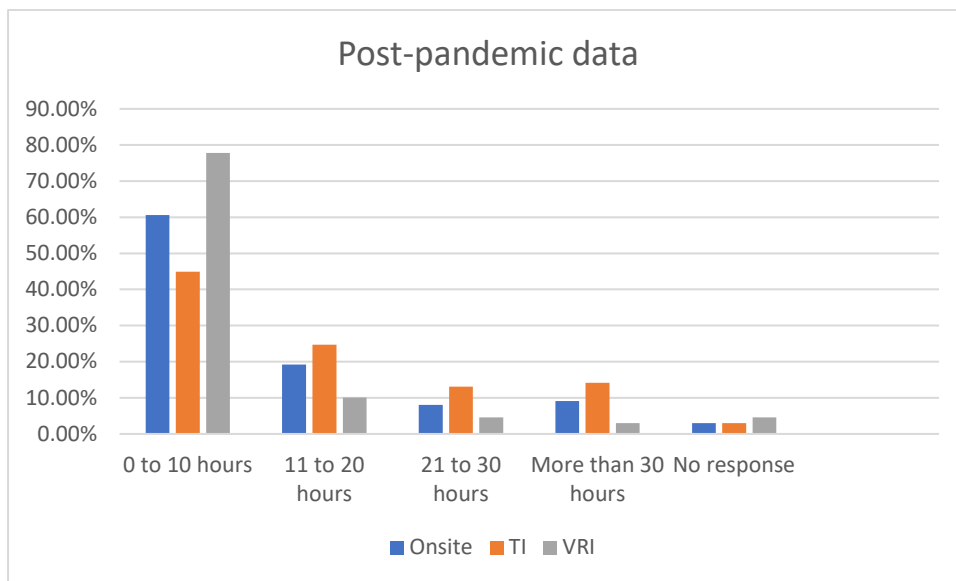


Figure 6. Post-pandemic assignments in 3 modalities (onsite, TI, VRI).



4.3. Working conditions

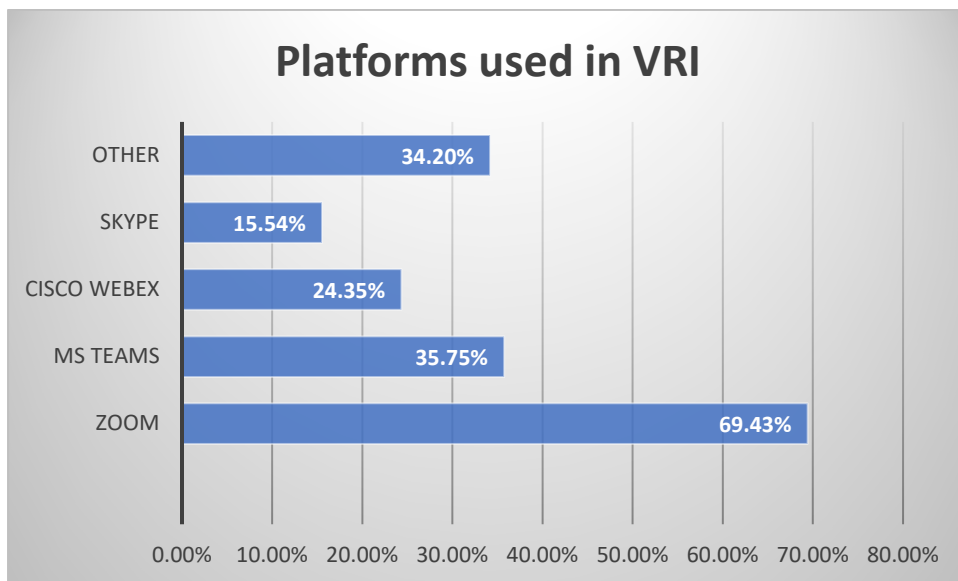
There were four questions in this section aiming to identify the devices used by interpreters when delivering their services and the length of the average VRI assignment. For most questions, the same pattern of pre-selected options was made available to participants. However, for Q11, a comments section was included to collect additional information on any existing VRI platforms available and to cater for the instances where the pre-selected options were not relevant. The underlying idea throughout this section was to welcome/capture any input to fuel the analysis and discussion to follow.

The respondents were asked to select which platforms they were using when performing VRI. A number of pre-selected options were available as well as a comment section to allow for any further information in this regard.

The Zoom platform tops the list, closely followed by Microsoft Teams. Telehealth, Healthdirect and the platform used by MNSW are the three platforms which fall under the 'other' category, as per the information provided by the respondents.

The table below displays the percentages obtained for each of the options:

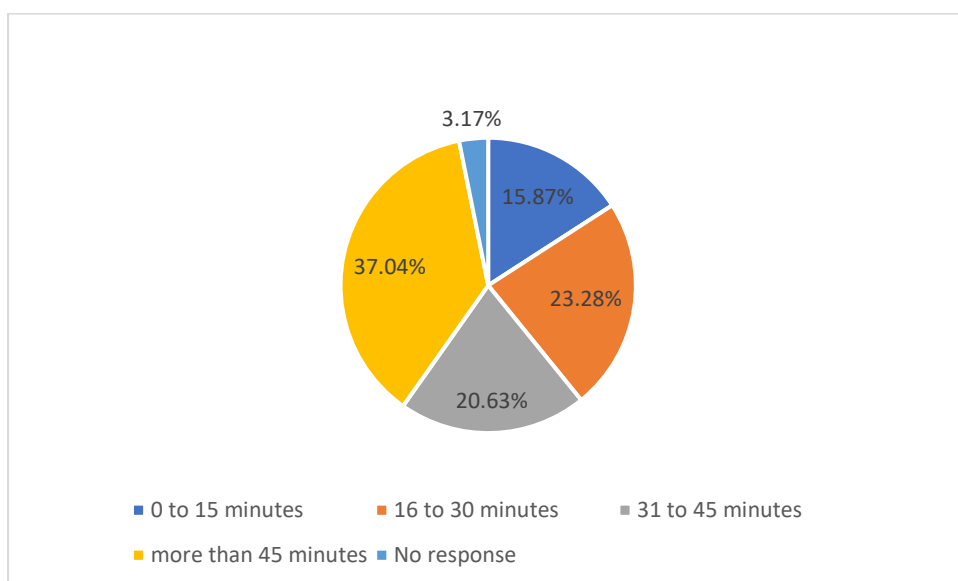
Figure 7. Platforms used when performing VRI.



In terms of equipment, it appears 84.38% of the respondents have not been provided by any image-supported device to deliver their service. When asked about the settings for the delivery of their service, 85 % of respondents indicate they work from home and only 11 % mention working from a hub.

The length of an average VRI assignment varies and is quite evenly spread between the different options presented:

Figure 8. Average length of VRI assignment.



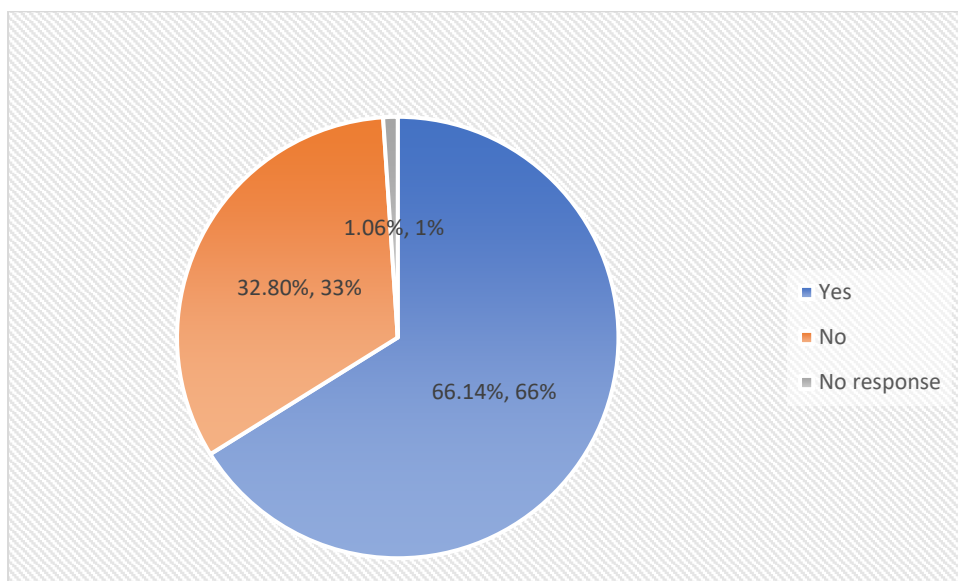
On the perception interpreters have of the length of a VRI assignment compared to an onsite one, 47.09% of respondents selected the length is similar, yet 38.10% indicate VRI assignments are shorter.

4.4. Interpreter views

This section contained the following 14 questions relating to participant interpreters' views and opinions based on their experience in healthcare settings. The subjective data to be collected is intended to cast light on interpreters' sentiment regarding this modality and also on the acceleration brought by the COVID-19 pandemic on the operational side of the industry: organisation and coordination of the interpreting bookings.

The first question under this section asked interpreters if they thought there were potential obstacles to the use of VRI:

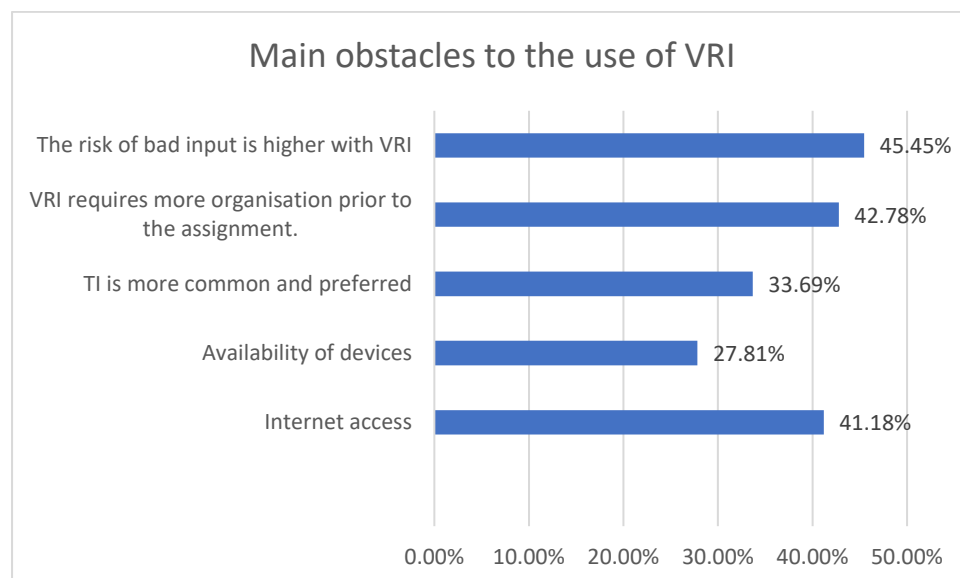
Figure 9. Interpreters' thoughts on potential obstacles to VRI.



For those who selected yes to the previous question, they were then presented with a number of options to identify any obstacle. A comment section was also provided to collect further information. Among the comments collected, several describe the CALD elderly patients who have little understanding of this technology and who do not have smartphones or tablets. It is also mentioned they do not like to be seen on

the screen. Another recurring comment is their preference for onsite interpreting which offers a more personal service.

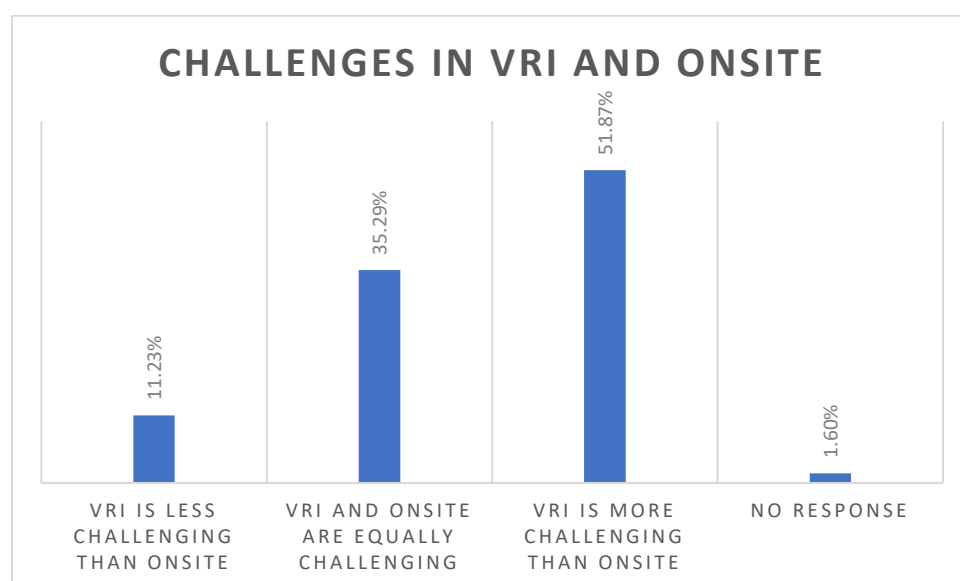
Figure 10. Main obstacles to the use of VRI according to interpreters.



The use of VRI can also be limited by the way the devices are located: faces can be partially obscured because of the poor placement of cameras. The sound can be affected as the microphone cannot pick up what everyone is saying.

When asked if VRI is more or less challenging than onsite interpreting, here are the responses obtained:

Figure 11. Challenges posed by VRI compared to onsite.



The next question asked about their personal preference: interpreting remotely or onsite? 42.93% selected RI and 55.98% selected onsite, out of 184 respondents. The interpreters were asked to justify their choice based on pre-selected options and they could comment further in a comments section.

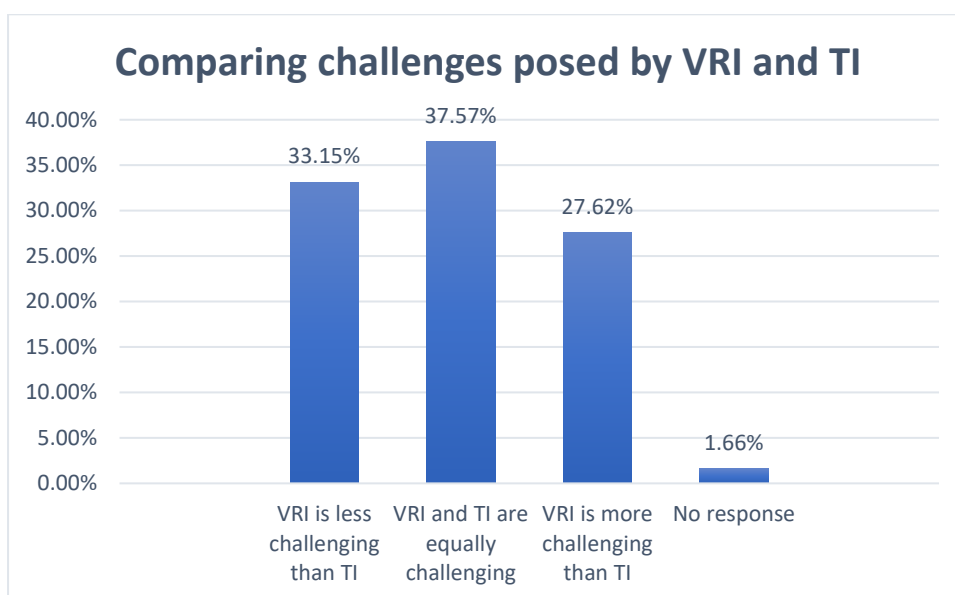
Table 1. Interpreters' feedback on their modality preference.

I am used to onsite interpreting.	43.41%
Onsite assignments are remunerated better.	30.22%
RI allows me to accept more assignments (no travel time)	41.76%
RI makes it easier to manage personal life combined with professional tasks.	45.05%
Other	38.46%

In order to refine the results obtained to distinguish TI from VRI, the interpreters were then asked which modality they preferred: 47.51% of the 181 respondents expressed a preference for TI, 50.83% were in favour of VRI, with 1.66% choosing not to answer this question.

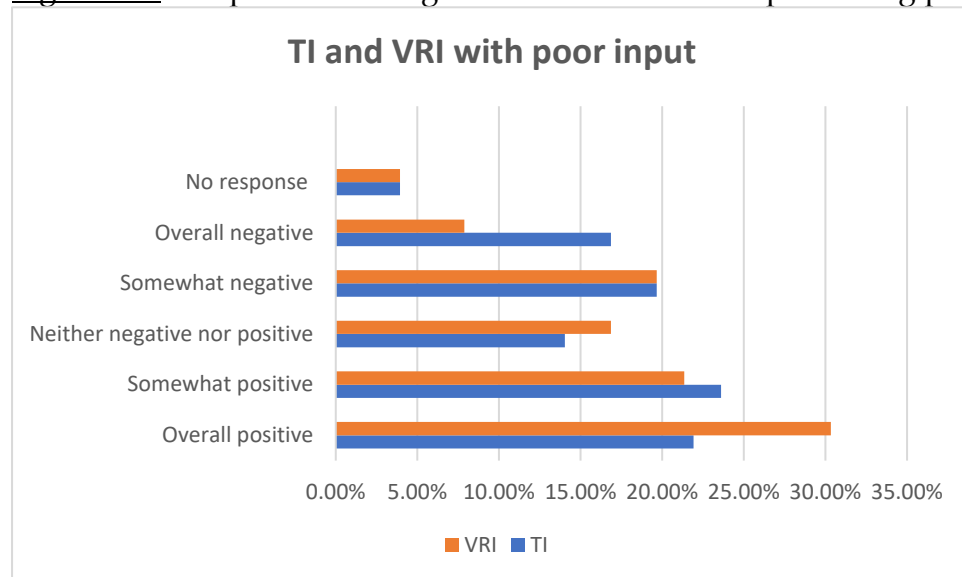
They were also asked to compare VRI and TI in terms of the challenges each posed:

Figure 12. Challenges posed by VRI compared to TI.



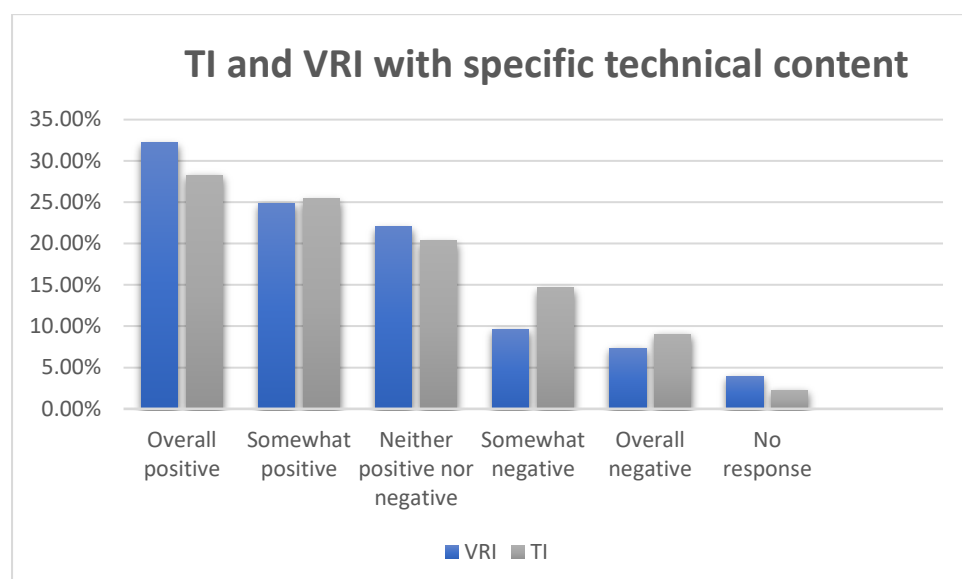
The comparison between VRI and TI continued to include additional variables in the interpreted exchange. The first factor was to imagine a situation where the speaker has either a poor articulation or a strong foreign accent, or in which the sound input is poor. If flagged as an overall positive experience, it is to be understood that the VRI modality proved positive in overcoming the difficulties posed by poor sound input. The responses are featured in Figure 13 below:

Figure 13. Comparative rating of TI and VRI when experiencing poor input.



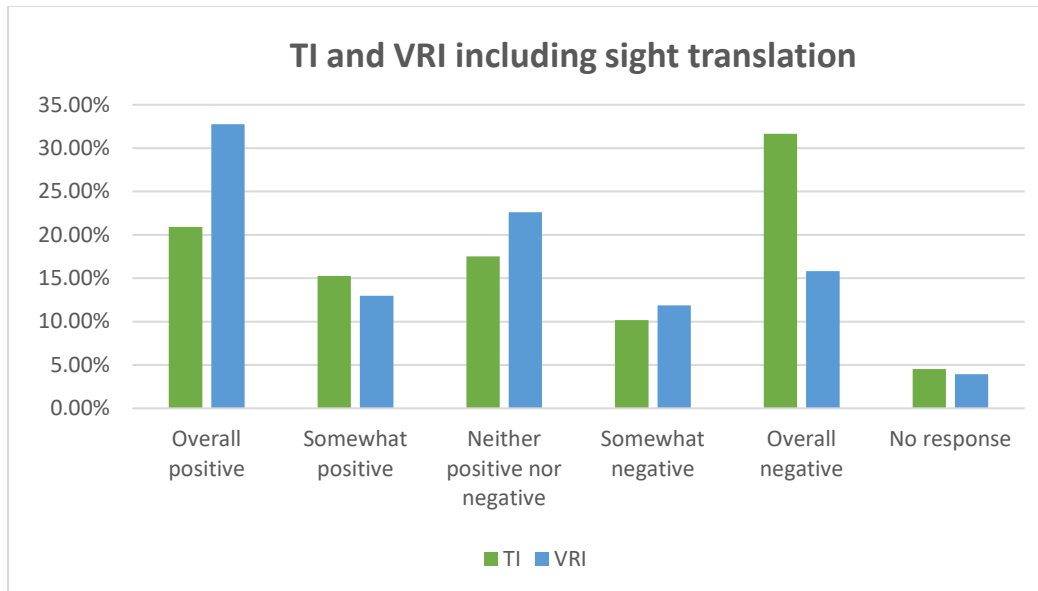
The next factor used to compare VRI and TI was to include specific technical content to see if one modality proved more suitable according to interpreters:

Figure 14. Comparative rating of TI and VRI when the exchange includes specific technical content.



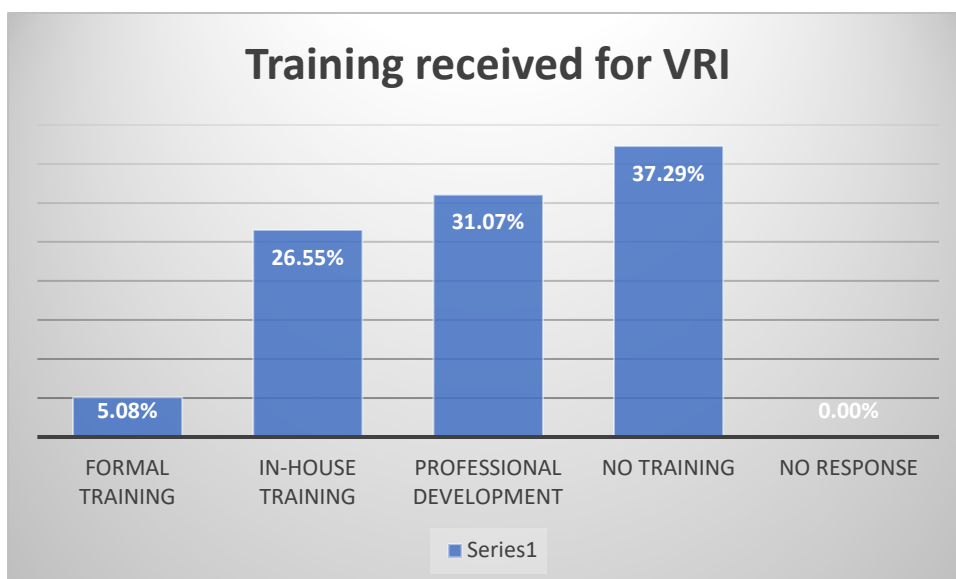
The next scenario included a sight translation to be performed while interpreting over the phone or via video:

Figure 15. Comparative rating of TI and VRI when including sight translation.



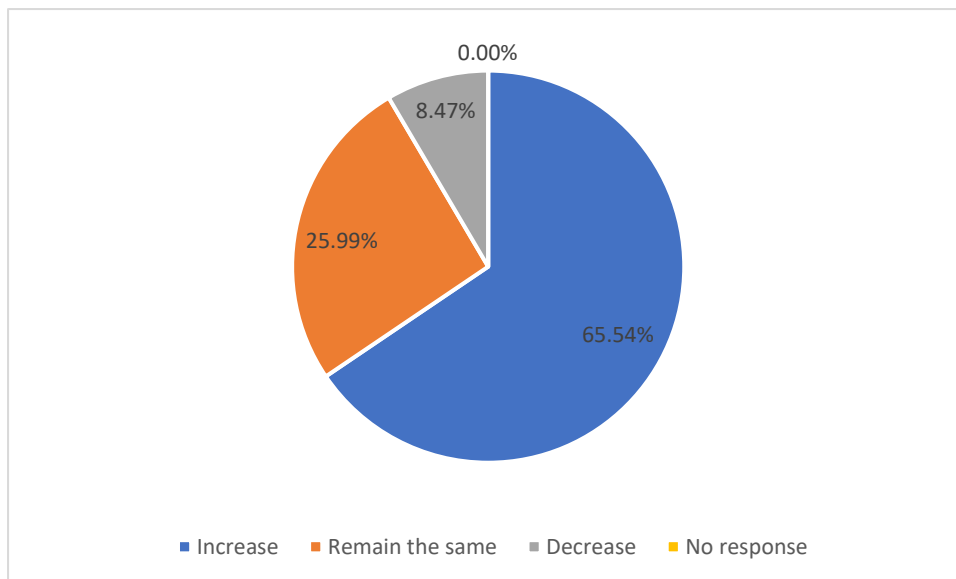
The last two questions in this section focused on the aspect of training to see if interpreters felt they had received enough training or opportunities to train, and to understand if they would be willing to undergo some sort of training to complement their existing set of skills.

Figure 16. Training received for VRI.



The last question focused on interpreters' opinion on the use of VRI in the future.

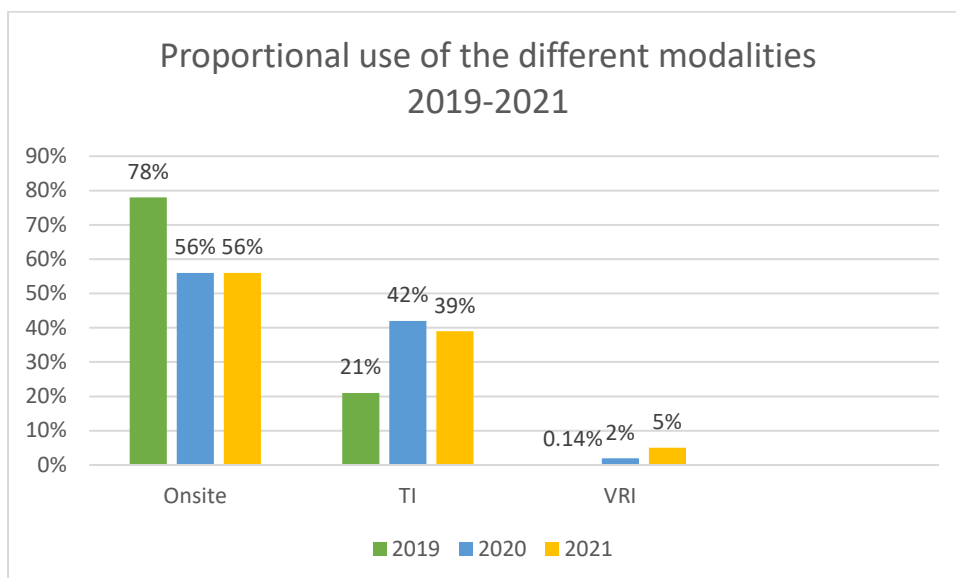
Figure 17. Interpreters' opinion on the future of VRI.



4.5. VRI proportion

If we take a look at the other information available, here are some figures from one LSP illustrating the shifts in the proportion of each of the modalities considered over the past three years nationwide:

Figure 18. Proportional use of different modalities 2019-2021.

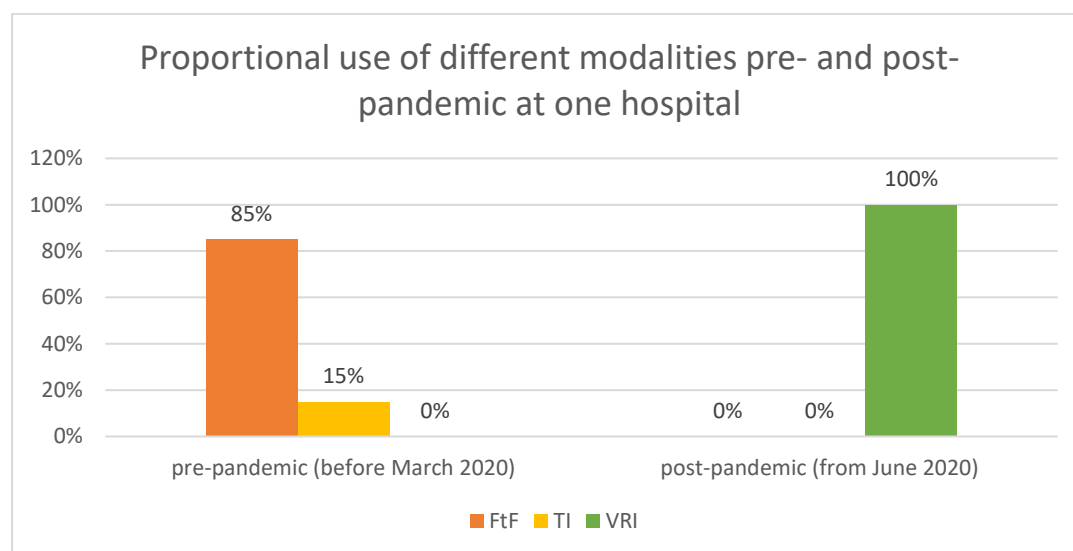


It is made clear that the volume of VRI underwent a significant increase between 2019 and 2020, with this trend continuing well into 2021 to reach 5 %. The figures mentioned here also reflect the operations carried outside of Australia, hence the still high number of onsite jobs.

Data collected from the questionnaire to healthcare professionals confirms the increase flagged by 80% of the respondents.

Here are also some figures from one hospital in NSW:

Figure 19. Proportional use of different modalities pre- and post-pandemic at one hospital.



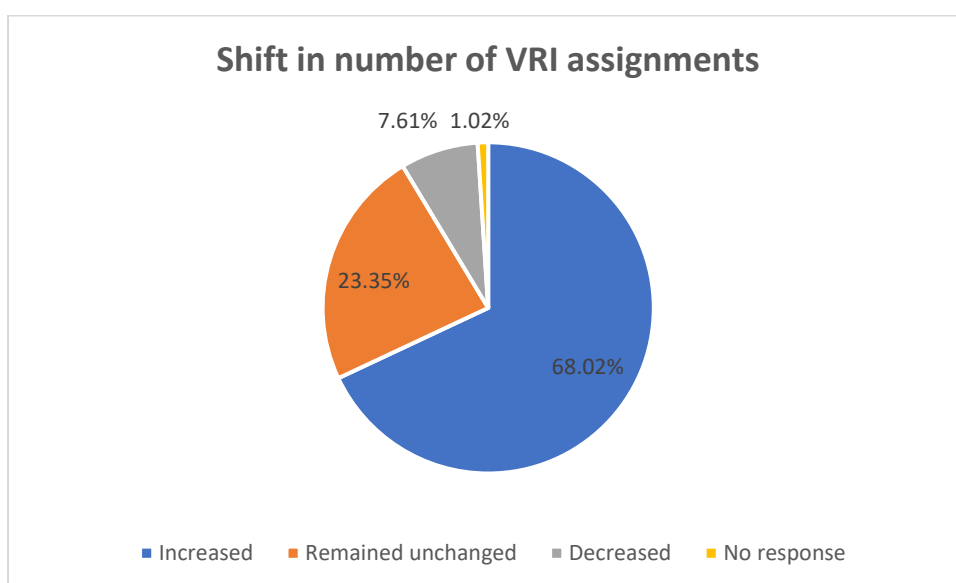
In this case, the language services department had already employed a Video Interpreting Lead in its ranks in 2019. Part of the duties involved with this role were to apply a new model involving the use of video communications. By February 2020, their services were using a dedicated VRI platform called *My Virtual Care* (MyVC) and more than 100 personnel had received specific training in the eighteen months that ensued, demonstrating a great level of preparedness and anticipation. The decision was made to fully switch to VRI after the pandemic hit and internal measures were adopted to support this transition for all the personnel involved in the process.

These first elements set the scene for the marked contrasts noted at times between hospitals, as well as the contrasts in the approaches taken between health

interpreting services and LSPs in terms of preparedness and response. I will come back to this point later in the discussion.

If we now add the data collected from the questionnaire to interpreters, 68 % of the respondents indicate they have witnessed an increase in VRI assignments. We obtain the following figures when asked to indicate if the number of VRI assignments have increased or decreased in healthcare interpreting:

Figure 20. Responses on shift in number of VRI assignments before the onset and in the midst of the pandemic.



4.6. Early trials for VRI

An early trial of the use of video as an alternative to onsite interpreting started in 2009 at the Alfred hospital in Victoria and the outcome was quite positive at the time. Two Melbourne-based LSPs also indicated they had been ready to offer VRI services several years before the pandemic, even investing in tablets at the time to offer them as part of the interpreting service in healthcare settings. But it seems these initiatives were met with obstacles such as Wi-Fi issues, firewalls in old buildings blocking the signals and also the absence of any real incentive to change a model that was fully operational with onsite interpreting bookings representing the bulk of the total interpreting assignments.

Yet, the final report of the DH Language Services Innovation Grants (Alfred Health, personal communications, September 16, 2021), hereinafter referred to as the DH Report, stating the outcomes of the project carried out to review and improve patient access to interpreting services in emergency, acute and outpatient settings through video interpreting, reveals that in one of the largest hospitals in Australia, the utilisation of interpreters is suboptimal. It is also indicated in the DH Report that interpreting support was provided to only 31% of inpatients and 24% of outpatients requiring such services. There is therefore a significant gap to fill to address interpreting needs in these sectors of medical services.

4.7. Length of VRI bookings

The average length of a VRI assignment is 16 to 30 minutes based on the findings from the interpreters' questionnaire (Fig.3). Yet, these figures tend to vary depending on the type of healthcare involved and on the hospital under consideration. For example, one hospital has chosen to limit all of its VRI bookings to 45 minutes. The reasons are two-fold: the interpreters are very tired after 45 minutes of interpreting and it is easier to manage the scheduled bookings once this limit is applied. In another hospital, the length will vary on the medical specialty involved. Under this model, a VRI booking will last 30 minutes on average but would last 15 minutes in endocrinology services, 60 minutes for matters of occupational therapy and 90 minutes in day procedure units in Cognitive Dementia and Memory Services (CDAMS) according to the data collected via the interviews. The feedback from hospitals shows that the VRI modality suits some medical specialities better, for example it is ideal in physiotherapy or for a patient with motor neurone disease but not in Intensive Care Units (ICU).

4.8. Interpreting management services

The size of hospital language services is small if we take into account the staff allocated solely to the management of both interpreting bookings and interpreters. At the time of this study, the teams consist of a skeleton of less than 10 people, excluding in-house interpreters.

The figures below show the number of staff working in the language services department in the hospitals considered:

Table 2. Number of staff members in hospital language services considered.

	Total staff	Staff managing interpreting services	in-house interpreters out of total staff
Hospital 1	20	5	15
Hospital 2	22	3	19
Hospital 3	44	2	42

Now, if we compare these figures with the coordinating teams in the two largest LSPs who manage a pool of interpreters, the ratio is 1:100, i.e. one coordinator for 100 interpreters. The tendency overall is therefore to manage a large number of assigned interpreters with a minimum number of dedicated staff. This might prove highly constraining, if not stressful, for staff members who need to juggle a lot of tasks to make sure the interpreters receive appropriate instructions, updates, cancellation notices and supporting documents. If we also take into consideration the fact that some of these coordinators lack a sufficient number of desktops to continue performing their duties while sharing their equipment with in-house interpreters (for those services who have an in-house team of interpreters), then the workflow is bound to be stretched and in times of crises, it will prove tremendously difficult to be across all the operational aspects.

4.9. Challenges of the VRI modality

When asked to compare onsite and VRI assignments (Figure 11), a majority of the respondents considered VRI to be more challenging. This result concurs with the feedback received from some of the language service departments and from LSPs on the fact that VRI is more taxing and adds to the cognitive load of the interpreter. Earlier research on the potential impacts of remote interpreting modes have already shown similar conclusions and how it might affect the interpreter's work (Cassidy, 1999; Moser-Mercer, 2003, Napier et al.,2018).

However, 50.83% of interpreters also indicate that if they are to work remotely, they prefer VRI compared to 47.51% who would prefer TI . These figures also show that for interpreters, there is not a large margin as initially expected between the two modalities in terms of their preferred modality. Given the fact that interpreters are less familiar with the VRI modality, it would be important to see if the results obtained change overtime.

If we compare these results with those obtained via the DH Report, we have an insight on the perspectives from both staff and patients on the use of VRI. The staff feedback on VRI service showed that 70% of respondents thought VRI and onsite provided the same level of service, 82% indicated that VRI was better than TI and 94% expressed they would use VRI in the future. The patient feedback was similar with 72%, 71% and 71% respectively.

Resorting to VRI has helped maintain the activity and support the delivery of interpreting services to CALD communities. Its use proved even more positive when Sight Translation (ST) was involved (Figure 16): 32.77% of interpreters stated VRI was overall positive followed by 12.99% selecting somewhat positive, as opposed to the same question using TI, obtaining 20.90% and 15.25% respectively. It was added through the interviews that the use of VRI was very useful to clarify or stress a point thanks to the chat function.

A number of benefits for interpreters working remotely and their employers is the absence of any travel time lost and of any expenses pertaining to transport to and from the location of the assignment. Interpreters feel their time is better used as per the feedback obtained via the questionnaire: “better financially as there is no travel”, “travelling time is non-existent”, “it is cheaper (no paying for parking)”, ‘remote interpreting saves on petrol, wear and tear, parking, tolls and time’. It is also said they can accept more jobs and for those living in remote parts of the States, it offers them more job opportunities: “remote does allow for more assignments”, “I live far from onsite needs”.

More bookings can be covered and more languages can be offered, as confirmed by 80% of healthcare professionals via the questionnaire and the interviews, which added that the remote mode gave access to a larger pool of interpreters (nationwide) and to higher levels of NAATI certification for each language.

Despite those positive outcomes, onsite remains the modality preferred by interpreters (Figure 11) as VRI is more challenging (51.18%), and by language service departments. All of the people who took part in the questionnaires and in the interviews stress the fact that onsite should be the default mode, and VRI should be the first RI solution instead of TI, which reveals a clear shift in the preferred RI mode compared to pre-pandemic times.

As for interpreters, a majority of them (55.98%) indicate they would prefer onsite assignments to remote assignments (42.93%) but here again, both results are quite close, showing an almost equal share in favour of one or the other option. Among the reasons invoked to support interpreters' preference for onsite, we find the following results: interpreters are used to delivering their services onsite (43.41%), onsite assignments are better remunerated (30.22%). The preference for onsite interaction and the importance of human connection and interpersonal communications are also mentioned several times in the comments section, adding that in onsite settings, there is no risk of poor connection.

How has the use of VRI impacted the delivery of healthcare services in Australia and what are the potential obstacles to its extended use?

Based on the data collected via this study, it appears the use of VRI has been introduced in response to an urgent need to offer an alternative solution. The immediate nature of this switch to a modality that had only been trialled at small scales in different settings means appropriate and specific training was not part of the equation at that particular moment in time. It also means that the extension of its use brought to light some evidence from the field and potential obstacles that might not have been identified previously.

4.10. Training in the VRI modality

Similarly to the scenario unfolding worldwide where there was no visibility as to the next step forward and a feeling of fumbling in the dark, language services were faced with the incredible challenge of switching to remote modalities to ensure the continuity of care and prevent any potential form of discrimination in relation to the access to medical information and services. In the meantime, they were tasked with offering an alternative option that would fit the strict requirements of several medical practices where the need to see the patient forms an intrinsic part of the diagnosis. The data collected showed different models were put in place in relation to training, or developed as part of the internal processes both in hospital language services departments and LSPs to ensure a seamless delivery of interpreting services.

More specifically on this topic, training can be difficult to organise sometimes as the staff is already very busy with their respective workloads. This would put additional pressure on staff who work in a fast-paced environment such as in emergency departments. Even more so in the context of the COVID-19 pandemic.

One of the solutions found by both hospital language services departments and LSPs to minimise this impact is to create and circulate internal guidelines and protocols to interpreters and healthcare staff involved. Regular meetings are organised to keep staff updated as to the recent changes needed or to come but it is then left to each and every one to make sure they as professionals are aware of any rules, changes and updates that might apply. In one hospital, a specific flowchart has been created and sent to clinicians and medical professionals with regular updates on interpreting challenges. This is a hurdle several healthcare services have mentioned. In the case of LSPs, the situation is slightly different. Incentives are offered to interpreters to participate or attend webinars in the form of Professional Development points (PD points are needed in different categories to renew NAATI certifications every three years) and a track record of interpreters' attendance is kept to guarantee the information has been shared and understood in terms of ethical requirements and etiquette.

At this stage, it is noteworthy to recall the abruptness of the crisis at the time it hit our shores. All the professionals involved had to find solutions and adjust to a rapidly changing environment under maximum constraints and pressure while lacking any visibility as to what the future may hold. This involves the interpreting managers themselves and their teams who had to learn and become familiar with these changes and emerging needs to understand how to train their staff accordingly, meaning adjustments were necessary, even critical, every time the landscape would change. These members of staff had to learn on the fly and were accountable for their capacity to stay informed as well as provide training and support to their teams.

Another aspect raised is that often, interpreters are asked during a VRI meeting to help with technological issues, assuming they would know. This indicates a lack of understanding and knowledge as to what an interpreter's skills are and what their job is. More education needs to be shared on this particular aspect to allow for professionals in different capacities to work in a same meeting.

In terms of any prior training in VRI (Figure 16), most respondents indicated they had received one or more form of training in the VRI modality. However, when asked if they would like to undergo specific VRI training or more VRI training, 69.49% of interpreters expressed their wish to pursue training. This shows interpreters feel that more training is needed to ensure a good delivery of the service.

The experience shared on the use of VRI from interpreters, interpreting services managers, and healthcare professionals alike are overall positive despite some reluctance from still a significant part of interpreters. When it comes to organising a VRI booking, it seems there are no particular issues in setting up the system. VRI does require more organisation prior and it helps to have a triage or administrative team set up to help navigate the system and streamline the workflow.

4.11. Potential obstacles to the use of VRI

From the responses collected, it appears that a certain number of factors can explain why the use of VRI is not optimal, and the DH Report previously mentioned also provides some examples and figures in that regard although its scope was limited to emergency, acute and outpatient settings only and in one hospital comprising five sites.

In several instances, the feedback from both LSPs and language services departments shows most actors involved: healthcare professionals and interpreters, prefer the onsite modality. In some of the interviews, some booking managers also shared examples where clinicians have declined a VRI booking when waiting for a call to be connected to the interpreter and decided to move to TI.

Having a family member present could hinder the communication exchange. As flagged by the LSPs in similar scenarios, there could be a potential privacy breach and confidentiality concerns with the risk of the patient holding back information.

In the case of outpatients, there are instances where the patient would fail to take the call because they not always tech-savvy and unable to use the technology on their own. A member of the family would need to be present but this brings another set of difficulties already described above. This incurs cancellation fees and time wasted mobilising both coordinators, interpreters and clinicians, adding up to the overall cost of non-serviced interpreting requests.

The positioning of the equipment as described in the additional comments collected can also prove an issue when trying to make optimal use of the devices available, a difficulty which has been observed in 2020 with the use of VRI for home-based healthcare services (Gilbert et al., 2021)

Other reasons hindering the use of VRI are connection fails. Most of the time, it seems poor connection and Wi-fi issues are often to blame. At the start of the pandemic, interviewees explained the limitations they would face as technology could not sustain the higher level of demand. As the pandemic lingered,

technological support was ramped up and the communication systems and platforms are now improved and more stable.

In terms of the equipment available for interpreters, the hardware (headphones, laptops and desktops) and software (video interpreting platform) available varies from one hospital to another. The way it is operated in some hospitals has been described where the access to a desktop equipped with the VRI software is limited. The in-house interpreter, when scheduled for a VRI booking, would come from the office where s/he was busy working on translations and sit down at one of 2 desktops in the manager's office as these are the only two devices set up for VRI. There is no privacy guaranteed despite the interpreter using a virtual background. All colleagues involved are aware of this far-from-ideal scenario and are working on investing in more devices in the near future to foster better internal workflow protocols. This is also the reason why VRI bookings are generally reserved for interpreters working from home as it prevents any slowing down of the workload as there are no interruptions due to working on the same computer. As for the equipment aspect, other settings have been described: for example, an entire floor has been organised with open space for interpreters to allow them to take their calls. In another setting, interpreters do not have a dedicated space to interpret but clinicians have booths from which they can take VRI calls.

In the case of LSPs, the working model differs greatly. Hubs with technical support have been organised for external interpreters employed on a casual basis. They are trained internally via webinars and instructional videos and technical specifications are checked with the technicians online to make sure the connectivity is up and running before a VRI booking comes through. The LSP administrative interpreting team organises calls prior to the scheduled booking to check if interpreters have all the information they need before delivering their services. This model has proved highly performant and is commended by the hospitals who externalise part of their interpreting requests to these LSPs. At the time of this study, hospitals were scaling

up their interpreting services to meet similar levels of performance in terms of training, technical and information checks.

Waiting times are also described as an obstacle to the use of VRI. Instances where the interpreter has been left waiting for long periods of time before being connected are mentioned both in the comments section in the interpreters' questionnaire and the data collected from the interviews. This information sheds light on the time wasted by interpreters and on a system that needs to be improved to make better use of in-house and external interpreters.

In the comments put forward by interpreters via the online questionnaire, it is also stressed that there is less opportunity for briefings with VRI, an aspect which concurs with the feedback received at one hospital regarding necessary direction instructions at the start of a VRI booking.

The use of VRI in relation to the length of the bookings leads to some concerns about induced fatigue, resulting in one hospital making the decision of fixing a maximum limit of 45 minutes. This would align with previous studies showing evidence of earlier onset of fatigue of interpreters when working remotely in remote simultaneous settings (Recommendations on Health Precautions for Conference Interpreters during the COVID-19 Pandemic, 2020).

VRI has proven a useful and helpful solution especially in physiotherapy: it has increased CALD patient access by 12% in ED and 19% on the wards as stated in the DH Report. In another large hospital and one of the busiest in Australia, with the launch of the Virtual ID launched in 2020 as part of the Video Interpreting Project, people are more and more confident and familiar with VRI and VRI assignments are increasing. But the downside of the growing popularity of this modality is the increasing breakdown in communication between health services and patients: there is less time to organise pre-calls to inform the patient the scheduled booking will be performed via video. Barriers in infrastructure are starting to emerge. An illustration of this is when the patient has not been able to prepare to be at home for the date

and time planned. When the call comes through, not knowing it is VRI and that there would be an interpreter present, they would hear an English speaker on the line and would then respond in their LOTE indicating they do not understand English, and would do so repeatedly.

Another limit to the use of VRI depends on the communities involved. The feedback received across questionnaires and interviews reveals that patients belonging to the group of established languages, among which but not exclusively, Spanish, Greek, Italian, Turkish, are not used to these new technologies and would only use a smartphone, when they do, to simply give a phone call. Another feedback via the questionnaires and the interviews stresses that elderly patients are much less likely to use technologies available. However, a difference in the elderly patients' group was drawn between elderly patients of Asian origin, described as more open and familiar with the use of new technologies at one hospital. In any case, it appears that a return to onsite interpreting would be the best approach to cater for the needs of these communities and patients.

Chapter 5. Conclusion

This study set out to explore 1. What changes have been implemented in medical interpreted consultations since the COVID-19 pandemic hit, and 2. How the use of VRI impacted the delivery of healthcare services in Australia and what the potential obstacles to its extended use are.

In this chapter, I will discuss the main findings in the light of previous findings. I will also briefly touch upon limitations and recommendations.

5.1. Recommendations following the changes implemented and the impacts of the use of VRI in the delivery of healthcare services

My study found that the overall experience of using Video Remote Interpreting in healthcare settings was positive with VRI being now the preferred remote modality over telephone interpreting. When different additional factors were added to an interpreting situation, such as a poor input, additional sight translation task or inclusion of technical content, interpreters expressed the view that VRI proved more efficient than TI (Figures 13, 14, 15). Yet, the outcomes of the study highlight several contrasts between the different participants and according to their profiles. The first contrast concerns the group of participant interpreters where there is an almost equal divide between those who prefer onsite and those who are happy with VRI. More data would be needed to confirm these results on a larger scale and to observe any changing trends according to the level of investment allocated to the training of interpreters and devoted to the provision of good working conditions with appropriate equipment to see if these changes bring different results and sentiments on the part of interpreting practitioners.

Another contrast pertains to the level of preparedness in anticipation of a remote delivery of services. The approach to the delivery of interpreting services via video varies greatly from one hospital to another, with one even opting for a 100% delivery of its services using VRI as from July 2020 while others are still favouring TI as the best remote option and awaiting the return to onsite bookings. As for interpreters, it would be interesting to compare the experience of those who stated having little experience with VRI (Figure 4) to see if this can be linked with their modality preference.

Given the limited scope of this study, and based on the feedback gathered with the different participants, more data would be to gather information on the experience and perceptions of healthcare professionals and patients.

The LSPs interviewed have shown a strong support to the community of interpreters through the investment in training and operations to ensure a smooth running of the VRI service. More data collected from other LSPs in Australia would be necessary to check if other LSPs have chosen a similar approach in investing time and resource to this end.

Another important fact when focusing specifically on interpreters is that they are not provided by devices by their employers. This raises the question as to the limits of homeworking: should interpreters use their home internet to perform a professional task? This situation brings an additional cost for interpreters.

At the time of this study, there is not much feedback from telemedicine teams and from in-house interpreters. There are also limited quality assurance controls in hospital language services, mainly due to lack of time, whereas the interviewed LSPs have put in place efficient internal processes to monitor their services and adapt to a rapidly changing landscape. It would be interesting to carry out a similar study in the near future and see if feedback report forms have been put in place as well as monitoring of calls and a record of the logs and see if the data hence collected could help inform the decision-making process efficiently.

As part of the interesting initiatives launched in the midst of the pandemic, the Virtual ID launch for emergency departments at a large hospital in Victoria, the busiest in the country, helps shape future processes. Unless people are in life-threatening situations, its focus is to encourage people to first connect via video with ED services, a sort of pre-triage system and this has proven very positive to help manage the flow of incoming patients. This means video-supported processes are to become an integral part of the new normal and regular workflow, not only for interpreting requests. One could imagine this will contribute to more familiarisation from individuals and less reluctance on the part of both patients and interpreters to embrace new technologies in their everyday life and professional activity.

On this particular point, some limits to the use of new technologies could have to do with the age group considered and the cultural background, especially in the communities of established languages. It would be interesting to carry out research in both aspects to see if this can be verified and if, as shared with several interviewees, this generational gap will disappear in the five to ten years to come, the next generations being more tech-savvy and embracing technology more positively.

One of the main limits to the use of VRI still is the digital coverage and access. This situation could foster an unequal treatment of patients depending on their location and social level as stated earlier in this study. If the VRI modality were to be expanded as expected, this is an important characteristic that needs concrete action and investment to prevent any discontinuity of care in Australian medical services especially for CALD patients. Again, it will be essential to identify the level of investments required to ensure language needs are covered and that market demands are met.

Interviewees for this study have shared information regarding existing plans to increase the number of languages offered from 5 today to 20 languages in some hospitals rather than externalising these services to private agencies. There are also plans to create the South Melbourne Language Services partnership: it would enable three organisations (Alfred, Monash and Peninsula Health) to share a common database of interpreter profiles, thereby reducing the costs of hiring them, increasing the use of underemployed resources (in-house interpreters) and also reduce dependence on external agencies. Down the road, it would help reduce the risk posed by the significant share of calls that are cancelled last minute and which incur a costly amount of cancellation fees.

The essential need for interpreting services, and therefore for qualified professionals to deliver interpreting, has benefitted from the crisis as it has cast an important light on this profession. It will be interesting to see how these support employees will be

employed in the future: employment vs. contractor model, and under which conditions, as the Health Professionals and Support Services Award 2020 moves forward in the first semester of 2022. The implications in terms of remuneration and status have the potential to greatly impact the way these services have been organised to this day in Australia.

It could prove relevant to investigate if a harmonised approach per State using the same VRI telemedicine platform instead of one platform being selected per hospital could be considered and eventually, applied. At the time of this study, many different VRI platforms were being used (Figure 7), some commercial ones (Zoom, Webex, Google Meet, MS Teams) and some dedicated ones such as *Telehealth* and *HealthDirect*. This adds to the complexity of processes and trainings in place due to the variety of platforms on offer. Healthcare interpreters, when not working as in-house employees, work on a casual basis for a number of private service providers and have to switch from one to another with many apps uploaded on their laptops and tablets.

Despite the many benefits of VRI and the technological improvements which took place, accelerated by the urgency of the crisis at hand, most if not all of the participants wish for a return to onsite interpreting. The reasons are multiple: it fosters better human connections and provides improved care of the patient; the briefings are better in onsite settings as opposed to online calls in TI and VRI where it tends to be skipped; interpreters feel their presence and their work is meaningful as opposed to feeling invisible. Interpreters/hospital staff and LSPs all agree on the fact that onsite should be the default mode, in line with earlier findings by Azarmina and Wallace (2005) who had found that interpreters preferred onsite to VRI but preferred VRI to TI.

Through the different interviews which took place, it is also necessary to assess which modality is best suited depending on the nature of the appointment. A recommendation was made in this regard in a recently published article on the use

of VRI for home-based cognitive assessments (Gilbert et al., 2021). This in turn means a more specific training of staff and especially of booking officers who will be required to triage the booking requests. There was a strong and unanimous response in favour of more training both for interpreters and for healthcare professionals: educating other professionals working with interpreters would help having a better understanding of how an interpreted triadic exchange should be conducted and why interpreters have to comply with the AUSIT Code of Ethics. Similar initiatives of educating other professionals working with interpreters have been carried out in the legal sector (Recommended National Standards for Working with Interpreters in Courts and Tribunals, 2017) and in mental health (Hlavac, 2017) with positive outcomes. A better understanding would contribute to more respect of the needs and capacities of every professional involved.

When the time comes for a return to a “normal” situation, i.e. *close to pre-pandemic times*, it seems expectations are that the proportion of VRI will not be as high as initially thought. Yet, it will represent a larger proportion than in the past. A hybrid scenario is on the horizon and it is confirmed by recent workshops and global consultations between the World Health Organisation (WHO) and UNICEF on the importance of assistive technologies³ using Artificial Intelligence (AI), namely hearing aids, wheelchairs, corrective glasses, *inter alia*. One of the key takings from these consultations pertained to the importance of informing individuals of their rights to access such technologies especially for the most vulnerable among us. Such high-level meetings remind us that despite the existing legislation such as the Australian Disability Discrimination Act 1992, there is still a lot to be done in that area. The other main outcome meant to stress the critical importance of digital inclusion in a technological-driven world where the risk posed by unequal access to technology will create more gaps between different sections of society and affect those already at risk first. Research carried out into mental health among the

³ Second global consultation for the WHO-UNICEF Global Report on Assistive Technology (GReAT) 27-28 October 2021

Victorian multicultural communities show how the pandemic has amplified already existing gaps in terms of access to quality healthcare (Miletic, 2020).

If it were proven that a CALD patient failed to receive proper medical care and did not have equal and fair access to healthcare information and services, consequences could be dire and expose healthcare services to liability and subsequent compensation. We also know that satisfied patients are more likely to engage in their healthcare and adhere to medical advice if they are given a fair access to health information and feel supported (Patient centred-care, 2011). This is what continuity of care is about and failure to deliver such services ends up as a burden on the whole society.

Investments would also be needed in hospitals and clinics to provide more laptops and monitors to perform VRI and to create hubs for interpreters. Hardware equipment, especially headphones with noise cancelling features are essential to guarantee the best sound input and protect interpreters' health. This means more training too, raising awareness as to the risks from omnidirectional sound input with language services departments and healthcare interpreters. Based on the exchanges carried out for the purpose of the study, this was a well understood point and taken into account both in LSP training and support as well as hospital language services.

Interesting partnerships between LSPs and university programs have contributed to the creation of resource materials for their pool of interpreters: podcasts, webinars and online professional development workshops. Maybe similar partnerships could be envisaged for hospital language services departments to alleviate the burden on interpreting managers who are doing their best to create internal guidelines and procedures as well as organising internal trainings for interpreters on top of their current workload.

5.2. Limitations of the study

This study had to be limited to certain profiles and locations given its timeline: 12 months. The decision was made to consider only spoken languages at this stage with the idea of widening the scope in future studies.

Auslan interpreters cannot work remotely with the TI modality and collecting more data from sign language interpreters would add value to a study focusing on VRI.

As it was necessary to receive feedback from interpreters who had at least one year of past experience in healthcare interpreting, a number of interpreters could not take part in the questionnaire circulated. The fact of adding a restriction to only NAATI certified (CI) and NAATI certified provisional interpreters (CPI) limited the number of potential participants even more. A subsequent oversight was that it eliminated *de facto* those interpreters interpreting into and from languages that are still not assessed by NAATI at the time of the study. Another consequence is that it also excluded long time experienced practitioners who hold a NAATI lifetime accreditation and who have not transitioned to the NAATI certification system introduced in January 2018. Lastly, the choice was made not to include Aboriginal languages either at this stage and to include them as part of a larger study later if it were to go forward.

As observed with the data collected via the questionnaires, there was a gradual disengagement of the interpreter respondents: from the initial 226 participants, 78.3 % took part in the last question. While it is still a high participation rate, the reasons for a gradual decline in participation might be the length of the questionnaire itself, discouraging participants or taking more time than initially thought.

As for the questionnaire to healthcare professionals, it was expected that the low ethical risk of the study would suffice to obtain their participation. The subsequent low participation rate was an unexpected setback due to the lack of awareness of

internal hospital requirements and strict authorisation protocols which take time in terms of information to be communicated internally to the relevant services. At the same time, in the light of their overly busy schedules in the context of the crisis at hand, having five participants was deemed a good outcome. A thought is that an earlier start of the circulation of this questionnaire and engagement with hospital internal ethics committees might have helped gather more data.

Eventually, the successive lockdowns did not contribute to facilitate the investigation process: meeting in person might have proven easier to meet and explain the rationale of the study and its objectives. While relying on remote modes of communication has certainly proven very useful, services were already stretched to their maximum capacity in the context of the COVID-19 health crisis and did not always have the time available to participate in this project.

5.3. Avenues for further research

As one of the modalities in Remote Interpreting (RI), VRI focuses on the dialogic mode using consecutive interpreting, and at times can be complemented by Sight Translation (ST). Nearly two years into the pandemic, it would prove useful to expand the study on the use of VRI to the rest of Australia. In NSW and Victoria, more time is needed to collect additional data and interview a larger number of actors in healthcare settings. Extending the study to other States and Territories would help to see how the data compares and what *modus operandi* was adopted. It would also prove interesting to include data in relation to Aboriginal languages and observe if any modification to the previous model was possible and if so, performed.

A comparison between States and Territories would also help us to understand the digital landscape and its implications on the delivery of interpreting services as well as its potential impacts on several other levels: economic, social, cultural.

More data analyses could direct attention to what needs to be considered in the future should the hybrid mode be adopted in a post-pandemic world, and in

particular relating to working conditions. Among those aspects, the length of working time for interpreters, while not modified in a majority of cases, is a cause of concern because of the potential health consequences as shown by existing research on RI. The right choice of interpreting platform, key to prevent health-related risks to interpreters, is another important element to be investigated. In this regard, a parallel could be drawn between community interpreting and conference interpreting in terms of the length of assignments, working conditions and interpreting platforms used. In 2005, Moser-Mercer already shed light on the increased fatigue incurred by Remote Simultaneous Interpreting (RSI) in comparison to the traditional booth setting, the 'feeling of disorientation' in a Virtual Environment (VE) setting (Seeber, 2019), therefore adding to the cognitive load. Common practice is that SI interpreters work in teams of two, sometimes three, as the pressure and high level of concentration required whilst providing a quality delivery can only be maintained for a maximum of thirty minutes (Chmiel, 2008). It would be interesting to see whether the data collected in a post-pandemic landscape will reveal similar findings in community interpreting, and whether the working model changes to take into account the training of community interpreters as well as an awareness as to their working conditions (e.g. sometimes working a whole day alone with poor sound input). The feeling of isolation has been stressed by several participants in the present study and this calls for further studies to see if it is widespread and if it reflects a reality or rather a perception on the part of interpreters. Insights in remote interpreting relating to ergonomics would certainly be of interest to both practitioners and employers. Moreover, assignments are increasingly performed via commercial platforms such as Zoom and MS Teams and performed by community interpreters who are not familiar with the RSI modality, leaving the introduction to this mode of delivery to be explained by interpreting coordinators or managers before the assignment. This could be another opportunity to explore the future of interpreter training in a rapidly changing landscape.

The characteristics of the equipment and technology required compared to those provided (headsets, monitors, microphones, etc.) would also contribute to outline the potential health risks posed by the lack of appropriate equipment (acoustic shocks, increased listening and eye fatigue, musculoskeletal pains, *inter alia*).

The additional feature of visual-verbal input with live captioning or the use of the chat box in online meetings could be explored further to see to what extent it affects a quality interpreting performance.

Lastly, an interdisciplinary approach would be necessary to study the performance of community interpreters in RI conditions by comparing their deliveries. It would also prove interesting to compare novice interpreters, trained to new technologies and their use, with more experienced interpreters and evaluate how the changes in equipment and technological resources impact them.

The rapid increase in the use of VRI has changed the interpreting services landscape and this modality is here to stay. The delivery of interpreting services in the future will likely tend towards a hybrid scenario with some of the speakers onsite and the interpreter working from a remote location, and it will also depend on which modality has been identified as the most appropriate. The study results obtained mean the appropriate technology as well as proper VRI training are needed in order to offer a quality service and protect interpreters' well-being. It also means that contrary to what some interpreters might fear, the future will still need interpreting services delivered both onsite and remotely, and forecasts a win-win perspective for those ready to embrace new technologies as an integral part of the new working paradigm. As RSI pioneer Bill Woods famously said in the 1980s: "interpreters will not be replaced by technology, but by interpreters using technology."

ETHICAL CONSIDERATIONS

In the context of the current pandemic and the strict restrictions in place in Victoria and possibly other states, this study was subject to an ethical clearance issued by

Macquarie University under Ethics approval number 52021928324745 / 9283 (see Appendix 4).

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APPENDICES

Appendix 1: Questionnaire to Interpreters

Potential value of Video Remote Interpreting (VRI) in healthcare settings: questionnaire to Interpreters

Dear Interpreters,

Researchers at Macquarie University (Sydney) are seeking volunteer research participants to take part in an online experiment. The aim is to learn about (1) how the delivery model of the interpreted health consultation evolved to adapt to the new ecosystem borne from the crisis and to see (2) if VRI has proven a flexible and efficient tool in Australian healthcare settings. Macquarie University researchers are recruiting interpreters specialising in healthcare who: a) Have NAATI credentials not below Certified Provisional Interpreter or Certified Interpreter in any spoken language; b) Have a minimum of one (1) year or more experience in healthcare interpreting. It should take less than 30 minutes to complete the whole questionnaire.

It is hoped that the results can provide evidence-based data for the understanding of the potential added value of VRI in healthcare settings compared to other modes. They will provide some insights for interpreting training and professional practice, especially regarding national standards for interpreters' working conditions under the current COVID-19 restrictions and future practice protocols.

It should take less than 30 minutes to complete the whole questionnaire.

[Click here](#) to access the consent form.

Ethics approval number: 52021928324745 / 9283

In such cases where you wish to jump directly to the next question, please click 'Next' and then select 'Continue without answering'.

The selected terminology applies:

- **Onsite interpreting**, also known as face-to-face interpreting, in-person interpreting
- **Telephone interpreting**, also known as over the phone interpreting
- **Video Remote Interpreting (VRI)**
- **Remote Interpreting** includes, but is not limited to, Telephone Interpreting (TI) and Video Remote Interpreting (VRI).

If you have further queries, please contact the Student Investigator Karine Bachelier (karine.bachelier@hdr.mq.edu.au) to get more details. We are looking forward to hearing from you.

Thank you and best wishes.

Interpreters

1. How long have you been working as an interpreter? Please choose **only one** of the following:

- 0 to 5 years.
- 6 to 10 years.
- More than 10 years.

2. How long have you been working as an interpreter in healthcare? Please choose **only one** of the following:

- 0 to 5 years.
- 6 to 10 years.
- More than 10 years

3 In the past 3 years, how many hours per month on average were you working as an interpreter overall? Please choose **only one** of the following:

- 0 to 10 hours per month
- 11 to 20 hours per month
- 21 to 30 hours per month
- More than 30 hours per month

4. Since the pandemic hit, have your assignments been:

Please choose **only one** of the following:

- Only onsite
- Mostly onsite
- Both equally
- Mostly remote
- Only remote

5. Before the COVID-19 pandemic, did you have experience working in remote interpreting: Telephone Interpreting (TI) and Video Remote Interpreting (VRI):

Please choose **only one** of the following:

- Yes
- No

6. If you selected 'No', please go to the next question by clicking 'next', then select 'continue without answering'. If you selected 'Yes', please specify: Please choose **only one** of the following:

- Both in TI and VRI.
- Telephone Interpreting (TI) only.
- Video Remote Interpreting (VRI) only.

7. Pre-pandemic: Please indicate the number of hours per month you have been engaged in healthcare interpreting:

	0 to 10 hours	11 to 20 hours	21 to 30 hours	More than 30 hours
Onsite				
Telephone Interpreting (TI)				
Video Remote Interpreting (VRI)				

8. Post-pandemic: Please indicate the number of hours per month you have been engaged in healthcare interpreting:

	0 to 10 hours	11 to 20 hours	21 to 30 hours	More than 30 hours
Onsite				
Telephone Interpreting (TI)				
Video Remote Interpreting (VRI)				

9. Compared to pre-pandemic times, would you say the number of VRI assignments have:

Please choose **only one** of the following:

- Increased
- Remained unchanged
- Decreased

10. If you have selected "remained unchanged" for the previous question, please go to the next question by clicking 'next' then select 'continue without answering'. In the case of a decrease or increase, in what proportion:

Please choose only one of the following:

- 1 to 25%
- 26% to 50%
- More than 50%

11. When performing VRI, which platform are you using:

Please choose **all** that apply:

- Zoom
- MS Teams
- Cisco Webex
- Skype
- Go to Meeting
- Other, please specify:

12. For VRI assignments, has your employer provided you with image-supported devices (tablets, laptops, desktops, monitors, etc.) to deliver your interpreting services?

Please choose **only one** of the following:

- Yes
- No

13. Are your VRI assignments mostly home-based (you are working from home) or hub-based (your employer provides you with a dedicated area equipped for VRI assignments)? Please choose **only one** of the following:

- Home-based
- Hub-based

14. How long is the average VRI assignment? Please choose **only one** of the following:

- 0 to 15 minutes
- 16 to 30 minutes
- 31 to 45 minutes
- more than 45 minutes

15. Compared to onsite similar assignments, would you say the average duration of VRI assignments are:

Please choose **only one** of the following:

- Shorter
- Similar
- Longer

16. In your opinion, are there any obstacles to the use of VRI? Please choose **only one** of the following:

- Yes
- No

17. If you replied 'No', please click 'next' then select 'continue without answering'. If you replied 'Yes', which of the following would apply:

Please choose **all** that apply:

- Internet access
- Availability of devices
- Telephone Interpreting is more common and preferred
- VRI requires more organisation prior to the assignment
- The risk of bad input due to poor connection is higher with VRI than with audio only
- Other:

18. In your opinion:

Please choose **only one** of the following:

- VRI is less challenging than onsite interpreting
- VRI and onsite interpreting are equally challenging
- VRI is more challenging than onsite interpreting

19. If you were to choose between onsite interpreting and remote interpreting, what would be your personal preference? Please choose **only one** of the following:

- Remote interpreting
- Onsite Interpreting

20. Why? Please choose **all** that apply:

- I am used to onsite interpreting.
- Onsite assignments are remunerated better.
- Remote interpreting allows me to accept more assignments (no travel time for example).
- Remote interpreting makes it easier to manage personal life combined with professional tasks.
- Other, please specify:

21. When working remotely, which mode do you prefer: Please choose **only one** of the following:

- Telephone Interpreting (TI)
- Video Remote Interpreting (VRI)

22. Comparing TI and VRI, would you say:

Please choose **only one** of the following:

- VRI is less challenging than TI
- VRI and TI are equally challenging
- VRI is more challenging than TI

23. In a situation where it proves difficult to understand the speaker (poor articulation, strong foreign accent, external sound disruptions or interruptions, etc.), how would you comparatively rate your remote interpreting experience? Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
Overall positive		
Somewhat positive		
Neither positive nor negative		
Somewhat negative		
Overall negative		

24. In a situation where there is specific technical content to interpret, how would you comparatively rate your interpreting experience? Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
Overall positive		
Somewhat positive		
Neither positive nor negative		
Somewhat negative		
Overall negative		

25. In a situation where you are also asked to sight translate documents, how would you comparatively rate your interpreting experience? Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
Overall positive		
Somewhat positive		
Neither positive nor negative		
Somewhat negative		
Overall negative		

26. What training have you received for VRI assignments? Please choose **only one** of the following:

- Formal training (University course)
- In-house training provided by the employer
- Professional Development (PD) workshops
- No training

27. Would you like to have access to some form of or to more training in VRI to maintain or improve your VRI skills? Please choose **only one** of the following:

- Yes
- No

28. Based on your experience, do you expect the use of VRI in post-pandemic era will:

Please choose **only one** of the following:

- Increase
- Remain the same as in pre-pandemic era
- Decrease

Thank you very much for your time and contribution.

Please rest assured the data collected will be used solely for the purpose of the study and will remain confidential.

Appendix 2: Questionnaire to healthcare professionals

Potential value of Video Remote Interpreting (VRI) in healthcare settings: questionnaire to Healthcare Professionals

Researchers at Macquarie University are seeking volunteer research participants to take part in an online survey.

The aim is to learn about (1) how the delivery model of the interpreted health consultation evolved to adapt to the new ecosystem borne from the crisis and to see (2) if Video Remote Interpreting (VRI) has proven a flexible and efficient tool in Australian healthcare settings.

Dear Healthcare Professionals,

Thank you for your interest.

Macquarie University researchers are calling on healthcare professionals who have a minimum of two years or more experience working with interpreters.

It is hoped that the results can provide evidence-based data for the understanding of the potential added value of VRI in healthcare settings compared to other modalities. They will provide some insights for interpreting training and professional practice, especially regarding national standards for interpreters' working conditions under the current COVID-19 restrictions and future practice protocols.

It should take less than 30 minutes to complete the whole questionnaire.

[Click here](#) to access the consent form.

Ethics approval number: 52021928324745 / 9283

In such cases where you wish to jump directly to the next question, please click 'Next' and then select 'Continue without answering'.

The selected terminology applies:

- **Onsite interpreting**, also known as face-to-face interpreting, in-person interpreting
- **Telephone interpreting**, also known as over the phone interpreting
- **Video Remote Interpreting (VRI)**
- **Remote Interpreting** includes, but is not limited to, Telephone Interpreting (TI) and Video Remote Interpreting (VRI).

If you have further queries, please contact the Student Investigator Karine Bachelier (karine.bachelier@hdr.mq.edu.au) to get more details.

We are looking forward to hearing from you.

Thank you and best wishes.

There are 29 questions in this survey.

Healthcare professionals

1. How long have you been working in healthcare? Please choose **only one** of the following:

- 0 to 5 years
- 6 to 10 years
- More than 10 years

2. How long have you been working in healthcare with interpreters ? Please choose **only one** of the following:

- 0 to 5 years
- 6 to 10 years
- More than 10 years

3. Has the COVID-19 pandemic impacted the way you provide your services when working with an interpreter? Please choose **only one** of the following:

- Yes
- No

4. Booking an interpreter: is it easier to book an interpreter for Video Remote Interpreting (VRI) than for Onsite Interpreting? Please choose **only one** of the following:

- Yes
- Similar
- No

5 Compared to pre-pandemic times, would you say the number of VRI assignments have:

Please choose **only one** of the following:

- Increased
- Remained unchanged
- Decreased

6. If you replied 'no', please click 'next' and then select 'continue without answering'. In the case you selected a decrease or increase, in what proportion?

Please choose **only one** of the following:

- 0 to 25%
- 26% to 50%
- 51% to 75%
- More than 75%

7. In your professional opinion, would you say the level of care provided using VRI services is:

Please choose **only one** of the following:

- Similar to onsite interpreting
- Better
- Not as good

8. Since the beginning of the COVID-19 pandemic, has the level of demand for remote interpreting services increased? Please choose **only one** of the following:

- Yes
- No

9. If you replied 'no', please click 'next' and then select 'continue without answering'.

If you replied yes: In what proportion has the level of demand increased in the following remote interpreting modes:

Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
0 to 25%		
26% o 50%		
51% to 75%		
More than 75%		

10. When using VRI with the interpreters, which platform are you using:

Please choose **all** that apply:

- Zoom
- Skype
- Cisco Webex
- MS Teams
- GoToMeeting
- Other:

11. When working with interpreters using VRI, are they working from an onsite hub (similar to an in-house call centre) or from their home? Please choose **only one** of the following:

- From an in-house hub
- From their home
- Other

12. Do you provide Interpreters or Language Service Providers (LSPs) with specific requests as to the preferred VRI platform? Please choose **only one** of the following:

- Yes
- No

13. Are there enough devices supporting VRI assignments to meet your interpreting needs as a healthcare professional? Please choose **only one** of the following:

- Yes
- No

14. Does the use of VRI require more compliance regarding cybersecurity protocols (e.g.: Australia-based servers only) and possible recording features? Please choose **only one** of the following:

- Yes
- No

15. On average, how long is a VRI assignment? Please choose **only one** of the following:

- 0 to 15 minutes
- 16 to 30 minutes
- 31 to 45 minutes
- More than 45 minutes

16. Compared to similar onsite interpreting assignments, would you say the duration of VRI exchanges is:

Please choose **only one** of the following:

- Longer
- Similar
- Shorter

17. How would you describe the patient's reaction to the VRI mode compared to onsite? Please choose **only one** of the following:

- Overall positive
- Overall similar
- Overall reluctant
- Overall negative

18. Does access to VRI allow for a better coverage of interpreting needs for CALD* patients? *CALD: Culturally and Linguistically Diverse *

Please choose **only one** of the following:

- Yes
- No

19. In your everyday practice, does the rate charged for an interpreting assignment impact the interpreting mode selected for the provision of healthcare services? Please choose **only one** of the following:

- Yes
- No

20. As a healthcare professional, does working with an interpreter using VRI compared to onsite make your job:

Please choose **only one** of the following:

- Easier
- More complicated
- Has no impact

21. When organising a VRI appointment, do you need to organise equipment in advance with your team? *

Please choose **only one** of the following:

- Yes
- No

22. As a healthcare professional, do you feel you have received sufficient guidance prior to using the VRI mode in regards to the technical aspects: possible glitches, visual clues for interpreters? Please choose **only one** of the following:

- Yes
- No

23. Would you recommend prior training for healthcare professionals to deliver healthcare services to CALD* communities via VRI? *CALD: Culturally and Linguistically Diverse

Please choose **only one** of the following:

- Yes
- No

24. In Remote Interpreting mode, in a situation where the interaction proves difficult (poor articulation, strong foreign accent, external sound disruptions or interruptions, etc.), how would you rate the interpreter's contribution via:

Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
Overall positive		
Somewhat positive		
Neither positive nor negative		
Somewhat negative		
Overall negative		

25. In Remote interpreting mode, in a situation where the interaction requires the interpreter to provide sight translation of a short document, how would you rate the interpreter's contribution via:

Please choose the appropriate response for each item:

	Telephone Interpreting	Video Remote Interpreting
Overall positive		
Somewhat positive		
Neither positive nor negative		
Somewhat negative		
Overall negative		

26. As a healthcare professional, what is your preferred modality?

Please choose **only one** of the following:

- Telephone Interpreting (TI)
- Video Remote Interpreting (VRI)

27. Select the possible reasons to support your answer:

Please choose **all** that apply:

- TI is more common and preferred.
- People are more accustomed to TI so less guidance is needed.
- TI does not require internet access.
- With TI, the absence of image makes it sometimes difficult to be well understood
- Interpreters are more available for TI than for VRI jobs.
- VRI is a positive complement to telehealth practice thanks to image access.
- VRI raises concerns regarding possible recordings and confidentiality issues.
- VRI is more costly.
- Necessary access to the internet means VRI is not always possible in healthcare settings.
- Other, please specify:

28. Based on your practice, can VRI prove unpopular with healthcare professionals? Please choose **only one** of the following:

- Yes
- No

29. Based on your experience, would you say the volume of VRI assignments is bound to grow in post-pandemic era? Please choose **only one** of the following:

- Yes
- No

Thank you very much for your time and contribution.

Please rest assured the data collected will be used solely for the purpose of the study and will remain confidential.

Appendix 3: Interview questions

Interviews September 2021

General questions:

1. How long have you (i.e. your department/LSP) been providing interpreting services for the health sector?
 2. What is the size of your language services/interpreting team?
- Specific to Hospitals and clinics:
3. Do you have a team of in-house interpreters?
 4. What proportion of the total interpreting services do they cover?
 5. Approximate number of languages you work with?

VRI Training

6. Do you keep records of who has received training prior to performing VRI?
7. In other words, is this a pre-requisite to assign VRI jobs in healthcare?
8. Do you provide training to hospital staff to familiarise them with working with interpreters via the VRI modality?
9. In the case interpreters were provided with in-house training, what did this training consist of:
 - They were given a quick introduction to the VRI platform used
 - They received in-house training by your team (if so, how long? Hours/half day/full day)
 - They were invited to attend PD sessions
 - They were assigned to VRI if they had proven prior experience in VRI
10. Have interpreters asked for VRI training sessions?
11. Would you be in favour of specific training for future interpreters in VRI systems (job ready for market needs) if you were not to pay for it (grants/ government subsidies)?
12. To your knowledge, have there been any discussions about this possibility?

Interpreting in healthcare settings

13. Does VRI pose more challenges for you to organise? Has this necessary organisation been impacted by the pandemic or business as usual (before and after) regarding preparation?
14. Pandemic hits March 2021:
Was there a contingency plan in place for your business model? how did you adapt?
15. What is the proportion of onsite jobs still ongoing during the pandemic?
16. Was there a gradual decrease of onsite interpreting demands as lockdowns grew longer?
17. How much has this figure decreased compared to pre-pandemic times?
18. Have you noticed a shift with an increase of TI for longer assignments?
19. Have you noticed a sharp increase of VRI in Healthcare since the pandemic hit? Proportion indication?
20. Specific to LSPs: Do you provide hospitals and clinics with devices for VRI? Why?
21. Which platforms are used to deliver the interpreting services?
22. Given this variety of platforms and in your opinion, would a unified VRI system across all State healthcare services help all of the actors involved: service providers, interpreters and healthcare providers?
23. As an LSP or internal language department, how has compliance with confidentiality and privacy protection laws been managed for home-based delivery of services? (any client concerns in that regard?)
24. Are there any quality controls in place for VRI services?
→how are they organised (Interpreters aware or not)

→ what criteria are they assessed against?

25. On average, what is the usual duration of a VRI assignment?

☐ 0 to 15 min ☐ 16 to 30 min ☐ 31 to 45 min ☐ above 45 min

26. Would you say VRI assignments are today similar to/longer/shorter in duration than onsite similar assignments?

27. What is the feedback you have received from healthcare professionals regarding VRI assignments?

☐ Positive ☐ Somewhat positive ☐ Negative ☐ Somewhat negative

28. What are the reasons for these results? Quality/larger language offer/swift confirmation/ other

29. Have you been able to cover more jobs thanks to VRI (remote locations who previously had no access to such language in their area)?

30. Did interpreters adjust well to the growing switch to VRI?

31. Would you have the same feedback as an LSP/Language department?

Potential obstacles to VRI

32. Would you confirm this is the major issue today?

Increased risk of bad input with VRI (possible glitches) 45.45% and TI is more commonly used (33.69%)

33. Would you flag this too as a major obstacle to the use of VRI, especially compared to TI?

34. Is this something you are aware of? Would it impact your advice to clients as to the use of VRI in the future?

35. To your knowledge, are there limits to the use of VRI in certain healthcare services (ex.: radiology, mental health units, other)?

36. If yes to previous question: what alternative solution was offered in this scenario? No interpreting? TI? Bilingual healthcare professional?

Interpreters indicated their preference is for VRI but only up to 50.83% compared to TI 47.51%, so quite equivalent.

37. Have you received the same feedback?

55.98% of interpreters prefer onsite (build rapport, human connection) while 42.93% prefer any RI modality and acknowledging RI kept them safe from the virus

38. In your experience, do you believe VRI will become an important part of community services once the pandemic is over or is a return to onsite as the preferred modality to be expected?

Conclusion

39. Is there anything else in terms of lessons learnt you would like to share?

Appendix 4: Ethics letter of approval

Human Sciences Subcommittee
Macquarie University, North Ryde
NSW 2109, Australia



01/03/2021

Dear Dr Orlando,

Reference No: 52021928324745

Project ID: 9283

Title: Usability of Video Remote Interpreting in Times of Crisis

Thank you for submitting the above application for ethical review. The Human Sciences Subcommittee has considered your application.

I am pleased to advise that ethical approval has been granted for this project to be conducted by Dr Marc Orlando, and other personnel: Ms Karine Bachelier, Professor Jan-Louis Kruger.

This research meets the requirements set out in the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018).

Standard Conditions of Approval:

1. Continuing compliance with the requirements of the National Statement, available from the following website: <https://nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018>.
2. This approval is valid for five (5) years, subject to the submission of annual reports. Please submit your reports on the anniversary of the approval for this protocol. You will be sent an automatic reminder email one week from the due date to remind you of your reporting responsibilities.
3. All adverse events, including unforeseen events, which might affect the continued ethical acceptability of the project, must be reported to the subcommittee within 72 hours.
4. All proposed changes to the project and associated documents must be submitted to the subcommittee for review and approval before implementation. Changes can be made via the [Human Research Ethics Management System](#).

The HREC Terms of Reference and Standard Operating Procedures are available from the Research Services website: <https://www.mq.edu.au/research/ethics-integrity-and-policies/ethics/human-ethics>.

It is the responsibility of the Chief Investigator to retain a copy of all documentation related to this project and to forward a copy of this approval letter to all personnel listed on the project.

Should you have any queries regarding your project, please contact the [Faculty Ethics Officer](#).

The Human Sciences Subcommittee wishes you every success in your research.

Yours sincerely,

A/Prof Naomi Sweller

Chair, Human Sciences Subcommittee

The Faculty Ethics Subcommittees at Macquarie University operate in accordance with the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018), [Section 5.2.22].