eHealth Ireland

Report on the Findings of the First National Evaluation of the use of Video Enabled Health Care in Ireland

Principal Co-Investigators

Dr Aoife Lane and Ms Vanessa Clarke

On behalf of

The National Telehealth Steering Committee

July 2021

HSE Seirbhís Sláinte Níos Fearr á Forbairt | Building a Better Health Service

Office of the Nursing & Midwifery Services Director

Foreword

The National Telehealth Steering Committee is delighted to present the findings from an evaluation of the experience of healthcare professionals and patients/clients of video enabled care. The surveys were undertaken approximately eight months after the rapid implementation of video enabled care which was one of the core response mechanisms to enable care during the COVID 19 pandemic. The report findings present an opportunity to inform the strategic implementation of video enabled care nationally.

The importance of digital technologies in the provision of high quality, safe and cost effective healthcare is widely recognised. The Health Service Executive (HSE) is planning, prioritising and investing in digital capabilities that support Sláintecare and HSE goals for service improvements. As part of this plan, the move to using digital platforms as a medium for providing some patient/client consultations had already begun prior to the pandemic. However, the onset of COVID 19 presented a compelling need to accelerate the implementation of video enabled care.

Following the initial rapid implementation phase, the National Telehealth Steering Committee commissioned an evaluation of healthcare and patient/client satisfaction with video enabled care. The purpose of the evaluation was to identify areas for improvement and to inform the strategic direction of video enabled care.
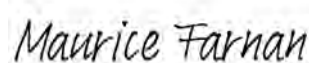
The committee would like to acknowledge the input of the Nursing and Midwifery Digital Advisory Group and in particular the contribution of Dr Aoife Lane and Ms Vanessa Clarke in undertaking this evaluation in a systematic and robust manner. We recognise the efforts of staff in inviting patients and clients to participate. We are truly grateful to those patients, clients and staff who took time to complete the survey. Without their input this evaluation would not have been possible.

We look forward to building on the findings of this evaluation to ensure optimum use of video enabled care to improve the health and well-being of patients and clients in addition to working towards realising the vision of Sláintecare.

Ms Loretto Grogan

Director of Nursing/ National Clinical Information Officer -

Nursing and Midwifery

Mr Maurice Farnan

Chairperson

National Telehealth Steering Committee

Acknowledgements

Survey Instruments

On-going evaluation is important to identify areas requiring improvement in patient/client services. In recognition of the significance of the views of service users in the evaluation process, the three survey instruments used in this evaluation are freely available for use subject to acknowledgement as follows:

Video Enabled Care Healthcare Professional Survey – Developed by the Nursing and Midwifery Digital Advisory Group, Health Service Executive, September 2020

Video Enabled Care Healthcare Patient/Client Survey – Developed by the Nursing and Midwifery Digital Advisory Group, Health Service Executive, September 2020

Video Enabled Care Healthcare Patient/Client Survey Easy Read Version– Developed by the Nursing and Midwifery Digital Advisory Group, Health Service Executive, October 2020 in association with the Easy Read Hub NMPDU HSE North West

Members of the National Telehealth Steering Committee

Mr Maurice Farnan	Interim Assistant National Director, Community Operations (Chair)
Dr Conor Kennedy	Senior Project Manager, Office of the Chief Information Officer
Mr Derek Chambers	Policy Implementation Lead, National HSE Mental Health Operations
Ms Loretto Grogan	Director of Nursing/ National Clinical Information Officer - Nursing and Midwifery
Prof Richard Greene	Chief Clinical Information Officer
Mr Alan Price	ICT Delivery Director, Community
Mr Martin Curley	Director Digital Transformation
Ms Martina Burns	ICT Deputy Delivery Director, Acute Services
Dr Heather Cronin	Clinical Psychologist, Clinical Health & Social Care (HSCP) Lead
Ms Julie Bellew	ICT Programme Manager Telehealth
Ms Maebh Smith	Principal Physicist Beaumont Hospital
Mr Andrew Lynch	Business Manager in the Office of the National Clinical Advisor & Group Lead for Mental Health
Mr Ger Flynn	National Clinical Head of Medical Devices
Dr Siobhan Ni Bhriain	National Lead, Integrated Care
Dr David Hanlon	National Clinical Advisor Primary Care
Ms Emma Benton	General Manager, Office of the National Clinical Advisor and Group Lead, Acute Hospital Operations Division
Ms Trish King	Scheduled Care, Acute Operations

Members of the Nursing and Midwifery Digital Advisory Group

Ms Loretto Grogan (Chairperson)	Director of Nursing, National Clinical Information Officer – Nursing and Midwifery
Ms Vanessa Clarke	Assistant Director of Nursing, Nursing and Midwifery, Planning and Development Officer, HSE North East
Ms Maria Flaherty	Assistant Director of Nursing, Nursing and Midwifery, Planning and Development Officer, HSE Dublin North
Ms Leonie Finnegan	Assistant Director of Nursing, Nursing and Midwifery Planning and Development Officer, HSE South East
Ms Grainne Kenna	Assistant Director of Nursing, Nursing and Midwifery, Planning Officer, and Development HSE Midlands
Dr Aoife Lane	Assistant Director of Nursing, Nursing and Midwifery, Planning and Development Officer, HSE South
Ms Leanne Madigan	Assistant Director of Nursing, Nursing and Midwifery, Planning and Development Officer, HSE Dublin, Kildare, Wicklow
Ms Paula McGreal	Assistant Director of Nursing, Nursing and Midwifery Planning and Development Officer, HSE West
Ms Martina Conway	Assistant Director of Nursing, Nursing and Midwifery Planning and Development Officer, HSE West
Ms Michelle O Hara Donnelly (Previous Group Member)	Director, Nursing and Midwifery Planning and Development Unit, HSE North West
Mr Thomas Glynn (Previous Group Member)	Previously held post of Assistant Director of Nursing, Nursing and Midwifery Planning and Development Officer, HSE Dublin North

Table of Contents

List of Figures

List of Tables

Introduction

The onset of the COVID 19 pandemic in spring 2020 resulted in an acceleration of the introduction of video enabled care (VEC) across health services in the Republic of Ireland. In the months that followed there was a rapid growth in the availability and use of digital platforms as a method of delivering care remotely to patients and clients.

Close collaboration between members of the National Telehealth Steering Committee, the Nursing and Midwifery Digital Advisory Group, the Virtual Health team and organisational Telehealth Leads enabled fast, flexible, focused responses to issues arising as the initiative has progressed. Quality improvement has therefore been underway since the inception of video enabled healthcare.   The success of quality improvement efforts, however, is contingent on a comprehensive overview, from the perspectives of all stakeholders. Thus, this quality improvement process included an evaluation of video enabled care from the perspectives of patients/clients and healthcare professionals (HCPs).

The Nursing and Midwifery Telehealth Advisory Group, having commenced an evaluation of the usefulness of video enabled care to nurses and midwives and to patients/clients, extended this evaluation to all HCPs and their patients/clients across the Republic of Ireland under the auspices of the National Telehealth Steering Committee. A systematic approach to data collection was undertaken using survey questionnaires, one for HCPs and one for patients/clients, each facilitating the collection of quantitative and qualitative data.

The evaluation of the rapid introduction of VEC in the Republic of Ireland sought to:

- Ascertain the views of healthcare professionals and patients/clients, using VEC, on its usefulness as a medium for healthcare delivery

- Assess their satisfaction with VEC

- Identify areas for improvement

- Inform the future development of VEC

A robust, systematic approach was applied throughout the process. This report presents the evaluation findings and recommendations organised as follows:

- Key messages drawn from the completed analysis

- Key recommendations to inform future planning

- Findings from the quantitative analysis of the survey responses

- Findings from the qualitative analysis of the free text responses

- Discussion of the findings with reference to the comparative literature and contextual factors

- Detailed recommendations

- Limitations, Summary and Conclusion

The evaluation of video enabled healthcare, reported here, is a step in the process of improving the quality of this medium for care. The results of the evaluation are set out in their entirety in this report.

Background to Evaluation

The following is the final report on the findings of the first national evaluation of video enabled health care in the Republic of Ireland undertaken in late 2020. This evaluation represents the first step of a quality improvement process with the objective of monitoring and improving the structures, processes and outcomes of video enabled health care and contributing to the policies governing its use.

The National Telehealth Steering Committee is responsible for providing strategic direction for the implementation of telehealth, including VEC, across the Health Service Executive (HSE) and Section 38 and 39 agencies in Ireland. Telehealth options have been available on a small scale to HCPs for a number of years but the outbreak of the COVID 19 pandemic made it prudent to expedite the implementation of remote health care practices in the interests of maintaining patient/client care whilst contributing to infection prevention and control. The aim was to provide health care comparable to traditional, in-person, consultations.

A number of agencies were established to support this initiative which included the Nursing and Midwifery Digital Advisory Group led by Ms Loretto Grogan and the Virtual Health Team led by Ms Julie Bellew. Dedicated resources were put in place to assist in the implementation of some video platforms which did not fall under the remit of the Virtual Health Team. In each hospital group and community health organisation, telehealth leads were appointed to facilitate implementation. Collaboration between all agencies and the telehealth leads made it possible to engage large numbers of HCPs in the use of video enabled consultations over a relatively short time period. This enabled fast, flexible, focused responses to issues arising as the initiative progressed. However, a more proactive approach to improve service delivery was considered necessary to plan for the longer term implementation of video enabled care. A robust, systematic evaluation of the rapid implementation of video enabled care was thus undertaken. To facilitate early evaluation, two national surveys were developed in consultation with HCPs and patients/clients and were disseminated during October and December 2020. An initial, high level, report for each survey has been published and disseminated. This report comprises findings from the more detailed quantitative and qualitative analysis and provides quality improvement recommendations for video enabled care.

Key Messages

The key messages from the HCP and patient/clients surveys are presented below. The total number of respondents to the survey was 1,415; 696 patients/clients and 719 HCPs healthcare professionals.

Key Message 1: Usage

HCPs from a variety of health disciplines are using a range of digital platforms for both individual consultations and group work.

Although patients/clients of all ages are using video enabled care, those over 60 years of age accounted for only 11% of survey respondents, with only 4% being in the over 70 years of age category.

Key Message 2: Experiences and Outcomes

Satisfaction levels with video enabled care were high overall with patients/clients reporting higher levels of satisfaction than healthcare professionals

In answer to the question regarding how likely they were to recommend virtual consulting to a friend or colleague, 95% of patients/clients reported that they were likely, very likely, or extremely likely to do so. Eighty seven percent of HCPs responded they were likely, very likely or extremely likely to do so. The indication from this is that the vast majority of HCPs and patients/clients have a positive view of video enabled care.

Dissatisfaction with VEC was largely related to technical problems or the appropriateness of VEC for the purpose of the consultation.

Key Message 3: Level of Technical Difficulty

Responses are comparable between healthcare professionals and patients/clients in terms of levels of difficulty experienced with the use of VEC with 34% of patients/clients reporting problems and 40% of healthcare professionals indicating that, they or their patients/clients experienced an appreciable level of technical difficulty.

Key Message 4: Advantages and Disadvantages

Responses indicate that many healthcare professionals experienced advantages to using virtual platforms including fewer interruptions than face to face consultations, less time required for the consultation, reduced non-attendance rates and potential for increased appointment numbers. From the perspective of patients/clients, significant numbers of respondents listed avoidance of travel, convenience, shorter waits on the day, shorter waits for an appointment, financial savings, avoidance

of absenteeism from work and avoidance of using private means of transport (car/taxi / motorbike) as benefits of VEC.

HCP's and patient/client experiences were not altogether positive. Reported disadvantages centred predominantly around poor internet connectivity and inappropriateness of VEC for specific patients/clients or particular health conditions which do not lend themselves to remote healthcare practice. The identification of concerns has allowed for the development of recommendations to improve service delivery and to inform decisions regarding the appropriate use of VEC.

Key Recommendations

Key recommendations developed from this evaluation are presented below:

- Co-design and implement a medium term strategy for telehealth informed by evaluation findings and a robust evidence base.
- Develop national policy to support safe, appropriate use of telehealth
- Develop digital infrastructure and functionality to ensure timely, reliable and equitable access to healthcare for health service users and providers
- Strengthen digital capacity amongst health service users and providers

Methodology

This evaluation study employed a survey methodology to measure HCP and patient/client satisfaction with video enabled care. This section of the report describes the survey instruments, consent to participate, distribution and data collection methods and the analysis processes used.

Survey Instruments

Two online survey instruments were developed using Survey Monkey. The survey questions reflected two priorities. The first was in keeping with Quality Improvement (QI) guidelines which specified that evaluation should enable comparison with best practice. Due to the unavailability of international guidance on best practice for VEC at the time, questions required respondents to compare the healthcare provided, or received, with face to face care. The assumption was that face to face care is governed and held to account by service structures and can, therefore, be assumed to be of good quality. The second priority was to elicit HCP's and patient's/client's views and experiences on video enabled care and to gauge whether it was acceptable, what needed to be improved and whether it held any advantage over face to face care. This information was important to inform improvements to the quality of VEC but also to ascertain whether VEC is a useful medium for care delivery, as an additional option, for future practice after the pandemic. Questions for each survey were designed in such a way that comparisons could be made across certain questions so that, for example, associations between age and IT skill or area of residence and connectivity could be properly understood.

National quality improvement guidelines informed the development of the initial survey questions by the Nursing and Midwifery Digital Advisory Group. Permission was also secured to use questions from two survey instruments used by NHS Scotland to evaluate satisfaction with video consultations. Several questions from these instruments were adopted and adapted for inclusion in the Irish survey. After the initial stage of the development of the survey, a pilot survey was undertaken with a small number of patients/clients and nurses and midwives. The feedback from this and from all subsequent consultations was incorporated into what became the final survey tools. The process for survey development is outlined in Appendix 1.

The HCP survey comprises 18 questions and the patient/client survey 12 questions which were designed to elicit both closed and open ended responses. Questions with multiple answer or point of scale selections were used to elicit closed responses. A number of multiple answer questions provided the option for respondents to supply additional data in a free text field. An open ended question was used to gather suggestions for service improvements using a free text field. In order to ensure as many patient/clients as possible were included, an Easy Read Version of the Survey was developed. Copies of the survey instruments are available in Appendix 2.

Consent

The evaluation methodology was reviewed by the National Quality Improvement Division (QID) and deemed appropriate for use. Consent procedures advised by the QID were stringently adhered to. HCPs and patients/clients were aware that participation in the survey was voluntary, all data collected was anonymous and survey responses would be used to inform service improvements.

Data Collection

An invitation to participate in the HCP online survey was distributed via an email link to HCPs employed in the Health Service Executive (HSE) and Section 38 and 39 agencies. This was followed up by a reminder email one week later. Data collection took place over a two week period in October 2020.

Subsequent to closure of the HCP survey, an email request was sent to HCPs employed in the HSE and Section 38 and 39 agencies to request their support in informing and inviting patients /clients to participate in the survey. Approximately ten days after the initial email a second email request was sent. Patients/clients were invited to participate by the HCP who had provided the virtual consult. Patients/clients using the Attend Anywhere Platform could link to the survey via a link embedded in the software. A link to the survey was sent via email to those using other platforms. An Easy Read version was available for any patient/client who preferred this option. The Easy Read version was sent via email to those who requested it and those who completed them returned them electronically to the researchers. Data collection took place over a three week period in November 2020.

Data Analysis

The surveys yielded both quantitative and qualitative data. High level quantitative analysis was conducted in Survey Monkey and more detailed analysis was undertaken using the statistical package JMP.

The data from open ended responses to questions was analysed using content analysis. Content analysis is defined as 'a research method that uses a set of procedures to make valid inferences from a text' (Weber, 2008 p9). As the purpose of the data analysis was to identify the extent to which issues raised were important to HCPs and patients/clients, in order to prioritise areas for improvement, quantification of open ended responses was a necessity. The Hickey and Kipping approach to content analysis combines qualitative and quantitative operations to allow for quantification of responses whilst maintaining the diversity and subtlety of responses and ensuring rigour (Hickey and Kipping, 1996). This structured approach to content analysis is used to analyse open ended questions in survey data and is supported in the literature (Elo and Kyngäs, 2008; Hsieh and Shannon, 2005; Kipping,

2000). The Hickey and Kipping eight stage approach was therefore chosen to analyse the open ended survey responses.

Using a qualitative approach, similar responses were grouped into categories based on emerging themes. Sub categories were then identified which were allocated details codes. Once coded, data were quantified by counting the frequency of the codes. Three researchers undertook this analysis. Two researchers (AL and VC) worked closely together to develop categories and detail codes, and a third researcher (CK) checked the categories and detail codes for plausibility and consistency. The eight stage approach is summarised below (Figure 1).

Hickey and Kipping Eight Stage Approach to Content Analysis (Hickey and Kipping 1996)	
Stage 1	Immersion and Identification of Preliminary Categories
Stage 2	Reaching Consensus on Categories
Stage 3	Category Check by Third Researcher
Stage 4	Allocating Category and Detail Codes
Stage 5	Dealing with 'Rogue' Responses
Stage 6	Coding Check by Third Researcher
Stage 7	Merging and Reallocating Details
Stage 8	Merging/Reallocating Check by Third Researcher

Figure 1: Hickey and Kipping Eight Stage Approach to Content Analysis (Hickey and Kipping 1996)

Quantitative Findings

In this section of the report the quantitative findings from the HCP survey and the patient client survey are presented. The key messages from the quantitative data are presented first. Results from the initial high level analysis of data in Survey Monkey are then reported. A more detailed analysis of findings is then presented with an exploration of relationships between key variables.

Key Messages

Findings from the **HCP survey** suggest that overall, video enabled healthcare was a positive experience whereby:

o 87% of respondents were extremely likely, very likely or likely to recommend video consulting to a friend or client.

o 49% of respondents reported unanticipated benefits from use of virtual platform.

o 32% reported that it reduced non-attendance rates when compared with face to face consultations with the reduction of non-attendance rates significantly different among professions.

o 29% of respondents reported that use of a video enabled platform enabled them to increase the number of appointments offered to clients.

o 83% rated their IT competency skills as either good (36%), very good (34%) or excellent (13%).

o 88% reported that outcomes from virtual consultations were as expected (36%), more than expected (42%) or much more than expected (10%) compared with those expected from **telephone** consultations.

o 61% reported that outcomes from virtual consultations were as expected (34%), more than expected (23%) or much more than expected (4%) than those expected compared to **face to face** consultations.

o 55% found outcomes from virtual group sessions were as expected (29%), more than expected (21%) or much more than expected (5%) compared with those expected from face to face group consultations.

o 63% reported that the virtual consultation took about the same or less time than the non-virtual consultation.

- 90% reported having about the same or fewer interruptions whilst carrying out a virtual consultation.

There were some negative findings reported by the health care professionals whereby:

- 67% of respondents reported adverse consequences/disadvantages from using a virtual platform.

- 40% of respondents reported experiencing a great deal or a moderate amount of technical problems.

- Those using the platform "Cisco Webex" had the highest proportion of respondents reporting technical problems (56%) whilst those using "Blue Eye" had the lowest proportion of respondents reporting problems (18.3%).

- 71% reported having no administrative support available to them to organize virtual consultations

Findings from the **patient/client survey** were positive overall whereby:

- 95% of respondents stated that they were likely (16%), very likely (41%) or extremely likely (38%) to recommend using a similar video appointment to a friend or colleague.

- 91% of respondents reported that they were able to communicate everything they wanted to their healthcare professional.

- 93% identified benefits associated with having a video appointment with the main benefits reported as saving travelling to their appointment (76%) and being more convenient (58%).

- On average 33 miles of travel was saved per person per appointment.

- 66% of respondents reported no technical problems with their video appointment.

There were some negative findings reported by the patient/client whereby:

- 45% of respondents reported some disadvantages from using a virtual platform.

- 19% stated that a face-to-face appointment would have been better for them.

- 10% had difficulty connecting to the video platform with 5% needing a friend to help them with the technology.

- 12% could not hear properly and 10% could not see properly whilst using the video platform.

Healthcare Professional Survey Findings

Results from the initial high level analysis of the HCP data are reported first. Findings from the exploration of relationships between key variables are then presented.

Findings from Survey Monkey

The HCP survey comprised 18 questions relating to their experiences of using video enabled care. A total of 719 HCPs responded to the survey. The responses to each question are presented below.

Question 1: Which Video Consultation Platform are you using?

A range of video platforms are being used by healthcare professionals with Attend Anywhere being the most widely used platform (51.5%) (Figure 2).
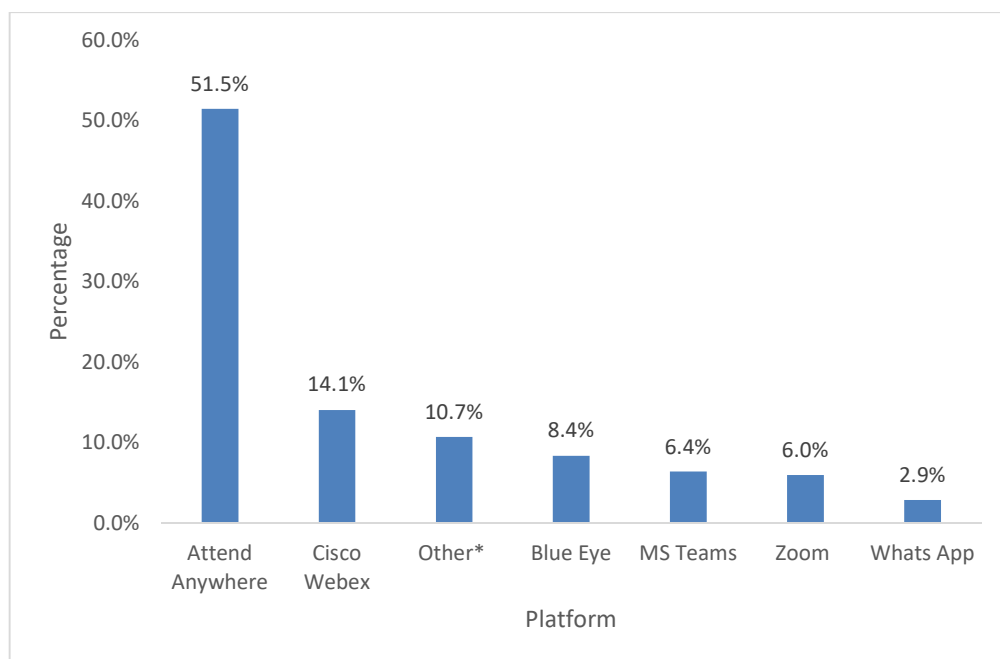
* Other includes platforms < 6 users and free text responses

Figure 2: Video Platform Usage Healthcare Professional

Question 2: What is your profession?

Healthcare professionals from a range of backgrounds are using video enabled care with speech and language therapists being the largest group of users (25%) (Figure 3).
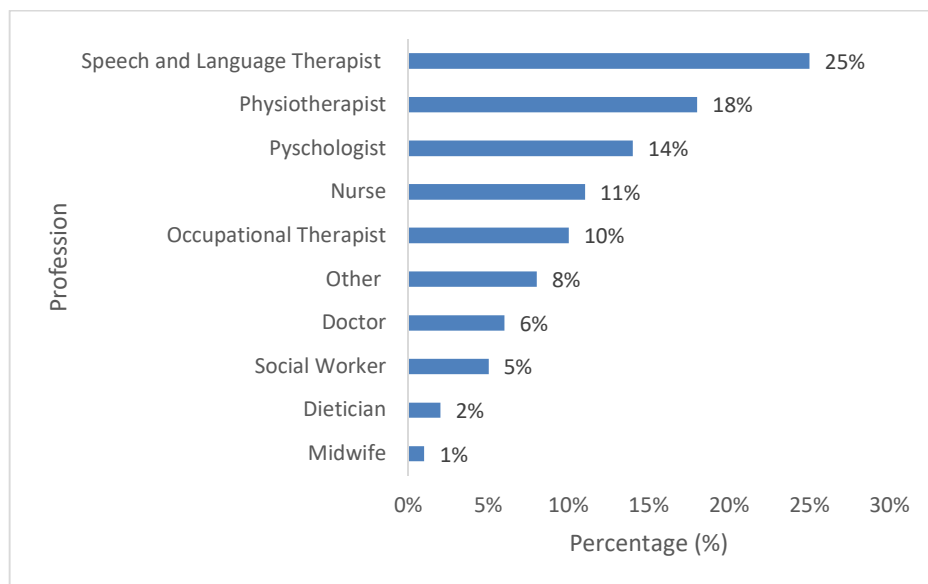
Figure 3: Healthcare Professional Usage of Video Enabled Care

Question 3: How frequently did you or the client experience technical problems (poor sound or picture quality or difficulty logging in) when using the platform?

Whilst 40% of respondents reported experiencing a great deal (14%) or moderate amount (26%) of technical difficulties, the majority (60%) of health care professionals experienced technical difficulties occasionally (39%): rarely (20%): or never (1%) when using the video platform   (Figure 4**).**
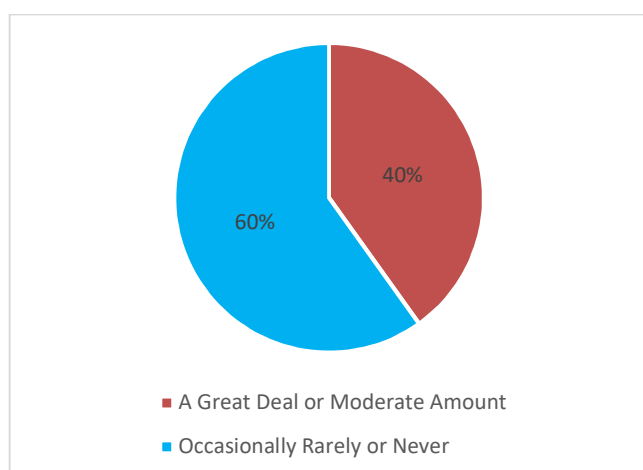
Figure 4: Frequency of Technical Problems Experienced by Healthcare Professional or the Patient/Client Using Video Platform

Question 4: How would you rate your I.T. competence and skills?

Over 83% of healthcare professionals rated their IT competence and skills as good (36%); very good (34%); or excellent (13%) (Figure 5). Only 3% rated themselves as having poor IT skills with the remaining 14% rating themselves as fair.
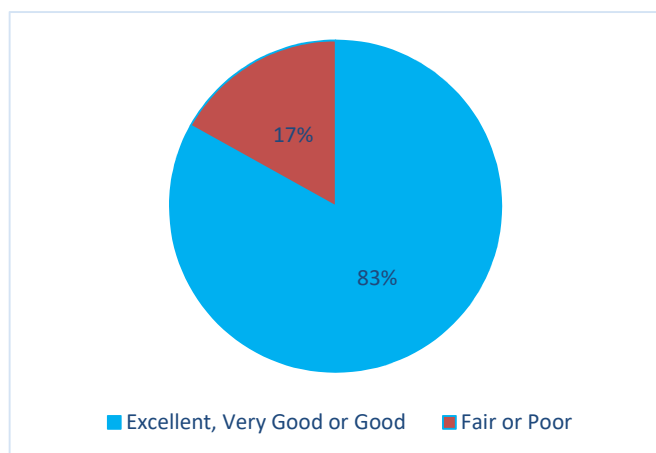
Figure 5: IT Competence and Skills Rating

Question 5: For individual patients, how well did the virtual consultation meet the outcomes you expect from a face to face consultation?

Of those who responded to this question (n= 679) 61% of healthcare professionals felt that the outcomes from virtual consultations were as expected (34%); more than expected (23%) or much more than expected (4%) compared with those expected from a face to face consultations (Figure 6). The remaining 39% felt that outcomes were less (29%) or much less (10%) than expected from face to face consultations.
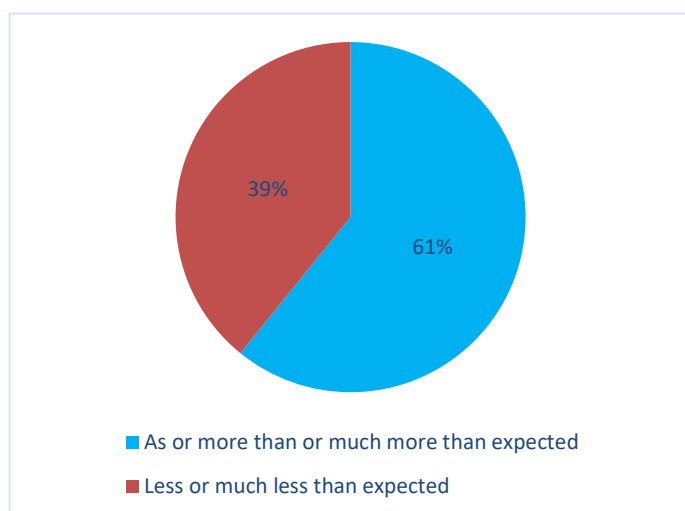
Figure 6: Outcomes Expected of Individual Virtual Consultations Compared to Face to Face Consultations

Question 6: For individual patients, how well did the virtual consultation meet the outcome you expect from a telephone consultation?

Of those who responded to this question (n= 664) 88% felt that the outcomes from virtual consultations were as expected (36%); more than expected (42%) or much more than expected (10%) compared with those expected from telephone consultations (Figure 7). For 12% of the respondents, expectations were less (10%) or much less (2%) than expected from a telephone consultation.
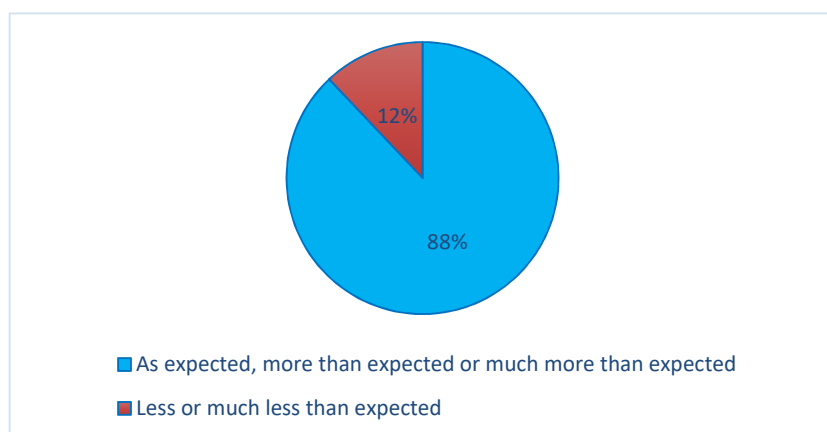
Figure 7: Outcomes Expected of Individual Virtual Consultations Compared to Telephone Consultations

Question 7: For groups of patients, how well did the virtual session meet the outcomes you expect from a group session?

Of those who responded to this question (n=281) 55% found outcomes from virtual group sessions were as expected (29%), more than expected (21%) or much more than expected (5%) compared with those expected from face to face sessions (Figure 8). The remaining 45% found outcomes to be less than expected (30%) and much less than expected (15%).
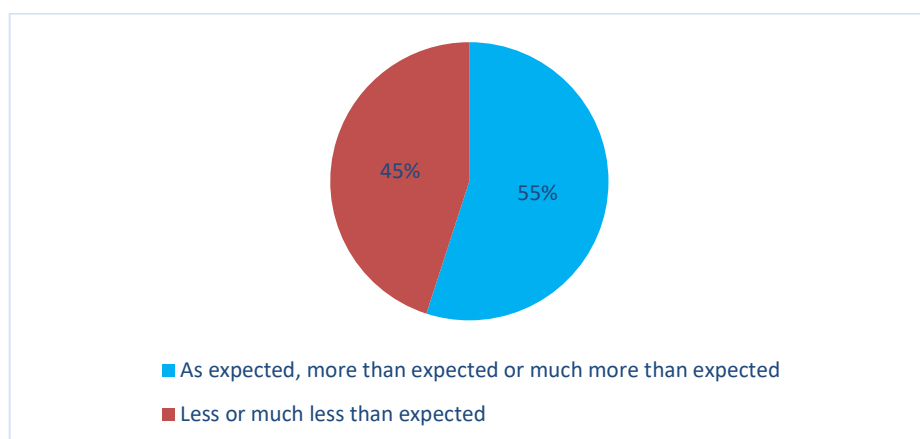
Figure 8: Expected Outcomes for Group Virtual Sessions Compared with Face to face Sessions

15

Question 8: Did you have difficulties with documentation of practice?

Of those who provided a "yes" or "no" response to this question (n= 682), only 10% of respondents reported difficulty with documentation of practice (Table 1).

Table 1: Difficulties with Documentation of Practice

Response Option	Responses	%
No	613	90
Yes	69	10
Total	682	100

Question 9: Were there any difficulties with the referral to professional colleagues that don't occur with face to face clinics?

Of those who provided a response to this question (n=437), only 17% of respondents reported difficulties with referrals (Table 2).

Table 2: Difficulties with Referral to Professional Colleagues

Response Option	Responses	%
Yes	74	17
No	363	83
Total	437	100

Question 10: Did the video consultation take more or less time than your normal face to face interactions?

Of those who provided a response to this question (n=706), the majority (63%) reported that it took about the same or less time and 37% of respondents reported that the consultation took more time (Table 3).

Table 3: Time Taken for Video Consultation Compared with Face to Face

Response Option	Responses	%
More	263	37
About the same	294	42
Less	149	21
Total	706	100

Question 11: Did you experience more or fewer interruptions from colleagues than usual during patient/client interactions?

Of those who provided a response to this question (n=697), the majority (90%) reported about the same or fewer interruptions whilst 10% of respondents reported more interruptions than usual (Table 4).

Table 4: Experiences of Interruptions from Colleagues Compared to Usual

Response Option	Responses	%
More	71	10
About the same	446	64
Fewer	180	26
Total	697	100

Question 12: Did using the video consultation platform reduce non-attendance rates among your clients/patients?

Of the 707 respondents, 226 (32%) reported that use of a video consultation platform resulted in a reduction in non-attendance rates (Table 5).

Table 5: Reduction in Non-Attendance Rates Using a Using a Video Consultation Platform

Response Option	Responses	%
Don't know	205	29
No	276	39
Yes	226	32
Total	707	100

Question 13: Has using the video consultation platform enabled you to increase the number of appointments you can offer to clients?

Of the 705 respondents to this question, 29% of respondents reported that use of a video enabled platform enabled them to increase the number of appointments offered to clients (Table 6).

Table 6: Ability to Increase the Number of Appointments Offered to Clients

Response Option	Responses	%
Don't know	66	9
Yes	201	29
No	438	62
Total	705	100

Question 14: Were there unanticipated benefits to the use of the virtual platform

Of those who provided a "yes" or "no" response to this question (n=680), 49% of respondents reported unanticipated benefits from use of a virtual platform with similar numbers (51%) reporting no unanticipated benefit (Table 7).

Table 7: Unanticipated Benefits from Using a Virtual Platform

Response Option	Responses	%
Yes	334	49
No	346	51
Total	680	100

Question 15: Were there any adverse consequences/disadvantages to the use of the virtual platform?

Of those who provided a "yes" or "no" response to this question (n=662), 67% of respondents reported adverse consequences/disadvantages from use of a virtual platform whilst (33 %) reported none (Table 8).

Table 8: Adverse Consequences/Disadvantages from Using a Virtual Platform

Response Option	Responses	%
Yes	442	67
No	220	33
Total	662	100

Question 16: What administrative support was available to you in organising virtual consultations?

Of the 708 respondents to this question, 71% reported having no administrative support available to them to organise virtual consultations (Figure 9). The remaining 29% had a range of supports available with some having more than one kind of support.
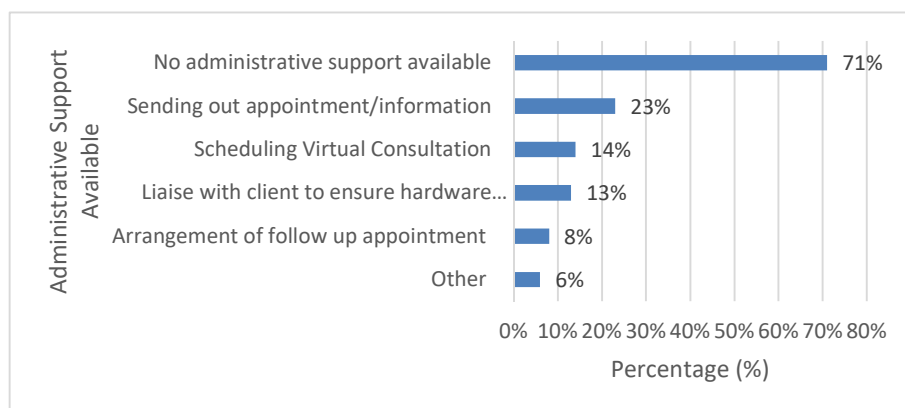
Figure 9: Availability of Administrative Support

Question 17: What would have enhanced the effectiveness of the virtual consultation?

Respondents to this question (n=-593) identified a range of additional functions which would enhance the effectiveness of video enabled care (Figure 10). Capacity to share documents (50%); capacity to show videos (41%); and access to an electronic patient record (38%) were the most frequently identified functions.
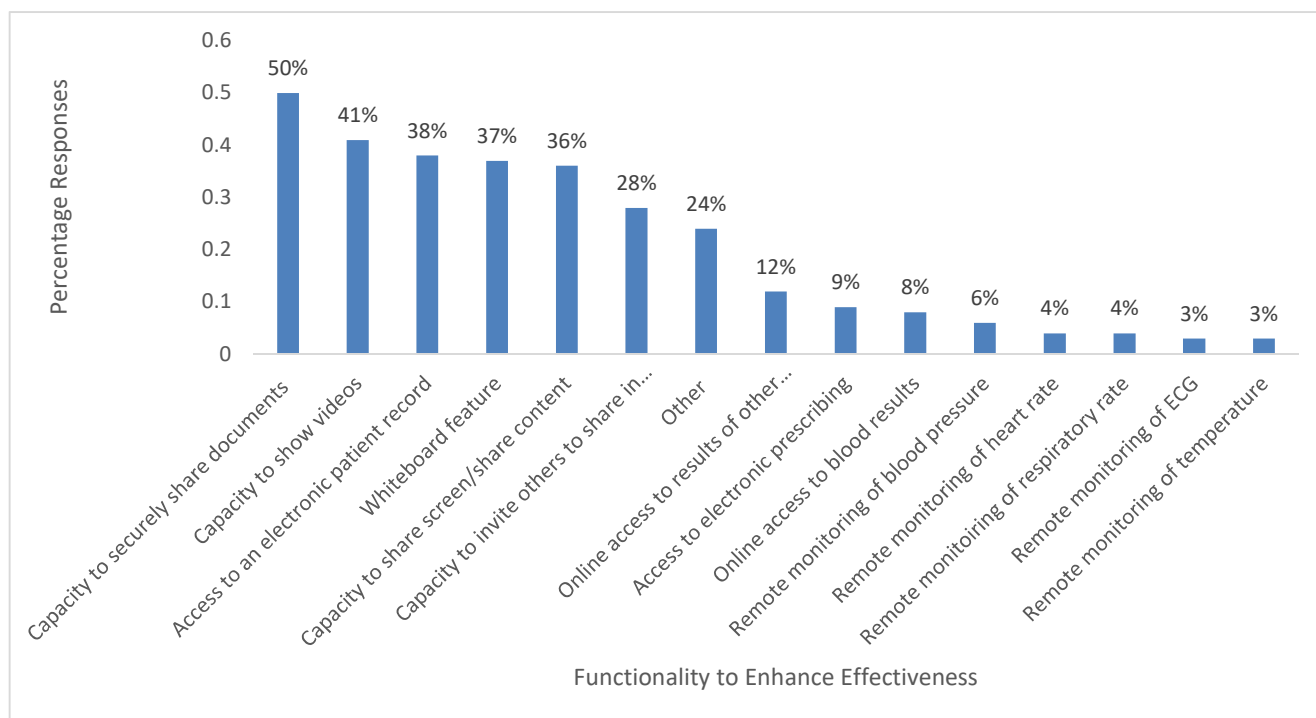
Figure 10: Identified Functions to Enhance the Effectiveness of Video Enables Care

Question 18: How likely is it that you would recommend this video consulting platform to a friend or colleague?

Of the 706 respondents, 87% were extremely likely, very likely or likely to recommend video consulting to a friend or client (Figure 11). Only 13% were unlikely or not at all likely to recommend video consulting to a friend or client.
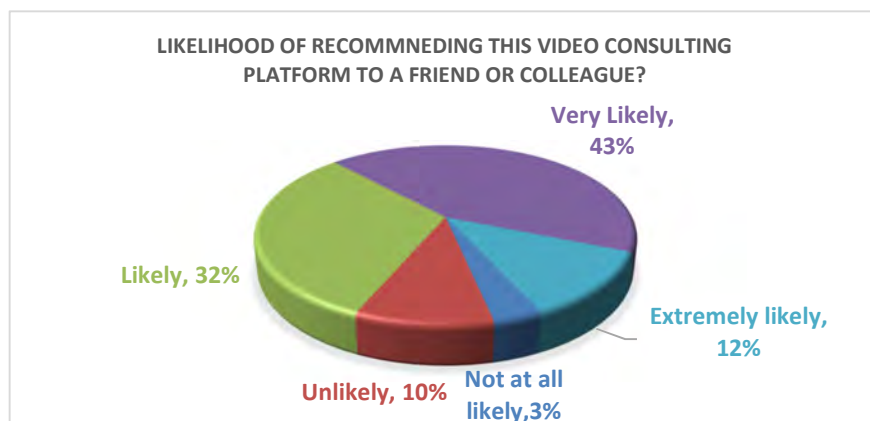
Figure 11: Likelihood of Recommending the Video Consulting Platform to a Friend or Colleague (Healthcare Professional)

Findings of Key Outcomes for Each Video Platform and Each Professional Group

The key outcomes from the survey for each video platform and for each professional group were examined and compared. The findings are presented below.

Comparison of Outcomes with Video Platform Used

Technical Problems: Comparison of Platforms

The level of technical problems experienced varied according to which video platform was used (Figure 12). Those using "Cisco Webex" reported the highest proportion of experiences of either a great deal or a moderate amount of difficulty (44.0%). "Blue Eye" had the lowest reported proportion of users experiencing a great deal or moderate amount of difficulty (18.3%). However, the sample size was too small to reach statistical significance.
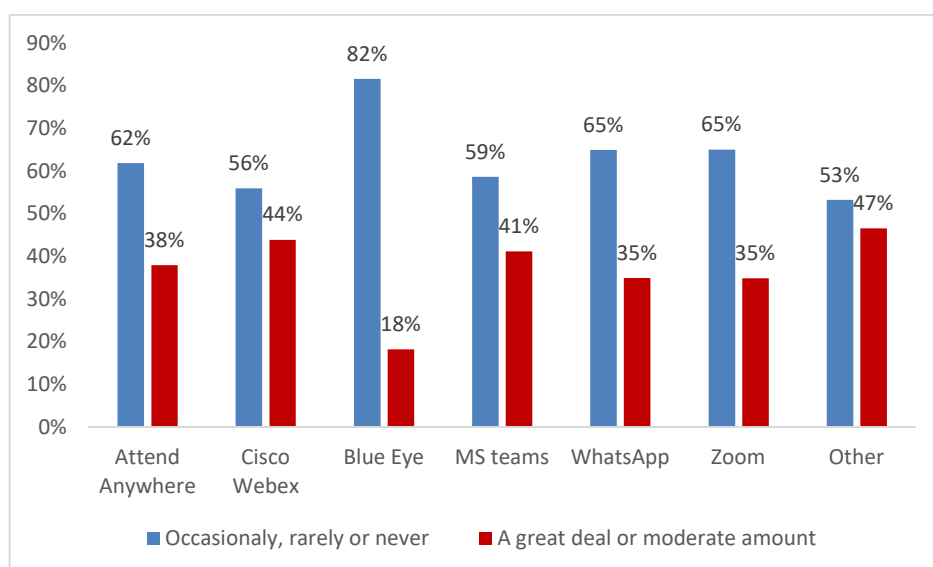
Figure 12: Level of Technical Difficulty Experienced by Users by Video Platform

Expected outcomes of "face to face" and virtual consultation: Comparison of platforms

Healthcare professionals were asked how well the virtual platform met the expectations they would expect from a "face to face" consultation with an individual patient or client. Those using the "Blue Eye" platform reported the highest level (80.0%) of expectations being as expected, more than expected or much more than expected. Those using the "Cisco Webex" platform reported the lowest level (48.0%). Of those using Attend Anywhere 59.0% reported expectations were as expected, more than expected or much more than expected. These findings were statistically significant ($\chi2$ 93.8, p<0.001).

Expected outcomes of telephone and virtual consultation: Comparison of platforms

Healthcare professionals were asked how well the virtual platform met the expectations they would expect from a telephone consultation with an individual patient or client. Those using the "Blue Eye" platform reported the highest level (94.7%) of expectations being as expected, more than expected or much more than expected and those using the "Cisco Webex" reporting the lowest level (65.7%). Of those using "Attend Anywhere" 91.2% reported expectations were as expected, more than expected or much more than expected. These findings were statistically significant ($\chi 2$ 81.3, p<0.001).

Expected outcomes of face to face and virtual consultation for groups of patients/clients: Comparison of platforms used

This question was not relevant for many of the respondents and only 281 participants responded to both questions and therefore the numbers were too small to analyse by platform used. However, 55% of the respondents reported that the outcomes from group virtual consultations were as expected, more than expected or much more than expected.

Non-attendance rates: Comparison of platforms

A total of 32% reported that the virtual consultations reduced non-attendance rates among their clients with those using the "Blue Eye" platform reporting the highest level (45.6 %) and those using the "Cisco Webex" platform reporting the lowest level (27.7%). Those using "Attend Anywhere" reported a 42% reduction in non-attendance rates. However, these findings were not statistically significant ($\chi 2$ 22.2, p=0.13).

Option to Increase the Number of Appointments: Comparison of platforms

A total of 29% reported that the virtual consultations enabled them to increase the number of appointments offered. However, this was not statistically significantly associated with any platform used. ($\chi 2$ 17.7, p=0.34).

Un-anticipated benefits: Comparison of platforms

Almost half (49%) reported that the virtual consultations produced unanticipated benefits with those using the "Blue Eye" platform reporting the highest level (58.6%) of unanticipated benefits and those using the "Whatsapp" platform reporting the lowest level (38.1%) of unanticipated benefits. Of those using "Attend Anywhere" 50.1% reported that virtual consultations produced unanticipated benefits. However, overall these findings were not statistically significantly associated with platform used. ($\chi 2$ 5.9, p=0.65).

Adverse consequences and disadvantages: comparison by platform

A total of 67% of the respondents reported adverse consequences/disadvantages associated with using the virtual platform. The platform with the highest reported percentage of disadvantages was "Whatsapp" (89.5%) and the platform reporting the lowest percentage of adverse consequences was "Blue Eye" (50%). Of those using "Attend Anywhere" 69.5% reported adverse consequences/disadvantages associated with use of the platform. These findings were statistically significant ($\chi 2$ 15.2, p=0.05).

Likelihood of recommending the platform to a friend or colleague: Comparison by platform used

As a measure of overall satisfaction with video enabled care the question "*How likely is it that you would recommend the platform to a friend or colleague?*" was asked. Those using the "Blue Eye" platform reported the highest percentage (98.3%) and those using the "WhatsApp" platform reported the lowest percentage of being likely, very likely or extremely likely to recommend that platform to a friend or colleague (71.4%). Of those using "Attend Anywhere" 88% that they were likely, very likely or extremely likely to recommend the platform. These findings were statistically significant ($\chi 2$ 23.4, p<0.001).

Comparison of Outcomes for Each Professional Group

For ease of analysis the professions were grouped into nine professions and professions with minimal representation were placed in the "Other" category (Table 9).

Table 9: Healthcare Professional Usage of Video Enabled Care

Profession	No.	%
Speech and Language Therapist	182	25
Physiotherapist	130	18
Psychologist	97	14
Nurse	77	11
Occupational Therapist	72	10
Other	58	8
Doctor	41	6
Social Worker	38	5
Dietitian	14	2
Midwife	10	1
Total	719	100

As previously noted, the platform most commonly used by all professions combined was "Attend Anywhere" with (51.5%) using this platform). The use of "Attend Anywhere" was highest amongst Speech and Language therapists (57.7%) and Physiotherapists (57.7%) and lowest among Social workers (28.9%) (Table 10). These findings were statistically significant by profession (χ2 150.2, p<0.001).

Table 10: IT Platform used by Professional Group

Profession	Virtual Platforms								
	Attend Anywhere	Blue Eye	Cisco Webex	MS Teams	Multiple	Unknown	Other	Whats App	Total
Speech and Language Therapist	57.7%	7.1%	19.8%	4.4%	4.4%	4.0%	1.1%	0.5%	99.1%
Physiotherapist	57.7%	10.9%	3.8%	2.3%	6.9%	0.0%	3.8%	10.8%	100.0%
Psychologist	56.7%	9.3%	11.3%	7.2%	7.2%	0.0%	2.1%	1.0%	94.8%
Nurse	54.5%	5.2%	16.9%	6.5%	5.2%	0.0%	2.6%	2.6%	93.5%
Occupational Therapist	38.9%	15.3%	12.5%	13.9%	11.1%	1.4%	0.0%	2.8%	95.8%
Other	41.4%	3.4%	25.9%	5.2%	1.7%	5.2%	1.7%	1.7%	86.2%
Doctor	43.9%	9.8%	12.2%	2.4%	9.8%	0.0%	12.2%	0.0%	90.2%
Social Worker	28.9%	5.3%	15.8%	23.7%	7.9%	5.3%	2.6%	2.6%	92.1%
Dietitian	57.1%	7.1%	7.1%	0.0%	14.3%	0.0%	0.0%	0.0%	85.7%
Midwife	40.0%	0.0%	30.0%	10.0%	10.0%	0.0%	0.0%	0.0%	90.0%

Technical problems experienced: comparison by professional group

As shown in Table 11, of the 711 who responded to this question, the majority (427, 60.2%) reported that they or their clients only occasionally, rarely or never had technical problems. This positive response was highest among Nurses (64.9%), Physiotherapists (63.6%) and Occupational Therapists (63.3%). However, these differences were not statistically significant among professions.

Table 11: Frequency of Technical Problems Experienced by the Healthcare Professional or the Patient/Client by Professional Group

Profession	A great deal or a moderate	Occasionally, rarely or	Total
	No. (%)	No. (%)	No.
Speech and Language Therapist	73 (40.1)	109 (59.9)	182
Physiotherapist	47 (36.4)	82 (63.6)	129
Psychologist	45 (46.4)	52 (53.6)	97
Nurse	27 (35.1)	50 (64.9)	77
Occupational Therapist	26 (36.6)	45 (63.3)	71
Other	21 (38.2)	34 (61.8)	55
Doctor	18(43.9)	23 (56.1)	41
Social Worker	17 (47.2)	19 (52.8)	36
Dietitian	5 (38.5)	8 (61.5)	13
Midwife	4 (40.0)	6 (60.0)	10
Total	283 (39.8)	428 (60.2)	711

Self-rated IT competency and skills: comparison by professional group

As shown in Table 12 below, the majority (83.1%) rated their IT competency and skills as excellent, very good or good. This was highest amongst dieticians with all respondents (N=14, 100%) reporting skills in these categories and lowest among social workers (68.4%). There was a statistically significant difference in self-rated IT competency and skills by profession (χ2 19.6, p=0.02).

Table 12: Self-rated IT Competency and Skills by Professional Group

Profession	Self-rating of IT Competency and Skills		
	Excellent, very good	**Fair to Poor**	**Total**
Speech and Language Therapist	159 (87.4)	23 (12.6)	182
Physiotherapist	106 (81.5)	24 (18.5)	130
Psychologist	94 (85.5)	16 (14.5)	110
Nurse	59 (72.8)	22 (27.2)	81
Occupational Therapist	59 (81.9)	13 (18.1)	72
Doctor	37 (88.1)	5 (9.1)	42
Social worker	26 (68.4)	12 (31.6)	38
Other	30 (85.7)	5 (14.3)	35
Dietitian	14 (100.0)	0 (0.0)	14
Midwife	10 (90.9)	1 (9.1)	11
Total	594 (83.1)	121 (16.9)	715

Expected outcomes of face to face and virtual consultation for individual patient/client by comparison by professional group

When asked how well the virtual platform met the expectations they would expect from a face to face consultation for an individual patient or client, the majority (413, 60.8%) reported that the virtual consultations met outcomes as expected, more than expected or much more than expected (Table 13) . This was highest among midwives, nurses and doctors.

Table 13: Expected Outcomes of Face to Face and Virtual Consultations by Professional Groups

Profession	Expected outcomes of virtual consultations for individual patients/clients compared with "face to face" consultations		
	Much less or less than	Much more	Total
	No (%)	No. (%)	No.
Speech and Language Therapist	80 (44.2)	101 (55.8)	181
Physiotherapist	60 (47.2)	67 (52.8)	127
Psychologist	46 (43.4)	60 (56.6)	106
Nurse	19 (25.0)	57 (75.0)	76
Occupational Therapist	25 (36.2)	44 (63.8)	69
Doctor	11 (28.9)	27 (71.1)	38
Social worker	11 (34.4)	21 (65.6)	32
Other	7 (25.0)	21 (75.0)	28
Dietitian	5 (38.5)	8 (61.5)	13
Midwife	2 (22.2)	7 (77.8)	9
Total	266 (39.2)	413 (60.8)	679

Expected outcomes of telephone and virtual consultation for individual patients/clients: comparison by professional group

Of those who responded to the question, "How well the virtual platform met the expectations they would expect from a telephone consultation for an individual patient/client", the vast majority (N=584, 88.0%) reported the outcomes using a virtual platform were as expected, more than expected or much more than expected compared with those of telephone consultations (Table 14). This was highest among Dieticians (92.3%) and Speech and Language therapists (91.6%) and lowest among social workers (81.25%) and midwives (77.7%). These findings were not significantly different among the different professions. ($\chi2$ 7.5, p=0.58).

Table 14: Expected Outcomes of Telephone and Virtual Consultations for Individual patients/Clients by Professional Group

Profession	Expected outcomes of virtual consultations for individual patients/clients compared with telephone consultations		
	Much less or less than expected	Much more, more, or as expected	Total
	No. (%)	No. (%)	No.
Speech and Language Therapist	15 (8.4)	163 (91.6)	178
Physiotherapist	19 (15.1)	107 (84.9)	126
Psychologist	12 (13.2)	79 (86.8)	91
Nurse	7 (9.7)	65 (90.3)	72
Occupational Therapist	6 (9.2)	59 (90.8)	65
Other	7 (16.7)	35 (83.3)	42
Doctor	5 (13.9)	31 (86.1)	36
Social Worker	6 (18.8)	26 (81.25)	32
Dietitian	1 (7.7)	12 (92.3)	13
Midwife	2 (22.2)	7 (77.7)	9
Total	80 (12.0)	584 (88.0)	664

Expected outcomes of face to face and virtual consultation for groups of patients/clients: comparison of by professional group

This question was not relevant for many of the respondents and only 281 participants responded. The numbers were too small to analyse by profession but overall 55% of the respondents reported that the outcomes from group virtual consultations compared with "face to face" were as expected, more than expected or much more than expected.

Reduction in non-attendance rate: Comparison by Profession Group

Of the 707 who responded to the question on whether the virtual consultations reduced non-attendance rates, the proportion who reported yes was 32%. However, there was a statistically significant difference ($\chi2$ 30.6, p=0.03) in non-attendance reduction rates by profession. The greatest reduction in non-attendance rates was amongst Dieticians (50%) and lowest amongst Midwives (20.0%).

Capacity to increase appointments: Comparison by professional group

Of the 705 respondents to this question, 639 provided a yes or no response. No statistically significant differences were found among professions in their capacity to increase the number of appointments they could offer (Table 15). (χ2 12.6, p=0.19).

Table 15: Capacity to Increase Virtual appointments by Professional Group

Profession	Capacity to increase appointments		
	Yes	No	Total
	No. (%)	No. (%)	
Speech and Language Therapist	41 (24.3)	128 (75.7)	169
Physiotherapist	36 (29.5)	86(70.5)	122
Psychologist	27 (31.0)	60 (69.0)	87
Nurse	24 (36.3)	42 (63.6)	66
Occupational Therapist	22 (35.5)	40 (64.5)	62
Other	20 (48.0)	22 (52.0)	42
Doctor	12 (30.8)	27 (69.2)	39
Social Worker	11 (36.7)	19 (63.3)	30
Dietitian	6 (46.2)	7 (53.8)	13
Midwife	2 (22.2)	7 (77.8)	9
Total	201 (31.5)	438 (68.5)	639

Un-anticipated benefits: Comparison by professional group

As shown in Table 16 below, of the 680 who responded to this question, just under half (334, 49.2%) reported that there were un-anticipated benefits. The majority of dieticians (76.9%), midwives (66.7%) and nurses (53.3%) reported unanticipated benefits. However, due to small numbers these findings were not statistically significantly different.

Table 16: Unanticipated Benefits Associated with Using Virtual Consultations by Professional Group

Profession	Unanticipated benefits		
	Yes	No	Total
	No. (%)	No. (%)	
Speech and Language Therapist	96 (53.0)	85 (47.0)	181
Physiotherapist	50 (41.3)	71 (58.7)	121
Psychologist	43 (47.8)	47 (52.2)	90
Nurse	40 (53.3)	35 (46.7)	75
Occupational Therapist	31 (47.0)	36 (53.0)	67
Other	24 (47.1)	25 (52.9)	51
Doctor	16 (41.0)	23 (59.0)	39
Social Worker	18 (52.9)	16 (47.1)	34
Dietitian	10 (76.9)	3 (23.1)	13
Midwife	6 (66.7)	3 (33.3)	9
Total	334 (49.2)	246 (50.8)	680

Adverse consequences/disadvantages: Comparison by professional group

Of the 662 who responded to this question, the majority (N=442 67.0%) reported that there were adverse consequences/disadvantages to using virtual consultations (Table 17). The results differed significantly among health professions with the proportion reporting adverse consequences highest amongst Speech and Language Therapists (74.6%) and Doctors (73.2%) and lowest among Midwives (44.5%) and Nurses (47.1%). This was statistically significant (χ2 21.1, p<0.01).

Table 17: Adverse Consequences/Disadvantages Associated with Using Virtual Consultations by Professional Group

Profession	Adverse consequences/disadvantages		
	Yes	No	Total
	No. (%)	No. (%)	
Speech and Language Therapist	129 (74.6)	44 (25.4)	173
Physiotherapist	83 (67.5)	40 (32.5)	123
Psychologist	65 (71.4)	26 (28.6)	91
Nurse	33 (47.1)	37 (52.9)	70
Occupational Therapist	40 (62.5)	24 (37.5)	64
Other	32 (65.3)	17 (34.7)	49
Doctor	30 (73.2)	11 (26.8)	41
Social Worker	18 (62.1)	11 (37.9)	29
Dietitian	9 (69.2)	4 (30.8)	13
Midwife	4 (44.5)	5 (55.6)	9
Total	442 (67.0)	220 (33.0)	662

Administrative support provided to professional groups

Of the 708 who responded to this question, the vast majority (505, 71.4%) reported they had no administrative support and this finding was statistically significantly different by profession (χ2 36.2, p=0.001) (Table 18). The professions who reported having the lowest level of administrative support were Physiotherapists (78.7%), Occupational Therapists (78.3%) and Speech and Language therapists (77.3%).

Table 18: Availability of Administrative Support to Professional Groups

Profession	Availability of Administrative Support		Total
	Yes	No	
	No. (%)	No. (%)	
Speech and Language Therapist	41 (22.7)	140 (77.3)	182
Physiotherapist	27 (21.3)	100 (78.7)	127
Psychologist	32 (29.4)	77 (70.6)	109
Nurse	20 (25.0)	60 (75.0)	80
Occupational Therapist	15 (21.7)	54 (78.3)	69
Other	25 (61.0)	16 (39.0)	41
Doctor	20 (52.6)	18 (47.4)	38
Social Worker	12 (32.4)	25 (67.6)	37
Dietitian	7 (50.0)	7 (50.0)	14
Midwife	3 (27.3)	8 (72.7)	11
Total	202 (28.6)	506 (71.4)	708

Likelihood of recommending virtual consultations to a friend or colleague: comparison by professional group

Of the 706 respondents who replied to this question, the vast majority (611, 86.5%) reported that they would be extremely, very likely or likely to recommend virtual consultations (Table 19). There was no statistically significant different in this high percentage amongst the professions ($\chi 2$ 10.1, p=0.34).

Table 19: Likelihood of Recommending Virtual Consultations to a Friend or Colleague by Professional Group

Profession	Likelihood of recommending virtual consultations to a friend or colleague		
	Likely, Very Likely or Extremely Likely	Unlikely, Not at All Likely	Total
	No. (%)	No. (%)	
Speech and Language Therapist	163 (89.6)	19 (10.4)	182
Physiotherapist	108 (84.4)	20 (15.6)	128
Psychologist	79 (83.2)	16 (16.8)	95
Nurse	71 (92.2)	6 (7.8)	77
Occupational Therapist	64 (90.2)	7 (9.9)	71
Other	45 (81.8)	10 (18.2)	55
Doctor	34 (87.2)	5 (12.8)	39
Social Worker	28 (80.0)	7 (20.0)	35
Dietitian	12 (85.7)	2 (14.3)	14
Midwife	7 (70.0)	3 (30.0)	10
Total	611 (86.5)	95 (13.5)	706

Patient/Client Survey Findings

Results from the initial high level analysis of data in Survey Monkey are reported first. A more detailed analysis of findings is then presented with an exploration of relationships between variables.

Findings from Survey Monkey

The patient/client survey comprised 12 questions relating to patient/client experience of using video enabled care. The total number of respondents to the survey was 696. The responses to each question are presented below.

Question 1: Which Video Consultation Platform are you using?

The majority (N=535, 79%) of respondents reported using the platform "Attend Anywhere". This rate is much higher than the rate reported by HCPs (51.5%). Reported usage for other video consultation platforms was much lower than "Attend Anywhere" (Figure 13).
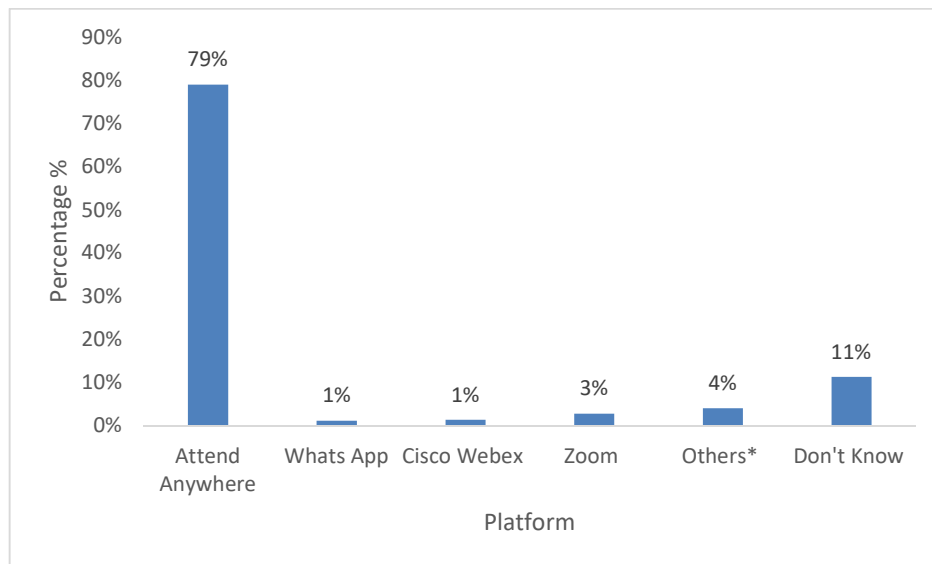
* Others includes platforms < 6 users and free text responses

Figure 13: Usage of Video Platform by Patient/Client

Question 2: How would you rate your experience of your video appointment compared with your previous face to face appointment(s)?

Of the 665 respondents, the majority (81%) of respondents reported that their experience of video appointments was the same (50%) better (15%) or significantly better (16%) than previous face to face appointments (Figure 14).
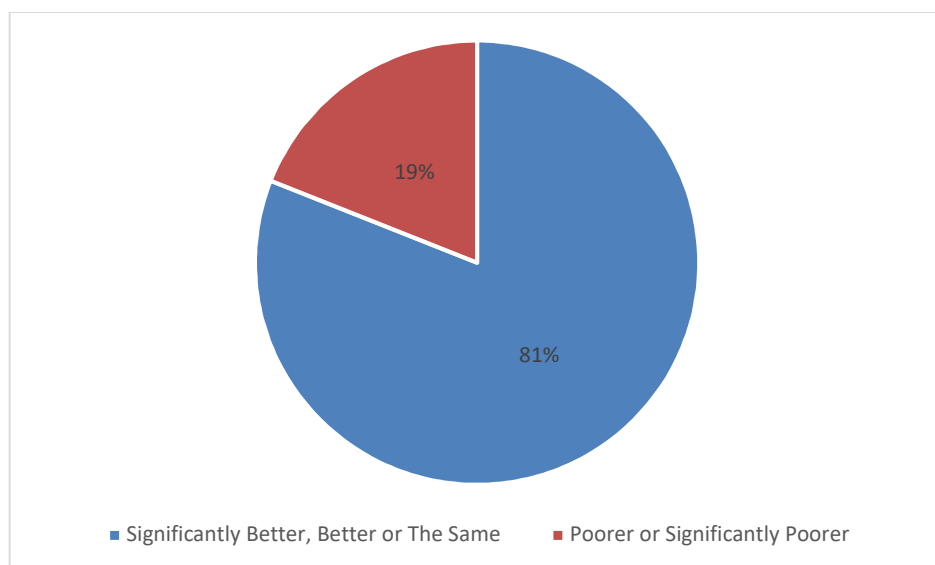
Figure 14: Experience of Virtual Consultation Compared with Face to Face

Question 3: Did you feel you were able to communicate everything you wanted to the healthcare professional (e.g. nurse/midwife/doctor/physiotherapist) during your video appointment?)

Of a total of 676 respondents, the vast majority (91%) reported that they were able to communicate everything they wanted to their healthcare professional (Table 20).

Table 20: Ability to Communicate Everything with Healthcare Professional

Response Option	Response	Percent %
Yes	616	91
No	60	9
Total	676	100

Question 4: Did you have any technical problems using the video appointment system (e.g. poor sound or picture quality or difficulty connecting in to the appointment?

A total of 670 responded and the majority (66%) of respondents reported no technical problems with their video appointment (Table 21).

Table 21: Experience of Technical Problems Using Video Appointment System (Patient/Client)

Response Option	Response	Percent %
Yes	229	34
No	441	66
Total	670	100

Question 5: If you had not had a video appointment, how would you have travelled to your appointment?

Of the 668 respondents, the majority (86%) of patients and clients would have used private transport to travel to their face to face appointment (Figure 15). Respondents may have used more than one mode of travel and hence the cumulative percentage is > 100%.
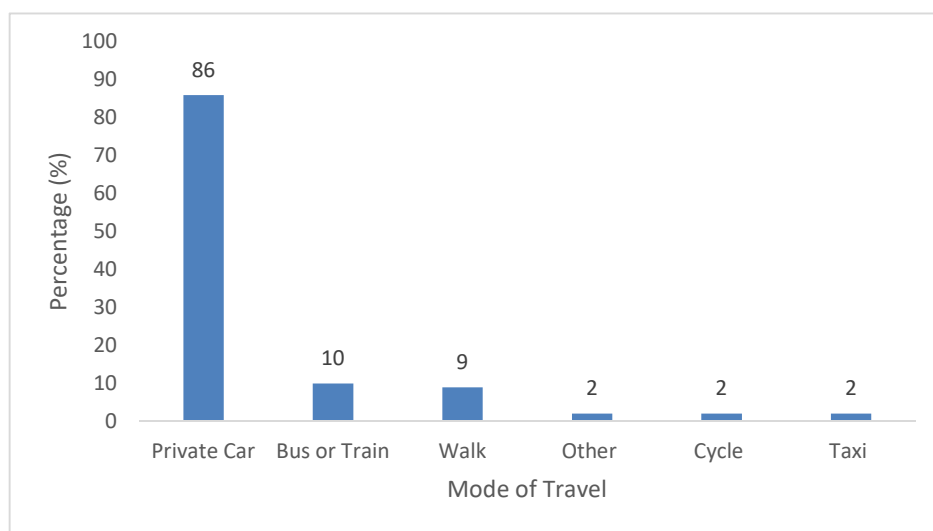
Figure 15: Usual Mode of Transport for Face to Face Appointment

Question 6: Approximately how many extra miles would you have to travel? ONE WAY

Of 663 respondents, the majority (82%) usually travel 20 miles (32 Kilometres) or less to attend their face to face appointments (Figure 16).
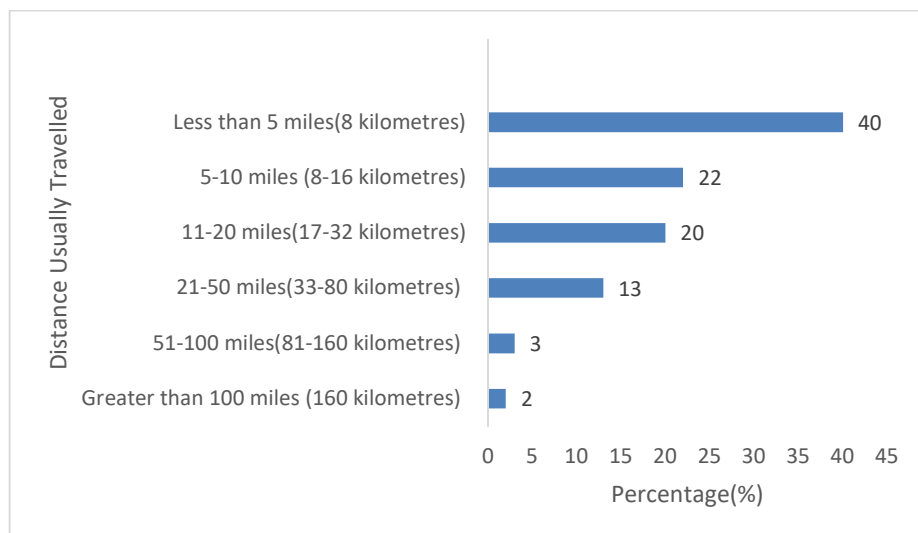
Figure 16: Distance Usually Travelled to Attend Face to Face appointments

Question 7: From the list of benefits of having a video appointment, please tick all that apply to you.

The majority (93%) of the clients who participated in the survey identified benefits associated with having a video appointment. Among the main benefits reported were that it saved travelling to their appointment (76%); it was more convenient (58%) and they not have to wait too long on the day of their appointment to be seen (57%) (Figure 17). A range of other benefits were identified. As respondents could choose more than one benefit, percentages add up to more than 100%. Percentages were calculated based on the total sample of 696 patients/clients.
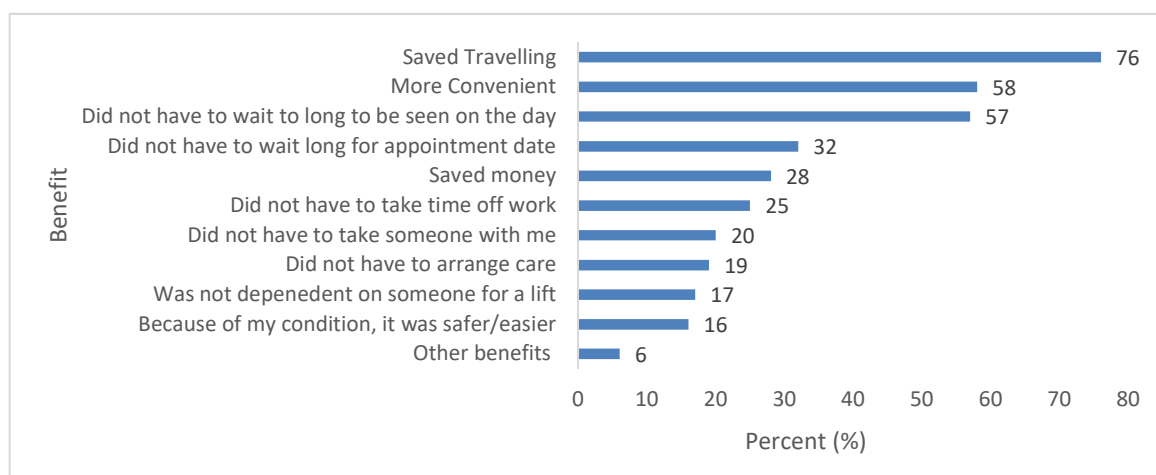
Figure 17: Benefits of Having a Video Appointment Patient/Client

Question 8: From the list of disadvantages of having a video appointment, please tick all that apply to you.

Only 311 (45%) patients/clients out of a sample of 696 identified any disadvantages associated with having a video appointment. Almost one fifth (19%) of those who participated in the survey (n=696) stated that a face to face appointment would have been better for them (Figure 18). The main disadvantages identified related to connectivity with 12% not being able to hear properly; 10% not being able to see properly using the video platform; and 10% having difficulty connecting
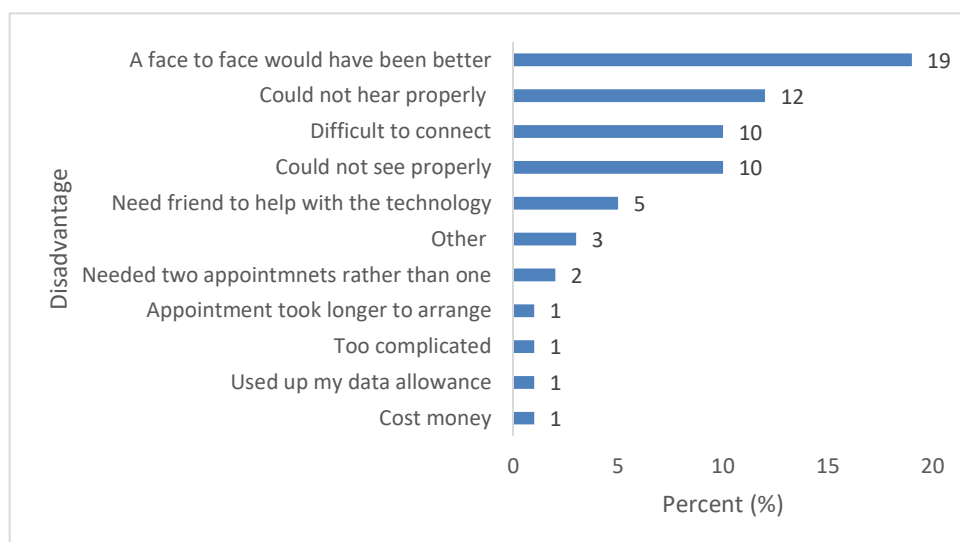
Figure 18: Disadvantages of Having a Video Appointment (Patient/Client)

Question 9 How likely is it that you would recommend a similar video appointment to a friend or colleague?

The majority of respondents (95%) stated that they were likely (16%); very likely (41%): or extremely likely (38%) to recommend using a similar video appointment to a friend or colleague (Figure 19).
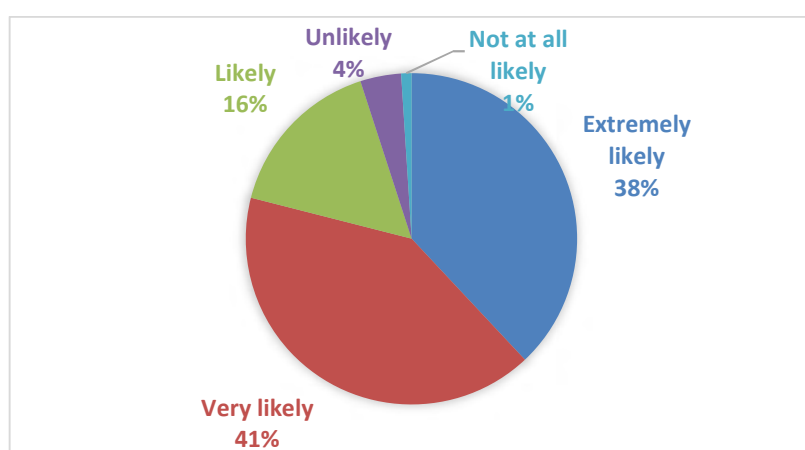
Figure 19: Likelihood of Recommending Similar Video Appointment to a Friend or Colleague (Patient/Client)

Question 11: Can you tell us what sort of area you live in?

Over half of the respondents (63%) lived in a city or town, with the remaining 37% living in a village or in the country (Table 22).

Table 22: Area of Residence Patient/Client

Area Lived In	Responses	%
City or Town	423	63
Village or Country	245	37
Total	668	100

Question 12: Finally, can you tell us which age category you fit into?

Of the 673 responded the majority of respondents (61%) were between the ages of 30 and 60 years, 28% were under 30 and 11% were over 60 (Figure 20).
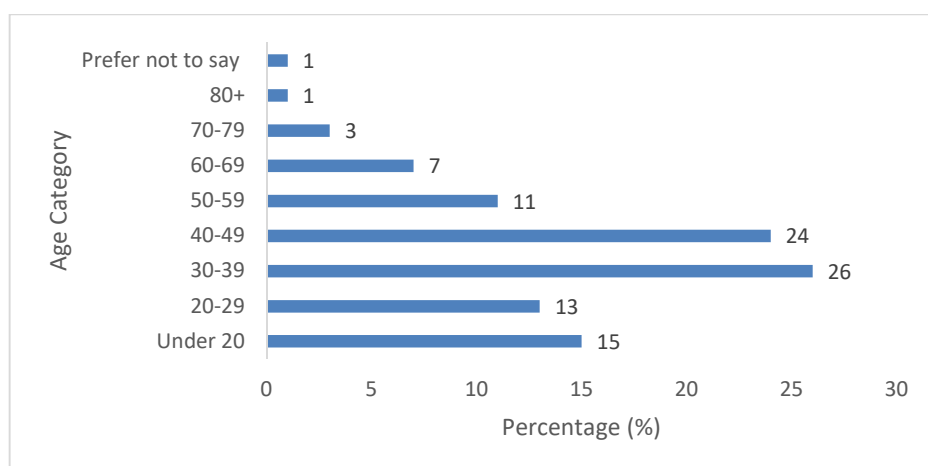
Figure 20: Age Category Patient/Client

Average mileage by patient/client for face to face appointment consultation

The majority of respondents (267) would usually have travelled an average of 6 miles, one way, per appointment (Table 23). The average saving, overall, was 33 miles per appointment.

Average miles	No.	%
6 miles	267	40.3
7 miles	146	22
30 miles	129	19.5
60 miles	86	13
75 miles	24	3.6
100 miles	11	1.7
Total	663	100.0

Table 23: Average Miles usually travelled to Face to Face Appointment (Patient/Client)

Comparison of Key Outcomes

Findings from a more detailed analysis of the patient/client survey findings showing cross comparisons are presented below.

Technical problems: comparision with area of residence of client:

A total of 670 responded and the majority (66%) of respondents reported no technical problems with their video appointment. However, those living in the country or a rural area were 10% more likely to report having technical problems (OR 1.1, 95% CI -0.80-1.55, p=0.51) than those living a city or town. However, due to lack of power, this finding was not statistically significant.

Technical problems: comparison with age of client:

Of those who responded to both questions (N=665), those over 60 years were more likely to report having technical problems compared to those under 18 years (35.8% vs. 27%). However, this finding was not statistically significant.

Technical problems: comparison with platform used by client

The most common platform used was "Attend Anywhere" (79%). The proportion using this platform experiencing technical difficulties was quite low at 36%. Those using "WhatsApp" had the highest level of technical problems

(67%) however, the number of clients using Whatsapp was small (N=6). Over 1 in 10 (11%) did not know what platform they were using.

Likelihood of Recommending Video Consultation to friends or colleagues: comparison with platform

The majority of respondents (95%) stated that they were likely, very likely or extremely likely to recommend video consultations to friends or family members. However there was some variation in recommending video consultations by platform used. Of those who responded to both questions (N=650), 100% of the "Cisco Webex" users and 95% of the "Attend Anywhere" users reported that they would recommend video consultations to their friends or family member. The platforms with the lowest percentage recommendation were Zoom (6%) and "Other" (6%).

Qualitative Findings

This section presents the analysis of the qualitative data. HCP and patient/client surveys are individually presented first to create an understanding of the separate concerns of HCPs and Patients/Clients. Matters of concern are organised as "categories" with further detail provided in "sub-categories" and "detail codes". Definitions of all categories are presented. As the purpose of this evaluation was to identify priority areas for improvement, the frequency of each category occurrence is presented to indicate the relative importance of each issue. A comparison of the responses is then presented to highlight concerns common to all partners and recommendations are based on individual and common concerns.

Patient/Client Survey

Four questions/requests for comments yielded qualitative data from the patient/client survey as follows:

1. Did you feel you were able to communicate everything you wanted to the healthcare professional (e.g. nurse/midwife/doctor/physiotherapist) during your video appointment?

2. From the list of benefits of having a video appointment, please tick all that apply to you. Please comment.

3. From the list of disadvantages of having a video appointment, please tick all that apply to you. Please comment

4. If you have any suggestions or comments on how to improve the video appointment system you used, please describe them below.

In keeping with the Hickey and Kipping Methodology (1996) all qualitative responses were examined for suitability for coding to predefined categories irrespective of the source of the response. For example, data from the responses to disadvantages associated with video appointments were coded to both the "Consultation Deficits" and "Improvement Suggestions" categories.

Four main ideas emerged from the 401 responses to these questions and these are presented as the following categories: Enhanced Experience, Consultation deficits, Improvement Suggestions and Satisfaction with Video Enabled Care. Table 24 shows each of the four categories and the number of responses coded to that category.

Category	No of Responses
Enhanced Experience	73
Consultation Deficits	192
Improvement Suggestions	49
Satisfaction with Video Enabled Care	87

Table 24: Categories Patient Client Data and No of Responses

Categories are defined below and tabled with sub-categories and detail codes and the frequency of their emergence. Detail codes are explained and their meanings illustrated with direct quotes from the data. Participant quotes are shown in italics. Ellipses are used within quotes to indicate missing words and explanations are provided in parentheses.

Enhanced Experience

Definition: Benefits realised which were additional to those typically experienced in face to face consultation

Of the 401 qualitative responses, 73 (18.2%) were assigned to the *Enhanced Experience* category. Table 25 provides the categorization of the responses as described above.

Table 25: Enhanced Experience Category and Detail Codes Patient/Client Survey

Enhanced Experience		
Detail Code	**Patients/Clients**	
	Number	**Percentage of Responses for this Category**
Wellbeing	**27**	**37%**
Comfort	7	9.6%
Safety	13	17.8 %
Reduced Stress	7	9.6%
Consultation Efficacy	**20**	**27.4%**
Improved Effectiveness	18	24.6%
Self-Management	2	2.7%
Convenience	**16**	**21.9%**
Continuity of Care	**7**	**9.6%**
Preference for VEC	**3**	**4.1%**
Total	73	100%

Wellbeing

This sub-category related to benefits to health over and above those gained with face to face consultations and included physical and psychological benefits. While some patients realised physical benefits as illustrated in the quotes below, others cited the comfort of being able to manage the emotional aspect of a consultation without having to negotiate the journey home first.

It was warm and comfortable at home which is helpful when you're in pain.

Helps reduce commute time and related fatigue.

The perceived advantage of safety was common to 13 respondents and, predictably, centred around the greater safety of home compared with an out-patients' clinic because of the risk of contracting the Coronavirus infection

While in lockdown, I could minimise my contacts and could do the session while isolating

With the covid19 issue, it's really better to have the video appointment, because we can't tell when the epidemic will finish.

However, for one respondent it meant that they did not have to leave a loved one, who required full time care, to attend their appointment.

Seven respondents also found that VEC reduced the stress of the appointment. This is closely related to convenience but the majority of responses, in this case, were directly associated with respondents' health conditions.

It gives me so much less stress to do it digitally. I find keeping in person appointments very stressful

My … (relative) is very very ill and can't get out of the bed, this video consultation was absolutely amazing and saved a lot of stress and anxiety and I would really love to see more of this in the future.

Consultation Efficacy

The responses which contributed to this sub category indicated that, for some, the consultation was more holistic or complete and, therefore, more effective.

Able to listen in on my son's speech therapy session which then helped with follow-on work

The sessions were more structured than face to face appointments usually are with built-in time for giving feedback which sometimes gets overlooked in real life.

Some respondents cited the greater ease of keeping notes and asking questions, not feeling rushed, having immediate advice at hand and, in one case, the advantage of their physiotherapist being able to see their home and help them to choose the best place to do their exercises. Two responses indicated that patients/clients realised a greater degree of self- management to the extent that they were enabled to take greater responsibility for their own care.

> *I was able to take notes which I normally wouldn't do during a face to face conversation. This has helped me to have a future game plan clearer in my head. So I think generally very beneficial.*

Convenience

Sixteen respondents cited convenience in terms of enhanced experience and for many, this related to time, expense, travel and parking savings.

> *I'd keep the video appointment system even after the pandemic is gone. Maybe a hybrid option in which patients can have video appointments and also some key appointments in person. I'd like to go to the hospital only when it's extremely necessary and beneficial since it takes me 2hs to get there, 4hs of my day.*

For others it relieved pressures associated with their health requirement.

> *Covid restricted face to face meetings so it was easy for me. I wasn't under pressure to get up and dressed (as a new mother this made a huge difference)*

Continuity of Care

The opportunity to safely continue care which VEC provided was appreciated by patients/clients.

> *It was fantastic to have an appointment and keep the exercises going with my son as he was starting to fall behind.*

Preference for VEC

Some respondents simply preferred video enabled consultation.

> *Did not have to go to the hospital which I dislike doing*

Consultation Deficits

Definition: Aspects of video enabled care that were unsatisfactory

Of the patients/clients who responded to the survey over half (55%) completely omitted the question relating to disadvantages. Of those who answered the question and used the free text option, 35 responded that they had no disadvantages to record. A total of 192 respondents cited consultation deficits which are categorized in table 26 below, in terms of the detail codes that conceptualized them.

Table 26: Consultation Deficits category and Detail Codes Patient/Client Survey

Consultation Deficits		
Detail Codes	**Patients/Clients**	
	Number	**Percentage of Responses for**
Technical Concerns	**90**	**46.9%**
Connectivity	80	41.6%
Adequacy of Hardware	3	1.5%
Adequacy of / Access to Software	7	3.6%
Appropriateness	**67**	**34.9%**
Adequacy of Communication	22	11.4%
Appropriateness	34	17.7%
Distractions	6	3.1%
Security Concerns	5	2.6%
Preference for Face to Face	**12**	**6.2%**
Waiting Room Experience	**9**	**4.7%**
Physical Impact	**7**	**3.6%**
Tiring	2	1%
Remaining Focused	4	2%
Stressful	1	0.5%
Lack of IT Skill	**7**	**3.6%**
Total	192	100%

Technical Concerns

Almost one fifth of all free text responses to the patient/client survey related to connectivity as a consultation deficit. Out of the responses in this category, connectivity accounted for 80 out of 192 (42.1%). Patients/clients indicated that issues stemmed from either their own or their healthcare professional's internet sources and sometimes that there was a disparity between the success of different VEC platforms in terms of connections.

My broadband connection is excellent but I had difficulty with the poor quality from the hospital

Internet coverage where I live can be quite variable. Video was poor at start of call but got much better

Video lagged/slow in image and sound at times and was distracting. Maybe change to a different video call provider

Three respondents had problems with hardware.

Even after taking great lengths to get the best broadband connection I could get access to for this appointment, the microphone on my headphones and my therapist's device made it very hard to fully interpret the vocal tests/exercises she was advising me on.

Effective connections appeared to be particularly important for some forms of healthcare.

The video was a bit unclear at times, meaning for example my son called a red thing a 'pink thing' and he is not colour-blind

My appointment was speech and language therapy, which relies on being able to hear one another perfectly.

Seven respondents commented on issues related to software.

Unable to send document and images from both sides

In some of these responses it is unclear whether this was related to the software or the IT skill of the participants in the consultation. In other responses IT skills were likely to be the issue.

This was a brilliant service, thank you. However, my dad would not have been able to operate the online consultation on his own but I was able to do it for him so it wasn't a problem.

At times difficult to show OT the exercises my son was doing. Hard to the angle of the camera right so OT could see.

Appropriateness

This subcategory includes a detail code of the same name which was generated from 34 responses and when considered with *adequacy of communication* and *distractions*, indicates a need to rigorously assess the appropriateness of VEC for each patient/client. While there is evidence in the data that children respond better to VEC, there is also evidence that it can be harder to keep children focused using this medium.

> *My child was distracted by buttons on the laptop and looking at himself on the video call*

The patient's client's condition is also an important consideration; a need for human contact as part of the consultation was expressed by some.

> *For social anxiety, being there in person would probably be better at least some of the time*

The requirement for physical presence to carry out a proper examination was expressed by others

> *Because it was a breastfeeding assessment I needed my husband to hold the phone. Because an assessment of tongue function was required a face to face appointment was needed*

> *Face to face would have been good for an inspection of the injury.*

Within these responses there were also indications of a good understanding of the COVID related rationale for VEC and a sense of gratitude expressed for the continuity of care that VEC provided in the meantime.

> *Some OT work has to be done face-to-face so the OT can see fully what is going wrong and that my son doing some of the exercises properly. But it was much better to have an appointment on screen than none at all.*

Adequacy of communication was an issue for 22 people and ranged from physical issues

> *The two people in the meeting had to wear masks as they were together. If the three participants each had a monitor, this would not be necessary and would be much better for communication*

to psychological experiences with several people expressing difficulty with the lack of human connection

> *Sometimes feels disconnected, warmth …*

Other communication deficits related to the adequacy of the medium for the particular health care requirement.

More difficult to communicate - my daughter's specific speech sounds could not be clearly heard.

Six respondents cited distractions as a disadvantage of VEC.

There was a lot of background noise in the physiotherapy clinic which I was able to filter out but which would have been a serious problem for an elderly person with hearing difficulties, for example.

Five respondents expressed security concerns arising from VEC use ranging from the possibility that others could overhear their consultations to the information they submitted in order to log in.

There was too much personal information required to log in.

Preference for Face to Face Consultation

Some patients/clients simply had a preference for meeting their HCP in person for their appointment. Twelve respondents indicated that this was the case for them.

No significant disadvantage - just that human face to face contact is always better.

Waiting Room Experience

Nine respondents described negative waiting room experiences where they were left in a vacuum in terms of information

There was a long wait to be connected - almost an hour. It wasn't clear if we would be seen or if there was a technical difficulty that we were unaware of. It would help if there was some way to know that we are connected properly (not lost in the system) and what wait time to expect.

Had an appointment and waited 30 mins without any reply

Physical Impact

A total of 6 patients/clients reported difficulties in remaining focused and feeling tired after appointments.

Sometimes there are technical glitches with the technology. I sometimes find myself very tired afterwards, but that may be just due to my particular medical problem

I find it harder to remember what we talk about and have to write it down

There was also evidence that VEC may be stressful for some patients/clients.

For older people if they are not using new technology it's hard and definitely stressful.

Improvement Suggestions

Definition: Areas of the service identified as needing improvement or resolution

Forty nine patients/clients offered suggestions for improvements to the VEC services. The detail codes under which these suggestions are grouped are presented in Table 27 below.

Table 27: Improvement Suggestions Category and Detail Codes Patient/Client Survey

Improvement Suggestions		
Detail Codes	**Patients/Clients**	
	Number	Percentage of Responses for this Category
Appointment Communication	16	32.6%
Enhanced Functionality	14	28.5%
Connectivity	9	18.3%
Support to Prepare for Call	4	8.1%
Waiting Room Experience	3	6.1%
Security Concerns	3	6.1%
Total	49	100%

Appointment Communication

Of the 16 suggestions for improvements to the communication of the appointment details, respondents indicated room for improvement through avoidance of errors on the part of the HCP, clarity regarding who was calling who, clearer indications that it would be by video rather than telephone and support in setting up for the appointment.

> *I am new to the virtual and I would have needed more hands on support from the organisers*

Two respondents suggested hyperlinks for access rather than appointment links by letter or cut and paste methods.

> *The provision of a link rather than a print out of a link which has to be input by the patient*

Enhanced Functionality

Fourteen patients/clients made suggestions for improving the functionality of the VEC system. In some cases these related to hardware, such as webcams and methods of allowing all attendants to be visible together. This last suggestion is potentially related to knowledge about how to set the screen rather than absence of this function but this clarification was not included in the response. There were suggestions for auto-fill options for completion of details once the name and date of birth was entered and a suggestion for streamlining the software to minimize the data allowance used. One respondent asked for a platform separate from the web browser. In one response, additional off-line resources were requested to augment the information given during the consultation and in another, a mechanism for feedback between appointments.

> *This is the way forward. Only suggestion is to enhance the video appointment process so that the time/date pops into outlook calendar (like MS Teams does).*

Connectivity

In this category connectivity was again an issue with 9 respondents making suggestions for its improvement to ensure consistent and reliable connections. Some suggested varying the platform but the majority related the problem to broadband.

> *Government needs to roll out national broadband plan to Every Home in Ireland. It would help so many people with mental health issues to be able to communicate in this way/video call.*

Support to Prepare for Call

Four respondents indicated the need to support patient and clients for their video enabled consultation.

> *More assistance with the technology on the initial appointment may be necessary as some older people are not used to the modern way of communicating with clients in the community*

Waiting Room Experience

Three respondents made suggestions for improvements under this category, 2 about the music.

> *Lose the music in the virtual waiting room!*

One respondent suggested better communication in the virtual waiting room which is in keeping with the responses in the Consultation Deficit category in terms of the virtual vacuum of communication experienced. The quote below also confirms the requirement in some cases for better preparation of the patient/client for this new medium for consultation.

> *I was late for my 1st appointment, due to lack of knowledge. Then once I got in I waited for 2 hours and no one turned on, to give me a message.*

Security Concerns

Some patients/clients had concerns about the security of their information and its storage.

> *Clarity that details will be stored for length of call could be shown before they are asked for rather than after.*

> *Backward compatibility with older devices, also, chrome is really not a safe browser to use!*

Satisfaction with Video Enabled Care

Finally, 87 of the 401 qualitative responses from patients/clients indicated either that they were satisfied with VEC (52.8%) or that they found it posed no disadvantage in their consultation (47.1%) (Table 28)

Table 28: Satisfaction with VEC Category and Detail Codes Patient/Client Survey

Satisfaction with VEC		
Detail Code	**Patients/Clients**	
	Number	**Percentage of Responses for this**
Satisfied	46	52.8%
No disadvantage	41	47.1%
Total	87	100%

Healthcare Professional Survey

Five questions/request for comments yielded qualitative data from the HCP survey as follows:

1. Were there any adverse consequences/disadvantages to the use of the virtual platform? Please specify.

2. Were there unanticipated benefits to the use of the virtual platform? Please Specify.

3. Did you have difficulties with documentation of practice? Please comment.

4. What administrative support was available to you in organizing virtual consultations? Please tick all that apply.

5. What would have enhanced the effectiveness of the virtual consultation? Please tick all that apply

In keeping with the Hickey and Kipping Methodology (1996) all qualitative responses were examined for suitability for coding to predefined categories irrespective of the source of the response. For example, data from the responses to availability of administrative support were coded to both the "Availability of Administrative Support" and "Engagement Barriers" categories.

The total number of qualitative responses to the survey questions from healthcare professionals was 1,150. Six categories conceptualize the main ideas which emerged from the accumulated responses, namely: Enhanced Experience; Consultation Deficits; Improvement Suggestions; Availability of Administrative Support, Engagement Barriers and Satisfaction with Video Enabled Care. Table 29 shows each of the six categories and the number of responses coded to each category.

Category	No. Of Responses
Enhanced Experience	397
Consultation Deficits	664
Improvement Suggestions	112
Availability of Administrative Support	32
Engagement Barriers	131
Satisfaction with Video Enabled Care	5

Table 29: Categories Healthcare Professional Data and No of Responses

Categories are defined below and tabled with their detail codes and the frequency of their emergence. Although 3 categories developed for patient/client data were also appropriate for healthcare professional data, the latter

required the development of further detail codes in these common categories. Patients'/clients and healthcare professionals' shared experiences are discussed separately.

Enhanced Experience

Definition: Benefits realised which were additional to those typically experienced in face to face consultation

Of the 1,150 healthcare professionals qualitative responses, 397 (34.5%) contributed to the *Enhanced Experience* category. Table 30 provides a breakdown of the responses in terms of the detail codes developed.

Table 30; Enhanced Experience Category and Detail Codes Healthcare Survey

Enhanced Experience		
Detail Code	**Healthcare Professionals**	
	Number	**Percentage of Responses for**
Enhanced Service Option	**291**	**73.2%**
Convenience	58	14.6%
Preference	7	1.7%
Increased accessibility	33	8.3%
Improved effectiveness	42	10.5%
Enhanced Inclusion	52	13%
Self-Management	38	9.5%
Flexibility	61	15.3%
Efficiency	**42**	**10.5%**
Wellbeing	**41**	**10.3%**
Comfort	16	4%
Less stressful	12	3%
Safer	13	3.2%
Continuity of care	**23**	**5.7%**
Total	**397**	100%

Enhanced Service Option

Two hundred and ninety one healthcare professional responses (73.1%) contributed to this category. The flexibility which VEC created was demonstrated in its extension of options for the consultation

> *It makes therapy more client-centred for some children. Many of the toys, resources and materials we have for face to face appointments are limited in number, old fashioned and out of date. I felt I could use more up to date online games, toys, characters, materials etc. on an online platform particularly for older children*

> *More efficient use of time; enables worker to work from home and more flexibility regarding appt times as can offer early morning or late evening.*

Enhanced inclusion was also cited as a benefit of VEC. Thirteen percent of responses in this category indicated that, for many patients/clients, VEC was a better access route to care than face to face consultation. The indications are that VEC may be an instrument of inclusion for patients and clients who are otherwise at risk of exclusion through circumstances or resources.

> *Engagement with groups of patients that are harder to reach was better with virtual than with face to face consultations e.g. women with high BMI, high social deprivation, younger women etc.*

> *Some older children were happy to use virtual platform who might have ordinarily found it difficult to attend groups in person (for example due to anxiety in social situations).*

For others it is simply a better experience of providing the service because of the shift in control to the patient/client.

> *We were able to progress family centred practice and focus on coaching parents and move away from therapist being the person working hands on with the child, much better outcome in line with progressing children's disability services*

Ten and a half percent of healthcare professionals found that VEC was a more effective medium of care for some patients in terms of the success of their interventions.

> *Patients seemed much more relaxed and at ease during video consultations in their own homes compared to attending in clinic. Frequently they asked more questions than usually asked in clinic and overall have been very positive about the experience once IT challenges were overcome.*

Better performance in group interventions, better commitment to group intervention home programmes, better focus in group interventions - fewer incidents of conversation going off topic. Good opportunity to see patient functioning in their own home, provide practical examples

Self-Management was improved in certain groups of patients/clients who became more proactive in managing their own or their children's care.

Fifty eight (14.5%) respondents cited convenience as a positive outcome of the move to VEC

Convenient for some patients who would find it hard to travel distance for appointment (even if face to face offered)

A further 8.3% found that their patients/clients were better able to access care with VEC for practical reasons, with some examples of patients/clients for whom physical access to the service was usually challenging

Allowed me to keep in contact with particular patients in at risk categories who do not wish to attend face to face; I work within a service that provides a service nationally so it allowed me to assess patients who were based far from our base, it stopped them having to travel up to Dublin.

Others simply preferred VEC to face to face appointments

Some children preferred it as they can find the clinic daunting. It also enabled me to continue working with older/responsible adolescents over the summer months when their parents were working from home and could not attend in person.

Efficiency

Efficiency was cited as a positive outcome with 42 (11%) respondents indicating that greater volumes of work were achievable through VEC than with face to face consultations within a similar time span.

Less transition time taken to move patients from waiting rooms into clinical space and ability to continue with my work until I noticed the patient enter the virtual waiting room as opposed to waiting in anticipation for their arrival in the waiting room with the associated checking and calling names

In addition, fewer consultations were lost because of issues relating to getting to face to face appointments.

The online platform can sometimes compensate for a face to face cancellation and avoid a complete loss of appointment time.

Wellbeing

Ten percent of the respondents (41 healthcare professionals) in the category reported VEC benefits in terms of wellbeing, reduced stress and feelings of safety. Several identified the reduction in discomfort for patients who had painful conditions or conditions which decreased their mobility.

A client who could not attend in person due to his significant physical health issues can now attend regular virtual appointments

A large number of responses referred specifically to the avoidance of COVID infection

Safety of small children who may be compromised with health difficulties

Not all, however were able to avail of this preferred medium of care

I feel safer reducing my contacts as much as possible. I can see clients lower on priority list via TH (telehealth) without the risk of contact with them. Unfortunately our higher priority clients often don't want to/can't use TH (Telehealth) (older frail adults, no family support, higher risk thus need 1:1rv etc.)

Healthcare professionals also reported that patients and clients were less stressed when they did not have to travel to appointments.

Could talk to people in the comfort of their own surroundings and thus eliminate any anxiety they may have in leaving their home to attend.

Parents reporting reduced pressure to have to attend appointments physically.

Continuity of Care

Twenty three respondents (5.7%) cited continuity of care as a benefit of VEC.

Allowed us to maintain and develop our service to clients over lockdown and the on-going pandemic. Kept the department open and us all in our jobs, serving the public when they really needed us and were feeling increased isolation and vulnerability

Consultation Deficits

Definition: Aspects of video enabled care that were unsatisfactory

Of the 1,150 qualitative responses to the survey, 664 were allocated to the consultation deficits category. These responses are broken down, in table 31 below, in terms of the detail codes that conceptualized them.

Table 31: Consultation Deficits Category and Detail Codes Healthcare Professional Survey

Consultation Deficits		
Detail Code	**Healthcare Professionals**	
	Number	**Percentage of Responses**
Clinical Effectiveness	**293**	**44.1%**
Harder to achieve same standard as face to face	169	25.4%
Appropriateness	32	4.8%
Adequacy of communication	60	9%
Distractions	12	1.8%
Remaining focussed	20	3%
Technical Concerns	**217**	**32.6%**
Adequacy of Hardware	7	1%
Adequacy of Software	35	5.3%
Connectivity	175	26.3%
Efficiency Concerns	**82**	**12.3%**
Reduced Efficiency	47	7%
Increased Workload	35	5.3%
Negative Personal Impact	**28**	**4.2%**
Stressful	18	2.7%
Physical Impact	10	1.5%
Preparedness	**20**	**3%**
Lack of IT Skills	11	1.6%
Support required	9	1.3%
Privacy/Security Concerns	**14**	**2.1%**
Preference for face to face / attitude to VEC	**10**	**1.5%**
Total	664	100%

Clinical Effectiveness

This group of responses accounted for the largest cohort within the category. It was felt by some (4.8%) not to be an appropriate medium of care.

> *Capturing specific movement and facial expressions of the patient can be difficult as the carer holding the phone is not always aware of where to position the phone and the picture quality may be poor. Using virtual platforms with the older person could be risky as we can anticipate potential falls on certain movement but the carer is not always aware.*

> *And when dealing with grief and loss, the simple warmth of a personal interaction, having the chance to offer a tissue for example, other simple things are missing.*

By others (9%) it was thought to be lacking in terms of allowing effective communication with patients/clients. Responses indicated, however, that this was sometimes partially due to poor connectivity.

> *Barriers to observing verbal and non-verbal behaviour in clients, poor connectivity issues can impact negatively on therapeutic relationship and therapeutic safety.*

Some healthcare professionals (3.1%) found that they, or their clients, found it hard to remain focused throughout the sessions

> *It requires more focus to communicate virtually and I found that I was more fatigued and more prone to headaches than normal. It is a useful adjunct to a face to face physiotherapy consultation but is not a replacement. Prolonged virtual working is hard on the eyes, body and is quite lonely.*

Others (1.8%) found that distractions at home interfered with the ability to engage fully with the sessions.

> *Consultation took longer on occasion, parents interrupted by child or activity at home*

The largest category of responses in this group (26.1%), however, was to do with being unable to provide the same standard of care as was provided in face to face consultation.

> *With paediatric clients, challenging to motivate without reinforcers - no option to share mouse control which means sessions can't be interactive.*

Within this group, however, connectivity could still be identified as the main issue

> *Picture quality quite grainy if client using a phone, and unable to complete good enough objective assessment to feel confident. A lot of clients still requested they be kept on the waiting list for face to face review when available.*

Technical Concerns

In terms of consultation deficits identified by healthcare professionals, general concerns around technology accounted for 32.6% of the responses. Adequacy of hardware and software for successful consultation was an issue for 6.3 % of respondents

> *Audio/visual issues, lack of ability to fluidly screen-share on old laptop, no webcam to compensate*

but the majority of respondents in this detail code group (26.7%) cited connectivity as their problem.

> *Main issue was poor connection at times, sometimes due to clients' connection, but mainly related to hardware that proved difficult to replace via IT support*

> *Hard to assess emotional state sometimes, can interrupt client during therapy as there is a slight time delay in sound*

Efficiency Concerns

Efficiency and increased workloads numbered among the consultation deficits responses. Despite findings that efficiency was one of the advantages of VEC for some, for others, efficiency decreased. The indications are that, for some, use during COVID 19 may be necessary but VEC is not the preferred medium for the longer term.

> *The main disadvantage is that for the majority of clients it does not eliminate the need for an in-person face-to-face consultation, it just reduced the amount of time you have to spend in the in-person face-to-face consultation. Therefore what was in the past 1 single intervention is now divided into 2 parts a virtual part and the follow-up in-person part and when taken as a whole this new way of working is more time consuming*

Efficiency and increased workload are strongly linked but this may partially be attributed to becoming familiar with the new medium of care and to clearer decision making regarding the suitability of the medium for each of their patients/clients.

> *The time involved to explain to patients that their treatment is gone virtual, has taken lots of effort from my part and getting that patient to buy in to the method in which their rehab is going to be delivered. Unable to feel the injury, range of movement or muscle strength has been a draw- back most definitely. Extra explanation from a therapist point of view into the rationale for certain exercises, so that you can have that buy in from the patient, but this could also be deemed as an advantage as in it has improved my explaining skills and general communication with patients.*

Negative Personal Impact

Twenty eight (4.2%) of healthcare professionals in this category highlighted the personal impact that video enabled care may have on its users. Eighteen cited psychological symptoms of strain and ten cited physical symptoms, as illustrated in the quote below.

> *I am experiencing more back pain, headaches, and sore eyes as a result of using screens. I feel that's why rate of appointments has not gone up. You also have to use a louder voice.*

Preparedness

For 3% of respondents, poor IT skills and poor support were a problem indicating that staff and patients/clients alike require some level of assessment to ensure their digital capability before attempting VEC.

Privacy/Security Concerns

A small number of respondents (2.1%) had concerns about privacy and security

> *Issues around confidentiality and sharing of sensitive information via zoom; no control over who else is in the room or if patient/client/family are recording over a different device*

Preference for Face to Face Consultation

A small number of respondents (1.4%) indicated a dislike for VEC and a preference for face to face consultation and 2.7% found it stressful.

Improvement Suggestions

Definition: Areas of the service identified as needing improvement or resolution

One hundred and twelve healthcare professionals suggested improvements for better support in the use of video enabled care and better access to it. The detail codes under which these suggestions are grouped are presented below in Table 32.

Table 32: Improvement Suggestions Category and Detail Codes Healthcare Professional Survey

Improvement Suggestions		
Detail Code	**Healthcare Professionals**	
	Number	**Percentage of Responses for this Category**
Enhanced functionality	**55**	**49%**
Better Support	**26**	**23.2%**
Support to prepare for video call	4	3.5%
Better Support/Admin	19	16.9%
Assurance of Security/Confidentiality	3	2.6%
Creative Solutions	**22**	**19.6%**
Equity and Inclusion	**9**	**8%**
National Equity	8	7%
Social Inclusion	1	0.8%
Total	112	100%

Enhanced Functionality

The largest cohort of respondents in this category (55/48.6%), suggested that enhanced functionality would improve their ability to provide a good VEC service.

An option to let the client take control of the screen you are sharing - to allow them to complete assessment tasks etc.

Being able to send multiple appointments to the same client in 1 go instead of having to input each one separately for a block of therapy

Better Support

Additional suggestions were for improvements in the supports and communications around accessing the appointment in terms of information and better administrative support (23%). Two respondents indicated concerns for the security of VEC platforms and one for confidentiality.

Creative Solutions

Twenty two respondents in this group identified improvements that they had themselves devised.

Documentation improving with practice but found template of questions prepared beforehand helped

Equity and Inclusion

Seven responses indicated a need for equality of service throughout the country and one for improved social inclusion.

Engagement Barriers

Definition: Barriers to either the patient/client's or the healthcare professional's engagement in video enabled consultations.

One hundred and thirty one healthcare professional responses were allocated to this category. The detail codes are presented in Table 33 and their meanings explained.

Table 33: Engagement Barriers category and Detail Codes Healthcare Professional Survey

	Engagement Barriers	
Detail Code	**Healthcare Professionals**	
	Number	**Percentage of Responses for this Category**
Support and Confidence	**91**	**69.4%%**
Willingness to engage	27	20.6%
Lack of IT skills	24	18.3%
Inadequate Preparatory Support	2	1.5%
Ability to engage	28	21.3%
Confident/Comfort with VEC	10	7.6%
Access	**39**	**29.7%**
Access to technology	38	29%
Software Access	1	0.7%
Data Charges	**1**	**0.7%**
Total	131	100%

Support and Confidence

The sub-category 'support and confidence' comprises IT skills, willingness and ability to engage, preparatory support and confidence in the use of VEC. There is evidence that, over time, some of these barriers may be surmountable with support and guidance as indicated by the quote below. Time spent setting patients such as these up and establishing a baseline competency, may be offset by the comfort and convenience created for patients with such debilitating conditions.

> *Time consuming getting patients set up on zoom, low levels of health and IT among our patients with chronic respiratory disease*

Access

Of the 39 responses in this sub category, 38 respondents had difficulty with access to technology, some for patients/clients and some for themselves and one indicated access to software as a barrier.

> *My clients do not all have mobile phones; phones are out of date, unable to use internet facility on phone etc.*

> *Slow network, lack of investment in basic infrastructure for healthcare staff means incredible difficulty in accessing online platforms, lack of knowledge from managers regarding what technology can be used for, how it can be used, and when etc. Staff not up-skilling themselves before using online platforms then inadvertently creating issues e.g. GDPR, by entering private virtual sessions of others*

> *The need for colleagues to be close to one another for an MDT call - caused problems with social distancing and conversely with needing a room each to avoid echo*

This subset is closely related to the support requirements indicated in the previous subset.

Data Charges

Only one healthcare professional cited data charges as a deterrent from using VEC but it may be worth considering how this issue can be avoided as a hidden cost in the long term if VEC is to become a stable medium of healthcare.

Availability of IT/Administrative Support

Definition: Availability of administrative support in organizing and scheduling virtual consultations and associated follow up.

Table 34: Availability of Administrative Support Category and Detail Codes

Availability of Administrative Support		
Detail Code	**Healthcare Professionals**	
	Number	**Percentage of Responses for**
Limited or no admin support	16	50%
Admin Support Available	4	12.5%
Limited or no IT Support	8	25%
Availability of IT support from colleagues	4	12.5%
Total	**32**	**100%**

Seven hundred and eight HCPs responded to the question about administrative support. Of these 32 (4.5%) provided additional comments. These are set out in Table 34 and largely indicated that healthcare professionals were managing for the most part without administrative or technical support for VEC.

> *We are fortunate to have an admin but the role is shared with another busy service, and in maternity services, we never closed any service during the surge; our admin is not familiar with the virtual platform and all bookings are done in the hospital booking system at the moment with clinical staff managing the telehealth aspect.*

> *Having clerical support to plan book consultations, to register the patients and type and send letters would be invaluable and mean I could review more patients*

Satisfaction with Video Enabled Care

Healthcare professionals did not contribute statements relating to their level of satisfaction with VEC to the same degree that patients/clients did. Of the 5 respondents who did, 4 were satisfied with VEC and 1 was not. However the answers to the question regarding their likelihood of recommending VEC to a friend or colleague indicated a high level of satisfaction.

Comparative Analysis: Patient Client/Client – Healthcare Professional

In this section the responses from both survey groups are compared for commonalities. The same analysis process was applied separately to each set of survey responses to ensure reliability of decisions around detail coding and data allocation to the main categories. Sub-category names and grouping of detail codes within them varied slightly between surveys because the significantly larger amount of qualitative data contributed by healthcare professionals occasionally resulted in the creation of a larger number of categories and sub-categories. The tables provided, however, offer precise numbers in terms of occurrence of detail codes.

To compare the extent to which issues mattered to patient/clients and healthcare professionals, the number of responses for each category as a proportion of the total number of qualitative responses was calculated (Table 35). Whilst 18% of patients'/clients' responses related to enhanced experience associated with video consultations, this was almost doubled (34.5%) for HCPs. This may be related to the fact that HCPs commented on many more aspects of enhanced experience than did patients/clients. Proportionally, responses relating to consultation deficits and improvement suggestions were similar. Satisfaction with care comprised 22% of patient/clients qualitative responses but only 0.4% of HCP responses. Findings from the quantitative analysis, however, indicate high levels of HCP satisfaction with video enabled care.

Table 35: Comparison of Patient/Client and Healthcare Categories and Responses

Category	Patient/Client No. of Responses	Percentage of Qualitative Responses	HCP No of Responses	Percentage of Qualitative Responses
Total Qualitative Responses	401	100%	1,150	100%
Enhanced Experience	73	18%	397	34.5%
Consultation Deficits	192	48%	664	51%
Improvement Suggestions	49	12%	112	10%
Availability of Admin Support			32	3%
Engagement Barriers			131	11%
Satisfaction with Care	87	22%	5	0.4%

Enhanced Experience

Table 36 illustrates comparative views between patients/clients and healthcare professionals regarding the enhanced experience provided by VEC. Issues relating to well-being and convenience mattered most to patients/clients. Whilst HCPs were concerned with these issues, they also considered issues such as increased self-management and flexibility.

Table 36: Enhanced Experience Comparison of Category and Detail Codes

Enhanced Experience		
Detail Code	Patients/Clients	HCPs
Wellbeing	**37%**	**10.3%**
Comfort	9.6%	4%
Safety	17.8 %	3.2%
Reduced Stress	9.6%	3%
Consultation Efficacy	**27.4%**	**20%**
Improved Effectiveness	24.6%	10.5%
Self-Management	3%	9.5%
Convenience	**21.9%**	**14.5%**
Continuity of Care	**9.6%**	**5.7%**
Preference for VEC	**4.1%**	**1.7%**

Healthcare professionals additionally cited a reduction in 'did not attend' rates and better inclusion of people who lived at a distance or were at risk in terms of their wellbeing. This was borne out by patients/clients indications that personal circumstances were likely to influence their ability to attend face to face consultations. Both groups indicated better service access and for some, the video enabled consultation resulted in provision of more holistic care.

Consultation Deficits

Patients identified a similar number of consultation deficits as healthcare professionals but there were differences in their experiences of deficits as illustrated in Table 37.

Table 37: Consultation Deficits Comparison of Category and Detail Codes

Consultation Deficits		
Detail Codes	**Patients/Clients**	**HCPs**
Technical Concerns	**46.9%**	**32.6%**
Connectivity	41.6%	26.3%
Adequacy of Hardware	1.5%	1%
Adequacy of / Access to Software	3.6%	5.3%
Appropriateness	**35.2%**	**17.9%**
Adequacy of Communication	11.4%	9%
Appropriateness	17.7%	4.8%
Distractions	3.1%	1.8%
Security Concerns	2.6%	2.1%
Physical Impact	**3.6%**	**7.3%**
Physical symptoms	1%	1.5%
Remaining Focused	2%	3%
Stressful	0.5%	2.7%
Preference for Face to Face	**6.2%**	**1.5%**
Lack of IT Skill	**3.6%**	**1.6%**

Patients/clients identified more technical concerns although for both groups it was largely to do with connectivity. Similarly, while a larger proportion of patients/clients identified the need to ensure

appropriateness of this medium of care, the concern was common to both groups. Among the issues relating to this concern was the potential for reduced clinical effectiveness with the use of VEC.

A small percentage of both survey groups reported that VEC had a negative physical impact and patients/clients reported a preference more strongly for face to face consultation although the overall number in this subcategory was also comparatively low. IT skill was reported as a deficit by both groups but, again, in small numbers.

Improvement Suggestions

Patients/clients made similar numbers of suggestions to healthcare professionals for improvements to VEC but there were variations in their priorities. Three common areas for improvement were identified (Table 38). Support to prepare for video consultation represented 3.5% of HCP responses and this was more than doubled for patients/clients (8.1%) potentially indicating increased need for support in this area for patients/clients. Suggestions for enhanced functionality from HCPs (49%) were almost twice that of patients/clients (28.5%). This may suggest that HCPs have higher expectations in terms of the service they would like to provide during the video consultation and outcomes they expect. Whilst security was a concern for both groups proportionally this was of much greater concern for clients. This may suggest that HCPs are more informed of the security measures in place to protect patient confidentiality and privacy during and after the consultation.

Table 38: Improvement Suggestions Comparison of Category and Detail Codes

Improvement Suggestions		
Detail Codes	**Patients/Clients**	**HCPs**
Support to Prepare for Call	8.1%	3.5%
Enhanced Functionality	28.5%	49%
Security Concerns	6.1%	2.6%

Discussion

The survey questions were necessarily broad based as the aim of the evaluation was to understand VEC in terms of its usefulness as a medium for healthcare delivery and the level of satisfaction experienced by those using it. Findings are, therefore, correspondingly wide ranging. The two main issues for clinical practice emerging from the study are concerned with the efficacy of VEC and the benefits and disadvantages experienced by health care professionals and patients/clients. Survey responses indicate that VEC is a successful addition to health services in Ireland. Both groups of respondents have firmly endorsed this mode of health care. Indications from comparative literature are that this is also the international experience. This discussion relates to how its quality should be improved in order to address the difficulties encountered and retain the benefits experienced

Telehealth usage: influencing factors

Platforms

Fifty one and a half percent of healthcare professionals used the Attend Anywhere platform. This may have been related to availability or user preference, but it may also be because the majority of users were engaged in single patient consultations for which Attend Anywhere is a more suitable option than, for example Cisco Webex or MS Teams, both of which are more suitable for larger group sessions. In terms of the usage of VEC per professional group, of those who responded to the survey, speech and language therapists and physiotherapists reported the highest level of use at 25% and 18% respectively. These figures represent only the respondents to the survey and not these professions as a whole. It is possible that early adaptors to telehealth and professionals with good existing digital skills are better represented by this early evaluation than their professional colleagues. The high level of reported usage of Attend Anywhere by patients and clients (79%) may have been influenced by the facility on the Attend Anywhere platform to embed the survey within the software giving the patient/client an option to complete the survey directly after the consultation. This option was not available on other platforms.

Access

Access: Technical Issues

Of the total number of healthcare professional respondents, 40% reported experiencing a great deal (14%) or moderate amount (26%) of technical difficulty when using the platform. Technical problems are likely to be largely related to connectivity. Another factor, however, is the skill or lack of skill of either healthcare professional or patient/client and this may be responsible for issues such as, for example, '*difficulty logging in*'. A further consideration is the level of complexity posed by the platform itself. Mistiaen et al. (2020) cite non user-friendly systems as a technical barrier to successful telehealth. Healthcare professional respondents to the Irish surveys

reported high levels of competency in terms of IT skills but technical problems were, nevertheless, encountered. Additionally, arguably, people with good IT skills are more likely to choose to use VEC so this cohort, the early adapters, may not be typical of the general healthcare profession population and IT skills may be a more widespread problem than this survey indicates. Murphy et al. (2021) found that VEC was a skill that improved with practice but efforts towards actively enabling IT literacy for the purpose of Telehealth are promoted in the comparative literature. The Royal Australian College of Physicians (2020), following a survey of Medicare Benefits Schedule attendance, include in their recommendations, support and education for patients and for staff. Jonnagaddala et al. (2021) advise staff education and plain simple language explanations relating to telehealth. Mistiaen et al. (2020) include among the barriers to telehealth, technical illiteracy. Mann et al. (2020) suggests inclusion of telehealth education in future curricula and Sutherland et al. (2020) also promote digital literacy as a means of avoiding disadvantaging people. Taken together, these considerations suggest that some thought should be given to digital literacy and methods of promoting it among healthcare professionals and patient/client groups in Ireland, especially those likely to benefit from it. International experience indicates that telehealth is found to be advantageous across primary care settings (Zulfiqar et al. 2018; Richardson et al. 2020; Jonnagaddala et al. 2021; Murphy et al. 2021). People with long term conditions are also likely to benefit (Zulfiqar et al. 2018; Mold et al. 2019; Orlando et al. 2019; American Telemedicine Organisation 2021) as well as those with certain types of mental illnesses (Veazie et al. 2019; Express 2021; Murphy et al. 2021). Enabling such patient/client groups to benefit from telehealth through development of their digital literacy may be a factor in the realisation of community based, person centred healthcare. In the meantime, triage for suitability for this medium of care in terms of existing digital literacy is an important consideration.

Functionality suggestions from respondents, predictably, related mainly to elements of care which are achieved as part of the normal process with in-person appointments. Of the responses related to functionality, 50% cited the need to be able to share patients'/clients' data securely, 38% wanted access to an electronic health record, 9% access to electronic prescribing, 8% electronic access to blood results and 12% electronic access to other diagnostic tests. These requirements are reflected in the comparative literature where similar requirements are cited (Mistiaen et al. 2020; Jonnagaddala et al. 2021; Murphy et al. 2021; Taylor et al. 2021). Measures to introduce the electronic patient record and electronic prescribing are currently underway in the Republic of Ireland. Hastened introduction of these measures would enhance healthcare professionals' ability to deliver video enabled care more effectively.

Access to remote physiological monitoring was identified by 20% of respondents as an enabler of video enabled care. Remote monitoring is currently underway in Ireland and is more widely available in other countries (Cravo and Hashiguchi 2020). The functionality of VEC platforms themselves was also addressed by respondents with

41% requesting the capacity to show videos, 36% to screen-share and 28% to be able to invite others to share the consultation. Attend Anywhere, Cisco Webex and other platforms already provide these functions which suggests the need for further training and repeated updates to teach users how to manage these functions and/or to increase awareness of their existence. The survey was conducted when healthcare professionals were under pressure to attend quickly to their patients, and capacity to undertake training may have been compromised by workload and the necessity to react quickly in a crisis. As telehealth is integrated as a further option for delivering care, a systemic programme to enhance digital literacy across the board may be advisable.

There appear to be strong indications in favour of the addition of telehealth as a new mainstream option for healthcare. There are, however, equally clear indications of the need to address its negative aspects before this can successfully happen. Mold et al. (2019); The New Zealand Telehealth Forum and Resource Centre (2018); The Royal Australian College of Physicians (2020); Mistiaen et al. (2020); Taylor et al. (2021) and Murphy et al. (2021) cite IT infrastructure concerns on the part of health services in their studies which support the finding of this study wherein technical concerns emerged as the most frequently cited deficit of VEC. This was overwhelmingly to do with poor connectivity on the part of the health service or the patient/client. As this study has progressed, efforts to upgrade connectivity for health professionals and provide local hubs for patients/clients have been on-going. This is set to continue, and the survey results have provided key intermediate steps to ensure high standards of healthcare while this happens. Planning for the digital roadmap in Ireland is underway and results of this survey suggest that clear steps are developed by healthcare professionals to triage patients/clients for the most appropriate mode of care whether in-person, VEC or telephone, for each consultation. In this way healthcare standards are adhered to and the standards of the right healthcare at the right time, in the right place are maintained (Future of Health Care Committee, Houses of the Oireachtas, 2017).

Access: Rural Versus Urban Dwelling

A further consideration, in terms of access is the disparity between urban and rural settings. Over half of the responding patients/clients (63%) lived in a city or town, with the remaining 37% living in a village or in the country. These figures show some consistency with the national distribution of rural/urban living. Data from the Central Statistics Office (CSO) 2019 shows that 31.4 % of the population in the Republic of Ireland live in a rural area and 68.6% live in urban areas.

Survey findings show that those from the country or rural areas were 10% more likely to report having technical problems (OR 1.1, 95% CI -0.80-1.55, p=0.51) than those living in a city or town. This may be related to access to high speed broadband. Only 77% of all premises in Ireland currently have access to high speed broadband with rural areas being more disadvantaged in this regard. The digital divide between urban and rural communities is

recognised as being one of the biggest challenges currently facing Ireland. Janssens (2018) speaks to the continuing disparity between rural and urban areas in terms of access to the internet and the speed and quality of that access. The National Broadband Plan is committed to removing the existing digital divide between urban and rural communities and increasing availability of high speed broadband to 91% of households nationwide (Department of the Environment, Climate and Communications, 2020).

Findings from the current study did not include specifics in terms of healthcare conditions or requirements but it is apparent that therapeutic appointments which require absolute synchronisation between voice and video required excellent connectivity to the internet and where this was not available to both participants, in-person meetings became essential. The most frequent example of this was with speech therapy where clinicians needed to see lip movements synchronised with their client's speech. The advantages, however, in other aspects of the consultations indicate that as long as the patient/client triage for VEC appropriateness is robust, poor connectivity is the only disadvantage. The need for improved ICT across healthcare systems is commonly expressed in the comparative literature (New Zealand Telehealth Forum and Resource Centre 2018; Royal Australian College of Physicians 2020; Mistiaen et al. 2020; Taylor et al. 2021; Murphy et al. 2021) and this is important for the prevention of healthcare inequity associated with poor access to resources.

Access: Age

On the face of it, age is a factor in limiting access to VEC. The majority of patient/client respondents (61%) were between the ages of 30 and 60 years and 28% were under 30 years. Only 11% were over 60 years and of those 4% were over 70 years. Findings showed that those over 60 years were more likely to report having technical problems compared to those under 18 years (35.8% vs. 27%). Technical problems were defined as "poor sound or picture quality or difficulty connecting in to the appointment". Whilst technical difficulties are most likely to be associated with connectivity, lack of IT skills or preparedness for video enabled care may have contributed to difficulty connecting to the consultation.

Sutherland et al. (2020) found, in their rapid literature review relating to palliative care that neither diagnoses nor age were barriers to telehealth use although healthcare professionals expressed potential barriers with frail patients and the risk of avoiding sensitive topics in tele-consultations because of the need for touch. Zulfigar et al. (2018) found early evidence that telemedicine in older people's homes resulted in reductions in falls and post-fall admissions to hospitals. Pre-COVID, say Richardson et al. (2020), following a European study of remote consultations, older people accounted for 8% of virtual consultations. During COVID this increased to 20% and, at their time of writing, older people accounted for one fifth of all consultations. Although older people are relatively poorly represented in VEC in Ireland, preliminary findings elsewhere suggest that increased inclusion is likely to

return health benefits for this age group. Murphy et al. (2021) found that telehealth was successful for older patients, shielding people and people with poor mental health although they caution that it will be necessary to review and adjust the model of care for future use. Fisk et al. (2020) note the attention being given in the United States, the United Kingdom and Australia for future models for older people within services.

Research in France by Zulfigar et al. (2018) shows early signs of success in this age group in terms of heart failure, and the potential for the prevention of loss of home autonomy is under exploration. The convenience of VEC with its extension of options for access to healthcare may serve a variety of differing societal needs. There is some evidence from the current study that it offers increased inclusion to those who are socially disadvantaged, and this is supported in the comparative literature. Sutherland et al. (2020) refer to the breakdown of physical and geographical barriers and the greater ease of including family members or other healthcare professionals. These issues are highly relevant to older people.

Further evaluation of the efficacy of VEC should include exploration of usage by older adults and the health outcomes achievable. The introduction of targeted measures to increase the number of older persons accessing video enabled care should be considered. This should include the availability of support to access video enabled care. Positive findings relating to older adults are a caution to avoid making assumptions about the suitability of VEC based on patients'/clients'/ biographical data. They confirm the importance of individual patient/client triage for suitability of this way of accessing healthcare.

Access: Social Disadvantage

Protection of those at a social disadvantage or risk of exclusion requires care in the planning of VEC as an additional mode of healthcare. As with older age groups, if VEC is not managed purposefully to avoid exclusion, it carries an inherent risk of further marginalising those already at risk. An important consideration is the possibility of social exclusion because of digital poverty. In this survey, telehealth has been found to improve equity because of the increased access it provides, and this is true elsewhere (New Zealand Telehealth Forum and Resource Centre 2019; Royal Australian College of Physicians 2020). Groups who are already disadvantaged, however, are more likely to be further disadvantaged by digital poverty (New Zealand Telehealth Forum and Resource Centre 2019) and this is recognised by the WHO (2021) which advocates for equitable access to digital health for all.

Access to community based digital hubs and digital literacy education for patients/clients may be a viable method of providing equitable access. Equitable access in primary care will become more important in the move away from acute care (Jonnagaddala et al. 2021). In Ireland, according to CSO Information Society Statistics (2019), for households, fixed broadband is most common among the affluent and less common among the disadvantaged and very disadvantaged. Technical triage could, therefore, serve as a method of determining digital poverty among

patients/clients in Ireland with a view to providing resources in the form of local ICT hubs, for example, so that lack of wherewithal does not prevent easier or more effective engagement with healthcare. Thus, equitable access (WHO 2021), people empowerment (Fisk et al. 2020), the positioning of the patient/client at the centre of their healthcare (Nordic Innovation 2018) and the patient-centred vision of Sláintecare (Future of Health Care Committee, Houses of the Oireachtas, 2017) may be facilitated.

Further evidence from this study is that parents and carers are likely to require others to support their in-person consultations by caring for their children/other children/older family members in their absence and although for some, this is still required with a VEC (e.g., young children may interrupt the consultation), for many, this problem was resolved by VEC. Murphy et al. (2021) in a post COVID study of GPs in the United Kingdom, found that triage by telephone limited unnecessary visits to the practice and that prescriptions were manageable remotely while nurses educated or trained patients in wound care effectively using VEC. The success of Sláintecare (Future of Health Care Committee, Houses of the Oireachtas, 2017) depends on each patient/client's ability to interact at the right time, and in the right place with the healthcare system. VEC has shown reduced 'did not attend' numbers in this study and in others (Greenhalgh 2018; New Zealand Telehealth Forum and Resource Centre 2018). VEC may also be a pathway to realise the goal of a supported, connected community (HSE 2021) for patients/clients who are excluded or disadvantaged by the nature of their condition (certain mental illnesses or pain and discomfort) or their social circumstances (caring for others, straitened financial means or abusive relationships) and the overall vision of a patient centred health service (Future of Health Care Committee, Houses of the Oireachtas, 2017).

Satisfaction with Video Enabled Care

Satisfaction: Ratings

The majority (81%) of patient/ client respondents reported that their experience of video appointments was the same (50%) better (15%) or significantly better (16%) than previous face to face appointments. This compares to 61% of healthcare professionals who reported that the outcomes from virtual consultations were as expected (34%); more than expected (23%) or much more than expected (4%) compared with those expected from face to face consultations.

Similarly when measuring overall satisfaction with video enabled care, reported satisfaction levels amongst patients/clients were higher than HCPs. The majority of patient/client respondents (95%) stated that they were likely, very likely or extremely likely to recommend video consultations to friends or family members. For healthcare professionals this figure was lower at 87%. Hubley et al. (2016) reported similar findings of a higher

satisfaction rating among patients than among healthcare professionals from their systematic review of tele-psychiatry.

In terms of satisfaction ratings of specific platforms for healthcare professionals, Blue Eye showed the highest ratings. In total, however, only 60 healthcare professionals (8%) used Blue Eye. Use was highest amongst Occupational Therapists (15.3%); Physiotherapists (10.9%); Doctors (9.8%) and Psychologists (9.3%).

The reasons for reported high levels of satisfaction compared with other platforms are unclear. It is not possible to determine from the data whether availability of training and support for specific platforms, clinical setting, quality of broadband connection for users of the platforms or appropriateness of VEC as a consultation medium influenced the user experience. Further exploration of this finding is warranted.

Satisfaction: Preferences

Preferences among healthcare professionals for in-person consultations or VEC are somewhat mirrored by their experiences of benefits and disadvantages. Dieticians, nurses and midwives reported highest experiences of unanticipated benefits with VEC, and nurses and midwives were also among those best satisfied with VEC compared with in-person consultation. Similarly, speech and language therapists, psychotherapists and physiotherapists were most likely to report adverse consequences with VEC and these groups also reported the lowest levels of satisfaction with VEC compared with in-person appointments. These findings suggest a connection between the type of consultation and the requirement for in-person consultation. This may be simply a matter of a requirement for excellent connectivity, for example to match speech to lip movement as indicated in qualitative responses, or to avoid loss of connection during a sensitive discussion, but for some, the need for human contact was also clear from the qualitative findings.

Doctors' preferences were not as clear; some responses indicated positive experiences and others negative. In terms of likelihood of recommending VEC to a friend or colleague, the highest rating by nurses, considering their previous positive responses, was predictable but psychologists also highly recommended the use of VEC (89.6%) and this, considering their less positive responses relating to preference, benefits and disadvantages, supports the suggestion that it is considered a good option but improvements in infrastructure and triage are needed to improve experiences of VEC use. Part of infrastructure is administrative support for the incorporation of this new medium for care and this is currently low overall, with doctors having the highest level of support (52.6%) and others having very little (physiotherapists 21.3%, occupational therapists 21.7% and speech and language therapists 22.7%). Low levels of administrative support for scheduling appointments and supporting patients may influence overall healthcare professional satisfaction with VEC.

Satisfaction: Comparison with In-Person Care

In comparing VEC and in-person appointments, although 61% viewed VEC at least on a par with in-person visits if not more useful, 39% of healthcare professionals deemed VEC less or much less effective. There is evidence from the qualitative data that this is in part related to connectivity and/or appropriateness of VEC for the appointment purpose and as suggested above, may also be attributable to poor IT skills. The COVID 19 pandemic prompted the effort to see as many patients/clients as possible via video or telephone to ensure continuity of care whilst maintaining patient safety. In time, however, selection of VEC for consultation can be structured via patient/client triage and in accordance with health service capability and capacity to enable more discerning and appropriate decision making. A combination of approaches may be used, whereby VEC and in-person consultations will ensure that the medium chosen for each appointment is appropriate and as convenient as possible for the patient/client. Jonnagaddala et al. (2021) remind the reader that evidence for the efficacy of VEC is limited yet and caution that there are risks of the non-capture of clinical thinking and that the technology needs to be suitable for the context. International studies, however, have generally shown positive feedback regarding telehealth (Zulfigar et al. 2018; Mistiaen et al. 2020; Murphy et al 2021; Taylor et al. 2021). The Mayo Clinic News Network (2021) summary of research to discover how telehealth addressed patients' clinical needs reports that 75% of 1,595 healthcare professionals surveyed found that it enabled quality care for COVID related issues, acute care, chronic disease management emergency follow up, care coordination, preventative care and mental/behavioural health. More than 80% found it improved timeliness of care and over 80% found that patients reacted favourably to telehealth. This last finding is reflected in the Irish survey and in the systematic review conducted by Hubley et al. (2016) referred to earlier.

In-person versus VEC: In comparing in-person consultation with VEC for individual patients, the highest levels of meeting or exceeding expectations was reported by midwives, nurses and doctors. Lowest levels of expectations being met or exceeded by VEC were reported amongst physiotherapists, speech and language therapists and psychologists. Although qualitative responses indicate perceived advantages of VEC among physiotherapists and speech and language therapists, it was also clear that excellent connectivity was necessary for successful speech therapy and that selection of VEC for some patients may not have been the optimum choice. In the circumstances of COVID, the alternative was, in many cases, a missed appointment. In these circumstances, a high level of preference for VEC over telephone consultation alone was clearly demonstrated. The indications, as has been suggested above, are that future planning should include systematic triage for suitability for VEC including patient/client IT skills, internet connectivity and appropriateness for the patient's/client's condition.

The lower rating of VEC (45%) in comparison with in-person group sessions appointments may also be related to appropriateness but platform use for group sessions requires a different set of skills than for single patient/client

consultations and weekly training programmes were not as available or accessible for group use as they were for single patient/client use. It may be useful to consider increasing support in this area.

Satisfaction: Convenience

Convenience, which speaks to the Sláintecare (Future of Health Care Committee, Houses of the Oireachtas, 2017) vision of treating patients at the level of least complexity, was a frequently cited outcome of VEC and this is mirrored in studies by Mann et al. (2020), Gordon (2020), Thiyagarajan et al. (2019) and Greenhalgh et al. (2018). Care convenience and accessibility will be hard to reverse, say Mann et al. (2020), the expectation having now been created. In Ireland, this expectation is strengthened by the goal of delivering the right care in the right place at the right time with the focus on developing community and primary care services (Future of Health Care Committee, Houses of the Oireachtas, 2017). Greenhalgh et al. (2018) and found that telehealth is more successful where relationships already exist between healthcare professionals and their patients and a preference for an in-person first assessment was also found in the Royal Australian College of physicians (2020) survey. Patients with enduring mental illnesses and chronic physical illnesses who live in remote areas may be particularly advantaged by telehealth, in terms of their increased ability to engage, if they have a long-term connection with their health providers (Mold et al. 2019) and this potential benefit is supported by the current study. These findings may be extremely important to the future planning for the healthcare of groups with mental illnesses or chronic physical conditions and the realisation of the current HSE Corporate Plan over the next three years (HSE 2021). Evidence of this advantage may influence its goal of digitalisation and inclusion of Telehealth, where clinical outcomes are shown to be enhanced, in the broader aim of realising Sláintecare.

The finding of a 32% reduction in non-attendance rates (DNAs) associated with VEC has positive implications for the health service as a whole in terms of efficiency, patient/client inclusion and a decreased likelihood of health deterioration in the absence of a timely consultation. This finding represents a substantial reduction in DNAs. Further examination of this, including a health economics assessment may be warranted to fully quantify the potential savings of this medium of care. Reductions in DNAs have been seen in other jurisdictions (Telehealth Forum and Resource Centre, New Zealand 2019; Royal Australian College of Physicians 2020) and this finding is congruent with the appreciation of the convenience which VEC offers. Non-attendance rates did not reduce for 39% of respondents but it is unclear whether they increased or remained static. There is some evidence from the qualitative data that non-attendance rates increased for some using VEC. This finding was not quantifiable but one response indicated that virtual appointments did not carry the same sense of priority for some as in-person appointments; some parents, for example, were reluctant to take their children out of school to attend. However, qualitative data from this survey also indicated that an element of convenience was to do with providing evening

appointments which potentially suited working patients/clients and healthcare professionals who were able to build flexibility into their working days.

The majority (86%) of patients/clients reported that they would usually travel to a face to face consultation by private car. On average patients/clients would have travelled 33 miles for their face to face appointment. This, besides the potential advantage in time and cost savings for patients/clients, demonstrates the potential of video enabled care as an environmentally friendly mode of delivering healthcare.

Outcomes: Unanticipated Benefits and Adverse Consequences.

Thirty three percent of healthcare professionals reported no disadvantages associated with the use of VEC. Overall, although 10% of respondents experienced more interruptions during their video enabled consultations than they normally experienced during in-person consultations, most had either the same level (64%) or fewer (26%) interruptions. This is a positive advantage of VEC but interruptions to consultations in general appear to be relatively high. It is unclear from the survey whether interruptions are from the patients'/clients' side or the healthcare professionals. The finding, however, suggests a need to further examine the issue of interruptions to healthcare consultations and their causes, regardless of the medium through which the care is provided, as interruptions risk compromised security, confidentiality or privacy. These are certainly key components of the Global Strategy on Digital Health 2020-2025 (2021). In the Republic of Ireland, the advice already available to healthcare professionals to consult in a private space, use headsets and notify colleagues of the need to be undisturbed remains appropriate. This issue was not found to be further addressed in comparative studies. There are some efforts underway to introduce *Digital Hubs* in healthcare settings which provide suitable technology, space and privacy for healthcare professionals and patients/clients alike to participate in video consultations. A full assessment of the usefulness of *Digital Hubs* and further needs analysis would quantify requirements for additional supports in this area.

Although Ignatowicz et al. (2019) found no evidence either in favour of or against virtual healthcare, Mistiaen et al. (2021) report cautious optimism albeit a need for further research, and Jonnagaddala et al. (2021) confirm that, while indications of benefits are beginning to emerge, the evidence so far is limited. There is, however, evidence of patient/client and healthcare professional satisfaction (Mayo Clinic News Network 2021; Mann et al. 2020; Veazie et al. 2019). Telehealth appears to lend itself better to some conditions than to others. Mold et al. (2019) found, in a systematic literature review, that those who have long term conditions demonstrated increased engagement with VEC and Veazie et al. (2019) found strong evidence of satisfaction and clinically significant outcomes in people with some specific mental health conditions. Sutherland et al. (2020), in a rapid literature to evaluate palliative medicine, found that telehealth broke down geographical and physical barriers between healthcare professionals and patients. Research in France by Zulfigar et al. (2018), focusing on various projects

relating to older adults, cites reduction in hospital admissions for those with heart failure with the addition of home monitoring and they continue to study the potential for the prevention of loss of home autonomy; a goal which aligns well with the Irish Sláintecare (Future of Health Care Committee, Houses of the Oireachtas, 2017) goals. Their research shows early signs of success in the management of chronic diseases and the possibility of prolonging a good quality of life for older adults. Jonnagaddala et al (2021), in a scoping review, also found benefits for chronic disease management and, in terms of physiotherapy, telehealth was instrumental in preventing chronic conditions from becoming acute.

The preference among Irish healthcare professionals for VEC rather than telephone consultations is matched by findings in Donaghy et al.'s (2019) study although telephone consultations are still the default option taken by many. Taylor et al. (2021) found in their Australian survey, that forced adaptation to telehealth during the pandemic, demonstrated that old fears associated with telehealth were baseless. COVID 19 has escalated the use of telehealth options for care (Mann et al. 2020; Veazie et al. 2019) and the effect of this on the Irish healthcare system, though unanticipated and unplanned for, is arguably very much in synergy with the recommendations of the Sláintecare Report (Future of Health Care Committee, Houses of the Oireachtas, 2017). The consequences of Covid 19 have revealed VEC as a central opportunity to put patients/clients in the centre of their own healthcare (Greenhalgh et al. 2018; Mold et al. 2019; Fisk et al. 2020) and this is a key Sláintecare goal. The findings of high satisfaction levels among patients/clients and their specificity on what works and what requires improvement should act as on impetus to drive the VEC agenda which also provides solutions for overcrowding in acute care organisations (Zulfigar et al. 2018; Murphy et al. 2021). The next step is to address the difficulties associated with VEC in order to maximise the benefits.

Wellbeing and Empowerment

Patients/clients and healthcare professionals have provided evidence of enhanced wellbeing associated with VEC in terms of comfort, safety and reduced stress, all of which speak to the high satisfaction levels recorded in the survey. Currently, satisfaction relates to experience and preference rather than to measurable health outcomes although evidence of these is also beginning to emerge (Zulfigar et al. 2018). Enhanced efficacy may be an essential requirement to make the leap from satisfaction with the mode of care delivery to measurable outcomes in terms of health benefits. Improved effectiveness and enhanced self-management are desirable outcomes which can be measured periodically from the perspective of patient/client health outcomes and hospital admissions. Similar to the finding from the current study, Mold et al. (2019) found an increase in self-management among patients. Greenhalgh et al. (2018) using a mixed methods methodology and excluding people with poor IT skills and IT access, also found an increase in self-management among patients. Hard to reach patients were found to be able to message requests for consultations when needed and arrange them in time to have their needs met as they

arose rather than having to wait for in-person appointments. The studies of both Greenhalgh et al. (2018) and Mold et al (2019) found enhanced continuity of care and enhanced inclusion of hard-to-reach patients attributable to the use of telehealth.

Fisk et al. (2020), reviewing telehealth activities across the United Kingdom, Australia and the United States in the 2-week period following the announcement of the pandemic, report a growing realisation of the potential for people empowerment. They also report the recognition of a potential for culture change within health services and this is supported across the Nordic countries (Nordic Innovation 2018) who see the potential for new routines and workflows which put patients at the centre of their healthcare rather than fitting them into the current healthcare system. This being one of the key objectives of Irish Policy (Future of Health Care Committee, Houses of the Oireachtas, 2017) makes digital health a good fit with the Irish system under conditions of adequate resources for equitable access for all.

Appropriateness

Appropriateness was the second most frequently cited deficit relating to VEC both for health professionals and for patients/clients and the recommendation for triage also emerged from this finding. There are two main elements to appropriateness for VEC, connectivity and clinical appropriateness. Mann et al. (2020) suggest mixed modalities of care to ensure quality and Greenhalgh et al. (2018) caution that patients should be triaged for suitability for telehealth. The clinical appropriateness of undertaking an assessment or intervention using a digital medium should be determined. In terms of connectivity, as previously discussed, triage is a technical procedure which bases the decision on the levels of connectivity each party to the consultation has and how precise the connectivity needs to be to facilitate a successful consultation, assessment or intervention. A slight delay in sound or temporary loss of picture may be acceptable to a person living in a remote area in need of an urgent appointment but such interruptions may be untenable in a consultation where a patient/client is in a degree of mental distress. Triage is therefore required to ascertain general suitability for VEC for each patient but will also be necessary at the point of consultation to ensure that VEC is appropriate for the session with a view to defaulting to an in-person appointment if necessary.

As the IT infrastructure and digital social inclusion improves, the requirement for connectivity triage should diminish. Triage for clinical suitability, however, if findings from this study and its comparative literature are attended to, will be an on-going requirement. Clinical appropriateness refers to a range of issues common to patients'/clients' and healthcare professionals' survey responses. Personal issues found in this evaluation, include the findings that it is harder to remain focused throughout consultations and that VECs are stressful, tiring and more likely to be open to distractions than in-person appointments. Mistiaen et al. (2020) report that healthcare professionals found telehealth labour and time intensive and Murphy et al. (2021) found that healthcare

professionals, whilst initially very positive in terms of being able to continue to work effectively during COVID through teleconsultations, began to become fatigued as time went on because of their perceived increase in clinical risk and the backlog in secondary care. Data for these studies and the Irish survey were collected during the height of the pandemic and consultations are likely to have been carried out under pressure, in the absence of a coherent plan, simply to enable continuity of care. Better planning and healthcare preparation is likely to improve personal experiences if consultations are part of a cohesive workload which is planned around patients'/clients' health needs and healthcare professionals' capabilities and capacity, thus the requirement for a digital roadmap which includes longitudinal data collection and an evolving plan for telehealth remains. Preparation of healthcare providers for telehealth is part of this and although education and preparation for VEC has been available for healthcare professionals from its beginning in Ireland, it was new to all users and Mann et al.'s (2020) advice that curricula development for new skills in telehealth including rapport building, counselling and preparation for physical examination and diagnosis, is relevant for Ireland. VEC coupled with the growing availability of home and remote monitoring devices has prepared the groundwork for use of telehealth in the long term in Ireland. As it is, despite findings from this survey that healthcare professionals rate VEC more highly than telephone only consultation, as Richardson et al. (2020) also found, progress in technology is not yet matched by its uptake. Confidence in its use through education may improve uptake.

In terms of the quality of care received by patients/clients, triage for appropriateness will become a part of the usual process of healthcare. Telehealth, say the WHO (2021), compliments but does not replace in-person healthcare. For many in the Irish survey, VEC enhanced their treatment while for others, in-person consultations were essential for a holistic experience. Some were happier with remote contact, but others specified the need for human contact. Some found that children engaged much better than usual with VEC but others found that their children became too distracted (for example by the keys on the laptop). Age may be an issue at the other extreme of the life continuum although there is evidence of engagement in this study and from that of Richardson et al. (2020) who found an escalation of engagement within the older age group with the onset of the COVID pandemic. Assumptions about age or ability without proper consultation may result in erroneous decision making. Ultimately, if healthcare is to be truly person centred, decisions regarding the mode of consultation must be made in partnership with the patient/client.

In terms of security and privacy, the relatively small numbers of patients/clients and healthcare professionals who had security or privacy concerns may be reassured with explicit explanations of how their consultation and data is protected. This is an obligation on the part of the health service since a structured consent process requires an informed decision on the part of the patient/client and healthcare professionals require the knowledge to provide

the information. It is also a key recommendation from international reports whereby privacy, confidentiality and security must be integral to policy relating to engagement via VEC (WHO 2021).

Ultimately, both the public and healthcare professionals will benefit from the availability of policy, standards and guidelines for the use of telehealth modalities of healthcare. A review of the international policy available at the time of writing shows a variety of approaches taken by different countries. Some have provided for telehealth in law, others provide national and local guidelines and others, guidelines per profession (Europe Economics 2021). The findings from this survey have indicated the requirement for, at least, guidance on consent and triage for telehealth use. It is suggested here that consideration needs to be given to the extent of the legal structure necessary in Ireland to enable safe and effective healthcare via telehealth including VEC.

Efficiency: Documentation and Administration

Only 69 respondents (10%) reported difficulties with documentation of practice but in response to the question regarding what would enhance VEC, 224 respondents cited access to electronic patient record facilities and 51 cited access to electronic prescribing. Internationally, electronic records may be more widely available than they are in the Republic of Ireland, for example, Taylor et al. (2021) report the wide availability of electronic records in Australia. Elsewhere, where they are absent, they are requested as essential since timely access to data (Jonnagaddala et al. 2021) and accessibility of patient information forms a key component of telehealth in international policy (Europe Economics 2021). In terms of referring patients/clients to colleagues, 17% of respondents in the Irish survey reported difficulties. The reason for this is unclear and it was not found to be an issue in the comparative literature. Neither was it addressed in the qualitative responses in this study, but it may relate to healthcare professionals working from home and not having the same level of access to colleagues or patient/client notes.

For 263 respondents (37%) VEC took longer than in-person consultations would have. Practice, as suggested in the study by Murphy et al (2021) may partially resolve this. It may also be related to numerous attempts to reconnect when connectivity failed, to the appropriateness of VEC for the patients/clients or to poorer administrative support. In other studies, poor administrative support was cited as the reason for increased time taken or compromise to viability (Sutherland et al. 2020; Jonnagaddala 2021). Seventy one percent of healthcare professionals in the Irish survey had no administrative support for the use of VEC. It is clear from the data that healthcare professionals scheduled their own consultations, sent out appointments and information, liaised with patients/clients to ensure software and hardware were available and arranged follow up appointments. The extent, however, to which many healthcare professionals in Ireland function without administrative assistance regardless of the care medium, makes accurate measurement of the relationship between poor administrative assistance and increased time specifically associated with VEC difficult in this country. Issues such as these,

however, are likely to be eliminated with practice, familiarity, increased digital literacy and increased administrative support as healthcare professionals' VEC skills improve, and triage is based on appropriateness and patient/client preference.

Limitations

The evaluation was conducted during a time of flux when COVID 19 was not fully understood and associated morbidity and mortality rates were high. Patients/healthcare professionals were working under pressure with technology which was new to them. Respondents to both surveys are likely to have had better levels of digital literacy than the main bodies of their cohorts. Future evaluations will take place in more stable circumstances and have the potential to track the development of VEC and the areas and circumstances which support it and those which limit it.

The evaluation did not facilitate measurement of clinical outcomes. While satisfaction and usability and comparison with in-person consultation are important, clinical outcomes are key to indicating the success of healthcare. This will be an important addition for further evaluations.

Summary

VEC has potential as a significant tool in the realisation of the goals of Sláintecare and in particular, in terms of integrated care and an enabling environment. It holds promise for the goals of the current HSE Corporate Plan which specifies responsive mental health care, reduced waiting times for appointments, a healthier start for children and reduced health inequalities, increased access to healthcare, person centred care for people with disabilities, care nearer to home for all and the addition of remote consultations.

There is potential for savings to the healthcare budget and for an additional solution to acute care facility overcrowding. Patients /clients can be supported to manage their own or their dependant's conditions more independently and failures to attend for appointments reduced. Social inclusion can be enhanced with community facilitated hubs and widespread availability of VEC.

IT connectivity improvements are essential to unleashing the potential of VEC and structured, ethically sound triage is vital for its use to be clinically effective and in accordance with patients/clients wishes. Much will be corrected with improved connectivity and assurance of uninterrupted and secure platform functionality may make it more attractive to healthcare professionals and patients/clients.

Recommendations

Recommendations developed from this evaluation are presented under theme headings.

Strategy / Policy

- Develop a digital roadmap in Ireland to provide clear direction for service developments to enable effectual integration of telehealth as an additional mechanism for healthcare provision. To include:
    - Increased access and use of VEC for older persons and those who are experiencing barriers to using VEC, informed by available evidence relating to the specific health conditions and circumstances most suited to VEC

- Develop and publish national guidance and policy for healthcare professionals, informed by the findings from this survey and by international policy, to ensure a high standard of video enabled healthcare.

- Further develop and maintain the existing online repository to host all VEC policy and guidelines for healthcare professionals and for the public.

- Develop and implement a national triage and consent process through which patients/clients and healthcare professionals may, in partnership, choose the mode of care most appropriate for each consultation.

- Create a communication and awareness strategy to facilitate clear understanding among healthcare professionals of the availability of platforms, their various functionalities and their appropriate uses

Practice/ Service Provision

- Strengthen the systematic, national implementation of VEC across all services and patient/client groups with a particular focus on older persons' services and those who encounter barriers to engagement with digital services.

- Strengthen efforts to facilitate monitoring of and reporting on implementation and usage of VEC.

- Continue the work necessary to provide digital connectivity and functionality for a VEC service comparable in quality to in-person health care.

- Accelerate the national implementation of electronic health record and electronic prescribing systems and increase availability of remote physiological monitoring devices.

- Consolidate resources, to support VEC implementation, into a comprehensive toolkit for healthcare professionals, available on an electronic repository.

- Provide adequate administrative support to healthcare professionals to include adequate preparation of the patient/client for the consultation.

- Implement a communication and awareness strategy to facilitate clear understanding among healthcare professionals of the availability of platforms, their various functionalities, their appropriate uses and the supports available.

- Promote awareness of the potential risks of using visual display units (VDUs) and the importance of adhering to good practice relating to office safety and VDUs. Provide appropriate support and advice to staff in terms of occupational health to guard against potential negative personal impacts from offering VEC.

- Strengthen and protect inclusion measures for patients/clients who do not have ease of access to telehealth resources and/or digital skills.

    - Pursue the introduction of digital hubs in health services to accommodate security, privacy and inclusion requirements of patients/clients accessing healthcare via VEC

- Increase awareness amongst HCPs of the need to ensure that consultations are provided in a private space without interruptions

- Provide adequate resources for healthcare professionals for the provision of private, secure VEC

- Develop ways of assuring patient/clients that their video consultation is private and confidential which could include:
    - Inclusion of reassurance in any information provided to patients/clients prior to virtual consultation
    - Use of the virtual platform to provide information/reassurance that their consultation is fully secure and no data is stored
    - Inclusion of regular "pop ups"/alerts while in the virtual waiting room that their consultation is private and confidential

- Ensure that all links to video appointments are available to patients/clients in electronic format to allow for ease of access

- Improve the virtual waiting room experience for patients/clients including providing
    - An option to turn off the background music
    - A function to inform the patient they have been successfully admitted to the waiting room
    - Advice on what steps to take if waiting time is prolonged

Education

- Create a digitally educated healthcare workforce including curriculum developments for professional undergraduate and post graduate programmes and as a continuing professional development module.

- Increase educational support for healthcare professionals in the use of platforms for group education or

therapy sessions.

- Increase awareness of existing training and education resources for the use of VEC such as those available on HSELanD and on the Virtual Health and ehealthireland websites.
- Facilitate a digitally enabled patient/client cohort including appropriate education opportunities as part of systematic integrated healthcare planning.

Research and Evaluation

- Collate information nationally on the clinical conditions and circumstances for which VEC is being used most effectively.

- Consolidate the evidence relating to the clinical conditions and circumstances most suited to video enabled care into an accessible format which can be made available to policy makers and healthcare professionals alike.

- Assess the need for digital literacy and digital skills training and preferred mode of delivery amongst healthcare professionals.

- Engage with patients/ clients to further identify and specify requirements for support particularly to older people's services and those who are experiencing barriers to accessing VEC.

- Conduct a literature review of the use and usefulness of Digital Hubs as a method of improving access to VEC for patients/ clients and healthcare professionals

- Assess current availability and future need for Digital Hubs
- Repeat the quality improvement survey annually until VEC is fully established, incorporating any required amendments into the survey tool.
- Plan for the evaluation of the clinical effectiveness of video enabled care in key areas
- Undertake a health economics assessment of the impact of VEC with a specific focus on the potential to reduce DNA rates.

- Investigate the occurrence of interruptions to patient/client consultations to both face to face and video consultations

- Systematically monitor telehealth usage to detect and guard against the emergence of digitally disadvantaged, vulnerable or socially excluded groups.

Conclusion

Patients/clients and healthcare professionals in Ireland have voiced a firm endorsement of VEC in the results of this survey. There is evidence in the comparative literature to support the continued development of telehealth as a means of creating greater access and greater ease of access for patients/clients to healthcare at the time when it is needed. The indications are that developmental work should focus on both technical and clinical triage to determine the appropriate mode of care for all consultations, technical solutions for connectivity and functionality issues and a focused, persistent drive towards equitable economic, social and demographic inclusion for all in its availability.

> *Digital health should be an integral part of health priorities and benefit people in a way that is ethical, safe, secure, reliable, equitable and sustainable. It should be developed with principles of transparency, accessibility, scalability, replicability, interoperability, privacy, security and confidentiality* (WHO 2021).

References

American Telemedicine Organisation (2021). *The Adoption of Telehealth*. [online] . Available at: https://www.americantelemed.org/wp-content/uploads/2021/05/Adoption-of-Telehealth.pdf.

Central Statistics Office (2019). Household Internet Connectivity. [Online] Available at https://www.cso.ie/en/releasesandpublications/ep/p-isshh/informationsocietystatistics-households2019/householdinternetconnectivity/ [Accessed 4th Aug 2021]

Cravo, T. and Hashiguchi, O. (2020). Bringing Healthcare to the Patient: an Overview of the Use of Telemedicine in OECD Countries. *Organisation for Economic Co-operation and Development Directorate for Employment, Labour and Social Affairs Health Committee Health Working Papers OECD Health Working Paper No. 116*

Department of the Environment, Climate and Communications*. (2020). National Broadband Plan Map. Government of Ireland: Dublin Available at https://www.gov.ie/en/publication/5634d-national-broadband-plan-map/ [Accessed on 4th Aug 2021]

Donaghy, E., Atherton, H., Hammersley, V., McNeilly, H., Bikker, A., Robbins, L., Campbell, J. and McKinstry, B. (2019). Acceptability, benefits, and challenges of video consulting: a qualitative study in primary care. *British Journal of General Practice*, 69(686), pp.e586–e594.

Express (2021). Nationwide survey finds physician satisfaction with telehealth. [online] *medicalxpress.com. Available at: https://medicalxpress.com/news/2021-01-nationwide-survey-physician-satisfaction-telehealth.html*.

Fisk, M., Livingstone, A. and Pit, S.W. (2020). Telehealth in the Context of COVID-19: Changing Perspectives in Australia, the United Kingdom, and the United States. *Journal of Medical Internet Research*, 22(6), p.e19264.

Future of Healthcare Committee, Houses of the Oireachtas (2017) Sláintecare Report Government of Ireland: Dublin Available at https://www.gov.ie/en/publication/0d2d60-slaintecare-publications/#the-slaintecare-report [Accessed 4th Aug 2021].

Gordon, H.S., Solanki, P., Bokhour, B.G. and Gopal, R.K. (2020). "I'm Not Feeling Like I'm Part of the Conversation" Patients' Perspectives on Communicating in Clinical Video Telehealth Visits. *Journal of General Internal Medicine*, 35(6), pp.1751–1758.

Greenhalgh, T., Shaw, S., Wherton, J., Vijayaraghavan, S., Morris, J., Bhattacharya, S., Hanson, P., Campbell-Richards, D., Ramoutar, S., Collard, A. and Hodkinson, I. (2018). Real-World Implementation of Video Outpatient Consultations at Macro, Meso, and Micro Levels: Mixed-Method Study. *Journal of Medical Internet Research*, [online] 20(4), p.e150. Available at: https://www.jmir.org/2018/4/e150/.

Health Service Executive (2021) HSE Corporate Plan 2021-2024 [Online] Available at https://www.hse.ie/eng/services/publications/corporate/hse-corporate-plan-2021-24.pdf [Accessed 4th Aug 2021]

Hubley, S., Lynch, S.B., Schneck, C., Thomas, M. and Shore, J. (2016). Review of Key Telepsychiatry Outcomes. *World Journal of Psychiatry*, [online] 6(2), p.269. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4919267/

Ignatowicz, A., Atherton, H., Bernstein, C.J., Bryce, C., Court, R., Sturt, J. and Griffiths, F. (2019). Internet

videoconferencing for patient–clinician consultations in
long-term conditions: A review of reviews and applications in line with
guidelines and recommendations. *Digital Health*, [online] 5. Available at:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6495459/

Innovation, N. (2018). *Branding Nordic Healthcare Strongholds A Nordic Story About Smart Digital Health*.
Available at https://www.nordicinnovation.org/2018/nordic-story-about-smart-digital-health [Accessed 4th Aug
2021]

Janssens, E. (2018). Understand the Urban Rural Divide through Technology in Ireland [Online] Available at
http://ssrc.ie/blog/2018/01/23/understanding-the-rural-urban-divide-through-technology-in-ireland/ [Accessed
4th Aug 2021]

Jonnagaddala, J., Godinho, M.A. and Liaw, S.-T. (2021). From telehealth to virtual primary care in Australia? A
Rapid Scoping Review. *International Journal of Medical Informatics*, 151, p.104470.

Mann, D.M., Chen, J., Chunara, R., Testa, P.A. and Nov, O. (2020). COVID-19 transforms health care through
telemedicine: evidence from the field. *Journal of the American Medical Informatics Association*, 27(7).

Mistiaen, P., Devriese, S., Pouppez, C., Roberfroid, D. and Savoye, I. (2020). *Video Consultations in the Care for
Patients with a Chronic Somatic Disease*. Available at https://kce.fgov.be/en/video-consultations-in-the-care-for-
patients-with-a-chronic-somatic-disease [Accessed 4th Aug 2021]

Mold, F., Hendy, J., Lai, Y.-L. and de Lusignan, S. (2019). Electronic Consultation in Primary Care Between
Providers and Patients: Systematic Review. *JMIR Medical Informatics*, 7(4), p.e13042.

Murphy, M., Scott, L., Salisbury, C., Turner, A., Scott, A., Denholm, R., Lewis, R., Iyer, G., Macleod, J. and
Horwood, J. (2021). Research. *British Journal of General Practice*.

NZ Forum and Resource Centre (2019). *New Zealand Telehealth Survey 2019 District Health Boards*. [online]
Available at: https://www.telehealth.org.nz/assets/Uploads/Telehealth-Full-Report-2020-V7-Pages.pdf
[Accessed 4 Aug. 2021].

Orlando, J.F., Beard, M. and Kumar, S. (2019). Systematic review of patient and caregivers' satisfaction with
telehealth videoconferencing as a mode of service delivery in managing patients' health. *PLOS ONE*, 14(8),
p.e0221848.

Results of RACP Members' Survey of new MBS Telehealth attendance items introduced for COVID-19. (2020).
[online] . Available at: https://www.racp.edu.au/docs/default-source/default-document-library/policy-and-
advocacy/racp-members-survey-new-mbs-telehealth-attendance-items-introduced-for-covid-
19.pdf?sfvrsn=31d1ef1a_7 [Accessed 4 Aug. 2021].

Richardson, E., Aissat, D., Williams, G.A. and Fahy, N. (2020). Keeping what Works: Remote Consultations During
the COVID-19 Pandemic. *Eurohealth*, [online] 26(2). Available at:
https://www.thelancet.com/action/showPdf?pii=S1473-3099%2814%2971035-7

Sutherland, A.E., Stickland, J. and Wee, B. (2020). Can video consultations replace face-to-face interviews?
Palliative medicine and the Covid-19 pandemic: rapid review. *BMJ Supportive & Palliative Care*, 10(3), pp.271–
275.

Taylor, A., Caffery, L.J., Gesesew, H.A., King, A., Bassal, A., Ford, K., Kealey, J., Maeder, A., McGuirk, M., Parkes, D.

and Ward, P.R. (2021). How Australian Health Care Services Adapted to Telehealth During the COVID-19 Pandemic: A Survey of Telehealth Professionals. *Frontiers in Public Health*, 9.

Thiyagarajan, A., Grant, C., Griffiths, F. and Atherton, H. (2020). Exploring patients' and clinicans' experiences of video consultations in primary care: a systematic scoping review. *BJGP Open*, p.bjgpopen20X101020.

Veazie, S., Bourne, D., Peterson, K. and Anderson, J. (2019). Evidence Brief: Video Telehealth for Primary Care and Mental Health Services. [online] *PubMed*. Washington (DC): Department of Veterans Affairs (US). Available at: https://pubmed.ncbi.nlm.nih.gov/30942984/ [Accessed 4 Aug. 2021].

WHO (2021). Draft global strategy on digital health 2020- 2025 Global Strategy on Digital Health [online] . Available at: https://www.who.int/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca799dce4d.pdf .

www.gmc-uk.org. (2021). Regulatory approaches to telemedicine. [online] Available at: https://www.gmc-uk.org/about/what-we-do-and-why/data-and-research/research-and-insight-archive/regulatory-approaches-to-telemedicine .

Zulfiqar, A.A., Hajjam, A. and Andrès, E. (2019). Focus on the Different Projects of Telemedicine Centered on the Elderly In France. *Current Aging Science*, 11(4), pp.202–215.

Appendices

Appendix 1: Process for the Development of Survey Instruments

Development of Survey Questions by Nursing and Midwifery Digital Response Group (N&MDAG)

← Informed by HSE QI Literature

↓

Incorporation of Questions from two Client Surveys from NHS Scotland (N&MDAG)

↓

Survey Developed in Survey Monkey (N&MDAG)

↓

Pilot Survey - 4 clients and 14 Nurses/Midwives

← Advice from Quality Improvement Division

↓

Survey Revisions

↓

Feedback from EHealth Ireland Forum – Telehealth Leads

↓

Survey Revisions

↓

Review by N&MDRG

↓

Final Revisions, Review and Sign Off by N&MDAG

Appendix 2: Survey Instruments

Video Enabled Care Health Care Professional Survey

Thank you for considering our survey. Video consultations with patients and clients are increasingly being used within the HSE to allow us continue to deliver services during the COVID 19 outbreak.

Video consultations may be useful for many patients and clients even after the outbreak and we would value your opinion on the use of this method of consultation. Completing the survey is totally voluntary but if you do complete it, it is absolutely anonymous with no questions relating to your identity whatsoever. Your feedback will help us to improve our service.

1. Which Video Consultation Platform are you using?

   ◯ Attend Anywhere

   ◯ Blue Eye

   ◯ T-Pro

   ◯ Salaso

   ◯ Cisco Webex

   ◯ MS Teams

   ◯ Whats App

   ◯ Zoom

   ◯ Physitrac

   ◯ Physiotec

   ◯ Doxy.me

   ◯ Other (please specify)

   [   ]

2. What is your profession?

- ○ Dietitian
- ○ Doctor
- ○ Nurse
- ○ Midwife
- ○ Occupational Therapist
- ○ Pharmacist
- ○ Physiotherapist
- ○ Psychologist
- ○ Social worker
- ○ Speech and Language Therapist
- ○ Other (please specify)

[   ]

3. How frequently did you or the client experience technical problems (poor sound or picture quality or difficulty logging in) when using the platform

- ○ Never
- ○ Rarely
- ○ Occasionally
- ○ A moderate amount
- ○ A great deal

4. How would your rate your I.T. competence and skills?

- ○ Excellent
- ○ Very good
- ○ Good
- ○ Fair
- ○ Poor

5. For individual patients, how well did the virtual consultation meet the outcomes you expect from a face to face consultation

- ○ Much more than expected
- ○ More than expected
- ○ As expected
- ○ Less than expected
- ○ Much less than expected
- ○ Not applicable

6. For individual patients, how well did the virtual consultation meet the outcomes you expect from a telephone consultation?

- ○ Much more than expected
- ○ More than expected
- ○ As expected
- ○ Less than expected
- ○ Much less than expected
- ○ Not applicable

7. For groups of patients, how well did the virtual session meet the outcomes you expect from a face to face session?

- ○ Much more than expected
- ○ More than expected
- ○ As expected
- ○ Less than expected
- ○ Much less than expected
- ○ Not applicable

8. Did you have difficulties with documentation of practice?

- ☐ Yes
- ☐ No
- ☐ Please comment

    [   ]

9. Were there any difficulties with the referral to professional colleagues that don't occur with face to face clinics?

◯ Yes

◯ No

◯ Not Applicable

10 . Did the video consultation take more or less time than your normal face to face interactions?

◯ More

◯ About the same

◯ Less

11.Did you experience more or fewer interruptions from colleagues than usual during patient/client interactions?

◯ More

◯ About the same

◯ Fewer

12. Did using the video consultation platform reduce non-attendance rates among your clients/patients?

◯ Yes

◯ No

◯ Don't know

13. Has using the video consultation platform enabled you to increase the number of appointments you can offer to clients?

◯ Yes

◯ No

◯ Don't know

14. Were there unanticipated benefits to the use of the virtual platform?

☐ Yes

☐ No

☐ Please specify

15. Were there any adverse consequences/disadvantages to the use of the virtual platform?

☐ Yes

☐ No

☐ Please specify

16.What administrative support was available to you in organising virtual consultations? Please tick all that apply.

☐ No administrative support available

☐ Liaison with client to ensure client has appropriate hardware/ software to avail of the virtual consultation

☐ Scheduling virtual consultation

☐ Sending out appointment and/or information leaflet via text, email or post

☐ Arrangement of follow up appointment with client

☐ Other (please specify)

17. What would have enhanced the effectiveness of the virtual consultation? Please tick all that apply.

☐ Online access to blood results

☐ Online access to results of other diagnostic tests

☐ Remote monitoring of blood pressure

☐ Remote monitoring of heartrate

☐ Remote monitoring of ECG

☐ Remote monitoring of respiratory rate

☐ Remote monitoring of temperature

☐ Access to an electronic patient record

☐ Access to electronic prescribing

☐ Capacity to share screen/share content

Capacity to show videos

Whiteboard feature

☐ Capacity to share documents securely between the client and health care professional (e.g. completed outcome measurement tools /questionnaires or health assessment questionnaires)

☐ Capacity to invite other health care professionals or relatives to share in consultation Other

☐ (please specify)

[   ]

18. How likely is it that you would recommend this video consulting platform to a friend or colleague?

Not at all likely   Extremely likely

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Developed by the Nursing and Midwifery Digital Advisory Group September 2020

Thank you for considering our survey. Video appointments with patients and clients are a new thing for the HSE. We developed them to continue our service during the COVID 19 outbreak but we think that video appointments may be useful for many patients and clients even after the outbreak and we would value your opinion on this. Completing the survey is totally voluntary but if you do complete it, it is absolutely anonymous with no questions relating to your identity whatsoever. Your feedback will help us to improve our service but will not directly affect your future care in any way. If you wish, you can ask someone to help you fill in the survey.

1.Which video appointment system did you use?

- Attend Anywhere
- Blue Eye
- T-Pro
- Salaso

- Cisco Webex
- MS Teams
- Zoom
- Physitrac
- Physiotec
- Doxy.me
- Don't know

- Other (please specify)

[   ]

2.How would you rate your experience of your video appointment compared with your previous face to appointment(s)?

- ◯ Significantly better
- ◯ Better
- ◯ The same
- ◯ Poorer
- ◯ Significantly poorer

3.Did you feel you were able to communicate everything you wanted to the healthcare professional (e.g.nurse/midwife/doctor/physiotherapist) during your video appointment?

- ☐ Yes
- ☐ No

Please comment

```



```

4.Did you have any technical problems using the video appointment system (e.g.poor sound or picture quality or difficulty connecting in to the appointment?

- ◯ Yes
- ◯ No

5.If you had not had a video appointment, how would you have travelled to your appointment? Please tick all that would apply.

- [ ] Walk
- [ ] Cycle
- [ ] Bus or train
- [ ] Taxi
- [ ] Own car
- [ ] Family member/neighbour/friends car
- [ ] Motorbike
- [ ] Aeroplane
- [ ] Ferry
- [ ] Patient transport/ambulance
- [ ] Other

6. Approximately how many extra miles would you have to travel? ONE WAY

- ○ Less than 5 miles (less than 8 kilometres)
- ○ 5 - 10 miles (8-16 kilometres)
- ○ 11 - 20 miles (17 - 32 kilometres)
- ○ 21 - 50 miles (33 - 80 kilometres)
- ○ 51 - 100 miles (81 -160 kilometres)
- ○ Greater than 100 miles (greater than 160 kilometres)

7. From the list of benefits of having a video appointment, please tick all that apply to you.

- ☐ Saved travelling
- ☐ Did not have to wait too long to be seen on the day of appointment.
- ☐ Did not have to take time off work.
- ☐ More convenient
- ☐ Did not have to take someone with me.
- ☐ Because of my condition, it was safer/easier
- ☐ Was not dependent on someone for a lift
- ☐ Saved money
- ☐ Did not have to arrange childcare/care of a relative
- ☐ Did not have to wait long for an appointment date
- ☐ Other benefits

Please comment

```



```

8.From the list of disadvantages of having a video appointment, please tick all that apply to you.

☐ I could not see the other person properly

☐ I could not hear the other person properly

☐ It was difficult to connect in to the appointment

☐ I need two appointments rather than one, as I still needed to see them face to face

☐ A face to face consultation would have been better for me

☐ It cost me money

☐ I used up my data allowance

☐ It was too complicated

☐ I needed to have a friend/relative with me to help with the technology

☐ My appointment took longer to arrange

☐ Other disadvantages

Please comment

_____

9.How likely is it that you would recommend a similar video appointment to a friend or colleague?

Not at all likely   Extremely likely

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

10.If you have any suggestions or comments on how to improve the video appointment system you

_____

used, please describe them below.

11.Can you tell us what sort of area you live in?

○ City or town

○ Country Village or Rural Area

12.Finally, can you tell us which age category you fit into?

- ○ Under 18
- ○ 18-19
- ○ 20-29
- ○ 30-39
- ○ 40-49
- ○ 50-59
- ○ 60-69
- ○ 70-79
- ○ 80+
- ○ Prefer not to say

We would like you to take part in our survey.

A survey asks questions about what it is like to do something.

This survey will ask you to answer 12 questions.

Your answers will only be shared with the research team.

No one will know who you are.

A video appointment is a place on a computer

or a laptop or a mobile phone

where you can have a meeting

with another person about your health.

This survey is about a video appointment

that you have been using

on your computer or on your laptop

or your mobile phone talk to a person about your health.

1. Which video appointment are you using to talk to a person on your computer on your laptop or your mobile phone about your health?

Click on the ones you use.

 ☐ Attend Anywhere

 ☐ Blue Eye

 ☐ T-Pro

 ☐ Salasco

 ☐ Cisco-Webex

□
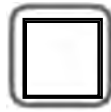
MS Teams

□
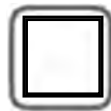
Zoom

□
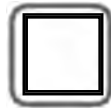
Physitrack

□
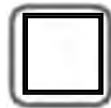
Physiotec
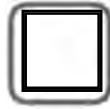
□ Doxy.me
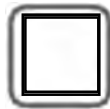
□ A different one
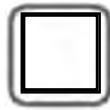
□ WhatsApp
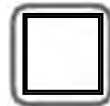
□ I do not know which video appointment I used.

2. What is it like to talk to the person

on your computer on your laptop or your mobile phone

about your health

instead of talking to them in a meeting room?

Click the one that you think is the best answer for you.
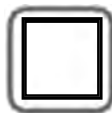
A lot better.
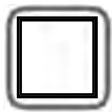
A bit better.
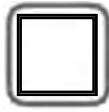
□ The same.
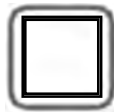
□ Not as good.
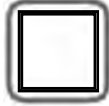
□ Not good at all.

3. Were you able to tell the person you were talking to everything you wanted to say?

☐ Yes.

No.

☐

You can tell us more about what it was like

to talk to the person on the video appointment

on your computer on your laptop or your mobile phone

about your health.

You can type in the box below.

4. Did you have any problems using the video appointment on your computer on your laptop or your mobile phone to talk to someone about your health?

☐
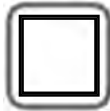
Yes.

☐
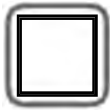
No.

5. How did you travel to your appointments

to talk to someone about your health

before you used the video appointment

on your computer on your laptop or your mobile phone?

☐ Walk.

☐ Cycle.

☐ Bus or train.

☐ Taxi

☐
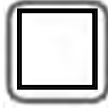
Car.

☐
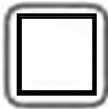
My friends car.

My family car.

☐

Motorbike.

☐
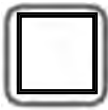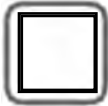
Aeroplane.
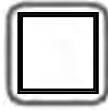
□ Ferry.
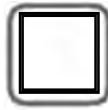
□ Patient transport or ambulance.
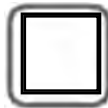
□ A different type of transport.

6. When you travelled to your appointments to talk to someone about your health how many kilometers did it take you to get there? You can type the number in the box below.

7. What was good about using the video appointment on your computer on your laptop or your mobile phone to talk to someone about your health?

You can click on all the ones that apply to you.

☐

Saved time.

☐

I did not have to wait too long to talk to someone.

☐

I did not have to take a day off from work.
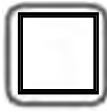
It was easier to do.
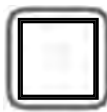
I could do it by myself.
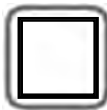
Because of my condition
this way was easier.
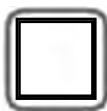
I did not need to get someone
to take me there.

☐

I saved money.

☐

I did not have to get someone
to look after anyone belonging to me.

I did not have to wait long
for an appointment date.

What other things were good too? You can

type them in the box below.

8. What was not good about using the video appointment on your computer on your laptop or your mobile phone to talk to someone about your health?

You can tick all the ones that apply to you.

I could not see the other person properly.

I could not hear the other person properly.

I could not connect to the internet properly.

☐
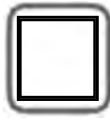
I needed two appointments.
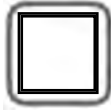I needed to meet the person as well.

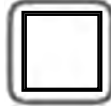

☐
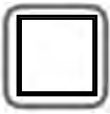
It would be better for me to meet the person in a room.
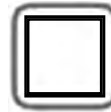

☐
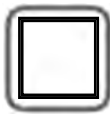
It cost me money.

☐
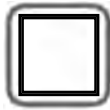
I used up my credit on my phone.

☐

I did not understand what was happening.

☐

I needed help with my computer my laptop or my phone.
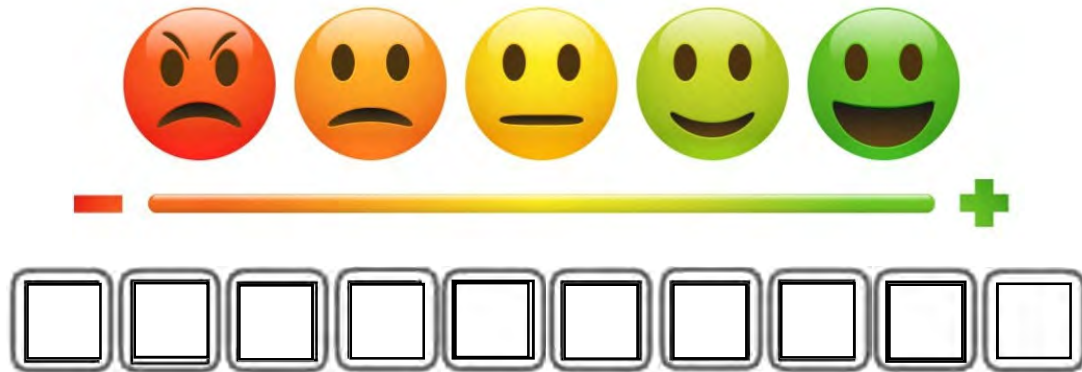
☐

My appointment took longer to arrange.

What other things were not good?

You can type them in the box below.

9. Would you recommend using a video appointment to your friends?

Choose from 1 to 10 below.

10. We would like to know what you think about using the video appointment. You can type in the box below what you think would make it better.

11. We would like to know the type of area you live in? Please tick the one that applies you.

☐ City or town

☐ Village or countryside

12. We would like to know what age group you are in.

Click on the one that applies to you.

☐ Under 18 years old

☐ 18 years old to 19 years old

☐ 20 years old to 29 years old

☐ 30 years old to 39 years old

☐ 40 years old to 59 years old

☐ 50 years old to 59 years old

 60 years old to 69 years old

 70 years old to 79 years old

80 years old and older

Thank you for answering the survey questions.

Please send your answers back to us by

Email:

Post:

Please let us have your answers by: